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**CONSULTATION** 

A portion of this appendix contains privileged contact information of persons with whom relicensing coordination or consultation occurred. This information is considered privileged information and is provided in Volume 3 of this Draft License Application.

The Relicensing Contact List portion of Appendix E-5 contains privileged information and is located in Volume 3, Privileged.

DATE	TYPE	FROM	ТО	SUBJECT
October 13, 1993	Letter	Wallace Johnson (USFWS)	Owen Lloyd (Loup)	USFWS Comments on Proposed Substation
February 5, 1996	Letter	R.E. White (Loup)	Bill Berkel (Dept of Water Resources)	Water Right
December 7, 2000	Letter	Frank Albrecht (NGPC)	Owen Lloyd (Loup)	Environmental review of Loup Power District project near Columbus, Platte County
October 16, 2001	Letter	Dan Nitzel (NOHVA)	Lisa Richardson (HDR)	Comments on Preliminary Draft Recreation Management Plan
August 23, 2003	Letter	Ron Ziola (Loup)	Kirk Nelson (NGPC)	Game & Parks Issues
April 28, 2006	Letter	George Waldow (HDR)	Ann Bleed (NDNR), Frank Albrecht (NGPC), Robert Puschendorf (SHPO), Steve Anschutz (USFWS)	Introduction Letter
May 12, 2006	Letter	George Waldow (HDR)	Jay Ringenberg (NDEQ)	Introduction Letter
August 27, 2007	Letter	Ron Ziola (Loup)	Barb Friskopp (USACE)	404 Permit Application Amendment
November 15, 2007	Letter	Terry Steinarcher (SHPO), Frank Albrecht (SHPO)	USACE	404 Permit Application Amendment #3 Comments
November 30, 2007	Letter	Cary Grell (NGPC)	USACE	404 Permit Application Amendment #3 Comments
November 30, 2007	Letter	John Cochnar (USFWS)	USACE	404 Permit Application Amendment #3 Comments
December 3, 2007	Letter	Barb Friskopp (USACE)	Jim Frear (Loup)	404 Permit Comments
December 10, 2007	Letter	Marty Link (NDEQ)	Loup Public Power District	404 Permit Application Amendment #3 Comments
January 3, 2008	Letter	Ron Ziola (Loup)	Barb Friskopp (USACE)	404 Permit #88-01213 Withdrawal
January 8, 2008	Letter	Ron Ziola (Loup)	Barb Friskopp (USACE)	Nationwide Permit 16
January 9, 2008	Letter	John Moeschen (USACE)	Ron Ziola (Loup)	404 Permit Approval
February 11, 2008	Letter	Neal Suess (Loup)	Ann Bleed (NDNR)	Loup River Activities
April 22, 2008	Letter	Neal Suess (Loup)	Stakeholders	Agency Orientation Invitation Letter
April 25, 2008	Letter	Donald Bright (USDA - Forest Dept)	Neal Suess (Loup)	Participation Withdrawal
May 12, 2008	Email	Emily Buss (HDR)	Agencies and Stakeholders	Agency Follow-up Meeting Schedule
May 14, 2008	Email	Frank Albrecht (NGPC)	Emily Buss (HDR)	POC and NGPC Initial Concerns
May 19, 2008	Email	Randy Thoreson (NPS)	Emily Buss (HDR)	POC and NPS Initial Concerns
May 20, 2008	Email	John Bender (NDEQ)	Emily Buss (HDR)	NGO List

DATE	TYPE	FROM	ТО	SUBJECT
May 30, 2008	Letter	Neal Suess (Loup)	Stakeholders	Open House Invitation Letter
June 2, 2008	Email	Philip J Soenksen (USGS)	Emily Buss (HDR)	USGS Initial Concerns
June 3, 2008	Email	Emily Buss (HDR)	Agencies and Stakeholders	Agency Follow-up Meeting Schedule Follow-up Email
June 5, 2008	Email	John Bender (NDEQ)	Emily Buss (HDR)	POC and NDEQ Initial Concerns
June 6, 2008	Letter	Neal Suess (Loup)	Stakeholders	Joint Agency Invitation Letter
June 9, 2008	Email	Martha (Marty) Link (NDEQ)	Emily Buss (HDR)	NDEQ POC
June 11, 2008	Email	Anna Baum (Upper Loup NRD)	Emily Buss (HDR)	Upper Loup NRD Initial Concerns
June 16, 2008	Letter	Justin Lavene (Attorney General's Office)	Neal Suess (Loup)	Attorney General Office POC
June 17, 2008	Email	Henry Santin (Nance Co Board)	Emily Buss (HDR)	Nance County POC and Initial Concerns
June 18, 2008	Email	Joe Cothern (USEPA)	Neal Suess (Loup)	USEPA POC and Initial Concerns
June 19, 2008	Email	Emily Buss (HDR)	Agencies and Stakeholders	Meeting Reminder and Agenda
June 19, 2008	Email	Emily Buss (HDR)	Agencies and Stakeholders	Agency Concerns Meeting Reminder and Agenda
June 20, 2008	Letter	Nebraska Department of Natural Resources	Emily Buss (HDR)	Issues concerning the relicensing of the Loup Public Power District with FERC
June 20, 2008	Letter	Neal Suess (Loup)	Stakeholders	Informational Letter
June 23, 2008	Email	Jean Angell (NDNR)	Emily Buss (HDR)	DNR Initial Concerns
June 23, 2008	Letter	Aaron Thompson (Dept of the Interior - Bureau of Reclamation)	Neal Suess (Loup)	Bureau of Reclamation POC
June 24, 2008	Email	Robert Harms (USFWS)	Neal Suess (Loup)	USFWS Initial Concerns
June 27, 2008	Email	Stephanie White (HDR)	Randy Thoreson (NPS)	Recreation/Land Use/Aesthetics Workgroup Contact List
June 27, 2008	Email	Stephanie White (HDR)	Jean Angell (NDNR)	Water Rights Workgroup Contact List
July 1, 2008	Letter	Ron Ziola (Loup)	Jean Angell (NDNR)	Information requested regarding irrigators and access to project property
July 2, 2008	Email	Matt Pillard (HDR)	Robert Harms (USFWS)	FERC and ESA process discussion and Endangered Species List
July 2, 2008	Email	Matt Pillard (HDR)	Randy Thoreson (NPS)	Work Group Coordination
July 2, 2008	Email	Matt Pillard (HDR)	Agencies and Stakeholders	June 25th Meeting Notes
July 3, 2008	Email	John Bender (NDEQ)	Matt Pillard (HDR)	Fish Kill and Integrated Reports

DATE	TYPE	FROM	TO	SUBJECT
July 11, 2008	Email	Matt Pillard (HDR)	Robert Harms (USFWS)	FERC and ESA process discussion and Endangered Species List
July 14, 2008	Letter	Neal Suess (Loup)	Richard Roos-Collins (Natural Heritage Institute)	Invitation to Participate in Project Scoping
July 14, 2008	Email	Matt Pillard (HDR)	Robert Harms (USFWS)	July 22 meeting Agenda
July 14, 2008	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Meeting Notes and Next Meeting Reminder
July 14, 2008	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Meeting Date Correction
July 15, 2008	Email	Matt Pillard (HDR)	Frank Albrecht (NGPC)	Meeting Notes and Agenda for July 24th Meeting
July 16, 2008	Email	Randy Thoreson (NPS)	Recreation/Land Use/Aesthetics Workgroup	Recreation/Land Use/Aesthetics Workgroup Call
July 18, 2008	Letter	Ron Ziola (Loup)	Jean Angell (NDNR)	Interference Agreements
July 21, 2008	Letter	Ronald Asche (NPPD)	Neal Suess (Loup)	POC Change
July 21, 2008	Letter	John Cochnar (USFWS)	Neal Suess (Loup)	USFWS Technical Assistance
July 25, 2008	Letter	RE White (Loup)	Kirk Nelson (NGPC)	Loup-NGPC Correspondence 2003-2004
July 30, 2008	Email	Henry Santin (Nance Co Board)	Matt Pillard (HDR)	Review of Meeting Notes and Issues Clarification
July 31, 2008	Email	Jeff Schuckman (NGPC)	Matt Pillard (HDR)	Review of Meeting Notes and Issues Clarification
August 13, 2008	Letter	Lisa Richardson (HDR)	Mary Bomberger-Brown	Request for interior least tern and piping plover data
August 13, 2008	Email	John Shaddle (NPPD)	Matt Pillard (HDR)	Review of Meeting Notes and Issues Clarification
August 13, 2008	Email	Melissa Marinovich (HDR)	Mary Bomberger-Brown (TPCP)	Request for tern and plover data
August 14, 2008	Email	Melissa Marinovich (HDR)	Joel Jorgenson (NGPC)	Copy of letter requesting data from Tern and Plover Conservation Partnership
August 14, 2008	Email	Jean Angell (NDNR)	Matt Pillard (HDR)	Additional DNR Concerns
August 14, 2008	Email	Robert Harms (USFWS)	Matt Pillard (HDR)	Additional USFWS Agenda Item Request
August 15, 2008	Letter	Nebraska Department of Natural Resources	N/A	Concerns requested to be addressed
August 26, 2008	Email	Mary Bomberger-Brown (TPCP)	Melissa Marinovich (HDR)	Tern and Plover Photos
August 26, 2008	Email	Mary Bomberger-Brown (TPCP)	Melissa Marinovich (HDR)	Tern Pair with Fish Photo

DATE	TYPE	FROM	ТО	SUBJECT
August 26, 2008	Email	Mary Bomberger-Brown (TPCP)	Melissa Marinovich (HDR)	More Tern and Plover Photos
August 29, 2008	Letter	Jean Angell (NDNR)	Pat Engelbert (HDR)	DNR Study Requests
September 5, 2008	Letter	Lisa Richardson (HDR)	Tony Provost (Omaha Tribe of Nebraska)	Project Introduction Letter
September 5, 2008	Letter	Lisa Richardson (HDR)	Francis Morris (Pawnee Nation of Oklahoma)	Project Introduction Letter
September 5, 2008	Letter	Joel Jorgenson (NGPC) and Mary Bomberger-Brown (TPCP)	Lisa Richardson (HDR)	Requested Tern and Plover Data
September 18, 2008	Letter	June DeWeese (USFWS)	Neal Suess (Loup)	Supplemental Technical Advisory
October 1, 2008	Letter	Kristal Stoner (NGPC)	Melissa Marinovich (HDR)	Response to Request for data
October 22, 2008	Letter	Randall Karstaedt (Department of the Interior - Forestry Dept)	Neal Suess (Loup)	Participation Withdrawal
October 23, 2008	Letter	Ann Miles (FERC)	Ansley Griffin (Omaha Tribe of Nebraska), George Howell (Pawnee Tribe), Larry Wright (Ponca Tribe of Nebraska), Trey Howe (Ponca Tribe of Oklahoma), Roger Trudell (Santee Sioux Tribe), John Blackhawk (Winnebago Tribe)	Tribal Consultation
October 29, 2008	Email	Gary Robinette (Ponca Tribe of Nebraska	Kim Nguyen (FERC)	No Comment on the new permit
November 3, 2008	Email	Jean Angell (NDNR)	Matt Pillard (HDR)	Relicensing Pre Application Document
November 3, 2008	Email	Lisa Richardson (HDR)	Jean Angell (NDNR)	Information Request and Meeting Notes Clarifications
November 3, 2008	Email	Jean Angell (NDNR)	Lisa Richardson (HDR)	Information Request Response and Ice Reports
November 24, 2008	Email	John Bender (NDEQ)	Matt Pillard (HDR)	Fish Tissue Info

DATE	TYPE	FROM	TO	SUBJECT
December 1, 2008	Letter	Lisa Richardson (HDR)	Joel Jorgenson (NGPC)	Information request for piping plover and least tern population trends in Nebraska
December 2, 2008	Letter	Neal Suess (Loup)	Jean Angell (NDNR)	Data Request
December 8, 2008	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Notice of Scoping Information
December 9, 2008	Email	Louis Houghton (Winnebago Tribe of Nebraska)	Kim Nguyen (FERC)	No Comment on the new permit
December 11, 2008	Email	Robert Puschendorf (SHPO)	Matt Pillard (HDR)	SHPO POC
December 12, 2008	Letter	Kim Nguyen (FERC)	Public and Stakeholder	Notice of Scoping Meetings and Site Visits
December 15, 2008	Postcard	Loup Public Power District	Public and Stakeholder	Announcement of SD1 and Invitation to Scoping Meeting
December 19, 2008	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Project Update Information (PAD, Notice of Commencement, Site Visit, Upcoming Meetings)
December 24, 2008	Letter	Kristal Stoner (NGPC)	Lisa Richardson (HDR)	Request for information for piping plover and least tern population trends in Nebraska
January 5, 2009	Letter	Neal Suess (Loup)	Robert Puschendorf (SHPO)	Area of Potential Effects for the Loup River Hydroelectric Project
January 15, 2009	Email	John Bender (NDEQ)	Ron Ziola (Loup)	Information Request
January 16, 2009	Email	Lisa Richardson (HDR)	John Bender (NDEQ)	Information Request Response for PAD Figure 3-3 Data
January 23, 2009	Letter	Jill Dohlberg (SHPO)	Neal Suess (Loup)	Proposed APE Coordination
January 26, 2009	Email	Joel Jorgenson (NGPC)	Melissa Marinovich (HDR)	The 2006 International Piping Plover Breeding Census in Nebraska (off-Missouri River)
January 27, 2009	Email	Christine Thody (TPCP)	Melissa Marinovich (HDR)	Example Census Sheet
January 29, 2009	Email	Mary Bomberger-Brown (TPCP)	FERC	Tern and Plover Conservation Partnership PAD and Scoping Comments
February 4, 2009	Email	Jill Dohlberg (SHPO)	Michael Madson (HDR)	APE Clarification
February 4, 2009	Email	Robert Harms (USFWS)	Matt Pillard (HDR)	USFWS PAD Preliminary Comments/Questions
February 4, 2009	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Study Determination 1 Errata Notice
February 5, 2009	Email	Kristal Stoner (NGPC)	Matt Pillard (HDR)	NGPC POC Change
February 5, 2009	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Study Plan Meeting Save the Date
February 9, 2009	Letter	Brian Dunnigan (DNR)	Kimberly Bose (FERC)	DNR Request for Ice Jam Flooding Study
February 10, 2009	Letter	Lisa Richardson (HDR)	Agencies and Interested Stakeholders	Study Plan Save the Date

DATE	TYPE	FROM	TO	SUBJECT
February 18, 2009	Letter	Lisa Richardson (HDR)	Robert Harms (USFWS)	Confirmation of threatened and endangered species list
February 19, 2009	Letter	Neal Suess (Loup)	Brian Dunnigan (DNR)	Meeting Request
February 27, 2009	Email	Neal Suess (Loup)	HDR Project Team	Meeting with Brian Dunnigan
March 2, 2009	Letter	Lisa Richardson (HDR)	Frank Albrecht (NGPC)	T&E Occurrence Request
March 5, 2009	Email	OPPD	Lisa Richardson (HDR)	OPPD POC Change
March 23, 2009	Email	Quinn Damgaard (HDR)	John Bender (NDEQ)	Request for Individual Reporting Sheets
March 26, 2009	Email	Neal Suess (Loup)	Brian Dunnigan (DNR)	Meeting Request
March 26, 2009	Letter	Neal Suess (Loup)	Ansley Griffin (Omaha Tribe of Nebraska), George Howell (Pawnee Tribe), Larry Wright (Ponca Tribe of Nebraska), Trey Howe (Ponca Tribe of Oklahoma), Roger Trudell (Santee Sioux Tribe), John Blackhawk (Winnebago Tribe)	Study Plan Tribal Consultation
March 30, 2009	Email	Gregory Pavelka (USACE)	Melissa Marinovich (HDR)	Tern and Plover Data
March 30, 2009	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Study Plan Meeting Reminder
April 2, 2009	Letter	Lisa Richardson (HDR)	Agencies and Interested Stakeholders	Proposed Study Plan Meeting Reminder
April 7, 2009	Letter	Racheal Simpson (NGPC)	Lisa Richardson (HDR)	Response to T&E Occurrence Request
April 7, 2009	Email	Racheal Simpson (NGPC)	Melissa Marinovich (HDR)	Requested Data from Nebraska Game and Parks
April 10, 2009	Email	John Bender (NDEQ)	Quinn Damgaard	Loup Power canal fish kill
April 13, 2009	Email	Matt Pillard (HDR)	Agencies and Stakeholders	PSP Meeting Reminder
April 14, 2009	Letter	Jean Angell (NDNR)	Kimberly Bose (FERC)	Request for Ice Jam Flooding Study
April 14, 2009	Email	Racheal Simpson (NGPC)	Melissa Marinovich (HDR)	Small White Lady Slipper Question
April 15, 2009	Email	Martha Tacha (USFWS)	Melissa Marinovich (HDR)	NE whooping crane migration corridor and observation data
April 20, 2009	Email	Kelly Crane (USACE)	Melissa Marinovich (HDR)	Tern and Plover Created Habitat
April 20, 2009	Email	Kelly Crane (USACE)	Melissa Marinovich (HDR)	Tern and Plover Design Questions

DATE	TYPE	FROM	то	SUBJECT
April 23, 2009	Email	Gary Lewis (HDR)	Mary Bomberger-Brown (TPCP)	Requested Paper on Sandbar Studies in Lower Platte
April 27, 2009	Email	Matt Pillard (HDR)	Frank Albrecht (NGPC)	Data Needs Meeting
April 28, 2009	Email	Jeff Runge (USFWS)	Lisa Richardson (HDR)	Proposed Study Plan and Study Determination 2 Comment
April 28, 2009	Email	Lisa Richardson (HDR)	Agencies and Stakeholders	Additional Study Plan Meetings
April 29, 2009	Email	Michael Madson (HDR)	Jill Dohlberg (SHPO) and Robert Puschendorf (SHPO)	Agenda For 090505 SHPO meeting
May 6, 2009	Email	Lisa Richardson (HDR)	Jeff Runge (USFWS)	Response to Runge 4/28/09 email
May 8, 2009	Email	Matt Pillard (HDR)	Ponca Tribe of Nebraska	Study Plan Meeting Information
May 8, 2009	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Study Plan Meeting Information
May 15, 2009	Email	Gregory Pavelka (USACE)	Melissa Marinovich (HDR)	Missouri River Habitat Questions
May 15, 2009	Email	Gregory Pavelka (USACE)	Melissa Marinovich (HDR)	Additional Missouri River Habitat Questions
May 18, 2009	Email	Steve Schainost (???)	Melissa Marinovich (HDR)	Response to Johnson Survey (s) and Rock Ramp Questions
May 19, 2009	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Study Plan Meetings
May 19, 2009	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Study Plan Meeting Reminder
May 20, 2009	Email	Matt Pillard (HDR)	Todd Crawford, Louis Pofahl,	Notice to Congressional Members of the
Way 20, 2009	Liliali	Watt Fillard (HDK)	Emily Brummund	Agency/Stakeholder Study Plan Mtg Reminder
May 20, 2009	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Agency/Stakeholder Study Plan Mtg Reminder
May 21, 2009	Email	Steve Schainost	Melissa Marinovich (HDR)	Loup River Fish Collection Data
June 2, 2009	Email	Jill Dohlberg (SHPO)	Lisa Richardson (HDR)	May 5th Meeting Note Comments
June 2, 2009	Letter	Neal Suess (Loup)	Rick Schneider (NGPC)	Species Occurrence Data Request
June 2, 2009	Email	Gregory Pavelka (USACE)	Melissa Marinovich (HDR)	Additional Response to Missouri River Habitat Questions
June 7, 2009	Email	Joel Jorgenson (NGPC)	Melissa Marinovich (HDR)	Tern and Plover Data Questions
June 15, 2009	Email	Melissa Marinovich (HDR)	Joel Jorgenson (NGPC)	Meeting Notes
June 19, 2009	Letter	Joel Jorgenson (NGPC)	Lisa Richardson (HDR)	Loup River Bird Data Requested
June 23, 2009	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Study Plan Information and Comments Reminder
June 26, 2009	Email	Frank Albrecht (NGPC)	Neal Suess (Loup)	NGPC PSP Comments
June 30, 2009	Email	Robert Mohler (Lower Loup NRD)	Matt Pillard (HDR)	Mohler Email Address Change
June 30, 2009	Email	Jeff Runge (USFWS)	Melissa Marinovich (HDR)	Platte river mile shapefiles
June 30, 2009	Email	Stephen Wilson (NPS)	Melissa Marinovich (HDR)	Niobrara Census

DATE	TYPE	FROM	TO	SUBJECT
July 6, 2009	Email	Jeff Runge (USFWS)	Melissa Marinovich (HDR)	Loup river mile response
July 8, 2009	Email	Lisa Richardson (HDR)	Jean Angell (NDNR)	Response to Comments on PSP
July 13, 2009	Email	Joel Jorgenson (NGPC)	Melissa Marinovich (HDR)	Response to Data Questions
July 14, 2009	Email	Mary Bomberger-Brown (TPCP)	Melissa Marinovich (HDR)	Sand Management Area
July 16, 2009	Email	Joel Jorgenson (NGPC)	Melissa Marinovich (HDR)	1996 Loup Bird Data
July 16, 2009	Email	Joel Jorgenson (NGPC)	Melissa Marinovich (HDR)	2001 Bird Data Response
July 17, 2009	Letter	Robert Swanson (USGS)	John Cochner (USFWS)	Technical Review of Hydrologic and Geomorphologic Components of the PSP - USGS Administrative Report
July 21, 2009	Email	Rich Kern (NDNR)	Melissa Marinovich (HDR)	River Miles for the Loup River
July 21, 2009	Email	Rich Kern (NDNR)	Melissa Marinovich (HDR)	River Miles for the Loup River Clarification
July 21, 2009	Email	Rich Kern (NDNR)	Melissa Marinovich (HDR)	Loup River Miles clarification
July 27, 2009	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Revised Study Plan filed
August 7, 2009	Letter	Brian Dunnigan (DNR)	Kimberly Bose (FERC)	Proposed Alternate RSP
September 1, 2009	Letter	Brian Dunnigan (DNR)	Kimberly Bose (FERC)	Final Study Plan Determination, Study Plan Number 12
September 3, 2009	Email	Matt Pillard (HDR)	Richard Holland (NGPC)	Montana Method
September 16, 2009	Letter	Neal Suess (Loup)	Robert Puschendorf (SHPO)	Phase 1a Archaeological Overview
October 16, 2009	Letter	Neal Suess (Loup)	Robert Puschendorf (SHPO)	Phase 1a Report

DATE	TYPE	FROM	TO	SUBJECT
October 16, 2009	Letter	Neal Suess (Loup)	Ansley Griffin (Omaha Tribe of Nebraska), George Howell (Pawnee Nation of Oklahoma), Larry Wright (Ponca Tribe of Nebraska), Trey Howe (Ponca Tribe of Oklahoma), Roger Trudell (Santee Sioux Tribe), John Blackhawk (Winnebago Tribe of Nebraska), Julia Sage (Ponca Tribe of Nebraska), Amen Sheridan (Omaha Tribe of Nebraska), Douglas Rhodd (Ponca Tribe of Oklahoma)	Tribal Consultation - Phase 1a Report
November 2, 2009	Letter	Robert Puschendorf (SHPO)	Neal Suess (Loup)	Phase 1a Concurrence
November 2, 2009	Letter	Cora Jones (Santee Sioux Nation)	FERC	No Objection to the Proposed Project
November 2, 2009	Letter	Neal Suess (Loup)	USFWS	Comments on the Shovelnose listing
November 23, 2009	Email	George Hunt (HDR)	David Russ (USGS)	Loup River water temperature monitoring scope of work
November 24, 2009	Letter	Neal Suess (Loup)	Joel Jorgenson (NGPC)	Information request for 2009 piping plover and least tern census and location data
November 25, 2009	Email	Jeff Runge (USFWS)	Matt Pillard (HDR)	Loup Study Determination Tasks
December 2, 2009	Email	David Russ (USGS)	George Hunt (HDR)	Loup River water temperature monitoring scope of work
December 3, 2009	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Quarterly Progress Report 1 filed
January 4, 2010	Email	Joel Jorgenson (NGPC)	Melissa Marinovich (HDR)	Response to questions about 2009 LPR Nest Data
January 5, 2010	Email	Joel Jorgenson (NGPC)	Melissa Marinovich (HDR) and Matt Pillard (HDR)	On River Data Clarification
January 6, 2010		Joel Jorgenson (NGPC)	Neal Suess (Loup)	Response to Data Requests
January 7, 2010	Email	Matt Pillard (HDR)	Joel Jorgenson (NGPC)	Data clarification response
January 8, 2010	Email	Joel Jorgensen (NGPC)	Matt Pillard (HDR)	Data clarification additional follow-up

DATE	TYPE	FROM	ТО	SUBJECT
January 8, 2010	Letter	John Moeschen (USACE)	Ron Ziola (Loup)	Dredging Project Authorization
January 12, 2010	Email	Matt Pillard (HDR)	Joel Jorgenson (NGPC)	Data clarification additional follow-up
January 12, 2010	Email	Joel Jorgensen (NGPC)	Matt Pillard (HDR)	Data clarification additional follow-up
January 19, 2010	Email	Quinn Damgaard (HDR)	Randy Thoreson (NPS), Mark Ivy (FERC), Jeff Schuckman (NGPC), Richard Holland (USFWS), Dav Tunink (NGPC), Ron Ziola (Loup), Jim Frear (Loup)	Recreation Call Notes from 01/14/10
January 19, 2010	Email	Mark Ivy (FERC)	Quinn Damgaard (HDR)	Trail Counter Information
January 22, 2010	Email	Robert Harms (USFWS)	Matt Pillard (HDR)	USFWS Study Plan Input
February 25, 2010	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Quarterly Progress Report 2 filed
March 13, 2010	Email	Neal Suess (Loup)	Mitch Kush	Comments regarding Angling Access
April 5, 2010	Email	Mark Ivy (FERC)	Lisa Richardson (HDR)	Comments on Bypass Reach Survey Meeting Notes
May 24, 2010	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Quarterly Progress Report 3 filed
August 6, 2010	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Study Report Info and Study Results Meeting Reminder
August 11, 2010	Email	Jeff Runge (USFWS)	Matt Pillard (HDR)	Question about PCB Tissue Study Results
August 11, 2010	Email	Lisa Richardson (HDR)	Jeff Runge (USFWS)	Response to question about PCB Tissue Study Results
August 26, 2010	Letter	Neal Suess (Loup)	Ansley Griffin (Omaha Tribe of Nebraska), George Howell (Pawnee Nation of Oklahoma), Larry Wright (Ponca Tribe of Nebraska), Roger Trudell (Santee Sioux Tribe), Amen Sheridan (Omaha Tribe of Nebraska), Douglas Rhodd (Ponca Tribe of Oklahoma)	Phase I/II Archaeological Inventory and Evaluation Tribal Coordination
August 26, 2010	Letter	Neal Suess (Loup)	Robert Puschendorf (SHPO)	Phase I/II Archaeological Inventory and Evaluation
August 27, 2010		Matt Pillard (HDR)	Agencies and Stakeholders	Initial Study Report Filing and Study Results Meeting Reminder

DATE	TYPE	FROM	TO	SUBJECT
September 3, 2010	Email	Joel Jorgenson (NGPC)	Lisa Richardson (HDR)	Acknowledgement of Attachments Sent
September 9, 2010	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Study Report and Study Results Meeting Presentation Availability
September 15, 2010	Letter	Robert Puschendorf (SHPO)	Neal Suess (Loup)	Phase I/II Archaeological Inventory and Evaluation Concurrence
September 16, 2010	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Interim General Recreation Use Report Filed with FERC
September 26, 2010	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Initial Study Report Meeting Summary Filing
October 19, 2010	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Second Initial Study Results Meeting Notification
October 20, 2010	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Reminder about Comments on the Initial Study Report
October 22, 2010	Email	Lisa Richardson (HDR)	Robert Puschendorf (SHPO)	HPMP Coordination
October 22, 2010	Email	Robert Puschendorf (SHPO)	Lisa Richardson (HDR)	HPMP Coordination Response
October 22, 2010	Letter	Neal Suess (Loup)	Robert Puschendorf (SHPO)	Addendum to Phase I/II Archaeological Inventory and Evaluation
November 1, 2010	Letter	Neal Suess (Loup)	Gary Robinette (Ponca Tribe of Nebraska)	Phase I/II Archaeological Inventory and Evaluation
November 3, 2010	Letter	Robert Puschendorf (SHPO)	Neal Suess (Loup)	Information Request
November 3, 2010	Letter	Neal Suess (Loup)	Emily Smith (Winnebago Tribe of Nebraska)	Phase I/II Archaeological Inventory and Evaluation
November 22, 2010	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Updated Initial Study Report Schedule Delay
November 23, 2010	Email	Robert Mohler (Lower Loup NRD)	Wendy Thompson (HDR)	Acknowledgement of Attachments Sent
November 29, 2010	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Initial Study Results District Response to Comments
December 16, 2010	Letter	Neal Suess (Loup)	Robert Puschendorf (SHPO)	Response to Information Request
January 13, 2011	Letter	Robert Puschendorf (SHPO)	Neal Suess (Loup)	Concurrence on Phase I/II Archaeological Inventory and Evaluation
January 19, 2011	Email	Matt Pillard (HDR)	Agencies and Stakeholders	2nd Initial Study Results Meeting Save the Date
January 21, 2011	Email	Mary Bomberger-Brown (TPCP)	Melissa Marinovich (HDR)	Data for the terns and plovers nesting on the Loup Public Power North Sand Management Zone (the sand pile)
February 14, 2011	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Notice of Second Initial Study Report Filed
February 22, 2011	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Second Initial Study Report Meeting Presentation Availability

DATE	TYPE	FROM	TO	SUBJECT	
March 4, 2011	Letter	Neal Suess (Loup)	Joel Jorgenson (NGPC)	2010 Tern and Plover Database Information Request	
March 10, 2011	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Second Initial Study Report Revision Filed	
April 28, 2011	Letter	Neal Suess (Loup)	Robert Harms (USFWS)	2009 and 2010 Loup River Tern and Plover Information	
				Request	
May 3, 2011	Email	Robert Harms (USFWS)	Matt Pillard (HDR)	Data Request Response	
May 10, 2011	Email	Robert Harms (USFWS)	Matt Pillard (HDR)	Data Request Response	
May 20, 2011	Letter	Ron Ziola (Loup)	Mark Ivy (FERC)	2010 Annual Conveyance Report	
July 13, 2011	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Updated Study Report and Meeting Save the Date	
August 17, 2011	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Updated Study Report Meeting Reminder	
August 26, 2011	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Updated Study Report Filing and Meeting Reminder	
August 29, 2011	Email	Lisa Richardson (HDR)	Jeff Runge (USFWS)	Updated Study Report Appendices	
August 29, 2011	Email	Jeff Runge (USFWS)	Lisa Richardson (HDR)	Updated Study Report Appendices Download Confirmation	
September 7, 2011	Email	Lisa Richardson (HDR)	Jeff Runge (USFWS)	Updated Study Report Appendix H - revised	
September 7, 2011	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Updated Study Report Addendum and Meeting Materials	
September 13, 2011	Email	Lisa Richardson (HDR)	Joel Jorgenson (NGPC) and Mary Bomberger-Brown (TPCP)	Updated Study Report Appendix H	
September 13, 2011	Email	Mary Bomberger-Brown (TPCP)	Lisa Richardson (HDR)	Updated Study Report Appendix H Download Confirmation	
September 25, 2011	Email	Lisa Richardson (HDR)	Joel Jorgenson (NGPC), Mary Bomberger-Brown (TPCP), Mary Tacha (USFWS)	Nesting interior least terns and piping plovers MOU	
September 26, 2011		Neal Suess (Loup)	Robert Harms (USFWS)	2011 Loup River Tern and Plover Information Request	

DATE	TYPE	FROM	ТО	SUBJECT
September 26, 2011	Email	Robert Harms (USFWS)	Frank Albrecht (NGPC), Jeff Runge (USFWS), Lisa Richardson (HDR), Matt Pillard (HDR), Neal Suess (Loup), Joel Jorgenson (NGPC), Richard Holland (NGPC), Michelle Koch (NGPC)	Endangered Species Act and Federal Power Act discussions Agenda
September 26, 2011	Letter	Neal Suess (Loup)	Robert Harms (USFWS)	Request for an Updated Species List
September 27, 2011	Email	Matt Pillard (HDR)	Agencies and Stakeholders	Updated Study Report Meeting Summary
October 3, 2011	Email	Robert Harms (USFWS)	Frank Albrecht (NGPC), Jeff Runge (USFWS), Lisa Richardson (HDR), Matt Pillard (HDR), Neal Suess (Loup), Joel Jorgenson (NGPC), Richard Holland (NGPC), Michelle Koch (NGPC)	Endangered Species Act and Federal Power Act discussions Agenda
October 24, 2011	Email	Frank Albrecht (NGPC)	Lisa Richardson (HDR), Quinn Damgaard (HDR)	Comments on Preliminary Draft Recreation Management Plan
October 28, 2011	Email	Randy Thoreson (NPS)	Lisa Richardson (HDR), Quinn Damgaard (HDR)	Comments on Preliminary Draft Recreation Management Plan
November 9, 2011	Letter	Joe Mangiamelli (City of Columbus)	Neal Suess (Loup)	Support of Recreation Management Plan
November 13, 2011	Matrix	N/A	N/A	Preliminary Draft Recreation Management Plan Comment/Response Matrix

### Loup River Hydroelectric Project - FERC Project No. 1256 Relicensing Meetings

Meeting Title	Meeting Type	Date
Meeting with Nebraska SHPO	Agency	November 5, 2007
Agency Orientation	Agency	May 7, 2008
Public Scoping Meeting	Public Open House	June 10, 2008
Public Scoping Meeting	Public Open House	June 10, 2008
Public Scoping Meeting	Public Open House	June 11, 2008
Agency Scoping Meeting	Agency	June 25, 2008
Recreation / Land Use / Aesthetics Work Group	Workgroup	July 17, 2008
US Fish & Wildlife Service	Agency	July 22, 2008
Water Rights Work Group	Workgroup	July 22, 2008
Agency Meeting	Agency	July 24, 2008
Study Needs Continued	Agency	August 19, 2008
Recreation/Land Use/Aesthetics Work Group Study Plans	Workgroup	December 18, 2008
Public Scoping Meeting	Public Open House	January 12, 2009
Project Tour/Site Visit	Agency	January 12, 2009
Scoping Meeting	Agency	January 13, 2009
Nebraska Department of Natural Resources	General Contact - No Meeting	February 27, 2009
Study Plan Meeting	Agency	April 21, 2009
Study 11 Discussion	Agency	May 5, 2009
Recreation	Agency	May 11, 2009
Study Plan - Cont. Discussion	Agency	May 27, 2009
Agency Discussion	General Contact - No Meeting	November 19, 2009
Early Comments / Agency Coordination	General Contact - No Meeting	May 4, 2010
Initial Study Results	Public Open House	September 9, 2010
Study Results Meeting	Agency	January 20, 2011
2nd Initial Study Results Mtg - Day 1	Agency	February 23, 2011
2nd Initial Study Results Mtg - Day 2	Agency	February 24, 2011
Conversation FERC	Agency	March 17, 2011
Updated Study Results Meeting	Public Open House	September 8, 2011



# United States Department of the Interior



#### FISH AND WILDLIFE SERVICE

Fish and Wildlife Enhancement Nebraska/Kansas Field Office 203 West Second Street Grand Island, Nebraska 68801 October 13, 1993

Mr. Owen Lloyd Engineering Manager Loup Power District P.O. Box 988 Columbus, NE 68602-0988

Dear Mr. Lloyd:

This responds to your October 7, 1993, letter requesting comments by the U.S. Fish and Wildlife Service (Service) regarding a proposal to construct an electrical substation in Section 23, T17N, R1E, Platte County, Nebraska. These comments are provided as technical assistance and predevelopment consultation and do not constitute a Service report under authority of the Fish and Wildlife Coordination Act (Coordination Act) (16 U.S.C. 661 et seq.) on any required federal environmental review or permit.

The Service has responsibility, under a number of authorities, for conservation and management of fish and wildlife resources. Chief among the Federal statutes with which our office deals are the Coordination Act, Endangered Species Act of 1973, and the National Environmental Policy Act. The Coordination Act requires that fish and wildlife resources be given equal consideration in the planning, implementation, and operation of Federal and federally funded, permitted, or licensed water resource developments. Section 7 of the Endangered Species Act of 1973 outlines procedures for interagency consultations on the effects of Federal actions on federally listed threatened and endangered species. The Service participates in scoping and review of actions significantly affecting the quality of the environment under authority of the National Environmental Policy Act. In addition to these statutes, the Service has authority under several other legislative, regulatory, and executive mandates to promote conservation of fish and wildlife resources for the benefit of the public.

In Nebraska, the Service has special concerns for migratory birds, endangered and threatened species, and other important fish and wildlife resources. We also are concerned about any impacts on federal and state wildlife refuges and management areas and other public lands, as well as to other areas that support sensitive habitats. Habitats frequently used by important fish and wildlife resources are wetlands, streams, and riparian (streamside) woodlands. Special attention is given to proposed developments that include modification of wetlands or stream alteration. The Service recommends ways to avoid, minimize, rectify, reduce, or compensate for damaging impacts to important fish and wildlife resources and their habitats that may be attributed to land and water resource development proposals.

We have reviewed the plans for the proposed facilities and offer the following comments:

- a. The proposed facilities do not appear to impact federal fish and wildlife management facilities.
- b. No wetlands have been identified which would be affected by the substation. All disturbed areas should be revegetated with native grasses immediately following or concurrent with the project implementation. Suitable candidate grass species for planting include Indiangrass (Sorghastrum nutans), big bluestem (Andropogon gerardii), and switchgrass (Panicum virgatum).
- c. Substations have been shown to pose the threat of electrocution to birds of prey which use the structures and wires as perching sites. Since inception of the Raptor Electrocution Reporting System in 1988, three raptor electrocutions have been reported at substations. A number of large and small raptors, including the golden eagle and endangered bald eagle, may occur in your service area. We recommend that you incorporate guidelines into your design and construction activities such as those found in the Raptor Research Foundation publication, "Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1981".

In accordance with Section 7(c) of the Endangered Species Act of 1973, we have determined that the following federally listed endangered species may occur in the project area:

Listed Species

Expected Occurrence

BIRDS:

مروات والمرا

Peregrine falcon (<u>Falco peregrinus</u>) migration
Bald eagle (<u>Haliaeetus leucocephalus</u>) migration, winter resident

Bald eagles use mature riparian timber near streams and lakes. The Platte and Loup Rivers are important bald eagle wintering areas. Peregrine falcons generally are associated with wetlands and open areas such as cropland and grassland. Most observations in Nebraska are in late April to early May, September, and October.

If the Federal Energy Regulatory Commission determines that the project may affect listed species, or critical habitat, formal Section 7 consultation should be requested from this office. If they determine that there will be no effect, further consultation is unnecessary.

We have enclosed a list of the Category 2 candidate species which may occur in Platte County, Nebraska. Category 2 candidate species are those for which the Service is seeking additional information in order to determine their biological status. Please note that only a few Category 2 candidate species are proposed for listing. Candidate species have

no legal protection under the Endangered Species Act of 1973 and are included in this document for planning purposes only.

Based upon the submitted information, we have no objection to this proposal as currently planned, provided that our recommendations are followed. In particular, we urge your adherence to our recommendation that all new construction be done in accordance with Raptor Research Foundation guidelines. However, should the plans be modified, we recommend that you reinitiate coordination with this office.

Should you have any further questions, please contact Mr. Wally Johnan within our office at (308)382-6468. Thank you for the opportunity to review and comment on this proposal.

Sincerely,

Acting Field Supervisor - Nebraska

#### Enclosure

cc: NGPC; Lincoln, NE (Attn: Curt Twedt)

NDOR; Lincoln, NE (Attn: Arthur Yonkey) FHWA; Lincoln, NE (Attn: Phillip Barnes) EPA; Kansas City, KS (Attn: Tom Taylor)

WGJ:nn(A-WKG5)Lloyd.ltr

# Category 2 Candidate Species Which May Occur in Platte County, Nebraska

<u>Vertebrate and Invertebrate Wildlife Listing</u> (Federal Register, Volume 56, No. 225, November 21, 1991, Pages 58804-58836)

Category	Common Name	Scientific Name	Family Family
2 2 2 2 2 2	Regal fritillary butterfly Plains topminnow Ferruginous hawk Black tern Loggerhead shrike Plains spotted skunk	Speyeria idalia Fundulus sciadicus Buteo regalis Chlidonias niger Lanius ludovicianus Spilogale putorius	Nymphalidae Cyprindontidae Accipitridae Laridae Laniidae Mustelidae
2	Blanding's turtle	<u>interrupta</u> <u>Emydoidea</u> <u>blandingii</u>	Emydidae

## LOUP POWER DISTRICT

"SERVING YOU ELECTRICALLY



Phone: Fax: 402/564-3171 402/564-0970

February 5, 1996

Bill Birkel Department of Water Resources P.O. Box 1451 Norfolk, Ne 68702-01451

Dear Mr. Birkel:

As per our meeting of January 23, 1996, the District is submitting the following material and data you requested:

- Confirmation the District was producing energy on October 31, 1989 and October 7, 1995.
- Confirmation the District was dredging on October 31, 1989 and October 7, 1995.
- Board of Directors authorized work orders for repairing river control weir (diversion wall).
- 4. Ten years of maximum instantaneous flow data.

After considering your comments and guidance concerning records, we ask you to consider the following factors which justify the continuation of our water right at the diversion rate of 3,500 cfs:

- a. We have provided the instantaneous measurement records for the days you requested which show diversion rates in excess of 3,400 cfs. On all of those occasions the District was generating power. In addition, those dates occurred during the 10-year period under examination.
- b. The rehabilitation of the District's diversion structure took approximately six years to complete, due to construction problems and high flows. As a result of this construction effort you granted us the right to look at ten years of records. We would also ask you to consider that during the time repairs were in progress, it was not possible for us to divert the full amount allowed under our water right.

- c. The District's ability to divert its full canal capacity is frequently limited by naturally occurring conditions over which the District has little control. Those conditions include:
  - (1) During significant periods, 3,500 cfs is not available to divert from the Loup River.
  - (2) During low flow periods, despite the District's efforts at sluicing, sand and river debris is deposited up-stream from the diversion intake gates. Such deposits prevent some of the river flow from reaching the diversion gates, thereby reducing the flow actually taken.
  - (3) Sediment removed through the settlement basin, despite our removal efforts, often keeps the District from taking the full amount of its diversion right. We have upgraded our settlement basin and improved the operation of our dredge in an effort to increase the volume of sediment removed thereby increasing the volume of water taken in. However, due to the sediment carrying capacity of the volume of water we are allowed to divert there is nearly always a naturally occurring sediment load which impedes our ability to always divert an amount equal to our diversion right.

The District each year must pump the sediment higher and further. In the near future the pumping requirements could exceed the 100 cfs presently used.

- (4) Ice, ice flows and frazil ice from November through mid-March, prevent the District from taking the full 3,500 cfs.
- (5) The District's settlement basin dredge is not operated during the nesting season of the least tern and piping plover to avoid any interference with nesting activities. Once the nesting season is over, a significant period is required for the dredge to remove enough sediment to restore the full capacity of the diversion canal.

(6) The District requires that the diversion structure and the delivery canals be operated within margins designed to ensure public safety. Ice and debris carried in the river and high flow events create conditions which result in less flow being diverted than could be legally withdrawn.

The attached synopsis of operations more fully explains the conditions which have resulted in diversions below the permitted amount of 3,500 cfs. Under all the circumstances, especially the problems recently experienced with the District's diversion structure and the possible need for higher pumping flows, we believe the District should retain the full amount of its 3,500 cfs diversion right.

As we were considering this matter we noted that the USGS gauge which measures the district's diversion has been regularly re-calibrated during the period under examination. However, as you know, the measuring gauge has margin of error of 10%. Thus, with the certified canal capacity of 3,500 cfs, there are times when the actual flow in the canal is at the full diversion rate but the gauge could be measuring a lower flow.

It is our understanding that the material submitted to you will be used in your report. Please send me a copy of your final report at the time you file it with the Director of the Department of Water Resources.

The January 23, 1996, meeting at the Loup General Office was attended by the following Loup employees:

Robert E. White, P.E. - General Manager/23 years with the District Dwayne G. Smith - Asst. General Manager/36 years with the District Owen W. Lloyd, P.E. - Engr. Manager/16 years with the District James D. Frear - Sr. Engr. Technician/6 years with the District

If you require additional information, please contact me.

Sincerely,

R. E. White General Manager

J.F. Copy

January 31, 1996

Bill Birkel
Department of Water Resources
P.O. Box 1451
Norfolk, NE 68702-01451

Dear Mr. Birkel:

As per our meeting of January 23, 1996, the District is submitting the following material and data you requested:

- 1. Confirmation the District was producing energy on October 31, 1989 and October 7, 1995.
- 2. Confirmation the District was dredging on October 31, 1989 and October 7, 1995.
- 3. Authorized work orders for repairing river control weir (diversion wall).
- 4. Ten years of maximum instantaneous flow data.

Also included is a brief synopsis of the operation and significant events that the District believes influences the capability to divert 3500 cfs from the Loup River into the power canal continuously. It is my understanding that all material the District submits to you will be included in your final report. I am also requesting a copy of your final report at the time you file it with the Director of the Department of Water Resources.

The District believes the river control weir damage prevented the full utilization of river flows, and adjudication of water rights should be based on a 10-year period.

The average daily canal flow of 3,220 cfs October 31, 1989, plus the 100 cfs needed for our dredging operations, total 3,320 cfs. We know that we must uprate our dredging equipment in the next few years because of the need to pump higher. We request the Department of Water Resources leave the District's appropriation at 3,500 cfs.

Bill Birkel, DOR January 31, 1996 Page 2

The January 23, 1996, meeting at the Loup General Office was attended by the following Loup employees:

Robert E. White, P.E. - General Manager/23 years with the District Dwayne G. Smith - Assistant General Manager/36 years with the District Owen W. Lloyd, P.E. - Engineering Manager/16 years with the District James D. Frear - Sr. Engineering Technician/6 years with the District

If you require additional information, please contact me. Sincerely,

Robert E. White General Manager

REW:mp

Attachments

#### LOUP POWER DISTRICT DIVERSION

Water from the Loup River is diverted at the District's headgates directly into the settling basin. The basin is 10,000 feet in length; has a capacity of 3,500 cfs and the maximum velocity is kept below one foot per second. At the end of the basin water flows over the skimming weir. At that point the flow is measured via the USGS installation and enters the canal system which has a capacity of 3,500 cfs. A General Description of the Hydraulic Project prepared by Fred C. Aerni, Chief Hydraulic Engineer in June 1944 confirms the as built canal capacity at 3,500 cfs.

Several factors are detrimental to diverting the full capacity of 3,500 cfs. These factors include total river flow available, sand deposits up-stream from the intake structure, sand deposits within the settling basin, weather conditions, and the condition and integrity of the control wall.

In reviewing the past ten years of operating records it is apparent that at times the District cannot divert 3,500 cfs into the power canal because there simply is not 3,500 cfs flow in the river up-stream from the diversion point. It is during these low flows that sand is deposited up-stream from the intake gates. Low flow in the river in conjunction with the sand deposits prohibits much diversion. Sluicing has not proven to be greatly effective in dealing with this problem.

The second factor, as listed above, is sand deposits within the basin. The purpose of the basin is, in fact, to slow the velocity of the water to the point that a majority of the solids in transport are deposited prior to entering the canal system proper. The District operates a 2500 HP, electrically driven, 28-inch, dust-pan dredge to remove these deposits.

The dredge normally operates from mid-March, when ice, ice floes, and frazile ice are no longer present, to June 1. The District ceases dredging operations around this point in time to allow the least term and piping plover to nest on the District's tailings.

Dredging begins again in August when tern and plover chicks are capable of leaving the nesting area and continues until November. At such time the entire basin is dredged or ice conditions prevail. During the interim, any sand deposits in the basin build to the point that a proper gradient necessary to divert 3,500 cfs is not present. It should be noted that the dredges 2500 HP pump requires 100 cfs to operate. Powerhouse operators note that the volume of water at the canal gauging station increases 100 cfs when the dredge goes off-line during periodic maintenance during dredging season.

As you are aware, the tailing from the dredge on the north-side disposal area continues to increase in height. This is a major concern of the District. In 1984, the District retained the services of an independent consultant to develop a long range plan for the dredging operation. The preliminary recommendation is for the installation of a booster pumping station shortly after the year 2000. Another solution could be the installation of a higher H.P. dredge pump which would require additional water to be pumped from the settling basin. A copy of the Consultant's Report is available, if you desire.

Weather conditions affect diversion in a number of ways. Ice, ice floes, and frazil ice must be by-passed. At those times, during the winter months when ice begins to form and at the end of winter when the "ice goes out", the District has no recourse but to by-pass for safety reasons. The traverse of the canal consists of 35-miles of earthen berm and flow is conducted through four siphons, two powerhouses, and over three weirs. If the flow at any of these structures is impeded or stopped, a breach could occur.

An additional weather-related factor is high intermittent summer flow within the river. This type of flow most generally transports a quantity of trash, logs, trees, etc. . . downstream and into the District's canal system. By-passing flow is necessary while the debris is being removed.

The final and most detrimental factor affecting the Districts ability to divert 3,500 c.f.s. is the condition of the control wall. This structure consists of a low head concrete wall topped by wooden flash planks. The function of the flash planks is sacrificial. Ice and debris carried in the river violently remove and destroy the planks during high flows. However, flash plank can be lost at any time of the year. This occurs during the period when there is the greatest flows in the river. It is estimated that the District loses an average of 1600 A.F. of diversion per year because of this.

The control wall has recently undergone a major rehabilitation. It was determined in 1987 that differential settlement was occurring at the corner of the wall. This settlement was monitored and documented yearly and in 1990 it was determined that settlement would continue to occur until total failure would happen. The District retained a consultant to review the problem and design a plan of action for repair. In the interim, the District incorporated a number of temporary repairs to the corner in an attempt to facilitate maximum diversion. These repairs were frequently destroyed during high flows which resulted in lost diversion until the water receded and repairs could be made again.

The settlement at the corner of the control weir resulted in cracking of the concrete at the north-south and east-west corner of the weir. The differential settlement was the result of scour at the corner of the weir. This scour may have occurred in recent years during high flows, but more than likely it occurred intermittently and progressively over the life of the project.

The initial construction for the rehabilitation began July 30, 1991, and continued until August 9, 1991. Because of an unexpected rise in river flows, the rehabilitation could not be completed. In the spring of 1992 it was discovered that the repair was not a complete success and more work would be needed. Further work was scheduled for 1992 and again in 1993, but re-occurring high river flows made completion of this work impossible.

In August of 1993, a new rehabilitation plan was accepted from the consultant and work proceed on July 22, 1994, and was completed on September 22, 1994. Diversion was lost because of the condition of the wall from 1987 up until all repairs were completed. Flow was by-passed during both construction phases to facilitate repairs. It should be noted that all flash plank was scheduled to be replaced in 1994 in conjunction with the rehabilitation. The actual construction phase extended into the fall preventing the District from replacing the plank, necessitating going through one more winter with leaking flash plank. The plank was finally installed in the spring of 1995 completing the project.



# Nebraska Game and Parks Commission

2200 N. 33rd St. / P.O. Box 30370 / Lincoln, NE 68503-0370 Phone: 402-471-0641 / Fax: 402-471-5528 / http://www.ngpc.state.ne.us/

December 7, 2000

Owen Lloyd Engineering Manager Loup Power District PO Box 988 Columbus NE 68602-0988

RE: Environmental review of Loup Power District project near Columbus, Platte County.

Dear Mr. Lloyd:

This responds to your letter of December 1, 2000 requesting review of access for replacing an existing transmission line, which will upgrade a 115KV to a line rated at 230KV. The proposed action entails several small tracts (total of about 10 acres) to facilitate construction of the new line. Our review of aerial photographs and Natural Heritage Program database indicates that no adverse environmental effects will result from the proposed action. This includes threatened/endangered species and their critical habitats.

The project description does not include information about specifications and design of the poles or towers which will support the upgraded transmission lines. We assume that Loup Public Power is aware of pole variations which greatly reduce the potential for electrocution of eagles, hawks and owls. The most recent overview of the subject is contained in the following publication:

Suggested Practices for Raptor Protection on Powerlines: The state of the art in 1996.

Copies of the title page and the sources of the publication are enclosed.

Sincerely,

Frank J. Albrecht

**Environmental Analyst Supervisor** 

FJA:pz

Encl.



## United States Department of the Interior

#### FISH AND WILDLIFE SERVICE

Ecological Services Nebraska Field Office 203 West Second Street Grand Island, Nebraska 68801

December 6, 2000

Mr. Owen Lloyd Engineering Manager Loup Power District P.O. Box 988 Columbus, NE 68602-0988

Dear Mr. Lloyd:

This responds to your December 1, 2000, letter requesting comments from the U.S. Fish and Wildlife Service on a proposal to grant the Nebraska Public Power District easements along Loup Power District's project boundary on the north and east sides of Columbus, Nebraska, in order to construct a 230 KV transmission line. These comments are provided as technical assistance and predevelopment consultation and do not constitute a Service report under authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) on any required Federal environmental review or permit.

The Service has responsibility, under a number of authorities, for conservation and management of fish and wildlife resources. Chief among the federal statutes with which our office deals are the Coordination Act, Endangered Species Act of 1973, and the National Environmental Policy Act. The Coordination Act requires that fish and wildlife resources be given equal consideration in the planning, implementation, and operation of Federal and federally funded, permitted, or licensed water resource developments. Section 7 of the Endangered Species Act of 1973 outlines procedures for interagency consultations on the effects of Federal actions on federally listed threatened and endangered species. The Service participates in scoping and review of actions significantly affecting the quality of the environment under authority of the National Environmental Policy Act. In addition to these statutes, the Service has authority under several other legislative, regulatory, and executive mandates to promote conservation of fish and wildlife resources for the benefit of the public.

In Nebraska, the Service has special concerns for migratory birds, endangered and threatened species, and other important fish and wildlife resources. We also are concerned about any impacts on Federal and State wildlife refuges and management areas and other public lands, as well as to other areas that support sensitive habitats. Habitats frequently used by important fish and wildlife resources are wetlands, streams, and riparian (streamside) woodlands. Special attention is given to proposed developments that include modification of wetlands, or stream alteration, or contamination of important habitats. The Service recommends ways to avoid, minimize, rectify, reduce, or compensate for damaging impacts to important fish and wildlife resources and their

habitats that may be attributed to land and water resource development proposals.

We have reviewed the plans for the proposed facilities and offer the following comments:

- a. The proposed facilities do not appear to impact federal fish and wildlife management facilities.
- b. The federally listed threatened bald eagle may occur within the project area. Large transmission lines usually do not present an electrocution hazard to large raptors. However, we recommend that the proposed line be marked with visual deterrents (e.g., aerial marker spheres, spiral vibration dampers, and bird flight diverters) to lessen the probability of birds (e.g., waterfowl, raptors, etc.) colliding with the line.

Based upon the submitted information, we have no objection to this proposal as currently planned, provided that our recommendations are followed. In particular, we urge your adherence to our recommendation that the new line be marked with visual deterrents. However, should the plans be modified, we recommend that you reinitiate coordination with this office.

Should you have any further questions, please contact Mr. Wally Jobman within our office at (308)382-6468, extension 16. Thank you for the opportunity to offer comments.

Sincerely,

Wallace Jobban

Acting Nebraska Field Supervisor

cc: NGPC; Lincoln, NE (Attn: Bob Harms)



## LOUP POWER DISTRICT

GENERAL OFFICE 2404 15th Street P.O. Box 988 Columbus, NE 68602-0988 Phone: 402/564-3171 Fax: 402/564-0970

August 28, 2003

Kirk Nelson Nebraska Game & Parks PO Box 30370 Lincoln, NE 68503

Dear Kirk,

Re: Game & Parks Issues

Enclosed are two signed copies of the lease for Loup properties. Please sign both copies and return one to Loup.

Regarding minimum flows as was discussed at our meeting of August 5, 2003, Loup will increase flows to 75 cfs when necessary due to elevated air temperatures.

Next, Loup is willing to consider a fish by-pass at the Genoa Headworks diversion dam. Game and Parks will provide information on the design of this fish by-pass.

Loup sent regulatory changes regarding boating at Lake Babcock to Herb Angel on August 15, 2003.

Thank you for your cooperation regarding these matters.

Sincerely,

Ronald J. Ziola

**Engineering Manager** 

RZ:mp

**Enclosures** 

C: R.White

K.Christensen

J.Frear

J.Cieloha



Ms. Anne Bleed, Acting Director Nebraska Department of Natural Resources 301 Centennial Mall South, 4<sup>th</sup> Floor Lincoln, Nebraska 68509

Re: Loup Hydroelectric Relicensing

Dear Ms. Bleed:

The Loup River Public Power District has retained HDR Engineering to assist with FERC relicensing of the Loup River Hydroelectric Project. This will be a multi-year endeavor since the new license application is not due for submittal until April of 2012. Preliminary work is being initiated at this time because industry experience has shown that thorough planning, an early start, and focused communication are vitally important to the interests of all participants in the relicensing process.

Enclosed for your information is a brief introduction to the Loup River Project and the FERC relicensing process. Also enclosed are copies of two recent FERC publications which will help to explain the relatively new Integrated Licensing Process (ILP) that the District intends to utilize. As indicated in our earlier e-mail, the ILP relicensing regulations can be viewed and downloaded at the following web address: http://relicensing.douglaspud.org/relicensing\_process/downloads/18\_CFR\_Part\_5.PDF

We look forward to meeting you next week and working with your office to achieve a mutually acceptable relicensing outcome. If you have any questions I can be reached at (763) 591-5485. Thank you.

Sincerely,

George M. Waldow Program Manager

Enclosures

cc: Neal Suess, Loup Power District

zenge Waldon



Mr. Frank Albrecht Asst. Div. Administrator R.E.S. Nebraska Game and Parks Commission 2200 North 33<sup>rd</sup> Street Lincoln, Nebraska 68503

Re: Loup Hydroelectric Relicensing

Dear Mr. Albrecht:

The Loup River Public Power District has retained HDR Engineering to assist with FERC relicensing of the Loup River Hydroelectric Project. This will be a multi-year endeavor since the new license application is not due for submittal until April of 2012. Preliminary work is being initiated at this time because industry experience has shown that thorough planning, an early start, and focused communication are vitally important to the interests of all participants in the relicensing process.

Enclosed for your information is a brief introduction to the Loup River Project and the FERC relicensing process. Also enclosed are copies of two recent FERC publications which will help to explain the relatively new Integrated Licensing Process (ILP) that the District intends to utilize. As indicated in our earlier e-mail, the ILP relicensing regulations can be viewed and downloaded at the following web address: http://relicensing.douglaspud.org/relicensing\_process/downloads/18\_CFR\_Part\_5.PDF

We look forward to meeting you next week and working with your office to achieve a mutually acceptable relicensing outcome. If you have any questions I can be reached at (763) 591-5485. Thank you.

Sincerely,

George M. Waldow

Program Manager

Enclosures

cc: Neal Suess, Loup Power District

seongal Valdon



Mr. Robert Puschendorf, Deputy SHPO Nebraska State Historical Society 1420 P Street, Suite 300 Lincoln, Nebraska 68501

Re: Loup Hydroelectric Relicensing

Dear Mr. Puschendorf:

The Loup River Public Power District has retained HDR Engineering to assist with FERC relicensing of the Loup River Hydroelectric Project. This will be a multi-year endeavor since the new license application is not due for submittal until April of 2012. Preliminary work is being initiated at this time because industry experience has shown that thorough planning, an early start, and focused communication are vitally important to the interests of all participants in the relicensing process.

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We look forward to meeting you next week and working with your office to achieve a mutually acceptable relicensing outcome. If you have any questions I can be reached at (763) 591-5485. Thank you.

Sincerely,

George M. Waldow Program Manager

Enclosures

cc: Neal Suess, Loup Power District

eorge Waldow



Mr. Steve Anschutz, Head of Ecological Services U.S. Fish and Wildlife Service 203 West 2<sup>nd</sup> Street Grand Island, Nebraska 68801

Re: Loup Hydroelectric Relicensing

Dear Mr. Anschutz:

The Loup River Public Power District has retained HDR Engineering to assist with FERC relicensing of the Loup River Hydroelectric Project. This will be a multi-year endeavor since the new license application is not due for submittal until April of 2012. Preliminary work is being initiated at this time because industry experience has shown that thorough planning, an early start, and focused communication are vitally important to the interests of all participants in the relicensing process.

Enclosed for your information is a brief introduction to the Loup River Project and the FERC relicensing process. Also enclosed are copies of two recent FERC publications which will help to explain the relatively new Integrated Licensing Process (ILP) that the District intends to utilize. As indicated in our earlier e-mail, the ILP relicensing regulations can be viewed and downloaded at the following web address: http://relicensing.douglaspud.org/relicensing\_process/downloads/18\_CFR\_Part\_5.PDF

We look forward to meeting you next week in Lincoln and working with your office to achieve a mutually acceptable relicensing outcome. If you have any questions I can be reached at (763) 591-5485. Thank you.

Sincerely,

George M. Waldow

Program Manager

Enclosures

cc: Neal Suess, Loup Power District

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May 12, 2006

Mr. Jay Ringenberg, Deputy Director Nebraska Department of Environmental Quality 1200 "N" Street, The Atrium, Suite 400 Lincoln, Nebraska 68509-8922

Re: Loup Hydroelectric Relicensing

Dear Mr. Ringenberg:

The Loup River Public Power District has retained HDR Engineering to assist with FERC relicensing of the Loup River Hydroelectric Project. This will be a multi-year endeavor since the new license application is not due for submittal until April of 2012. Preliminary work is being initiated at this time because industry experience has shown that thorough planning, an early start, and focused communication are vitally important to the interests of all participants in the relicensing process.

We appreciate your agreeing to meet with us at 10:00 a.m. on Thursday, May 18<sup>th</sup>. The dual purposes of this introductory meeting are first, for the principal parties to become acquainted with each other and second, to discuss the new Integrated Licensing Process that we are embarking on together. We have enclosed the following documents to familiarize you with the Loup Project and the latest FERC relicense procedures:

- a brief introduction to the Loup River Project and the FERC relicensing process
- a copy of the the ILP relicensing regulations from the CFR
- a copy of Ideas for Implementing and Participating in the Integrated Licensing Process (ILP)
- a copy of Understanding the Study Criteria Integrated Licensing Process

We look forward to meeting you and your key staff. The Loup Power District's overall goal is to utilize the Integrated Licensing Process to achieve a mutually acceptable relicensing outcome. If you have any questions I can be reached at (763) 591-5485. Thank you.

Sincerely, Scorgal allow

George M. Waldow

Program Manager

Enclosures

cc: Neal Suess, Loup Power District



# LOUP POWER DISTRICT

"SERVING YOU ELECTRICALLY"

**GENERAL OFFICE**2404 15th Street
P.O. Box 988
Columbus, NE 68602-0988

Phone: 402/564-3171 Fax: 402/564-0970

August 27, 2007

Barb Friskopp Army Corps of Engineers Kearney Regulatory Branch 1430 Central Avenue Kearney, NE 68847

Dear Ms. Friskopp:

Re: COE Permit NE 88-01213

Loup River Public Power District's permit to dredge the settling basin located southwest of Genoa, Nebraska, expires on June 30, 2008. Enclosed please find a completed COE form 33 CFR 325 and an exhibit drawing for your consideration.

If you have any questions or need additional information, please don't hesitate to contact me at 402-564-3171, Ext. 254, or Jim Frear at 402-564-3171, Ext. 255.

Sincerely,

Ronald J. Ziola

**Engineering Manager** 

RJZ:ar

Enc.

C: N. Suess

J. Frear

# APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT (33 CFR 325)

OMB APPROVAL NO. 0710-0003 Expires December 31, 2004

The public reporting burden for this collection of information is estimated to average 10 hours per response, although the majority of applications should require 5 hours or less. This includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Service Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302; and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003), Washington, DC 20503. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

### PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies. Submission of requested information is voluntary, however, if information is not provided, the permit application cannot be processed nor can a permit be issued.

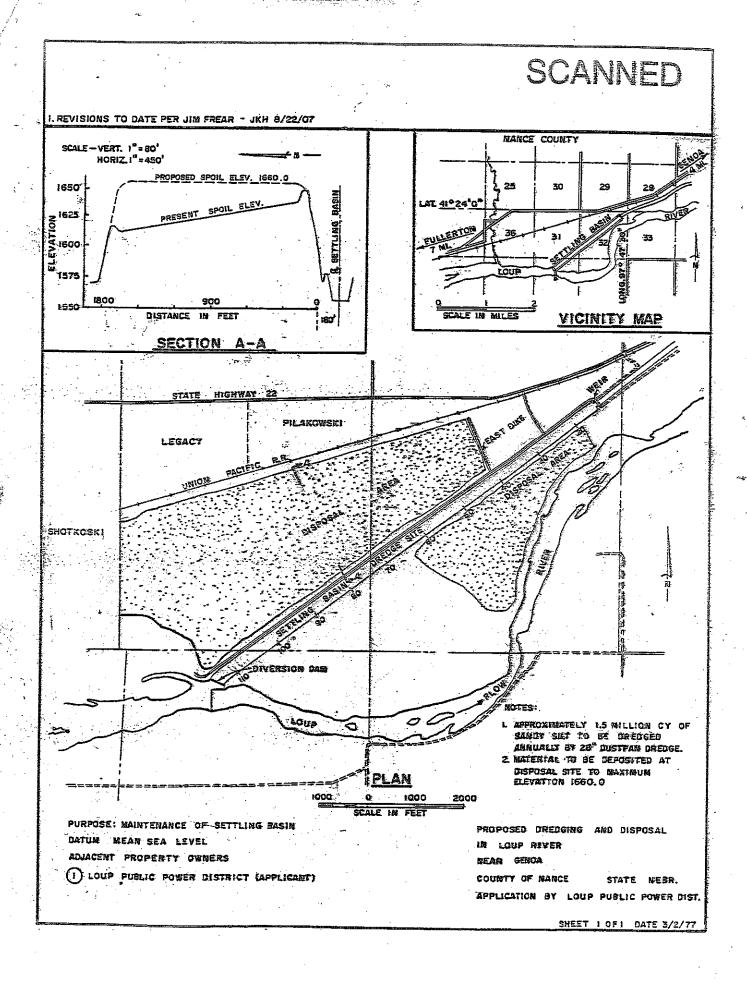
One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

activity. An application that is no	of completed in full will be returned.				
(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)					
1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETED		
	(ITEMS BELOW TO B	E FILLED BY APPLICANT)			
5. APPLICANT'S NAME		8. AUTHORIZED AGENT'S	8. AUTHORIZED AGENT'S NAME AND TITLE (an agent is not required)		
Loup River Public H	ower District	Neal Suess, Pre	Neal Suess, President/CEO		
6. APPLICANT'S ADDRESS		9. AGENT'S ADDRESS	9. AGENT'S ADDRESS		
			•		
2404 15th St.		6760 Country Cl	6760 Country Club Drive		
Columbus, NE 69601	·	Columbus, NE 68	· · · · · · · · · · · · · · · · · · ·		
7. APPLICANT'S PHONE NUME	BERS WITH AREA CODE	10. AGENT'S PHONE NUMB	BERS WITH AREA CODE		
a. Residence N/A		a. Residence 402-5	662–7058		
	564-3171		64-3171, Ext. 265		
11.	STATEMENT	OF AUTHORIZATION			
fumish, upon request supplemental information in support of this permit application.					
APPLICANT'S ST	<u> </u>		DATE		
	NAME, LOCATION AND DESCR	RIPTION OF PROJECT OR ACT	IVITY		
12. PROJECT NAME OR TITLE	(see instructions)				
Loup River Public	Power District Dredge a	nd Settling Basin			
13. NAME OF WATERBODY, IF	KNOWN (if applicable)	14. PROJECT STREET ADD	DRESS (if applicable)		
Loup River					
15. LOCATION OF PROJECT		51137 N. Impala	Lane		
•		Genoa, NE 68640	)		
Nance	Nebraska				
COUNTY	STATE				
16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)					
	Township 17 North, Ran	ge 4 West, Nance Co	unty, NE		
17. DIRECTIONS TO THE SITE					
Approximately 3.5	miles SW of Genoa, NE,	on State Highway #2	2		

18. Nature of Activity (Description of project, include all features)
Hydraulically dredge mile-long settling basin portion of power canal. Dredged material shall be conveyed by pipeline to established disposal areas. The disposal areas shall serve as sediment detention areas. Dredged sediments shall settle out of the water before it is returned to the Loup River.
TO 10 TOURING TO THE BOUP RIVEL.
19. Project Purpose (Describe the reason or purpose of the project, see instructions)
Removal of sedimentation from settling basin prior to entry of sedimentation into power canal.
power canar.
USE BLOCKS 20-22 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED
20. Reason(s) for Discharge
To discharge dredge tailings onto storage areas.
21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards
Approximately 1.5 million cubic yards of river sand and sedimentation to storage areas and river water back to Loup River.
22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)
그 가는 사람들은 그는 그는 사람들은 그는 그는 사람들은 사람들이 가장 하는 것이 되었다. 그는 사람들은 그는 사람들이 그는
The two discharge areas are diked to prevent sedimentation from entering the Loup River. This work previously completed under COE Permit NE 88-01213, Amendment #2
23. is Any Portion of the Work Aiready Complete? Yes X No IF YES, DESCRIBE THE COMPLETED WORK
This has been an ongoing maintenance activity since 1937.
24. Addresses of Adjoining Property Owners, Lessees, etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).
Legacy Resources Company LLC Gerald Shotkoski Kenneth Pilakowski Union Pacific RR 34495 State Highway 22 56060 S 270th Ave. RR 1, Box 138 1400 Douglas St. Genoa, NE 68640 Fullerton, NE 68638 Genoa, NE 68640 Omaha, NE 68179
25. List of Other Certifications or Approvals/Denials Received from other Federal, State, or Local Agencies for Work Described in This Application
AGENCY TYPE APPROVAL* IDENTIFICATION NUMBER DATE APPLIED DATE APPROVED DATE DENIED
FERC Operating Lic. 1256-NE 1984 N/A
NE Dept. Surface Water A-2287 & A-2573 1980 N/A Natural Right Resources
*Would include but is not restricted to zoning, building and flood plain permits
26. Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate 1 further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.  SIGNATURE OF APPLICANT  DATE  The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized
agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States, knowingly and willfully falsifies, conceals, or covers up any trick scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall

be fined not more than \$10,000 or imprisoned not more than five years or both.





### NEBRASKA STATE HISTORICAL SOCIETY

1500 R STREET, P.O.BOX 82554, LINCOLN, NE 68501-2554 (402) 471-3270 Fax: (402) 471-3100 1-800-833-6747 www.nebraskahistory.org

15 November 2007

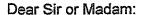
Kearney Regulatory Office Corps of Engineers 1430 Central Avenue Kearney, NE 68847-6856

Re:

NWO-2007-3190-KEA Amendment #3

Dredging Nance Co.

H.P. #0711-016-01



A review of our files indicates that the referenced project does not contain recorded historic resources. It is our opinion that no survey for unrecorded cultural resources will be required. Your undertaking, in our opinion, will have no effect for archaeological, architectural, or historic properties. This review does not constitute the opinions of any Tribes that may have an interest in Traditional Cultural Properties potentially affected by this project.

There is, however, always the possibility that previously unsuspected archaeological remains may be uncovered during the process of project construction. We therefore request that this office be notified immediately under such circumstances so that an evaluation of the remains may be made, along with recommendations for future action.

Sincerely,

Terry Steinacher H.P. Archaeologist

Concurrence:

L. Robert Puschendorf

**Deputy NeSHPO** 



# Nebraska Game and Parks Commission

2200 N. 33rd St. / P.O. Box 30370 / Lincoln, NE 68503-0370 Phone: 402-471-0641 / Fax: 402-471-5528 / www.OutdoorNebraska.org

November 30, 2007

Barb Friskopp U.S. Army Corps of Engineers Nebraska Regulatory Branch 1430 Central Avenue Kearney, NE 68847-6856

RE: 2007-3190-KEA, Amendment 3, Proposal to continue maintenance dredging in the Loup power canal for another ten years, Nance County, Loup Public Power District (LPPD); applicant

Dear Ms. Friskopp:

Nebraska Game and Parks Commission (NGPC) staff members have reviewed the information for the proposal identified above. The maintenance dredging in the LPPD canal has been an on-going activity since 1937. After water is diverted from the Loup River, river sediments build up in the settling basin, which reduces the capacity of the hydropower canal. Sediments are hydraulically dredged from the settling basin and conveyed via pipeline to previously established disposal areas along both sides of the canal on property owned by the applicant. These disposal areas serve as detention areas, as sediment settles out before the water is returned to the Loup River downstream of the diversion structure. The purpose of the project is to remove accumulated sediment from the settling basin to allow for continued operation of the hydropower canal system. This permit amendment would allow for the continuation of dredging operations for ten years.

Based on a review of the Nebraska Natural Heritage database, we have records of the state-listed endangered least tern (*Sterna antillarum athalassos*) and state-listed threatened piping plover (*Charadrius melodus*) nesting on the sand disposal sites adjacent to the settling basin. The continued disposal of the dredged material from the settling basin onto the disposal piles has the potential to directly impact these bird species. However, we believe our concerns for impacts to least terns and piping plovers are being addressed in a Memorandum of Understanding (MOU) that is being developed between NGPC, the U.S. Fish and Wildlife Service, and Legacy Resources LLC, which is the company that is extracting sand from the disposal sites.

Because the stated purpose of this project is to remove accumulated sediment from the settling basin to allow for the continued operation of the hydropower canal system, we have also identified concerns for several indirect impacts that may occur as a result of this action. The 1 to 1.5 million cubic yards of sediment per year that is dredged from the settling basin and piled at this location, if in a natural, unaltered system, would normally move downstream in the Loup River and eventually enter the Platte River. However, because of the water diversion into the Loup canal system at the Genoa Headworks, this sediment does not make it down to the Platte River. This sediment loss indirectly impacts the Loup River below the diversion and the Platte River by reducing the available sediment supply for riverine sandbar habitat creation and maintenance in downstream reaches of both rivers. Habitat loss in the Platte River may impact not only state-listed threatened and endangered species, but also many non-listed aquatic species.

The Loup Power Canal water diversion also results in reduced flows in the Loup River downstream of the diversion. We understand that LPPD is appropriated 3,500 cubic feet per second (cfs) of water from the Loup River for power generation purposes, but this results in reduced flows below the diversion near Genoa. These reduced flows have less capacity to move the remaining sediment downstream and may also result in increased water temperatures in the lower reaches of the Loup River, especially during the summer, which may negatively impact aquatic species. We also recognize that there is an agreement by LPPD to allow between 50 and 75 cfs to pass the diversion and remain in the river to help ameliorate summer water temperature stresses for aquatic resources.

Furthermore, the operation of the canal system itself may also result in the indirect loss of aquatic species that inhabit the Loup River. Fish, or other aquatic species, that are drawn into the canal may be lost to dredging operations in the settling basin, or to turbine operations at either of the power plants, Monroe or Columbus, located along the canal.

The Loup Power Canal was designed for hydroelectric power generation, which is achieved at the abovementioned power plants by regulation, or hydro-cycling, of the water in the canal system on a daily basis. Hydro-cycling and the resultant fluctuations in outflow of the canal directly influences the dynamics of the Platte River downstream of the canal return, and may have negative biological and ecological impacts on the river.

Lastly, the Loup River Hydroelectric Project will be up for re-licensing by the Federal Energy Regulatory Commission (FERC) in 2014. Because of the complexity and time involved in re-licensing, LPPD has already initiated planning, coordination, and information gathering as part of the process which will continue up until 2014. Due to the concurrent re-licensing process, rather than this amendment authorizing dredging for another ten-year period, we would ask the Corps to consider limiting the lifespan of this amendment to five years. This shorter permit period would allow for the reevaluation of the 404 permit closer to the time of re-licensing, and would allow for the utilization of new information obtained during the planning phase of the re-licensing. We would further recommend continuation of efforts to protect least terns and piping plovers at existing LPPD dredge spoil sites, and that the summer diversion bypass of 50 to 75 cfs be continued for water quality purposes.

Thank you for the opportunity to review this proposal. If you have any questions, please contact me at (402) 471-5423 or carey.grell@ngpc.ne.gov.

Sincerely,

Carey Grell

cc:

**Environmental Analyst** 

Realty and Environmental Services Division

Jeff Runge, USFWS Terry Hickman, NDEO Eliodora Chamberlain, EPA Frank Albrecht, NGPC Larry Hutchinson, NGPC

Richard Holland, NGPC Kristal Stoner, NGPC

Joel Jorgensen, NGPC



# United States Department of the Interior

#### FISH AND WILDLIFE SERVICE

Ecological Services Nebraska Field Office 203 West Second Street Grand Island, Nebraska 68801

November 30, 2007

FWS-NE: 2008-160

Barbara Friskopp
U.S. Army Corps of Engineers
Kearney Regulatory Office
1430 Central Avenue
Kearney, NE 68847-6856

RE: Permit Amendment for Power Canal Dredging, Loup Power District, Nance

County, Nebraska (NWO-2007-3190-KEA)

Dear Mrs. Friskopp:

This responds to the U.S. Army Corps of Engineers (Corps) November 2, 2007, Public Notice (PN) requesting comments and concurrence from the U.S. Fish and Wildlife Service (Service) regarding the proposed permit amendment for the dredging of the power canal settling basin located within the Loup River basin in Nance County, Nebraska (Northern 1/2, Section 32, Township 17 North, Range 4 West). The permit applicant is the Loup Power District and the project purpose is to remove accumulated sediment from the settling basin to allow continued operation of the hydropower canal system.

In Nebraska, the Service has special concerns for endangered and threatened species, migratory birds, and other important fish and wildlife resources. We also are concerned about any impacts on Federal and State wildlife refuges and management areas and other public lands, as well as to other areas that support sensitive habitats. Habitats frequently used by important fish and wildlife resources are wetlands, streams, and riparian (streamside) woodlands. Special attention is given to proposed developments that include modification of wetlands, stream alteration, loss of riparian habitat, or contamination of important habitats. The Service recommends ways to avoid, minimize, rectify, reduce, or compensate for damaging impacts to important fish and wildlife resources and their habitats that may be attributed to land and water resource development proposals.

### FEDERALLY LISTED SPECIES AND DESIGNATED CRITICAL HABITAT

Pursuant to section 7 of ESA, every federal agency, in consultation or conference with the Service, is required to ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any federally listed or proposed species and/or result in the destruction or adverse modification of designated and/or proposed critical habitat. In accordance with section 7(a)(2) of ESA, the federal agency should determine if any federally listed/proposed threatened or endangered species and/or designated/proposed critical habitat would be directly and/or indirectly affected by the proposed project. The assessment of potential impacts (direct and indirect) must include an "affect" or "no effect" determination and be presented to the Service in writing. If the Service agrees with the determination made by the federal agency, this office would provide a letter of concurrence. If federally listed/proposed species and/or designated/proposed critical habitat would be adversely affected by the proposed project, the federal agency will need to formally request further section 7 consultation with the Service prior to making any irretrievable or irreversible commitment of federal funds (section 7(d) of ESA).

In accordance with section 7 of ESA, the Service has determined that the following federally listed species may occur or be affected by the proposed subject action:

Listed Species	T / 1 A
	Expected Occurrence

Interior least tern (Sterna antillarum) Migration, nesting

Piping plover (Charadrius melodus) Migration, nesting

Pallid sturgeon (Scaphirhynchus albus) Lower Platte River and Missouri River

Western prairie fringed orchid Tall-grass prairie and wet meadows (*Platanthera praeclara*)

### Least Tern and Piping Plover

The least tern, federally listed as endangered, and the piping plover, federally listed as threatened, nest on unvegetated or sparsely vegetated sandbars in river channels. The nesting season for the least tern and piping plover is from April 15 through August 15. Least terns feed on small fish in the river and piping plovers forage for invertebrates on exposed beach substrates. The least tern and the piping plover may be impacted by water depletions in the Platte River system. The least tern and the piping plover may also be impacted by activities that would affect the long-term sustainability of nesting habitat in the lower Platte River.

### Pallid Sturgeon

The pallid sturgeon was officially listed as an endangered species on September 6, 1990. In Nebraska, the pallid sturgeon is found in the Missouri and lower Platte rivers. Floodplains, backwaters, chutes, sloughs, islands, sandbars, and main channel waters formed the large-river ecosystem that provided macrohabitat requirements for the pallid sturgeon, a species that is associated with diverse aquatic habitats. These habitats historically were dynamic and in a constant state of change due to influences from the natural hydrograph, and sediment and runoff inputs from an enormous watershed spanning portions of ten states. Navigation, channelization and bank stabilization, and hydropower generation projects have caused the widespread loss of this diverse array of dynamic habitats once provided to pallid sturgeon on the Missouri River, resulting in a precipitous decline in populations of the species. The pallid sturgeon may be impacted

by water depletions to the Platte River system. The pallid sturgeon may also be impacted by any alterations in hydrology that would affect the species ability to migrate to spawning habitats in the lower Platte River.

### Western Prairie Fringed Orchid

The western prairie fringed orchid, federally listed as threatened, inhabits tall-grass calcareous silt loam or sub-irrigated sand prairies. Declines in western prairie fringed orchid populations have been caused by the drainage and conversion of its habitats to agricultural production, channelization, siltation, road and bridge construction, grazing, having, and the application of herbicides. Populations are known to occur in Boone, Cherry, Dodge, Garfield, Grant, Greeley, Hall, Holt, Lancaster, Loup, Madison, Otoe, Pierce, Rock, Saline, Sarpy, Seward, and Wheeler counties, and may occur at other sites in Nebraska. This plant may also be impacted by alterations to the hydrology of sub-irrigated wetland habitat areas along the Platte River resulting from depletions to the Platte River system.

## Effects of the Proposed Project on Federally Listed Species

According to the PN, the purpose of the amended permit would allow for the continued operation of the hydropower canal system. Since the proposed dredging requires Corps' authorization (i.e., issuance of a Department of the Army (DA) permit) and this authorization is a federal action, the Service considers any effects to federally listed species through continued hydropower operation as interrelated and interdependent to the federal action as defined in the Interagency Cooperation regulations (50 CFR Part 402). Effects to federally listed species as a result of the continued hydropower operations include: a) the diversion of Loup River flows may result in flow depletion to the lower Platte river; b) the diversion of Loup River flows may affect Platte River channel morphology downstream of the power canal return; c) hydropower cycling have both direct and indirect effects federally listed species in the lower Platte; and d) dredged material creates suitable nesting habitat for least terms and piping plovers that may be affected through dredge disposal and mining operations.

Water diversions into the power canal and through power production facilities may result in increased evaporation rates when compared against flow losses in the Loup River below the diversion. This consumptive use of water would result in a water depletion to the lower Platte River. River Since 1978, the Service has concluded in all of its section 7 consultations on water projects in the Platte River basin that the Platte River ecosystem is in a state of jeopardy, and any federal action resulting in a water depletion to the Platte River system will further or continue the deterioration of the stressed habitat conditions. Due to the cumulative affect of many water depletion projects in the Platte River basin, the Service considers any depletion of flows (direct or indirect) from the Platte River system to be significant. Consequently, the Service has adopted a jeopardy standard for all section 7 consultations on federal actions which result in water depletions to the Platte River system.

A second area of concern is in regards to the sediment-free water flows at the power canal return. The release of sediment-free water into the Platte River system would result in an erosive condition that would facilitate channel bed degradation downstream and upstream of the return. The channel bed degradation and reduced sediment supply could

affect the formation of sand bars used by least terns and piping plovers for nesting. Because the clear water returns have a continuous and cumulative effect on sediment supply, the effects on sandbar formation will vary longitudinally over time.

Hydropower peaking may have direct and indirect effects to the least tern, piping plover, and pallid sturgeon. The sub-daily fluctuations in river stage from hydropower peaking would increase susceptibility of least tern and piping plover nest inundation. The sub-daily fluctuations from hydropower peaking may impact the hydraulics of the lower Platte River through rapid changes in discharge, velocity, and bed stress which may impact the formation and persistence of sandbars used by least terns and piping plovers for nesting. The sub-daily fluctuations in river flow from hydropower peaking may inhibit the migration of the pallid sturgeon to spawning habitats in the lower Platte River. Aquatic invertebrates and terrestrial invertebrates that use gravel bars, and native fish populations have been documented to be impacted by hydropower peaking. These impacts to the fish and invertebrate communities may affect the least tern, piping plover, and pallid sturgeon food base.

The disposal of dredged material has created large unvegetated areas that are used as nesting sites by least terns and piping plovers. The continued discharge of slurry onto the sand piles during the nesting season could adversely affect nesting birds. In addition, the mining or removal of the dredged material for other uses during the nesting season also may affect the two listed bird species. The Service and Nebraska Game and Parks Commission (Commission) have been working cooperatively with the project proponent and mining company to avoid impacts to the least tern and piping plover. However, since the disposal of the dredged material is an action authorized under a DA permit by the Corps, the Service has determined that this issue is consultable under section 7.

### Service Recommendations

The Service, under the authority of section 7(a)(2) of ESA, does not concur with the Corps "No Affect" determination and requests the development of a Biological Assessment (BA) in order to quantify the interrelated and interdependent effects of the permit issuance on federally listed species. The Service has identified the below data needs to assist the Corps with their BA development.

- A) To address the impacts associated with lower Platte River depletions, the Service requests that an engineering analysis be performed regarding the net effect in terms of acre-feet that may be depleted during each respective month on an average annual basis over the life of the project.
- B) To address impacts associated with decreased sediment supply, the Service requests that the Corps conduct an assessment of the temporal and longitudinal effects of sediment-free water from the hydropower return on least term and piping plover nesting habitats in the Platte River.
- C) To address impacts associated with hydropower cycling, the Service requests that the Corps assess the impacts of hydropower cycling on: 1) sand bar formation and persistence; 2) fish and invertebrate production; 3) least tern and piping plover nest inundation; and 4) pallid sturgeon habitat suitability.

D) After section 7 consultation has concluded and it is determined that continued operation of the proposed project can occur, the Service recommends that the Corps condition any DA permit to require the project proponent and any users of the dredged material to coordinate with the Service and Commission to avoid any adverse impacts to least terms and piping plovers associated with the placement of dredged material and its use.

### Bald and Golden Eagle Protection Act (BGEPA)

The BGEPA provides for the protection of the bald eagle (Haliaeetus leucocephalus) and golden eagle (Aquila chrysaetos) by prohibition, except under certain specific conditions, the taking, possession, and commercial use of such birds.

## Migratory Bird Treaty Act (MBTA)

Under the MBTA (16 U.S.C. 703-712: Ch. 128 as amended) construction activities in grassland, wetland, stream, and woodland habitats, and those that occur on bridges (e.g., which may affect swallow nests on bridge girders) that would otherwise result in the taking of migratory birds, eggs, young, and/or active nests should be avoided. Although the provisions of MBTA are applicable year-round, most migratory bird nesting activity in Nebraska occurs during the period of April 1 to July 15. However, some migratory birds are known to nest outside of the aforementioned primary nesting season period. For example, raptors can be expected to nest in woodland habitats during February 1 through July 15, whereas sedge wrens which occur in some wetland habitats normally nest from July 15 to September 10. If the proposed construction project is planned to occur during the primary nesting season or at any other time which may result in the take of nesting migratory birds, the Service recommends that the project proponent (or construction contractor) arrange to have a qualified biologist conduct a field survey of the affected habitats and structures to determine the absence or presence of nesting migratory birds. Surveys must be conducted during the nesting season. The Service further recommends that field surveys for nesting birds, along with information regarding the qualifications of the biologist(s) performing the surveys, be thoroughly documented and that such documentation be maintained on file by the project proponent (and/or construction contractor) until such time as construction on the proposed project has been completed.

The Service requests that the following be provided to this office prior to construction proceeding at the proposed project site if the above conditions occur. The purpose of the request is to assist the project proponent to avoid the unnecessary take of migratory birds and the possible need for law enforcement action:

- a) A copy of any survey(s) for migratory birds done in conjunction with this proposed project, if any. The survey should provide detail in regards to survey methods, date and time of survey, species observed/heard, and location of species observed relative to the proposed project site.
- b) Written description of any avoidance measures implemented at the proposed project site to avoid the take of migratory birds.

c) Written description of any circumstances where it has been determined by the project proponent that one or more active bird nests cannot be avoided by the planned construction activities.

### Fish and Wildlife Coordination Act (FWCA)

The FWCA requires that fish and wildlife resources be given equal consideration in the planning, implementation, and operation of federal and federally funded, permitted, or licensed water resource developments. The comments in this letter are provided as technical assistance and predevelopment consultation and do not constitute a Service report under the authority of FWCA on any required federal environmental review or permit.

### Wetlands, Streams, and Riparian Habitats

The Service recommends that impacts to wetlands, streams, and riparian areas be avoided or minimized. If unavoidable impacts are to occur to aquatic habitats, the Service recommends that compensation (i.e., restoration of a degraded wetland or creation) occur for like wetland type at a ratio of 2:1 (acres of wetlands restored/created to acres of wetlands impacted). For unavoidable impacts to streams, the Service recommends that stream pattern, profile, and dimension be mitigated at a ratio of no less that 1:1 (stream length and number, pattern, and length of meanders created/restored versus stream length and number, pattern, and length of meanders impacted; sequence and number of pools and riffles created/restored versus sequence and number of pools and riffles impacted). Additionally, compensation for impacts to riparian habitats should occur at a minimum ratio of 3:1 (i.e., acres of riparian habitat replaces for acres of riparian habitat impacted) The 3:1 ratio is based on the loss of the habitat and the amount of time that will be required for planted trees to reach maturity.

The Service is also concerned about what impacts the proposed project may have on the fish community in the Loup River system. Dredging activities may entrap fish through the dredging activities that could entrap fish within spoil piles. Fish may also be entrained in diversion or power generating structures. The diversion also results in the dewatering of the Loup River below the diversion. Although an agreement between the project proponent and the Nebraska Game and Parks Commission allows for a minimum of 50-100 cfs of flow to bypass point of diversion, fish kills have been documented in the referenced reach.

The Service recognizes the aesthetic, recreational, and ecosystem values of the Loup River fish community that may be impacted by the proposed project. The above impact to game fish and baitfish has some degree of impact to recreational and commercial fishermen. Impacts to the fish community will also have an impact on piscivorous animals dependent on the fish community as a prey base. Because the above resource values are impacted by the proposed project, the Service requests that the Corps conduct an alternatives analysis to determine if fish community impacts can be avoided or minimized while still achieving the project purpose.

# National Wildlife Refuges

In Nebraska, the Service manages six refuges and one wetland management district under the National Wildlife Refuge System. Based on the information provided, the Service has determined that the proposed project does not appear to impact these seven wildlife areas.

We appreciate the opportunity to review and comment on this proposed project. Should you have questions, please contact Mr. Jeff Runge within our office at <a href="mailto:jeff runge@fws.gov">jeff runge@fws.gov</a> or (308)382-6468, extension 22.

Sincerely,

John Cochnar

Assistant Nebraska Field Supervisor

cc: EPA; Kansas City, KS (Attn: Eliodora Chamberlain)

NGPC; Lincoln, NE (Attn: Kristal Stoner) NGPC; Lincoln, NE (Attn: Carey Grell)



#### DEPARTMENT OF THE ARMY CORPS OF ENGINEERS, OMAHA DISTRICT NEBRASKA REGULATORY OFFICE – KEARNEY 1430 CENTRAL AVENUE, SUITE 4 KEARNEY, NEBRASKA 68847-6856

https://www.nwo.usace.army.mil/html/od-me/nehome.html

December 3, 2007

Mr. Jim Frear Loup Power District PO Box 988 Columbus, Nebraska 68602-0988

RE: 2007-3190-KEA

Dear Mr. Frear:

This letter concerns your permit application, 2007-3190-KEA, to continue dredging operations in the Loup Power Canal settling basin. The project is located in the NE¼ of Section 32, Township 17 North, Range 4 West, Nance County, Nebraska.

The public notice comment period has expired. Enclosed are comments from organizations and public that responded to the notice. If you wish, please address the concerns raised in each and submit your response within 30 days of the letterhead date. Include in your discussion, any water rights LPD is assigned and whether or not any of these concerns were addressed in the past FERC re-licensing.

The U.S. Army Corps of Engineers will make a permit decision after considering all comments received and your responses. If you wish to discuss the permit application further, please contact me at the above address or call (308) 234-1403.

Sincerely,

Barb Friskopp

Environmental Resources Specialist

wearing of the figure in the contract which are the first fact that give in

Enclosures





DEPARTMENT OF ENVIRONMENTAL QUALITY
Michael J. Linder

Director

Suite 400, The Atrium 1200 'N' Street P.O. Box 98922 Lincoln, Nebraska 68509-8922

Phone (402) 471-2186

FAX (402) 471-2909 website: www.deq.state.ne.us

DEC 1 0 2007

Loup Power District P.O. Box 988 2404 15<sup>th</sup> Street Columbus, NE 68602-0988

RE: State Water Quality Certification for Section 404
Application 2007-3190-KEA, Maintenance dredging and
disposal of dredged materials, Loup Power canal, Nance
County, NE.

Dear Applicant:

We have reviewed the information received regarding the above-referenced application and feel the activity will comply with Section 401 of the Clean Water Act of 1977, as amended by the Water Quality Act of 1987, subject to meeting the following conditions:

Construction activities should employ controls to prevent the erosion of land adjacent to the water body. This includes revegetating disturbed areas and maintaining the controls.

If the area of disturbance will be greater than 1.0 acre, we remind the applicant that a National Pollution Discharge Elimination System construction stormwater permit may be required under § 402 of the Clean Water Act.

We encourage the applicant to continue working with the Nebraska Game & Parks Commission and U.S. Fish & Wildlife Service in developing methods and procedures of dredging and disposal that will avoid impacts on the threatened and endangered species that have established nesting locations in the vicinity of the disposal sites adjacent to the canal.

We therefore, by this letter, provide Section 401 Water Quality Certification. This certification does not constitute authorization to conduct your project. It is a statement of compliance with Surface Water Quality Standards only, which is one requirement to gain

authorization from the U.S. Army Corps of Engineers in the form of a Section 404 permit. If you have any questions, please feel free to call Terry Hickman on my staff, at (402) 471-2875.

Sincerely,

Marty Link

Associate Director, Water Quality Division

cc: Barb Friskopp, US Army Corps of Engineers John Cochnar, US Fish & Wildlife Service Carey Grell, Nebraska Game & Parks Commission

Eliodora Chamberlain, US Environmental Protection Agency



# LOUP POWER DISTRICT

"SERVING YOU ELECTRICALLY"

GENERAL OFFICE 2404 15th Street

P.O. Box 988 Columbus, NE 68602-0988 Phone: 402/564-3171

Fax:

402/564-0970

January 3, 2008

Barb Friskopp Army Corps of Engineers Kearney Regulatory Branch 1430 Central Avenue Kearney, NE 68847

Dear Ms. Friskopp:

Re: COE Permit 88-01213

Loup River Public Power District respectfully withdraws the 10-year permit application for the continuation of dredging operations in the Loup Power Canal settling basin, 2007-3190-KEA, submitted on August 27, 2007.

Sincerely,

Ronald Ziola / Engineering Manager

RZ:ar

C: J. Frear



# LOUP POWER DISTRICT

"SERVING YOU ELECTRICALLY"

GENERAL OFFICE 2404 15th Street P.O. Box 988 Columbus, NE 68602-0988

Phone: 402/564-3171

Fax:

402/564-0970

January 8, 2008

Barb Friskopp Army Corps of Engineers Kearney Regulatory Branch 1430 Central Avenue Kearney, NE 68847

Dear Ms. Friskopp:

Re: Nationwide Permit 16

Loup River Public Power District's permit to dredge the settling basin located southwest of Genoa, Nebraska, expires on June 30, 2008. Enclosed please find a completed COE form 33 CFR 325 and an exhibit drawing for your consideration in the application for a Nationwide Permit 16 to continue dredging operations.

If you have any questions or need additional information, please don't hesitate to contact me at 402-564-3171, Ext. 254.

Sincerely,

Ronald Ziola

**Engineering Manager** 

RZ:ar

Enc.

C: N. Suess

J. Frear

#### APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT (33 CFR 325)

OMB APPROVAL NO. 0710-0003 Expires December 31, 2004

The public reporting burden for this collection of information is estimated to average 10 hours per response, although the majority of applications should require 5 hours or less. This includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Service Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302; and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003), Washington, DC 20503. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

#### PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413. Principal Purpose; Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies. Submission of requested information is voluntary, however, if information is not provided, the permit application cannot be processed nor can a permit be issued.

One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this

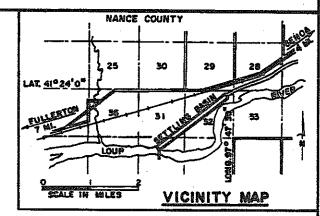
application (see sample drawings activity. An application that is not	and instructions) and be submitted to completed in full will be returned.	the District Engineer having jurisdict	ion over the location of the proposed		
(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)					
1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETED		
			·		
	(ITEMS BELOW TO	BE FILLED BY APPLICANT)			
5. APPLICANT'S NAME		8. AUTHORIZED AGENT'S NA	8. AUTHORIZED AGENT'S NAME AND TITLE (an agent is not required)		
Loup River Public Power District		Neal Suess, President/CEO			
6. APPLICANT'S ADDRESS		9. AGENT'S ADDRESS	9. AGENT'S ADDRESS 6760 Country Club Drive		
2404 15th St.		6760 Country Club			
Columbus, NE 68601		Columbus, NE 6860	,		
7. APPLICANT'S PHONE NUMBE	RS WITH AREA CODE	10. AGENT'S PHONE NUMBE	RS WITH AREA CODE		
a. Residence N/A		a. Residence 402-562-	a. Residence 402-562-7058		
b. Business 402-564-317		<u> </u>	b. Business 402-564-3171, Ext. 265		
11. /	STATEMEN	T OF AUTHORIZATION			
I hereby authorize Ronald J. Ziola to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.					
APPLICANT'S SIG	NATURE		DATE 01/08/08		
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12. PROJECT NAME OR TITLE (					
	wer District Dredge and Set	tling Basin			
13. NAME OF WATERBODY, IF I	(NOWN (if applicable)	14. PROJECT STREET ADDF	BESS (if applicable)		
Loup River		51137 N. Impala Lane			
15. LOCATION OF PROJECT		Genoa, NE 68640			
Nance	Nebraska Nebraska				
COUNTY	STATE				
16. OTHER LOCATION DESCRIP	TIONS, IF KNOWN (see instructions)	· · · · · · · · · · · · · · · · · · ·			
NE1/4, Section 32, To	ownship 17 North, Range 4	West, Nance County, NE			
17. DIRECTIONS TO THE SITE					
Approximately 3.5 m	iles SW of Genoa, NE, on S	tate Highway #22			

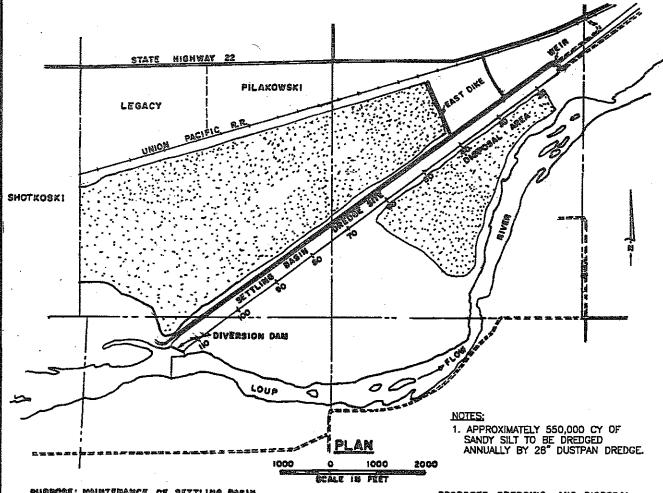
18. N	ature of Activity (	Description of project, ir	nclude all features)				
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19. Pi	oject Purpose (L	Describe the reason or p	urpose of the project,	see instruction	s)	- · - · · · · · · · · · · · · · · · · ·	<del></del>
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		USE BLOCKS	20-22 IF DREDGED	AND/OR FILL	MATERIAL IS TO BE	DISCHARGED	
20. R	eason(s) for Disc	harge	•				
T	o discharge dr	edge tailings onto stor	rage area.	*			•
	4	<del>-</del>			· .		•
21. Ty	rpe(s) of Materia	Being Discharged and	the Amount of Each T	ype in Cubic Y	ards		
	Approx 550	,000 cu. yds. of riv	ver sand & sedin	nentation to	storage area &	river water hack t	o Loup River
	ippion.	,000 04. 7 45. 01 11	voi band to bodin	ionamon a	o blorago aroa ce	iiver water back t	o Loup Mic.
22. Si	ırface Area in Ad	res of Wetlands or Othe	er Waters Filled (see in	nstructions)			
		arge area is					
	This work	c previously co	ompleted unde	er COE Pe	rmit NE 88-01	213, Amendmen	t #2
23. ls	Any Portion of the	ne Work Already Comple	ete? Yes 🦊	No	IF YES, DESCRIBI	THE COMPLETED W	ORK
,	This has been a	n ongoing maintenan	ce activity since 19:	37.	. *		
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	ddresses of Adjo upplemental list)	ining Property Owners, I	Lessees, etc., Whose	Property Adjoir	is the Waterbody (if m	ore than can be entered	l here, please attach a
· ;	Legacy Resour 34495 State Hy	vy 22 5606	d Shotkoski 0 S 270th Ave.	Kenneth Pil	1400	Pacific RR Douglas St.	
	Genoa, NE 686	40 rune	rton, NE 68638	Genoa, NE	0804U Uman	a, NE 68179	•
	st of Other Certif	ications or Approvals/De	enials Received from	ther Federal 9	State or Local Agencie	es for Work Described in	This Application
	AGENCY	TYPE APPROVAL*	IDENTIFICATION		DATE APPLIED	DATE APPROVED	DATE DENIED
	FERC	Operating Lic.	1256-NE			1984	N/A
	NE Dept.	Surface Water	A-2287 & A-257	73		1980	N/A
	Natural	Right	1 220, 6011 20.			·	
	Resources						
		ude but is not restricted t	L	I flood plain per	mits		
i	oplication is here	by made for a permit or courate. I further certify	permits to authorize the	ne work descrit	ed in this application.		
		1) Nue	01/08/08		ndle 0	2/9/2 01/0	08/08
V <del>/</del>	SIGNATURE (	OF APPLICANT	DATE		SIGNATURE OF AGE		ATE.
		st be signed by the persent in block 11 has been		ertake the prop	osed activity (applicar	nt) or it may be signed b	y a duly authorized
40		1001 provides that: \\/\				-1	-1 Otata - Lauringia

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States, knowingly and willfully falsifies, conceals, or covers up any trick scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

# **SCANNED**

2. REVISIONS TO DATE PER JIM FREAR — JKH 1/8/08 1. REVISIONS TO DATE PER JIM FREAR - JKH 8/22/07





PURPOSE: MAINTERANCE OF SETTLING MASIN

DATUM MEAN SEA LEVEL

ADJACENT PROPERTY OWNERS

(1) LOUP PUBLIC POWER DISTRICT (APPLICANT)

PROPOSED DREDGING AND DISPOSAL IN LOUP RIVER

NEAR GENOA

COUNTY OF NAMCE

STATE MESR.

APPLICATION BY LOUP PUBLIC POWER DIST.

SMEET 1 071 DATE 5/2/77



# DEPARTMENT OF THE ARMY CORPS OF ENGINEERS, OMAHA DISTRICT NEBRASKA REGULATORY OFFICE – KEARNEY 1430 CENTRAL AVENUE, SUITE 4 KEARNEY, NEBRASKA 68847-6856

https://www.nwo.usace.army.mil/html/od-rne/nehome.html

January 9, 2008

921 62

Mr. Ron Ziola Loup Power District PO Box 988 Columbus, Nebraska 68602-0988

RE: 2007-3190-KEA

Dear Mr. Ziola:

We have reviewed the request for Department of the Army authorization for the Loup Power Canal settling basin dredging project. The work will be carried out in accordance with plans received on January 9, 2008. The basin will be hydraulically dredged; the material will be siphoned to the north disposal area or the south disposal area. The project is located in the NE¼ of Section 32, Township 17 North, Range 4 West, Nance County, Nebraska.

Based on the information you provided, this office has determined that sediment disposal in the north area will not require a Department of the Army permit. Disposal in the south area is authorized by the Department of the Army Nationwide Permit No. 16, found in the March 12, 2007 Federal Register (72 FR 11092), Reissuance of Nationwide Permits. Enclosed is a fact sheet that fully describes this Nationwide Permit and lists the General Conditions that must be adhered to for this authorization to remain valid.

# This authorization is subject to the following Special Condition(s):

- 1. Prior to the commencement of construction activities provide the construction start date, project manager's or point of contact's name, and the project manager's or point of contact's phone number.
- 2. Due to the proximity of Least Tern and Piping Plover sitings to the south disposal area: If disposal takes place between April 15 and August 15, the river channel, within ¼-mile of the site, shall be surveyed for active nests of the least tern and piping plover. If active nests are observed, the permittee shall contact the Kearney Regulatory Office. Construction shall not proceed until a determination is made that the construction work will not adversely affect the least tern or piping plover.

### This authorization is subject to the following Regional Condition(s):

- 1. All areas disturbed by construction shall be revegetated with appropriate perennial, native grasses and forbs and maintained in this condition. *Phalaris arundinacea* (Reed Canary Grass), *Lythrum salicaria* (Purple Loosestrife), *Bromus inermus* (Smooth Brome), *Phragmites, sp.* (Common Reed, River Reed) and *Tamarix, sp.* (Salt Cedar), are *NOT* appropriate choices of vegetation. The disturbed areas shall be reseeded concurrent with the project or immediately upon completion. Revegetation shall be acceptable when ground cover of desirable species reaches 75%. If this seeding cannot be accomplished by September 15 the year of project completion, then an erosion blanket shall be placed on the disturbed areas. The erosion blanket shall remain in place until ground cover of desirable species reaches 75%. If the seeding can be accomplished by September 15, all seeded areas shall be properly mulched to prevent additional erosion.
- 2. The permittee and/or the permittee's contractor or any of the employees, subcontractors or other persons working in the performance of a contract or contracts to complete the work authorized herein, shall cease work and report the discovery of any previously unknown historic or archeological remains to the Nebraska Regulatory Office. Notification shall be by telephone or FAX within 24 hours of the discovery and in writing within 48 hours. Work shall not resume until the permittee is notified by the Nebraska Regulatory Office.

An approved jurisdictional determination (JD) has been completed for your project. The JD will be made available to you upon request, or it may be viewed at our website at <a href="https://www.nwo.usace.army.mil/html/od-rne/nehome.html">https://www.nwo.usace.army.mil/html/od-rne/nehome.html</a>. The JD will be available on the website within 30 days. If you are not in agreement with the JD, you may request an administrative appeal under U.S. Army Corps of Engineers regulations found at 33 C.F.R. 331. The Request for Appeal must be received within 60 days from the date of this correspondence (by March 9, 2008). If you would like more information on the jurisdictional appeal process, contact this office. It is not necessary to submit a Request for Appeal if you do not object to the JD.

Although an individual Department of the Army permit will not be required for the project, this does not eliminate the requirement that you obtain any other applicable Federal, state, tribal or local permits as required. Please note that deviations from the original plans and specifications of your project could require additional authorization from this office.

You are responsible for all work accomplished in accordance with the terms and conditions of the Nationwide Permit. If a contractor or other authorized representative will be accomplishing the work authorized by the Nationwide Permit in your behalf, it is strongly recommended that they be provided a copy of this letter and the attached conditions so that they are aware of the limitations of the applicable Nationwide Permit. Any activity that fails to comply with all of the terms and conditions of the Nationwide Permit will be considered unauthorized and subject to appropriate enforcement action.

In compliance with General Condition 26, the attached Compliance Certification form must be signed and returned to the address listed upon completion of the authorized work and any required mitigation.

This verification will be valid until January 9, 2010.

Should you at any time become aware that either an endangered and/or threatened species or its critical habitat exists within the project area, you must immediately notify this office.

If you have any questions concerning this determination or jurisdiction, please feel free to contact Mrs. Barb Friskopp at (308) 234-1403 and refer to permit number 2007-3190-KEA.

Sincerely,

ghn L. Moeschen

Nebraska State Program Manager

Enclosure

Copy Furnished:

DEQ (Hickman)

## COMPLIANCE CERTIFICATION KEARNEY REGULATORY OFFICE

Permit Number:

2007-3190-KEA

Name of Permittee:

Loup Power District

Ronald Ziola

Nance County

Date of Issuance: January 9, 2008

Upon completion of the activity authorized by this permit (and any required mitigation), sign this certification and return it to the following address:

> Kearney Regulatory Office 1430 Central Avenue Kearney, Nebraska 68847

Please note that the permitted activity is subject to a compliance inspection by a US Army Corps of Engineers representative. If you fail to comply with permit conditions the permit may be subject to suspension, modification or revocation.

#### CERTIFICATION:

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of said permit, and required mitigation (if any) was completed in accordance with permit conditions.

Signature of Permittee	



# LOUP POWER DISTRICT

GENERAL OFFICE 2404 15th Street P.O. Box 988

Phone: 402/564-3171

Columbus, NE 68602-0988 402/564-0970

February 11, 2008

Dr. Ann Bleed, Director
State of Nebraska, Department of Natural Resources
301 Centennial Mall South, 4<sup>th</sup> Floor
P.O. Box 94676
Lincoln, NE 68509-4676

RE: Loup River Water Activities

Dear Dr. Bleed:

The Loup River Public Power District (District) received your letter of January 17, 2008 and the proposed letter the Department of Natural Resources (DNR) is planning to send out to irrigators regarding the District's Water Diversion Agreements. The District is extremely concerned the DNR is abandoning its obligation to protect the water rights of the District and other water users of the Loup River and the Loup River Basin.

In 1955, the District requested the DNR (at that time it was known as the Department of Water Resources) administer the District's water right in the Loup River Basin. Since that time, the District has relied on the DNR to support the District and provide information to the District regarding the District's water right and subsequent Water Diversion Agreements the District has entered into with upstream irrigators of the Loup River Basin. In the DNR's own biennial reports, the DNR has referred to this administration of the upstream water rights for the District. The District is very concerned the DNR is not planning to continue to provide this support.

In addition, the District's "Water Diversion Agreement" with upstream Loup River Basin irrigators contains a clause that indicates the DNR will provide data to the District regarding number of acre-feet diverted in order to determine payment to be made by the irrigator to the District for interference with the District's water right appropriation. The stated clause in the Water Diversion Agreement states as follows:

"On or before March 1 of each year the Irrigator shall pay the District One Dollar (\$1.00) for each acre foot of water diverted by him during the preceding irrigation season, which interferes with the appropriation of the Loup River Public Power District, the number of acre feet diverted to be determined and reported by the Department of Water Resources." (emphasis added)

The District believes it is the DNR's obligation to continue to administer the District's water right in the Loup River Basin. This includes the determining and reporting to the District the number of acre-feet of water diverted by upstream irrigators in the Loup River Basin.

The District does not have the capability of performing the collection of this data, unlike the DNR, which has been collecting this data and providing it to the District since 1955. To indicate the DNR is going to discontinue the collection of this data at such a late date, which we believe is against state water law, provides the District with limited options available to it.

The District is aware the DNR is administering the Nebraska Game and Parks Commission instream flow on the Lower Platte River (see attachment). By sending these letters to irrigators and other users of water on the Loup River, this indicates the DNR is administering the water rights on the Loup River. What the DNR is asking of the District would be a duplication of effort in the Loup River Basin.

With the indication the DNR is no longer going to administer the water rights of the District in the Loup River Basin, the DNR is trying to strong-arm the District into a position to make a call on the Loup River water. In this way, the DNR can then indicate it had no choice but to declare the Loup River Basin fully appropriated and then blame the District for this action. The District believes the DNR needs to perform their duty to determine full appropriation, rather than to force individual water right users to make calls so the DNR can then declare full appropriation.

The District wants to continue to work with the DNR to protect all water users in the Loup River Basin; however, putting the onus on the District to collect data the DNR is required to collect is inappropriate. We would like to sit down with the DNR to further discuss options available to all parties regarding the water rights in the Loup River Basin. Please contact me at your convenience to discuss this further and to follow up on appropriate action by the DNR.

Sincerely.

Neal D. Suess, P.E.

President/CEO

c (w/attachment):

Governor Dave Heineman
Senator Amie Stuthman
Senator Mike Flood
Senator Chris Langemeier
Senator Annette Dubas
Senator Vickie McDonald
Upper Loup NRD (Anna Baum)
Lower Loup NRD (Butch Koehlmoos)

s:\Dept of NR\bleed-Loup River water activities-Feb08

# NOTICE!

Notice is hereby given to the water users of the Shanle Diversions, and in particular to James Shanle, 6491 3<sup>rd</sup> Avenue, Columbus NE 68601 that said Diversions may not divert water in excess of the amount noted below.

APPROPRIATION NO.	PRIORITY	SOURCE	SECOND-FEET	
A-12646 A-14712	May 30, 1972 February 14, 1977	Loup Power Canal Loup Power Canal	0.57 cfs 1.71 cfs	
•	Total	Open Combined Permits	2.28 cfs (1026 gpm)	

On July 26, 2006, at 2:30 p.m., I measured your two siphons taking water from the Loup Power Canal at 775 gallons per minute (east siphon) and 550 gallons per minute (west siphon). The east siphon is a 10" steel siphon, the west is an 8" siphon with an 8" aluminum suction pipe. The combined total diversion for both the east and west siphons was 1325 gallons per minute

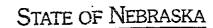
The amount stated above may be diverted at a normal operating rate of 2.94 second-feet or 1325 gallons per minute for not more than 5.4 days per week since your siphons are diverting more than your combined open allotted rate of 1026 gallons per minute. You must cease diverting water from the Loup Power Canal with both siphons on each Tuesday at 12:30 a.m. beginning August 1, 2006, through each Wednesday at 2:30 p.m. for the balance of the 2006 irrigation season or until further notice from this department. You also have the option of operating continuously 24 hours per day, 7 days a week if you operate one siphon at a time. If these times will not work for your setup or if you have an equipment failure, please contact our office for an adjustment in the schedule. Thank you for your cooperation. Have a safe irrigation season.

Water diversion has been restricted for the protection of other legal appropriators. In accordance with the provisions of the imigation laws of the State of Nebraska, the owner or operator of this pump is prohibited from diverting water in excess of the amounts stated above until further notified by an official of the Department of Natural Resources. Any person violating this order shall be subject to the penalty provided in Section 46-254 Reissne Revised Statures of Nebraska, 1943, which read as follows:

"Any person owning or in control of any ditch, reservoir or other device for appropriating or using water who shall willfully open or close, change or interfere with any headgate or controlling gate, or by any method or means take any water from any natural stream, reservoir or other source, through any ditch or canal to any land or lands, or allow the same to be done; or use or allow to be used any water upon any land or lands, or for any other purpose whatsoever, without authority from the Department of Natural Resources, or who shall store water in or release water from a reservoir other than in compliance with orders of the Director of Natural Resources or his representative, shall be guilty of a Class II misdemeanor. Each day that the water is allowed to run without authority from the department shall constitute a separate offense."

a separate offense."

A STATE OF THE PROPERTY OF THE STATE OF THE PROPERTY OF





Dave Heineman Gavernor

DEPARTMENT OF NATURAL RESOURCES Roger K. Patterson Director

IN REPLY REFER TO:

James G & Carrie L Shanle 6491 3rd Avenue Columbus NE 68601

# REGULATING NOTICE

Notice is hereby given to the water users of the water right listed below that you may not divert water in excess of the amount noted below:

Gallons **Cubic Feet** Source of Water Priority Water Per Second Per Minute Right Date 255 0.57 05/30/1972 Loup River A-12646

However, State law does provide that an operator can divert more than the rate of flow above if you are prorated on a weekly or daily basis. For example, an operator can divert double the rate of flow above if one operates only 3.5 days in a week. Also an operator can add up rates of flow of several water rights if it is the same project.

Water diversion has been restricted for the protection of other legal appropriators. In accordance with the provisions of the intigation laws of the State of Nebraska, the owner or operator of this pump is prohibited from diverting water in excess of the amounts stated above until further notified by an official of the Department of Natural Resources. Any person violating this order shall be subject to the penalty provided in Section 46-254, Re-issue Revised Statutes of Nebraska, 1943, which reads as follows:

"Any person owning or in control of any dilch, reservoir or other device for appropriating or using water who shall willfully open or close, change or interiers with any head gate or controlling gate, or by any method or means take any water from any hadral stream, reservoir or other source, through any dilch or canel on any land or lands, or allow the same to be done, or use or allow to be used any water upon any land or lands, or for any other purpose whatsoever, without authority from the Department of Natural Resources, or who shall store water in or release water from a reservoir other than in compliance with orders of the Director of Natural Resources or his representative, shall be guilty of a Cless II misdemeanor. Each day that the water is allowed to no without authority from the Department shall constitute a senarcic offences." constitute a separate offence.

Effective Date: May 17, 2006

Effective Hour. Noon

issued By: Bill Birkel

Title: Field Office Supervisor

Phone: (402) 370-3377

Cell Phone:

Date: May 17, 2006



Dave Heineman

DEPARTMENT OF NATURAL RESOURCES Roger K. Patterson

IN REPLY REFER TO-

Francis J Shanle **RR 1 BOX 207** Columbus NE 68601

# REGULATING NOTICE

Notice is hereby given to the water users of the water right listed below that you may not divert water in excess of the amount noted below:

Water Right

Priority Date

Source of Water

**Cubic Feet** 

Gallons Per Second Per Minute

A-14712

02/14/1977

Loup River

1.71

767

However, State law does provide that an operator can divert more than the rate of flow above if you are prorated on a weekly or daily basis. For example, an operator can divert double the rate of flow above if one operates only 3.5 days in a week. Also an operator can add up rates of flow of several water rights if it is the same project.

Water diversion has been restricted for the protection of other legal appropriators. In accordance with the provisions of the irrigation laws of the State of Nebraska, the owner or operator of this pump is prohibited from diverting water in excess of the amounts stated above until further notified by an official of the Department of Natural Resources. Any person violating this order shall be subject to the penalty provided in Section 46-254, Re-issue Revised Statutes of Nebraska, 1943, which reads as follows:

"Any person owning or in control of any direct, reservoir or other device for appropriating or using water who shall willfully open or close, change or interfere with any head gate of controlling gate, or by any method or means take any water from any restural stream, reservoir or other source, through any direct or canal on any land or lands, or allow to be same to be done, or use or allow to be used any water upon any land or lands, or for any other purpose whatsoever, without authority from the Department of Natural Resources, or who shall store water in or release water from a reservoir other than in compliance with orders of the Director of Natural Resources or his representative, shall be guilty of a Class II misdemeanor, Each day that the water is allowed to run without authority from the Department shall constitute a separate offence."

Effective Date: May 17, 2006

Issued By: Bill Birkel

Effective Hour: Noon

Title: Field Office Supervisor

Phone: (402) 370-3377

Cell Phone:

Date: May 17, 2006

601 E. Benjamin Ave. Suite 101 • P.O. Box 1451 • Norfolk, Nebraska 68701-1451 • Phone (402) 370-3377 • Teiefax (402) 371-0653 An Equal Opportunity/Affirmative Action Employer

Division No. 2-A

RENEWAL WATER POWER LEASE UNDER APPLICATION 2573

STATE OF NEBRASKA )

DEPARTMENT OF WATER RESOURCES )

This instrument was filed for record at 8:00 o'clock A.M. on the 28th day of February, 1980, and duly recorded in Book 1 of the Record of Water Power Lease Appropriations.

John W. Neuberger
Director sjm

LEASE TO BE EXECUTED BY APPLICANT FOR RENEWAL OF WATER POWER LEASE AS PROVIDED IN SECTION 46-236, REVISED STATUTES SUPPLEMENT, 1972

### APPLICATION 2573

Whereas the Loup River Public Power District of Columbus, Nebraska, in accordance with the provisions of Section 46-236, Revised Statutes Supplement, 1972, has applied to the Department of Water Resources of the State of Nebraska for the renewal of lease from March 13, 1980, to March 13, 2030, for the water appropriated under Application 2573 from the Loup River at Columbus, Nebraska. The amount of the appropriation under Application 2573 is not to exceed 18 feet additional head, developing 7,159 additional horsepower. Now this agreement in consideration of granting the renewal of said lease witnesseth:

- 1. Said Loup River Public Power District, its heirs, executors, administrators, successors or assigns hereby agrees to pay to the Treasurer of the State of Nebraska at Lincoln, Nebraska, on or before the first day of January each year this lease is in force the sum of \$1,073.85, the same being the statutory annual payment of \$15.00 for each one hundred horsepower for all water so appropriated; and the date of expiration of this lease is March 13, 2030.
- 2. Failure to make this payment in the prescribed time and manner will occasion a forfeiture of the appropriation under Application 2573.
- 3. Upon the expiration or cancellation of this lease the Department of Water Resources shall cause all buildings, machinery, and improvements placed and remaining upon the said project by the Loup River Public Power District or its successors for the utilization and development of water power to be appraised as of the date of expiration or cancellation of said lease.
- 4. Should the water power covered by this appropriation be subsequently leased to any other person than the applicant, upon the cancellation or expiration of said lease,

the value of said improvements as finally determined by appraisement or upon appeal therefrom shall be included in the initial payment made by the subsequent lessee and paid over to the said Loup River Public Power District or its successors.

LOUP RIVER PUBLIC POWER DISTRICT

BY May E. Kiberz

ATTEST:	
STATE OF NEBRASKA COUNTY OF Platte	) SS
On this 7 day of Ma	known to be the identical person who signed the foregoing
lease as General Manager	of the Loup River Public Power District, and acknow-
VERNON G. BECKMANN GENERAL MOTARY State of Nebraska My Commission Expires July 7, 1980	Notary Public
STATE OF NEBRASKA  DEPARTMENT OF WATER RESOURCES	) SS

This is to certify that I have examined the above and foregoing lease entered into between the Department of Water Resources of the State of Nebraska and the Loup River Public Power District of Columbus, Nebraska, and said lease filed under Application 2573 is hereby approved.

IN WITNESS WHEREOF I have hereunto set my hand and have caused to be affixed the seal of the Department of Water Resources this 18th day of March, 1980.

DEPARTMENT OF WATER RESOURCES

Director

- 23 -

(5) ii) 2b Sheet 4

Division No. 2-A

RENEWAL WATER POWER LEASE UNDER APPLICATION 2287

STATE OF NEBRASKA )
DEPARTMENT OF WATER RESOURCES )

This instrument was filed for record at 8:00 o'clock A.M. on the 28th day of February, 1980, and duly recorded in Book 1 of the Record of Water Power Lease Appropriations.

John W. Neuberger
Director sjm

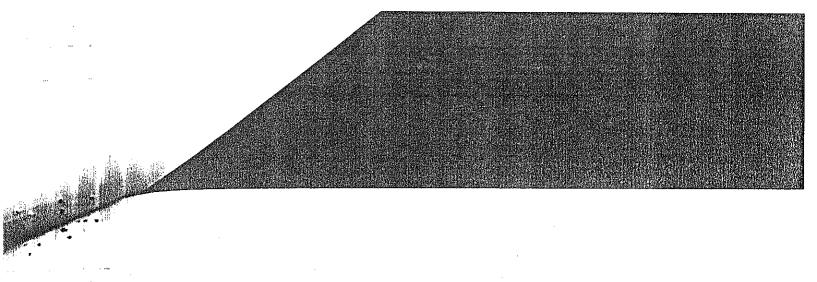
NN 00:

LEASE TO BE EXECUTED BY APPLICANT FOR RENEWAL OF WATER POWER LEASE AS PROVIDED IN SECTION 46-236, REVISED STATUTES SUPPLEMENT, 1972

### APPLICATION 2287

Whereas the Loup River Public Power District of Columbus, Nebraska, in accordance with the provisions of Section 46-236, Revised Statutes Supplement, 1972, has applied to the Department of Water Resources of the State of Nebraska for the renewal of lease from March 13, 1980, to March 13, 2030, for the water appropriated under Application 2287 from the Loup River at Columbus, Nebraska. The amount of the appropriation under Application 2287 is not to exceed 3,500 cubic feet per second, developing 50,113 horse-power. Now this agreement in consideration of granting the renewal of said lease witnesseth:

- 1. Said Loup River Public Power District, its heirs, executors, administrators, successors or assigns hereby agrees to pay to the Treasurer of the State of Nebraska at Lincoln, Nebraska, on or before the first day of January each year this lease is in force the sum of \$7,516.95, the same being the statutory annual payment of \$15.00 for each one hundred horsepower for all water so appropriated; and the date of expiration of this lease is March 13, 2030.
- 2. Failure to make this payment in the prescribed time and manner will occasion a forfeiture of the appropriation under Application 2287.
- 3. Upon the expiration or cancellation of this lease the Department of Water Resources shall cause all buildings, machinery, and improvements placed and remaining upon the said project by the Loup River Public Power District or its successors for the utilization and development of water power to be appraised as of the date of expiration or cancellation of said lease.
- 4. Should the water power covered by this appropriation be subsequently leased to any other person than the applicant, upon the cancellation or expiration of said lease,



the value of said improvements as finally determined by appraisement or upon appeal therefrom shall be included in the initial payment made by the subsequent lessee and paid over to the said Loup River Public Power District or its successors.

LOUP RIVER PUBLIC POWER DISTRICT

		denotal imiager		
ATTEST:				
STATE OF NEBRASKA COUNTY OF Platte	} ss			
On this7_ day of	March		y appeared before me	
Max E. Kiburz	$_{ extstyle L}$ known to be th	ne identical person	who signed the foreg	oing
lease as General Manager	of the Low	p River Public Powe	r District, and ackn	ow-
VERNON G. BECKMANN. GENERAL MOTAR: State of Nebroskia My Commission (1) 1. July 7, 15.	oluntary act ar	Merusa y Be	ekusan Public	
STATE OF NEBRASKA DEPARTMENT OF WATER RESOURCES	) } SS			
	,			

This is to certify that I have examined the above and foregoing lease entered into between the Department of Water Resources of the State of Nebraska and the Loup River Public Power District of Columbus, Nebraska, and said lease filed under Application 2287 is hereby approved.

IN WITNESS WHEREOF I have hereunto set my hand and have caused to be affixed the seal of the Department of Water Resources this 18th day of March, 1980. 

DEPARTMENT OF WATER RESOURCES

Director

(5) ii) 2b Sheet 2

April, 22, 2008

<NAME> <TITLE> <AGENCY NAME> <ADDRESS> <CITY>, <STATE> <ZIP>

Loup Power District Hydro-Electric Relicensing

Dear <NAME>,

Loup Power District (District) intends to file a Notice of Intent in October 2008 to begin the relicense process for our hydroelectric facilities located near Columbus, Nebraska. The Federal Energy Regulatory Commission (FERC) has an extensive relicensing process that will begin thereafter. The District has contracted with HDR Engineering to assist with the relicensing process.

Your attendance is requested at an Agency Orientation meeting where the District will share an overview of our hydro-electric operation, explain the relicensing process, discuss on-going agency involvement opportunities, and project schedule.

What: Agency Orientation Meeting

When: Wednesday, May 7<sup>th:</sup> 10:00 a.m. – 3:00 p.m. Lunch will be provided Where: Wunderlichs, 304 E. Highway 30, Columbus, Nebraska, 68601

**RSVP:** Emily Buss, HDR, 763-278-5904

It is very important for resource agencies to stay involved throughout the relicensing process as it is an intensive process with a demanding schedule that is set by federal regulation. The District will keep you informed of future meetings and input opportunities that may take place regarding the project.

To assist your preparation for this meeting I have enclosed the following items: a Layout Map showing the project area, a white paper on Relicensing the Loup River Hydroelectric Project, and a list of invitees for the meeting. If you require further information please call me directly.

We look forward to working with you throughout the relicensing process.

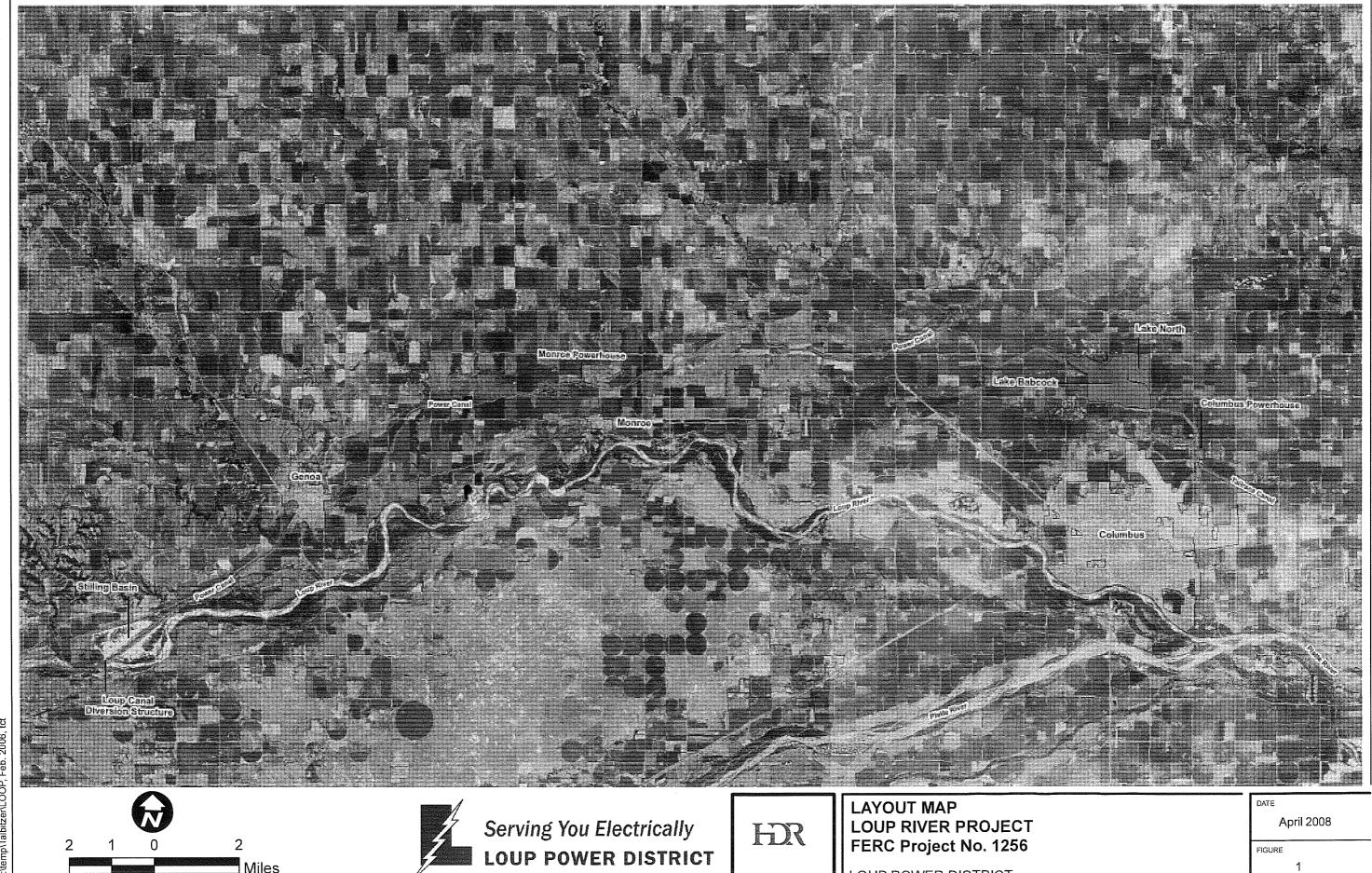
Sincerely,

Neal D. Suess, PE President/CEO

Enclosures: Layout Map

White paper on Relicensing the Loup River Hydroelectric Project

Meeting Invitee List



LOUP POWER DISTRICT

FIGURE

Miles

## White Paper Relicensing the Loup River Hydroelectric Project

#### INTRODUCTION

The Loup River Hydroelectric Project is located on the Loup River in Nance and Platte Counties, Nebraska. It is a public power development owned and operated by the Loup River Public Power District of Columbus, Nebraska. The project is licensed by the Federal Energy Regulatory Commission (FERC) under authority granted by the Federal Power Act. The project was last relicensed in 1984 for a 30-year term. Because of the complexity and length of time involved in applying for a new FERC operating license, Loup River Public Power District initiated planning, coordination and information gathering efforts in early 2006 to facilitate the relicensing process.

#### PROJECT HISTORY AND DESCRIPTION

In 1933 the State of Nebraska approved the formation of the Loup River Public Power District (District) and granted it the right to appropriate Loup River water (water right of 3,500 cubic feet per second) for power generation purposes. The original 50-year federal license for the Loup River Project (FERC Project No. 1256) was granted on April 17, 1934. Project construction began in late 1934 and was completed in the spring of 1937.

The Loup River Project utilizes long gently sloping canal segments and two powerhouses to capture the energy potential of water moving from a higher to a lower elevation. Principal constructed features consist of a diversion weir and gated intake structure located on the Loup River between the towns of Fullerton and Genoa; a linear settling basin; a power canal to the Monroe Powerhouse a 3 unit, 8.25 megavolt amp (MVA) total facility; Monroe Powerhouse; a power canal to the regulating reservoirs – Lake Babcock and Lake North; a forebay canal to the Columbus Powerhouse a 3 unit, 48 MVA total facility; and a tailrace canal that discharges to the Platte River just downstream of Columbus. The attached figure shows the location of these features on an aerial photo base. The only significant modification since project completion was construction of Lake North in 1963 to expand Lake Babcock, the original regulating reservoir. A major re-build of turbine-generating equipment in both project powerhouses was completed in 2007. Over the years the District has added numerous enhancements for environmental protection, safety, and public recreation associated with the project.

#### PROJECT OPERATION

The project functions by diverting water from the Loup River through adjustable gates into the two mile-long settling basin. Much of the heavier sediment material settles out in the basin; sediment is pumped from the basin to adjacent disposal areas at various intervals throughout the year. Clarified water exits the basin at a concrete weir, enters the upper power canal, and flows approximately 11 miles to the Monroe Powerhouse. Power is generated as water flows through three identical turbine-generator units under a normal head of 32 feet and discharges to the lower power canal. This 12 mile canal segment leads to a concrete weir structure which overflows into Lake Babcock and Lake North. The District holds a water right of 3,500 cfs, which is also the maximum hydraulic capacity of the power canals. However, the average canal flow is considerably less. In addition to supporting power generation, the project canal delivers water to several dozen small irrigation interests along the route. Water accumulates in the 1100-acre regulating reservoirs and is then available on demand at the Columbus Powerhouse via a 2 mile forebay canal which has a maximum flow capacity of 5,000 cfs. The forebay canal terminates at

April 08

a concrete intake structure where water enters three steel penstocks leading to three turbine-generators. Each penstock is 20 feet in diameter and 320 feet in length. Normal operating head at the Columbus Powerhouse is 112 feet. Discharge from the powerhouse enters a 5 mile tailrace canal which empties into the Platte River a short distance downstream from the confluence of the Loup River.

The project does not include any transmission lines. All electric power generated by the project is purchased at the source by the Nebraska Public Power District (NPPD). This purchased power is one component of the overall generation portfolio from which NPPD services its retail and wholesale electric customers. Generation at the 48 MVA Columbus Powerhouse is managed to respond to electrical demand in the NPPD system — while taking into account the amount of diverted flow entering the power canal and the available water storage in the reservoirs. Water flow from the reservoirs into Columbus Powerhouse is actively regulated throughout the day by adjusting the turbine wicket gates. This hydro-cycling arrangement allows the District to provide a specified level of power production — within minutes after it is requested by NPPD.

The Loup River Hydroelectric Project was conceived, licensed and specifically designed for a variable output or hydro-cycling mode of operation; the District is seeking to relicense the project according to existing operations.

#### FERC RELICENSING PROCESS

Relicensing a hydroelectric power project is a highly structured process that involves the license applicant, FERC, numerous regulatory agencies, stakeholders, tribal interests, special interest groups and the public. Relicensing is also a lengthy process. Depending on the issues involved, it is not uncommon for an applicant to spend 7 to 9 years obtaining a new operating license. The current Loup River Project license will not expire until April 2014. However, FERC regulations require a licensee to formally initiate the relicense process by filing a comprehensive preapplication document (PAD) 66 to 60 months before its current license expires. The District has retained HDR Engineering as relicensing consultant. Together they have initiated planning, outreach and data gathering activities and intend to prepare a PAD for submittal in late-October 2008, the earliest date that the relicense process can officially begin. The District will be the first Nebraska licensee to employ the new Integrated Licensing Process (ILP) which became FERC's default (preferred) process in 2005. As its name implies, the ILP procedure involves earlier and more collaborative participation among all interested parties throughout the relicensing process.

#### IDENTIFICATION AND RESOLUTION OF ISSUES

All water resource and energy developments involve some degree of economic, cultural and environmental impacts. Different parties may view these impacts as desirable, undesirable, or both. A new project license must comply with many regulations - including the Federal Power Act (FPA), the National Environmental Policy Act (NEPA), the Clean Water Act (CWA), the Endangered Species Act (ESA), and the National Historic Preservation Act (NHPA). Therefore an environmental assessment (EA) or, if appropriate, an environmental impact statement (EIS) will be prepared. The FERC is charged with evaluating input from all sources and seeking a balance between the power and non-power aspects of each licensed project. Concerns and potential impacts raised related to continued project operation will be investigated during the relicensing process. The Loup River Public Power District is committed to working responsibly with all concerned parties to properly investigate and seek appropriate resolution of all legitimate issues raised during relicensing.

April 08 2

# MEETING INVITEE LIST

Barb Friskopp	Army of Corps of Engineers
Ron Bishop, General Manager	Central Platte Natrual Resource District
Mike Moser, Mayor	City of Columbus
Joseph Mangiamelli, Administrator	City of Columbus
James Kramer, City Administrator	City of Fullerton
Gretchen Treadway, Mayor	City of Fullerton
Lacie Andreasen, City Administrator	City of Genoa
Gary Juracek, Mayor	City of Genoa
Steve Kirby, Board Chairperson	City of Monroe
Connie Kramer, City Clerk	City of Monroe
Director	Conservation & Survey Div. Geological Survey, UNO
Robert Johnson, Commissioner	Department of Interior, Bureau of Reclamation
John Askew, Regional Administrator	Environmental Protection Agency Regional Office
Joe Wegner	Fullerton Area Economic Development
l so wegate	Committee/Chamber of Commerce
Leon Koehlmoos, Manager	Lower Loup Natrual Resource District
John Miyoshi, Manager	Lower Platte North Natural Resource District
Glenn Johnson, General Manager	Lower Platte South Natrual Resource District
Janet Lawson, Planning and Zoning	Nance County
Henry Santin Jr., Board of Supervisors	Nance County
Ernie Quintana, Director	National Park Service Midwest Regional Office
Steve Chick, State Conservationist	Natural Resources Conservation Service
Jay Ringenberg, Deputy Director	NE Department of Environmental Quality
Mike Linder, Director	NE Department of Environmental Quality
Chris Peterson, CEO	NE Department of Health and Human Services
Brian Dunnigan, Acting Director	NE Department of Natural Resources
Timothy Kadavy, Director	NE Federal Emergency Management Agency
Rex Amack, Director	NE Game and Parks Commission
Richard Hadenfeldt, Loup River Basin & Vice	NE Natural Resources Commission
Chairperson	
Jon Bruning, Attorney General	NE Office of the Attorney General
Ron Asche, President	NE Public Power District
Brian Barels, Water Resources Manager	NE Public Power District
Robert Puschendorf, Deputy State Historical	NE State Historical Preservation Office
Preservation Officer	
Director	NE Water Science Center-US Geologic Survey
John Winkler, General Manager	Papio-Missouri Natural Resource District
Bob Boyd, County Superintendent	Platte County
Board of Supervisors	Platte County
Director	Regional Hydropower US Depart of Agriculture
	US Forest Service
Greg Ibach, Director	State of NE Department of Agriculture
Director	US Fish & Wildlife Service Regional Office
Phil Soenksen, NE Water Science Center	US Geologic Survey
Kevin Hood, District Conservationist	Upper Loup Natural Resource District
Director	US Bureau of Land Management
Regional Director	US Forest Service
Angie Tornes	US National Park Service Rivers & Trails Midwest Region
Rick Cables	USDA Forest Service
David Ozman, Regional Contact	USGS Water Resources

		·								·		T	1	
Salutation	First Name	Last Name	Title	Organization	Project Area of Responsibility	Address1	Address2	City	State	Zip Code	Phone	Phone 2	Fax	E-Mail
Ms	Barb	Friskopp	· · · · ·	Army of Corps of Engineers	, caponisionly	1430 Central Avenue		Kearney	NE	68847	1			
MP.	Daib	Пакорр		Army of ourps of Engineers		1-100 Octions Westing					<b> </b>			
Mr.	Ron	Bishop	General Manager	Central Platte Natrual Resource District		215 N Kaufman Avenue		Grand Island	NE	68803	308-385-6282			
Mr.	Mike	Moser	Мауог	City of Columbus		2424 14 Street City Hall - First Floor 2424	P.O. Box 1677	Columbus	NE	68602-1677	-			<u></u>
Mr.	Joseph	Mangiamelli	Administrator	City of Columbus		14th Street	P.O. Box 1677	Columbus	NE	68602-1677	1-402-562-42330		1-402-563-1380	jmangi@columbusne.us
Mr.	James	Kramer	City Administrator	City of Fullerton		903 Broadway Street	PO Box 670	Fullerton	NE	68638	1-308-536-2428		1-308-536-2893	cityadmin@cablene.com
Ms.	Gretchen	Treadway	Mayor	City of Fullerton		903 Broadway Street	PO Box 670	Fullerton	NE	68638	1-308-536-2428	ļ	1-308-536-2893	cityadmin@cablene.com
			Fullerton Area Economic											
			Development Committee/Chamber										1	
Mr.	Joe	Wegner	of Commerce	City of Fullerton		903 Broadway Street		Fullerton	NE	68638	1-308-536-2482	ļ	1-308-536-2484	jwegner@hamilton.net
Ms.	Lacie	Andreasen	City Administrator	City of Genoa			P.O. Box 279 P.O. Box 279	Genoa Genoa	NE NE	68640-0279 68640-0279	1-402-993-2330		1-402-993-6586	cgenoa@cablene.com
Mr.	Gary	Juracek	Mayor	City of Genoa			P.O. H0X 2/9	Genoa	INE	00040-0275	1-402-353-2330		1-402-553-0300	cgerroa(a) cablerie.com
Mr.	Steve	Kirby	Board Chairperson	City of Monroe		122 Gerrard Avenue	P.O. Box 103	Monroe	NE	68647-0103	1-402-495-2462		1-402-495-3202	monroe@megavision.com
	•	,,	City Clerk	City of Monroe		122 Gerrard Avenue	P.O. Box 103	Monroe	NE	68647-0103	1-402-495-2462		1-402-495-3202	monroe@megavision.com
Ms.	Connie	Kramer	City Clerk	Department of Interior, Bureau of	<del>-</del>	122 Gerraid Avenue	P.O. BOX 103	Widthde	1142	00047-0105	1-402-430-2402		1 402 405 0202	mora oce mogavision.com
Mr.	Robert	Johnson	Commissioner	Reclamation Regional Office		1849 C Street NW		Washington	DC	20240-0001	1-202-208-4157		1-202-208-3484	
14-	John	Askew	Regional Administrator	Environmental Protection Agency Regional Office		901 North 5th Street		Kansas City	ks	66101	1-913-551-7003		913-551-7003	
Mr.	John	Askew	Regional Administrator	Nebraska Federal Emergency		SOT NOTE I SUI SUEEL		Italiaa oity	1	100.0.	1.0.0 00.1100			timothy.kadavy@us.army.
Brigadier General	Timothy	Kadavy	Director	Management Agency		1300 Military Road		Lincoln	NE	68508-1090	1-402-309-7100			mil
Me	Leon	Koehlmoos	Manager	Lower Loup Natrual Resource District		2620 Airport Dr	P.O. Box 210	Ord	NE	68862-0210	(308) 728-3221			
wie.			<u> </u>	Lower Platte North Natural Resource					T	İ			1	
Mr.	John	Miyoshi	Manager	District		511 Commercial Park	P.O. Box 126	Wahoo	NE	68066	(402) 443-4675		ļ	ļ
Me	Glenn	Johnson	General Manager	Lower Platte South Natrual Resource District		3125 Portia Street	PO Box 83581	Lincoln	NE	68501-3581	402-476-2729			
IVIT.	GIEIM	outhann	Ocheral Managel			C.20   Olda Odect			<b> </b>					
Ms.	Janet	Lawson	Planning and Zoning	Nance County			PO Box 821	Fullerton	NE	68638	1-3083-536-2902		ļ	bczoning@frontiernet.net
Mr.	Henry	Santin Jr	Board of Supervisors	Nance County		209 Esther St		Fullerton	NE	68638	1-308-536-2331		ļ	
Mr.	Emie	Quintana	Director	National Park Service Midwest Regional Office		601 Riverfront Drive		Omaha	NE	68102-4226	(402) 661-1524			
				Nebraska Department of Environmental		1200 'N' Street, Suite 400,			I		l			jay.ringenberg@ndeq.state.
Mr.	Jay	Ringenberg	Deputy Director	Quality		The Atrium		Lincoln	NE	68509-8922	(402) 471-2186	<u> </u>		ne.us
Mr.	Mike	Linder	Director	Nebraska Department of Environmental Quality			PO Box 98922	Lincoln	NE	68509-98922	<u> </u>			
				Nebraska Department of Health and					NE	C0E00 5000	402 474 2424			
Mr.	Chris	Peterson	CEO	Human Services		301 Centennial Mall South	P.O. Box 95026	Lincoln	NE	68509-5026	402-471-3121	-	<del> </del>	
Mr.	Brian	Dunnigan	Acting Director	Nebraska Department of Natural Resources		301 Centennial Mall South		Lincoln	NE	68509-4676	1-402-471-2366		402-471-2900	bdunnigan@dnr.ne.gov
									NE.	60503 6070	(400) 474 2070		(400) 471 3400	Bau Amark@
Mr.	Rex	Amack	Director Loup River Basin & Vice	Nebraska Game and Parks Commission Nebraska Natural Resources		2200 North 33rd Street	P.O. Box 30370	Lincoln	NE	68503-0370	(402) 471-3270		(402) 471-3100	Rex.Amack@ngpc.ne.gov
Mr.	Richard	Hadenfeldt	Chairperson	Nebraska Natural Resources Commission		301 Centennial Mall South		Lincoln	NE	68509	1-402-471-2081		1-402-471-3132	
									NE	68509				
Mr.	Jon	Bruning Asche	Attorney General President	Nebraska Office of the Attorney General Nebraska Public Power District		State Capitol		Lìncoin	INE	00009				
Mr.	Ron Brian	Barels	Water Resources Manager	Nebraska Public Power District				1		1		1		
			Deputy State Historical Preservation	Nebraska State Historical Preservation			İ		1					·
Mr.	Robert	Puschendorf	Officer	Office		1500 R Street	P.O. Box 82554	Lincoln	NE	68501-2554	1-402-471-4745		(402) 471-3100	
			Director	Nebraska Water Science Center U.S. Geologic Survey		5231 S 19th St.		Lincoln	NE	68512-1271	(402) 328-4100			
Mr.	John	Winkler	General Manager	Papio-Missouri Natural Resource Distric		8901 S. 154th St.		Omaha	NE	68138-3621	402-444-6222		402-895-6543	
Mr.	Bob	Boyd	County Superintendent	Platte County					-	<del> </del>			<del> </del>	
			Board of Supervisors	Platte County		2610 14th Street		Columbus	NE	68601	(402)563-4904		(402)564-4164	pcclerk@megavision.com
				B 1 - 111-1 122		and Falant P. 3 K. (CC.)					1			
1			Director	Regional Hydropower US Department of Agriculture, US Forest Service		8236 Federal Building, 125 S State St	1	Salt Lake City	UT	84138-1102		1		
				Natural Resources Conservation							1			
Mr.	Steve	Chick	State Conservationist	Service		Federal Building, Room 152	100 Centennial Mall North	Lincoln	NE	68508	437-5300		<b> </b>	
Mr.	Greg	lbach	Director	State of Nebraska Department of Agriculture		301 Centennial Mail South	PO Box 94947	Lincoln	NE	68509-4947	1	1		
				U.S. Fish and Wildlife Service Regional							l			
			Director	Office		Federal Building	203 WEST SECOND STREET	Grand Island	NE	68801-5907	1-308 382-6468	-	1-303-236-8295	
Mr.	Phil	Soenksen	Nebraska Water Science Center	U.S. Geologic Survey			1	Lincoln	NE	68512-1271	(402) 328-4150			pjsoenks@usgs.gov
						1			i :				10001 045	
Mr.	Kevin	Hood	District Conservationist	Upper Loup Natural Resource District		Jct Hwy 2 & Hwy 83 S.	P.O. Box 146	Thedford	NE WY	69166-0146 82003-1828	(308) 645-2621		(308) 645-2650	ulnrd@upperloupnrd.org
			Director Regional Director	US Bureau of Land Management US Forest Service		<u> </u>	PO Box 1828 125 North Main Street	Cheyenne Chadron	NE	69337	308-432-0300		-	
			Negional Director	US National Park Service Rivers and		626 E. Wisconsin Ave, Suite	120 GOIST MIGHT OUTCO	- Mulvii			1			
Ms.	Angie	Tomes		Trails Midwest Region		100		Milwaukee	WI	53203-2213				
Mr.	Rick	Cables		USDA Forest Service		Rocky Mountain Region	740 Simms Street	Golden	co	80401-4720	1-303-275-5350			
						Box 25046 Denver Federal								
Mr.	David	Ozman	Regional Contact	USGS Water Resources	Central Region	Center Mail Stop 150		Denver	со	80225-0046	303-202-4744			dozman@usgs.gov
Mr.	James	Kramer	Administrator	City of Fullerton		903 Broadway Street	PO Box 670	Fullerton	NE	68638	1-308-536-2428	<u> </u>	1-308-536-2893	cityadmin@cablene.com
				Conservation and Survey Division Geological Survey, University of		Hardin Hall, 3310 Holdrege								
			Director	Nebraska		Street	University of Nebraska-Lincoln	Lincoln	NE	68583-0961	1-402-472-3471		1-402-472-4608	
-		<del></del>												

125 North Main Street Chadron NE 69337-2118 308-432-0300 308-432-0304 TDD

File Code: 7610/2500

Date: April 25, 2008

Neal D. Suess President/CEO Loup Power District 2404 15th Street P.O. Box 988 Columbus, NE 69602-0988

Dear Mr. Suess:

This letter is in response to your request of our attendance at the Agency Orientation meeting on Wednesday May 7, 2008 regarding the re-license process for the hydroelectric facilities located near Columbus, Nebraska.

There is no National Forest System land administered by the Nebraska National Forest located in Platte County, Nebraska. Therefore, no Forest Service representatives will be attending this meeting.

The Nebraska National Forest does administer National Forest System lands including National Grassland in Blaine, Cherry, Dawes, Sioux, & Thomas Counties. Our office would appreciate information and opportunity to respond on future projects proposed within or adjacent to these counties.

Thank you for providing this information and on the proposed project.

Sincerely,

Forest Supervisor

cc: Randy Karstaedt





## Nebraska Game and Parks Commission

2200 N. 33rd St. / P.O. Box 30370 / Lincoln, NE 68503-0370 Phone: 402-471-0641 / Fax: 402-471-5528 / www.OutdoorNebraska.org

November 30, 2007

Barb Friskopp U.S. Army Corps of Engineers Nebraska Regulatory Branch 1430 Central Avenue Kearney, NE 68847-6856

RE: 2007-3190-KEA, Amendment 3, Proposal to continue maintenance dredging in the Loup power canal for another ten years, Nance County, Loup Public Power District (LPPD); applicant

Dear Ms. Friskopp:

Nebraska Game and Parks Commission (NGPC) staff members have reviewed the information for the proposal identified above. The maintenance dredging in the LPPD canal has been an on-going activity since 1937. After water is diverted from the Loup River, river sediments build up in the settling basin, which reduces the capacity of the hydropower canal. Sediments are hydraulically dredged from the settling basin and conveyed via pipeline to previously established disposal areas along both sides of the canal on property owned by the applicant. These disposal areas serve as detention areas, as sediment settles out before the water is returned to the Loup River downstream of the diversion structure. The purpose of the project is to remove accumulated sediment from the settling basin to allow for continued operation of the hydropower canal system. This permit amendment would allow for the continuation of dredging operations for ten years.

Based on a review of the Nebraska Natural Heritage database, we have records of the state-listed endangered least tern (*Sterna antillarum athalassos*) and state-listed threatened piping plover (*Charadrius melodus*) nesting on the sand disposal sites adjacent to the settling basin. The continued disposal of the dredged material from the settling basin onto the disposal piles has the potential to directly impact these bird species. However, we believe our concerns for impacts to least terns and piping plovers are being addressed in a Memorandum of Understanding (MOU) that is being developed between NGPC, the U.S. Fish and Wildlife Service, and Legacy Resources LLC, which is the company that is extracting sand from the disposal sites.

Because the stated purpose of this project is to remove accumulated sediment from the settling basin to allow for the continued operation of the hydropower canal system, we have also identified concerns for several indirect impacts that may occur as a result of this action. The 1 to 1.5 million cubic yards of sediment per year that is dredged from the settling basin and piled at this location, if in a natural, unaltered system, would normally move downstream in the Loup River and eventually enter the Platte River. However, because of the water diversion into the Loup canal system at the Genoa Headworks, this sediment does not make it down to the Platte River. This sediment loss indirectly impacts the Loup River below the diversion and the Platte River by reducing the available sediment supply for riverine sandbar habitat creation and maintenance in downstream reaches of both rivers. Habitat loss in the Platte River may impact not only state-listed threatened and endangered species, but also many non-listed aquatic species.

The Loup Power Canal water diversion also results in reduced flows in the Loup River downstream of the diversion. We understand that LPPD is appropriated 3,500 cubic feet per second (cfs) of water from the Loup River for power generation purposes, but this results in reduced flows below the diversion near Genoa. These reduced flows have less capacity to move the remaining sediment downstream and may also result in increased water temperatures in the lower reaches of the Loup River, especially during the summer, which may negatively impact aquatic species. We also recognize that there is an agreement by LPPD to allow between 50 and 75 cfs to pass the diversion and remain in the river to help ameliorate summer water temperature stresses for aquatic resources.

Furthermore, the operation of the canal system itself may also result in the indirect loss of aquatic species that inhabit the Loup River. Fish, or other aquatic species, that are drawn into the canal may be lost to dredging operations in the settling basin, or to turbine operations at either of the power plants, Monroe or Columbus, located along the canal.

The Loup Power Canal was designed for hydroelectric power generation, which is achieved at the abovementioned power plants by regulation, or hydro-cycling, of the water in the canal system on a daily basis. Hydro-cycling and the resultant fluctuations in outflow of the canal directly influences the dynamics of the Platte River downstream of the canal return, and may have negative biological and ecological impacts on the river.

Lastly, the Loup River Hydroelectric Project will be up for re-licensing by the Federal Energy Regulatory Commission (FERC) in 2014. Because of the complexity and time involved in re-licensing, LPPD has already initiated planning, coordination, and information gathering as part of the process which will continue up until 2014. Due to the concurrent re-licensing process, rather than this amendment authorizing dredging for another ten-year period, we would ask the Corps to consider limiting the lifespan of this amendment to five years. This shorter permit period would allow for the reevaluation of the 404 permit closer to the time of re-licensing, and would allow for the utilization of new information obtained during the planning phase of the re-licensing. We would further recommend continuation of efforts to protect least terns and piping plovers at existing LPPD dredge spoil sites, and that the summer diversion bypass of 50 to 75 cfs be continued for water quality purposes.

Thank you for the opportunity to review this proposal. If you have any questions, please contact me at (402) 471-5423 or carey.grell@ngpc.ne.gov.

Sincerely,

Carey Grell

cc:

**Environmental Analyst** 

Realty and Environmental Services Division

Jeff Runge, USFWS Terry Hickman, NDEO Eliodora Chamberlain, EPA Frank Albrecht, NGPC Larry Hutchinson, NGPC

Richard Holland, NGPC Kristal Stoner, NGPC

Joel Jorgensen, NGPC

From: Buss, Emily D.

**Sent:** Monday, May 12, 2008 4:09 PM

To: Frank Albrecht; Gene Zuerlein; Greg Wingfield; Jeff Runge; Jeff Schuckman; Joe

Mangiamelli; John Bender; John Cochnar; Kristal Stoner; Lacie Andreasen; Mark Czaplewski; Mark Weekley; Martha Tacha; Marty Link; Mike LeValley; Mike Thompson; Phil Soenksen;

Randy Thoreson; Robert Harms

Cc: Neal Suess

Subject: Loup Power District: Agency Follow-up Meeting

Importance: High

## Greetings:

I want to thank all of you who participated in our agency orientation meeting on Wednesday, May 7<sup>th</sup>. We hope that the information presented regarding the District's hydroelectric project and the Federal Energy Regulatory Commission (FERC) Integrated License Process (ILP) will be useful to you as we proceed with our relicensing program. The District looks forward to working collaboratively with all interested agencies and stakeholders over the six year schedule of this undertaking.

Please reserve Wednesday, June 11<sup>th</sup> and plan to attend our first follow-up agency meeting. We will meet in Columbus, Nebraska from 10 am until 2 pm. Lunch will be provided. Information on the specific location will be provided later this week.

We request that you please prepare the following information in preparation for this meeting:

- 1. Confirm who will be the primary point(s) of contact for your agency.
- 2. Confirm who from your agency will attend the meeting on June 11th.
- 3. Provide a list of any NGO's you are aware of that should be invited to participate in this relicense process.
- 4. Prepare a preliminary list of any issues and/or concerns that your agency has regarding the present or future operation of the Loup River Hydroelectric Project.

(Note: Please do not categorize these issues/concerns as study needs or study requests at this time; that step will occur later in the interactive process.)

Please prepare your responses to the above items in a word document or in an e-mail and send it to me, Emily Buss, HDR at <a href="mailto:emily.buss@hdrinc.com">emily.buss@hdrinc.com</a> and to Neal Suess, Loup Power District at <a href="mailto:nsuess@loup.com">nsuess@loup.com</a> on or before Friday, May 16<sup>th</sup>. If I have not heard from you by Friday, May 16th I will be contacting you via telephone. Thank you.

Not all agencies are required to participate in the relicense process. If, at any point in time, your agency should choose not to formally participate in the relicense process, please so indicate in the form of a signed letter or an e-mail addressed to:

Neal Suess President / CEO Loup Power District 2404 15<sup>th</sup> Street P.O. Box 988 Columbus, NE 69602-0988 nsuess@loup.com Thank you again for you interest and participation in this process. Please contact me if you have questions or need any additional information.

## **Emily Buss**

Environmental Scientist / Public Involvement Specialist

**HDR** ONE COMPANY | Many Solutions

701 Xenia Avenue South | Suite 600 | Minneapolis, MN | 55416

Phone: 763.278.5904 | Fax: 763.591.5413 | Email: Emily.Buss@hdrinc.com

From: Frank Albrecht [Frank.Albrecht@ngpc.ne.gov]

**Sent:** Wednesday, May 14, 2008 1:57 PM

To: Buss, Emily D.

Cc: Carey.Grell@ngpc.ne.gov; Kristal Stoner; Dave Tunink; gene.zuerlein@ngpc.ne.gov; Bob

Harms; Jeff Runge

**Subject:** Re: Loup Power District: Agency Follow-up Meeting **Attachments:** 2007-3190-KEA-LPPD canal dredging-Nov07.pdf

Follow Up Flag: Follow up Completed

Emily,

I am the POC for the Nebraska Game and Parks Commission for this project. I am unable to attend on the 11th -- I was hoping you were going to poll the agencies for available meeting dates but unfortunately, this didn't happen. I am unsure who will attend at this time as I will need to contact them for their availability.

**Some** of our concerns/issues are outlined in the attached letter which addressed an associated 404 permit. On a short notice, I thought this would help with the process. We can explain and expand on these for you at a later date.

Feel free to call or email if you have questions.

Frank Albrecht Assistant Division Administrator Realty and Environmental Services Division Nebraska Game and Parks Commission 2200 N. 33rd St. Lincoln, NE 68503 402-471-5422

Visit us at http://www.ngpc.state.ne.us

---- Original Message -----

From: Buss, Emily D.

To: Frank Albrecht; Gene Zuerlein; Greg Wingfield; Jeff Runge; Jeff Schuckman; Joe Mangiamelli; John Bender; John Cochnar; Kristal Stoner; Lacie Andreasen; Mark Czaplewski; Mark Weekley; Martha Tacha; Marty Link; Mike

<u>LeValley</u>; <u>Mike Thompson</u>; <u>Phil Soenksen</u>; <u>Randy Thoreson</u>; <u>Robert Harms</u>

Cc: Neal Suess

Sent: Monday, May 12, 2008 4:09 PM

Subject: Loup Power District: Agency Follow-up Meeting

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Thank you again for you interest and participation in this process. Please contact me if you have questions or need any additional information.

#### **Emily Buss**

Environmental Scientist / Public Involvement Specialist

**HDR** ONE COMPANY | Many Solutions

701 Xenia Avenue South | Suite 600 | Minneapolis, MN | 55416

Phone: 763.278.5904 | Fax: 763.591.5413 | Email: Emily.Buss@hdrinc.com

From: Randy\_Thoreson@nps.gov
Sent: Monday, May 19, 2008 2:49 PM
To: Buss, Emily D.; nsuess@loup.com

Cc: Mark\_Weekley@nps.gov

Subject: Re: Loup Power District: Agency Follow-up Meeting

Follow Up Flag: Follow up Completed

Hi Emily,

I was away from my office last week so am responding to your email today. As I mentioned to you at the May 7th meeting, I will be the primary point of contact for the National Park Service on the Loop Power District Hydro Relicensing Project. I expect to attend the June 11th meeting along with Mark Weekley from our Omaha Regional Office.

Primary Hydro relicensing interests from the National Park Service (NPS), and particular to the the Loop Power District Project, will be Recreation, Land Use and Asethetics. Other topics of discussion and areas of study, such as project operations and natural resources impacts, are also of interest to the NPS as the FERC "Integrated License Process (ILP)" moves forward. The opportunities for stakeholders (including NGO'S) as well as public review and input are of further importance. One NGO that comes to mind, and is likely influenced by the Project, is the Lower Platte River Corridor Alliance. As applicable, I would suggest adding Rodney Verhoeff, Coordinator of the Alliance, to your list of NGO's. If you wish to discuss the project with him, his telephone number is (402) 476-2729. His office address is 3125 Portia Street, P.O Box 83581, Lincoln, Nebraska-3581.

Thankyou for keeping the NPS informed in the Loop Power District Hydro Relicensing Project. Feel free to call me at (651) 290-3004 if you have any questions.

Randy Thoreson
National Park Service
Rivers, Trails, and Conservation Assistance Program / Hydro Program
111 East Kellogg Blvd. Suite 105
St. Paul, MN 55101
Tel (651) 290-3004
Fax (651) 290-3815

<pre><greg_wingfield@fws.gov>, "Jeff Runge" <jeff_runge@fws.gov>, "Jeff Schuckman"</jeff_runge@fws.gov></greg_wingfield@fws.gov></pre>
<jeff.schuckman@ngpc.ne.gov>, "Joe  </jeff.schuckman@ngpc.ne.gov>
Mangiamelli" <jmangi@columbusne.us>, "John Bender" <john.bender@ndeq.state.ne.us>,</john.bender@ndeq.state.ne.us></jmangi@columbusne.us>
"John Cochnar"
<pre><john_cochnar@fws.gov>, "Kristal Stoner" <kristal.stoner@ngpc.ne.gov>, "Lacie</kristal.stoner@ngpc.ne.gov></john_cochnar@fws.gov></pre>
Andreasen" <cgenoa@cablene.com>, "Mark  </cgenoa@cablene.com>
Czaplewski" <mark@cpnrd.org>, "Mark Weekley" <mark_weekley@nps.gov>, "Martha</mark_weekley@nps.gov></mark@cpnrd.org>
Tacha" <martha_tacha@fws.gov>, "Marty  </martha_tacha@fws.gov>
Link" <marty.link@ndeq.state.ne.us>, "Mike LeValley" <mike_levalley@fws.gov>,</mike_levalley@fws.gov></marty.link@ndeq.state.ne.us>
"Mike Thompson" <mthompson@dnr.ne.gov>,</mthompson@dnr.ne.gov>
"Phil Soenksen" <pjsoenks@usgs.gov>, "Randy Thoreson" <randy_thoreson@nps.gov>,</randy_thoreson@nps.gov></pjsoenks@usgs.gov>
"Robert Harms" <robert_harms@fws.gov>  </robert_harms@fws.gov>
cc: "Neal Suess" <nsuess@loup.com></nsuess@loup.com>
Subject: Loup Power District: Agency Follow-up Meeting
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I

#### Greetings:

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Please prepare your responses to the above items in a word document or in an e-mail and send it to me, Emily Buss, HDR at emily.buss@hdrinc.com and to Neal Suess, Loup Power District at nsuess@loup.com on or before Friday, May 16th. If I have not heard from you by Friday, May 16th I will be contacting you via telephone. Thank you.

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Thank you again for you interest and participation in this process. Please contact me if you have questions or need any additional information.

Emily Buss
Environmental Scientist / Public Involvement Specialist

HDR ONE COMPANY | Many Solutions
701 Xenia Avenue South | Suite 600 | Minneapolis, MN | 55416
Phone: 763.278.5904 | Fax: 763.591.5413 | Email: Emily.Buss@hdrinc.com

From: John.Bender@NDEQ.State.NE.US
Sent: Tuesday, May 20, 2008 4:03 PM

To: Buss, Emily D. Subject: NGO list

Attachments: LoupNGOlist.DOC

Follow Up Flag: Follow up Flag Status: Flagged

Attached is an excerpt from my mailing list. I have removed agency contacts, NRDs, and national contacts. What remains are local representatives of NGOs that have expressed an interest in water issues.

(See attached file: LoupNGOlist.DOC)

John F. Bender Water Quality Standards Coordinator Nebraska Department of Environmental Quality 402/471-4201

Title	FirstName	LastName	JobTitle	Company	Address1	Address2	City	St	PostCode	
Mr.	Kevin	Poague		Audubon Nebraska	P.O. Box 117		Denton	NE	68339	1.
Mr.	Vince	Shay	State Director	The Nature Conservancy	1025 Leavenworth St.	Suite 100	Omaha	NE	68102	2.
Mr.	Tony	Korth	President Elect	Nebraska Chapter American Fisheries Society	21502 W. Hwy. 31		Gretna	NE	68028	3.
Mr.	Duane	Hovorka	Executive Director	Nebraska Wildlife Federation	P.O. Box 81437		Lincoln	NE	68501- 1437	4.
Mr.	Steve	Wilson	Nebraska East Region Director	Nebraska Ducks Unlimited	3648 S. 16 <sup>th</sup> St		Lincoln	NE	68502	5.
Mr.	Dick	Boyd	Chapter Chair	Nebraska Chapter Sierra Club	P.O. Box 4664		Omaha	NE	68104- 0664	6.
Mr.	Wes	Sheets		Izaak Walton League	6710 Marcia Ln.		Lincoln	NE	68505	7.
Dr.	Felipe	Chavez- Ramirez	Executive Director	Platte River Whooping Crane Trust	6611 W. Whooping Crane Dr.		Wood River	NE	68883	8.
Ms.	Traci	Bruckner	Rural Policy Program Assistant Director	Center for Rural Affairs	145 Main St.	P.O. Box 136	Lyons	NE	68038- 0136	9.
Mr.	Craig	Head		Nebraska Farm Bureau Federation	P.O Box 80299		Lincoln	NE	68501	10.
Mr.	John	Hansen	President	Farmers Union of Nebraska	1305 Plum		Lincoln	NE	68502	11.
Mr.	Michael	Kelsey	Executive Vice President	Nebraska Cattlemen	134 S. 13 <sup>th</sup> St.	Suite 900	Lincoln	NE	68508- 1901	12.
Mr.	Larry	Sitzman	Executive Director	Nebraska Pork Producers	A103 Animal Sciences Building	University of Nebraska- Lincoln	Lincoln	NE	68583- 0909	13.
Mr.	Jeff	Keown	Extension Dairy Specialist		A218 Animal Sciences Building	University of Nebraska- Lincoln	Lincoln	NE	68583	14

Title	FirstName	LastName	JobTitle	Company	Address1	Address2	City	St	PostCode	
Ms.	Susan	Joy	General Manager	Nebraska Poultry Industries	P.O. Box 830908	University of Nebraska- Lincoln A103 Animal Sciences Building	Lincoln	NE	68583- 0908	15.
Mr.	Scott	Merritt	Executive Director	Nebraska Corn Growers Association	1327 H St., Suite 305		Lincoln	NE	68508	16.
	DeMaris	Johnson	Executive Director	Nebraska Water Resources Association	1233 Lincoln Mall	Suite 203	Lincoln	NE	68508	17.
Mr.	Don	Kraus	General Manager	Central Nebraska Pubic Power & Irrigation District	P.O. Box 740		Holdrege	NE	68949- 0740	18.
Mr.	Bill	Neal	Environmental and Government Affairs	Omaha Public Power District	444 South 16th Street Mall		Omaha	NE	68102- 2247	19.
Mr.	Joe	Citta, Jr.	Environmental Protection Supervisor	Nebraska Public Power District	1414 15th St.		Columbus	NE	68601	20.
Mr.	Jeff	Forney	Secretary	Nebraska Water Environment Association	2120 S 72 <sup>nd</sup> St.	Suite 1400	Omaha	NE	68124- 6316	21.
Mr.	Lash	Chaffin	Utilities Section Director	League of Nebraska Municipalities	1335 L St.		Lincoln	NE	68508	22.
Ms.	Gordon	Kissel	Executive Director	Nebraska Society of Professional Engineers	301 South 13 <sup>th</sup> Street	Suite 400	Lincoln	NE	68508- 2571	23.
Ms.	Jane	Griffin	President	The Groundwater Foundation	P.O. Box 22558		Lincoln	NE	68542- 2558	24

May, XX, 2008

<NAME>
<TITLE>
<AGENCY NAME>
<ADDRESS>
<CITY>, <STATE> <ZIP>

Re: Loup Power District Hydroelectric Relicensing

Public Open Houses Scheduled for June 10 and 11, 2008

Dear <NAME>,

You have received this letter because you have been identified as a potential interested stakeholder in the Loup Power District's (District) relicensing process for its hydroelectric project. The District has scheduled public open houses to provide information about the history and operation of the hydroelectric project, the relicensing process, and the opportunities for public comment and participation.

The format for these public open houses is very informal. There will be no formal presentation; the Relicensing Team will be available to answer questions and take comments. You are welcome to attend at any time during the open house hours listed below. To learn more about the relicensing process please go to the website <a href="www.loup.com">www.loup.com</a> or relicensing hotline 1-866-869-2087 for additional information.

The times and locations for the public open houses are listed below. The information available at each open house will be the same.

Tuesday, June 10, 2008 in Columbus, Nebraska.

Time: 2 PM-4 PM or 6 PM- 8 PM Columbus VFW Club 2720 23rd St Columbus, NE 68601

Wednesday, June 11, 2008 in Genoa, Nebraska.

Time: 6 PM- 8 PM Genoa Senior Center 115 N Oak St Genoa, NE 68640

We look forward to working with you throughout the multi-year relicensing process.

Loup Power District Sincerely,

Neal D. Suess, PE President/CEO

From: Philip J Soenksen [pjsoenks@usgs.gov]

**Sent:** Monday, June 02, 2008 1:38 PM

To: Buss, Emily D.

Cc: Neal Suess; Robert B Swanson; Richard C Wilson; rbzelt@usgs.gov; pjsoenks@usgs.gov

Subject: Re: Loup Power District: Agency Follow-up Meeting

Follow Up Flag: Follow up Completed

Emily,

Sorry for the late response to your e-mail. Our senior staff has been scattered for the last several weeks (prior commitments out of town, 2 weeks of flooding, time off, ...), and we were not able to have the necessary discussions to respond until today. Below are those responses as per the numbering in your e-mail.

1. Primary points of contact:

Ben Dietsch, Hydrologist, bdietsch@usgs.gov, 402-328-4122 (office), 402-416-5154 (cell) Jason Alexander, Hydrologist, jalexand@usgs.gov, 402-328-4132 (office), 402-314-7661 (cell)

2. June 11th meeting attendance:

Ben Dietsch, Jason Alexander, Ron Zelt, Phil Soenksen

3. List of NGOs:

Platte River Recovery Implementation Program, Jerry F. Kenny, Executive Director, kennyj@headwaterscorp.com, 308-237-5728 (office), 303-514-1305 (cell)

Nebraska Airboaters Association

Suggest contacting Rodney Verhoeff, Coordinator for the Lower Platte River Corridor Alliance to get more NGOs (he was out when I called today)

RVerhoeff@lpsnrd.org, 402-476-2729 (office at LPS NRD), 402-429-0334 (cell)

4. Preliminary list of issues/concerns: As a non-regulatory science agency, we do not, in a sense, have issues/concerns of our own; but rather, we seek to provide the necessary good science information to help answer such issues/concerns for others. That being said, below is a list of general scientific inquiries that might be of interest.

Effects of LPD operations on water temperature in lower Loup and lower Platte Rivers (implications for aquatic biota)

Effects of LPD operations on sediment budget below the tailrace canal outfall (implications for in-channel sources)

Effects of LPD operations (especially hydropeaking) on sandbar elevations (implications for aquatic biota)

Effects of LPD operations on hydraulic habitat connectivity and distribution (implications for aquatic biota)

Effects of LPD operations on in-channel vegetation extent and composition (implications for woodland expansion and invasive species)

Phil Soenksen Chief, Hydrologic Data Section USGS Nebraska Water Science Center 402-328-4150 pjsoenks@usgs.gov http://ne.water.usgs.gov

"Buss, Emily D." < Emily. Buss@hdrinc.com>

05/12/2008 04:09 PM

To "Frank Albrecht" <frank.albrecht@ngpc.ne.gov>, "Gene Zuerlein" <gene.zuerlein@ngpc.ne.us>, "Greg Wingfield" <greg\_wingfield@fws.gov>, "Jeff Runge" <jeff\_runge@fws.gov>, "Jeff Schuckman" <jeff.schuckman@ngpc.ne.gov>, "Joe Mangiamelli" <jmangi@columbusne.us>, "John Bender" <john.bender@ndeq.state.ne.us>, "John Cochnar" <john\_cochnar@fws.gov>, "Kristal Stoner" <kristal.stoner@ngpc.ne.gov>, "Lacie Andreasen" <cgenoa@cablene.com>, "Mark Czaplewski" <mark@cpnrd.org>, "Mark Weekley" <mark\_weekley@nps.gov>, "Martha Tacha" <martha\_tacha@fws.gov>, "Marty Link" <marty.link@ndeq.state.ne.us>, "Mike LeValley" <mike\_levalley@fws.gov>, "Mike Thompson" <randy\_thoreson@dnr.ne.gov>, "Phil Soenksen" <pipsoenks@usgs.gov>, "Randy Thoreson" <randy\_thoreson@nps.gov>, "Robert Harms" <ra>

## Greetings:

I want to thank all of you who participated in our agency orientation meeting on Wednesday, May 7<sup>th</sup>. We hope that the information presented regarding the District's hydroelectric project and the Federal Energy Regulatory Commission (FERC) Integrated License Process (ILP) will be useful to you as we proceed with our relicensing program. The District looks forward to working collaboratively with all interested agencies and stakeholders over the six year schedule of this undertaking.

Please reserve Wednesday, June 11<sup>th</sup> and plan to attend our first follow-up agency meeting. We will meet in Columbus, Nebraska from 10 am until 2 pm. Lunch will be provided. Information on the specific location will be provided later this week.

We request that you please prepare the following information in preparation for this meeting:

- 1. Confirm who will be the primary point(s) of contact for your agency.
- 2. Confirm who from your agency will attend the meeting on June 11th.
- 3. Provide a list of any NGO's you are aware of that should be invited to participate in this relicense process.
- 4. Prepare a preliminary list of any issues and/or concerns that your agency has regarding the present or future operation of the Loup River Hydroelectric Project.

(Note: Please do not categorize these issues/concerns as study needs or study requests at this time; that step will occur later in the interactive process.)

Please prepare your responses to the above items in a word document or in an e-mail and send it to me, Emily Buss, HDR at <a href="mailto:emily.buss@hdrinc.com">emily.buss@hdrinc.com</a> and to Neal Suess, Loup Power District at <a href="mailto:nsuess@loup.com">nsuess@loup.com</a> on or before Friday, May 16<sup>th</sup>. If I have not heard from you by Friday, May 16th I will be contacting you via telephone. Thank you.

Not all agencies are required to participate in the relicense process. If, at any point in time, your agency should choose not to formally participate in the relicense process, please so indicate in the form of a signed letter or an e-mail addressed to:

Neal Suess President / CEO Loup Power District 2404 15<sup>th</sup> Street P.O. Box 988 Columbus, NE 69602-0988 nsuess@loup.com

Thank you again for you interest and participation in this process. Please contact me if you have questions or need any additional information.

From: Buss, Emily D.

**Sent:** Tuesday, June 03, 2008 6:40 PM

To: Frank Albrecht; gene.zuerlein@ngpc.ne.gov; 'Greg Wingfield'; Jeff Runge; Jeff Schuckman;

Joe Mangiamelli; 'John Bender'; 'John Cochnar'; Kristal Stoner; Lacie Andreasen; Mark Czaplewski; Mark Weekley; Martha Tacha; Marty Link; Mike LeValley; 'Mike Thompson'; Phil

Soenksen; Randy Thoreson; Robert Harms

Cc: Neal Suess; Waldow, George

Subject: IMPORTANT - Loup Power District: Agency Follow-up Meeting Schedule

Importance: High

Follow Up Flag: Follow up Completed

## Greetings:

We sent you an e-mail on May 13th, 2008 informing you about an Agency Follow-up Meeting scheduled in Columbus for June 11th. That meeting has now been rescheduled for June 25th to better accommodate the majority of agencies interested in actively participating in the process. Please watch your mail in the coming week for information on the exact time and location of this meeting.

We ask that you review your calendars for July – September and provide dates that you or a representative of your agency can attend upcoming meetings. We also remind you to please prepare the following information for this meeting:

- 1. Confirm who will be the primary point(s) of contact for your agency.
- 2. Provide a list of any NGO's you are aware of that should be invited to participate in this relicense process.
- 3. Prepare a preliminary list of any issues and/or concerns that your agency has regarding the present or future operation of the Loup River Hydroelectric Project. (Note: Please do not categorize these issues/concerns as study needs or study requests at this time; that step will occur later in the interactive process.)

Please prepare your responses to the above items in a word document or in an e-mail and send it to me, Emily Buss, HDR at <a href="mailto:emily.buss@hdrinc.com">emily.buss@hdrinc.com</a> and to Neal Suess, Loup Power District at <a href="mailto:nsuess@loup.com">nsuess@loup.com</a> before the meeting on June 25th.

The ILP process is moving steadily forward and we all need to work collaboratively to find sufficient time to meet and discuss issues, concerns, and solutions.

Thank you again for you interest and participation in this process. Please contact me if you have questions or need any additional information.

#### **Emily Buss**

Environmental Scientist / Public Involvement Specialist

#### **HDR** ONE COMPANY | Many Solutions

701 Xenia Avenue South | Suite 600 | Minneapolis, MN | 55416

Phone: 763.278.5904 | Fax: 763.591.5413 | Email: Emily.Buss@hdrinc.com

From: John.Bender@NDEQ.State.NE.US
Sent: Thursday, June 05, 2008 12:48 PM

Pure Freih D. Neel Sugge

To: Buss, Emily D.; Neal Suess

Subject: Re: IMPORTANT - Loup Power District: Agency Follow-up Meeting Schedule

Follow Up Flag: Follow up Completed

I am already committed to two other meetings on June 25, so I doubt that I can attend your rescheduled meeting. As far as July - September dates go, my calendar is open the weeks of July 22 and 29, all of August except Aug, 28, and all of September except the week of Sept. 22.

As stated earlier, I will be the primary point of contact at NDEQ for the ILP. I forwarded Emily a list of NGOs that have expressed interest in our Water Quality Standards in an earlier email.

NDEQ's interests in the ILP will revolve around the 401 water quality certification for the FERC license. Water quality issues could include T&E species (aquatic-related only) since there is a reference to protecting them in our Water Quality Standards; any fish kills that have occurred in the canal or lakes; and the bacteria in Lake Babcock (I realize that the recreation occurs on Lake North, but the criteria are assigned to all lakes and we have data indicating high levels in Babcock).

I will try to find someone in my unit to attend on the 25th in my place, but it is unlikely they would be familiar with the process.

John F. Bender Water Quality Standards Coordinator Nebraska Department of Environmental Quality 402/471-4201

> "Buss, Emily D." <Emily.Buss@hdrin c.com>

> > "Frank Albrecht"

06/03/2008 06:40 <f

PM

<frank.albrecht@ngpc.ne.gov>,
<gene.zuerlein@ngpc.ne.gov>, "Greg
Wingfield"
<greg\_wingfield@fws.gov>, "Jeff
Runge" <jeff\_runge@fws.gov>, "Jeff
Schuckman"
<jeff.schuckman@ngpc.ne.gov>, "Joe
Mangiamelli"
<jmangi@columbusne.us>, "John
Bender"

<john.bender@ndeq.state.ne.us>,

To

"John Cochnar" <john\_cochnar@fws.gov>, "Kristal Stoner" <kristal.stoner@ngpc.ne.gov>, "Lacie Andreasen" <cgenoa@cablene.com>, "Mark Czaplewski" <mark@cpnrd.org>, "Mark Weekley" <mark weekley@nps.gov>, "Martha Tacha" <martha\_tacha@fws.gov>, "Marty Link" <marty.link@ndeq.state.ne.us>, "Mike LeVallev" <mike\_levalley@fws.gov>, "Mike Thompson" <mthompson@dnr.ne.gov>, "Phil Soenksen" <pisoenks@usgs.gov>, "Randy Thoreson" <randy\_thoreson@nps.gov>, "Robert Harms" <robert harms@fws.gov> cc"Neal Suess" <nsuess@loup.com>, "Waldow, George" <George.Waldow@hdrinc.com> Subject IMPORTANT - Loup Power District: Agency Follow-up Meeting Schedule

#### Greetings:

We sent you an e-mail on May 13th, 2008 informing you about an Agency Follow-up Meeting scheduled in Columbus for June 11th. That meeting has now been rescheduled for June 25th to better accommodate the majority of agencies interested in actively participating in the process. Please watch your mail in the coming week for information on the exact time and location of this meeting.

We ask that you review your calendars for July - September and provide dates that you or a representative of your agency can attend upcoming meetings. We also remind you to please prepare the following information for this meeting:

- 1. Confirm who will be the primary point(s) of contact for your agency.
- 2. Provide a list of any NGO's you are aware of that should be invited to participate in this relicense process.
- 3. Prepare a preliminary list of any issues and/or concerns that your agency has regarding the present or future operation of the Loup River Hydroelectric Project. (Note: Please do not categorize these issues/concerns as study needs or study requests at this time; that step will occur later in the interactive process.)

Please prepare your responses to the above items in a word document or in an e-mail and send it to me, Emily Buss, HDR at emily.buss@hdrinc.com and to Neal Suess, Loup Power District at nsuess@loup.com before the meeting on June 25th.

The ILP process is moving steadily forward and we all need to work collaboratively to find sufficient time to meet and discuss issues, concerns, and solutions.

Thank you again for you interest and participation in this process. Please contact me if you have questions or need any additional information.

Emily Buss
Environmental Scientist / Public Involvement Specialist

HDR ONE COMPANY | Many Solutions
701 Xenia Avenue South | Suite 600 | Minneapolis, MN | 55416
Phone: 763.278.5904 | Fax: 763.591.5413 | Email: Emily.Buss@hdrinc.com

June 6, 2008

<NAME>
<TITLE>
<AGENCY NAME>
<ADDRESS>
<CITY>, <STATE> <ZIP>

Re: Loup Power District

Hydropower Relicensing

Joint Agency Meeting

## Dear <Name>,

Loup Power District (District) held a Joint Agency Orientation meeting on May 7, 2008 in Columbus, Nebraska. Representatives from 10 different agencies attended the meeting and were informed about the District's hydroelectric project and the FERC relicense process. The District would like to invite you to a follow-up meeting in Columbus on June 25<sup>th</sup>.

What: Agency Follow-up Meeting

When: Wednesday, June 25, 2008: 10:00 a.m. – 2:00 p.m. Lunch will be provided

Where: Wunderlichs, 304 E. Highway 30, Columbus, NE 68601

**RSVP:** On or before Friday, June 20, 2008 to Emily Buss, emily.buss@hdrinc.com

or 763-278-5904

The purpose of this meeting is to introduce, discuss and compare the hydropower related issues and concerns that have been identified by the participating agencies. Our objectives for this meeting are to talk through and reach a mutual understanding of the basis or rationale for each issue or concern. We seek to engage in a constructive dialog on each item of concern. The group may find it beneficial to consolidate similar items or reword others to be clearer or more precise.

It is not our intention to discuss detailed study requests at this stage in the consultation process. Specific study needs or requests will be discussed and compared in subsequent meetings.

If you have not already done so, the District again requests that you please do the following:

- 1. Confirm who will be the primary point(s) of contact for your agency
- 2. Provide a list of any NGO's you believe should be contacted to participate in this relicense process
- 3. Prepare a preliminary list of any issues and/or concerns that your agency has regarding the Loup River Hydroelectric Project
- 4. Review your calendars for July, August and September and provide a list of dates that you or a representative of your agency can participate in future meetings

Please prepare your responses to the above items in a word document or in an e-mail and send it to Emily Buss at <a href="mailto:emily.buss@hdrinc.com">emily.buss@hdrinc.com</a> before the meeting on June 25, 2008.

Interested agencies that have a schedule conflict, or do not wish to attend the meeting, are still encouraged to submit the information requested above. It is understood that not all interested parties will be able to participate in all meetings. In accordance with the District's outreach program, you will be informed of future meetings and input opportunities unless you request otherwise.

If, at any point in time, your agency should choose not to formally participate, please so indicate with a letter or an e-mail addressed to me:

Neal Suess President/CEO Loup Power District 2404 15th Street P.O. Box 988 Columbus, NE 68602-0988 nsuess@loup.com

The multi-year Integrated Licensing Process (ILP) is now moving steadily forward. Thank you again for you interest and participation in this process. Please contact me if you have questions or need any additional information.

Sincerely,

Neal D. Suess, PE President/CEO

Malashess

From: Marty.Link@NDEQ.State.NE.US
Sent: Monday, June 09, 2008 1:44 PM

To: Buss, Emily D.

Cc: John.Bender@NDEQ.State.NE.US; nsuess@loup.com

**Subject:** June 25 meeting in Columbus

Follow Up Flag: Follow up Completed

#### Hi Emily

Please put John Bender of NDEQ as our agency's official representative on the Joint Agency Meeting 'team'. John will respond to the other questions in the letter from Loup Power Dist dated June 6, 2008. Regarding a list of issues/concerns, our agency is responsible for the water quality of the surface and ground water of the state, along with air and land quality concerns, so that is where our main interest lies.

Thanks for including us.

Martha (Marty) Link
Nebr. Dept. Environmental Quality
Assoc. Dir, Water Quality Div.
402/471-4270 {Fax 471-2909}
marty.link@ndeq.state.ne.us

From: Anna Baum [abaum@upperloupnrd.org]
Sent: Wednesday, June 11, 2008 9:51 AM

To: Buss, Emily D. Subject: requested information

Follow Up Flag: Follow up Flag Status: Flagged

Good morning Emily. Per request from a letter from Loup Power District I am passing along the following information.

I am the primary point of contact for our agency.

Our main concern is the impact the call on the river may have in regards to fully appropriating our Loup Basin. It is very hard to put down any concrete dates to be able to attend any future meetings – I can say that the 2<sup>nd</sup> and the 4<sup>th</sup> week of August is out for me.

We very much want to be kept abreast of the issues.

Thanks!

Anna Baum

General Manager, Upper Loup NRD

PO Box 212

Thedford, Ne 69166 Phone: 308-645-2250 Fax: 308-645-2308



#### STATE OF NEBRASKA

# Office of the Attorney General

2115 STATE CAPITOL BUILDING LINCOLN, NE 68509-8920 (402) 471-2682 TDD (402) 471-2682 CAPITOL FAX (402) 471-3297 TIERONE FAX (402) 471-4725

JON BRUNING ATTORNEY GENERAL

JUSTIN D. LAVENE
SPECIAL COUNSEL TO THE
ATTORNEY GENERAL

June 16, 2008

Neal Suess, President/CEO Loup Power District 2404 15<sup>th</sup> Street P.O. Box 988 Columbus, NE 68602-0988

Re:

Loup Power District Hydropower Relicensing Joint Agency Meeting

Dear Mr. Suess:

The Attorney General's Office is in receipt of your letter regarding the Agency Follow-up Meeting. I will be the primary point of contact for our office in these matters.

Unfortunately, my schedule prohibits me from attending this meeting. Our office would like to be kept informed of the issues, meeting dates, documents and correspondence distributed to the stake holder group. Please send all information to:

Justin Lavene
Special Counsel to the Attorney General
Nebraska Attorney General's Office
2115 State Capitol
Lincoln, NE 68509
justin.lavene@nebraska.gov
402/471-2682

If you have any questions, please contact the undersigned.

Very truly yours

JON BRUNING Attorney General

Justin D. Lavene

Special Counsel to the Attorney General

Printed with soy ink on recycled paper

From: Henry Santin [santin@hamilton.net]
Sent: Tuesday, June 17, 2008 7:55 PM

To: Buss, Emily D. Subject: june 25th meeting

Follow Up Flag: Follow up Flag Status: Flagged

emily i am planning on attending the meeting on june 25th I will be the primary contact for the nance co board at this time the board has no specific concerns as far as future meetings evenings would work best for me but as far as dates go were all involved in farming so the weather will be our main concern. thanks Henry Santin Nance co. supervisor

From: Cothern.Joe@epamail.epa.gov
Sent: Wednesday, June 18, 2008 12:45 PM

To: nsuess@loup.com
Cc: Buss, Emily D.

**Subject:** Hydropower Relicensing Meeting on 6/25

Follow Up Flag: Follow up Flag Status: Flagged

Dear Mr. Suess,

I am responding to the meeting invitation letter sent to Regional Administrator John Askew, dated June 6, 2008. EPA will not be able to attend next week's meeting, however. we would welcome the opportunity to address any environmental issue within our jurisdiction or expertise.

Please let me know if EPA has previously presented a concern relative to this proposed reliscensing.

Responding to your specific questions:

- -I will be EPA's point of contact for this reliscensing. In particular, NEPA documentation should be submitted to my office.
- -EPA does not know of any particular NGO group that should be contacted.
- -Inquiries of various EPA program offices did not identify issues or concerns.
- -First and last week of August are not available for meeting participation.

Thank you for including EPA in your coordination efforts.

Sincerely, Joe Cothern

Joseph E. Cothern NEPA Team Leader U.S. Environmental Protection Agency Region 7 910 N. 5th Street Kansas City, Kansas 66101

(913) 551-7148 cothern.joe@epa.gov

From: Buss, Emily D.

**Sent:** Thursday, June 19, 2008 5:04 PM

**To:** john.bender@ndeq.state.ne.us; david.jundt@dhhs.ne.gov; mark@cpnrd.org; jeff.schuckman@ngpc.ne.gov; frank.albrecht@ngpc.ne.gov; jangell@dnr.ne.gov;

robert harms@fws.gov; pjsoenks@usgs.gov; randy thoreson@nps.gov;

ulnrd@upperloupnrd.org; Barbara.J.Friskopp@usace.army.mil; santin@hamilton.net;

rpuschendorf@nebraskahistory.org; justin.lavene@nebraksa.gov;

bobbie.wickham@nebraska.gov; cothern.joe@epa.gov; jmangi@columbusne.us;

cgenoa@cablene.com

Cc: Buss, Emily D.; nsuess@loup.com

Subject: Loup River Hydroelectric Project Relicensing

Attachments: 080625.Agenda.Agency\_Issues.pdf; nAgency.080507.Orientation.pdf

#### Greetings,

This is a reminder that a meeting will be held on June 25, 2008 to discuss agency issues and concerns related to relicensing the Loup River Hydroelectric Project. An agenda for the meeting is attached. Meeting details are below:

Date: June 25, 2008

Time: 10 am to 2 pm (lunch provided)

Location: Wunderlich's

304 E. Highway 30 Columbus, NE 68601

Also attached are the notes from the Agency Orientation meeting that was held on May 7, 2008. Please let me know if you have any comments on the meeting notes.

We are providing this information to the primary contacts identified by each agency, please forward this information on to others in your agency as appropriate.

Regards,

#### **Emily Buss**

Environmental Scientist / Public Involvement Specialist

#### **HDR** ONE COMPANY | Many Solutions

701 Xenia Avenue South | Suite 600 | Minneapolis, MN | 55416

Phone: 763.278.5904 | Fax: 763.591.5413 | Email: Emily.Buss@hdrinc.com





Project: Loup River Hydroelectric Project FERC Project No. 1256	
Subject:	
Meeting Date:	Meeting Location:

## **Discussion Topics:**

- 1. Welcome
- 2. Introductions
- 3. Process Review
- 4. Issues Received to Date
- 5. Issues Discussion
- 6. Next Steps



# Meeting Notes

Project: Loup River Hydroelectric Project
FERC Project No. 1256

Subject: Agency Orientation Meeting

Meeting Date: May 7, 2008, 10:00 am – 2:00 pm

Meeting Location: Wunderlichs, Columbus, NE

Notes by: HDR

#### Attendees:

	T: 5
	Jim Frear
Loup Public Power District (District)	Tom Kumpf, Board Member
+ F - + + + + + + + + + + + + + + +	Neal Suess
	Ron Ziola
	Emily Buss
	Pat Engelbert
	Dennis Grennan
HDR	Bill Sigler
	Shannon Snow
	George Waldow
	Stephanie White
	John Cochnar
	Robert Harms
LIC Eich and Wildlife Coming (LICEWC)	Mike LeValley
US Fish and Wildlife Service (USFWS)	Jeff Runge
	Martha Tacha
	Greg Wingfield
US Geological Survey (USGS)	Phil Soenksen
National Dault Coursing (NDC)	Randy Thoreson
National Park Service (NPS)	Mark Weekley
	Frank Albrecht
Naturala Carra and Darla Carra in in (NGDC)	Jeff Schuckman
Nebraska Game and Parks Commission (NGPC)	Kristal Stoner
	Gene Zuerlein
Nebraska Department of Natural Resources (DNR)	Mike Thompson
Nebraska Department of Environmental Quality (NDEQ)	John Bender
Lower Loup Natural Resources District (NRD) and Nebraska	Dick Hadenfeldt
Natural Resources Commission (NRC)	
Central Platte Natural Resource District (NRD)	Mark Czaplewski
City of Genoa	Lacie Andreasen
City of Columbus	Joe Mangiamelli
	<i>G</i>

#### **Meeting Agenda:**

- I. Welcome and Introductions
- II. The History of Loup Power District
- III. Loup Hydro Facilities and Operations (Neal)
- IV. FERC Licensing Process (George/Neal)
- V. The Role of the Agencies (Neal)
- VI. Next Steps

## Discussion:

Topic	Detail	Interested Agency
Loup Power District History Book	Includes information about park sites and available recreation through the Loup Power District offices.	NPS
Water Right	The District has a water right to divert up to 3,500 cubic feet per second (cfs) from the Loup River for power generation purposes.	USFWS
Irrigation	<ul> <li>The District has 40 irrigation customers and 78 irrigation diversion points with water rights to water in the canal</li> <li>Irrigator rights, approved by the State, are junior water rights to the District's but are given preference for agricultural use as priority users of water</li> <li>District is compensated for acre-feet pumped by irrigators through a subordination arrangement</li> </ul>	USFWS
	<ul> <li>Most irrigators are west of Lake Babcock; only four irrigators are located below the Columbus Powerhouse.</li> </ul>	
Water Capacity	<ul> <li>There are no plans to increase the hydraulic capacity of the canal.</li> <li>Both the power canal and the Monroe Powerhouse are designed for a hydraulic flow capacity of 3,500 cfs.</li> </ul>	USFWS
NPPD Partnership	<ul> <li>All energy produced at the two powerhouses         (Monroe and Columbus) is sold directly to NPPD as a portion of their overall power portfolio.     </li> <li>All power the District distributes is purchased back from NPPD</li> <li>The District has a negotiated contract with NPPD; price of energy fluctuates yearly, based on average cost of NPPD generation.</li> <li>Because generation is based on flow availability, the District is not always able to meet NPPD's needs/requests.</li> </ul>	NDEQ, NGPC, USFWS
Sluice Gates	<ul> <li>Used to periodically flush sand and debris away from intake gates.</li> <li>Original settling basin sluice pipe was an open flume but has now been filled with sand and abandoned.</li> <li>Gate operation is based on water conditions and sand or debris accumulation; there is no defined schedule of operation.</li> <li>Operation moves a large amount of sand.</li> </ul>	USFWS, NDEQ, NGPC
Sand Management	<ul> <li>There are sand management areas on the north and south side of the settling basin.</li> <li>One to two million tons of sand are dredged from the settling basin per year.</li> <li>Water flows from dredge on the north side are conveyed through a series of ditches and discharged back into the Loup River upstream of the diversion</li> </ul>	NGPC

Agency Meeting - May 7		structure.	
Bypass Reach	•	There are control gates adjacent to the diversion	NPS
,,		structure which allow flows to be bypassed back into	
		the Loup River channel.	
	•	River overtops the low weir or wall when there is	
		sufficient flow.	
Power Canal	•	Canal gradient is approximately 1 foot per mile	USFWS,
	•	The canal can only hold 3,500 cubic feet per second	NGPC
		(cfs) – the system is running at capacity when the	
		canal bank is full	
	•	There are several siphons along the canal that convey	
		natural drainage from the north side of the canal to	
		the south side of the canal; they include Beaver Creek	
		siphon, Looking Glass Creek siphon, Dry/Cherry	
		Creek siphon, and the Oconee siphon.	NEC
Monroe Powerhouse		Monroe Powerhouse is operated in a run-of-river	NPS
		manner and has no water storage capabilities.	
	•	Most of the time, all units are available to run near	
		capacity but there is often insufficient water to do so.	
		The system runs at full capacity only a few days per	
Laka Ctarana		year.	LICEMO
Lake Storage	•	Lake Babcock and Lake North are used to manage	USFWS
		the flow going into the Columbus Powerhouse.	
	•	Generally, the water level rises at night and then lowers during the day when the Columbus facility	
		runs to cover NPPD's peak.	
	•	Lake North is significantly deeper than Lake	
		Babcock; can not be totally drained.	
Silt at Lake Babcock	•	The District has considered dredging the lake but it is	NGPC
Oil at Lake Daboock		not economically prudent.	I III O
	•	District flushes sediment out of the lake through the	
	,	Columbus Powerhouse to keep the original flow	
		channel open.	
	•	Alternative methods to reclaim some of the storage	
		capacity are currently being evaluated.	
Columbus Powerhouse	<b>)</b>	Columbus Powerhouse is a peaking facility operated	NGPC, USGS,
		by the District but dispatched by NPPD according to	NDEQ,
		their system requirements.	USFWS
	•	The units are generally run to cover NPPD peak load	
		or conditions when NPPD generation facilities go	
		off-line. NPPD has a double peak in winter and there	
		is a very late night peak in the summer due to	
		irrigation.	
	•	NPPD's needs mandate daily generation activity.	
	•	Any two of the three units at the Columbus	
		Powerhouse can accommodate the 3,500 cfs canal	
		design. When all three units are used at capacity, the	
		5,000 cfs intake canal design flow is utilized.	
	•	If the entire plant went off line, lake water levels are	
		maintained to contain the flow, once diversion is	
		stopped at the headgates.	
		Vertical trash rack bars are several inches apart and	

#### LPD Hydropower Relicensing FERC Project No. 1256 Agency Meeting - May 7, 2008

	are not intended as a screen to exclude fish.	
Fish	<ul> <li>Fish are present in the canal; the state record Flathead catfish was taken from the canal.</li> <li>There are no fish protection screens at the powerhouses.</li> </ul>	USGS
Endangered Species	<ul> <li>Section 7 of the Endangered Species Act will be considered in the relicensing process.</li> <li>FERC will initiate informal consultation 60 days following filing of the NOI/PAD.</li> </ul>	USFWS
Drought Concerns	The Loup River is classified as one of the most consistent flowing rivers in the US. During recent droughts, summer Loup River flows were near normal.	USGS

#### **Action Items:**

Who	Task	Date Assigned
LPD	Determine issuance process for 401 Water Quality Certification associated with the FERC public process.	5/7/08
LPD	Distribute agency contact information.	5/7/08
All Agencies	Provide list of NGOs that may be interested in the Project to the District.	5/7/08

## **Next Meeting:**

What: Agency Follow-up Meeting

When: Wednesday, June 25, 2008: 10:00 a.m. – 2:00 p.m. Lunch will be provided

Where: Wunderlichs, 304 E. Highway 30, Columbus, NE 68601

RSVP: On or before Friday, June 20, 2008 to Emily Buss, emily.buss@hdrinc.com

or 763-278-5904

The purpose of the meeting is to introduce, discuss and compare the hydropower related issues and concerns identified by the participating agencies. Our objectives for this meeting are to talk through and reach a mutual understanding of the basis or rationale for each issue or concern.

TO: Emily Buss

RE: Issues concerning the relicensing of the Loup Public Power District with FERC.

FROM: Nebraska Department of Natural Resources

DATE: June 20, 2008

- 1. Nebraska law provides that waters used for irrigation have preference over waters used for manufacture of power. This means an irrigator with an appropriation junior to LPPD's appropriation may require the senior water right for power LPPD to subordinate its water use. The law also provides that just compensation must be paid by an irrigator to LPPD when subordination is demanded. Just compensation is not an arbitrary amount, but an amount not greater than the cost of replacing the power which would be generated by the water so acquired. LPPD has set amounts for irrigators to take water out of priority. The rate for those irrigators taking water from the canal between the diversion on the Loup River and the power plants at Monroe and Columbus is different than the rate charged for those irrigators taking water upstream of the diversion. How does LPPD figure "just compensation"? The Power Interference Agreement states that the amount charge irrigators is not just compensation.
- 2. Why does LPPD allow farmers to irrigate out of its canal? The Nebraska Department of Natural Resources knows of no easements in place for those irrigators taking from the canal. LPPD appears to operate as an irrigation district, rather than a power district.
- 3. At times LPPD diverts most or all of the Loup River, in effect changing the channel of the river. What if an irrigator requests water be delivered out of the river downstream of the diversion point and upstream of the discharge into the Platte River, willing to pay LPPD just compensation?
- 4. Has LPPD considered its response in the event irrigation development continued in areas upstream of LPPD's plants to the point of making the manufacturing of electricity no longer feasible?
- 5. Should LPPD be allowed to divert their entire appropriation when making power with less than the entire appropriation, given that LPPD has no storage permit?

June, XX, 2008

<NAME>
<TITLE>
<AGENCY NAME>
<ADDRESS>
<CITY>, <STATE> <ZIP>

Re: Loup Power District Hydroelectric Relicensing

Dear <NAME>,

The existing license for Loup Power District's hydroelectric project will expire in April 2014. The process for relicensing begins this year as mandated by the Federal Energy Regulatory Commission.

The first step in that process is to thoroughly assess the environment in which our hydroelectric project operates. A key consideration of this assessment is the natural Loup River channel, sometimes called the bypass reach. As a land owner along the bypass reach, your input in the project is important.

We are currently collecting environmental data and are working with state and Federal agencies to identify pertinent issues along the power canal and the bypass reach. If you would like to provide input, ask a question of the study team, or be more directly involved in the process, we would welcome your participation. You may indicate your interest in any of the following ways:

- E-mail the project team at: relicensing@loup.com
- Call the project hotline: 1-866-869-2087
- Send a letter by mail or by fax to me:

Neal Suess, President/CEO Loup Power District 2404 15<sup>th</sup> Street P.O. Box 988 Columbus. NE 68602-0988

Fax: 402-564-0970 Attn: Relicensing

We have also established a website with up-to-date information about this project: www.loup.com.

We look forward to working with you throughout the multi-year relicensing process.

Loup Power District Sincerely,

Neal D. Suess, PE President/CEO TO: Emily Buss

RE: Issues concerning the relicensing of the Loup Public Power District with FERC.

FROM: Nebraska Department of Natural Resources

DATE: June 20, 2008

- 1. Nebraska law provides that waters used for irrigation have preference over waters used for manufacture of power. This means an irrigator with an appropriation junior to LPPD's appropriation may require the senior water right for power LPPD -- to subordinate its water use. The law also provides that just compensation must be paid by an irrigator to LPPD when subordination is demanded. Just compensation is not an arbitrary amount, but an amount not greater than the cost of replacing the power which would be generated by the water so acquired. LPPD has set amounts for irrigators to take water out of priority. The rate for those irrigators taking water from the canal between the diversion on the Loup River and the power plants at Monroe and Columbus is different than the rate charged for those irrigators taking water upstream of the diversion. How does LPPD figure "just compensation"? The Power Interference Agreement states that the amount charge irrigators is not just compensation.
- 2. Why does LPPD allow farmers to irrigate out of its canal? The Nebraska Department of Natural Resources knows of no easements in place for those irrigators taking from the canal. LPPD appears to operate as an irrigation district, rather than a power district.
- 3. At times LPPD diverts most or all of the Loup River, in effect changing the channel of the river. What if an irrigator requests water be delivered out of the river downstream of the diversion point and upstream of the discharge into the Platte River, willing to pay LPPD just compensation?
- 4. Has LPPD considered its response in the event irrigation development continued in areas upstream of LPPD's plants to the point of making the manufacturing of electricity no longer feasible?
- 5. Should LPPD be allowed to divert their entire appropriation when making power with less than the entire appropriation, given that LPPD has no storage permit?

From: Angell, Jean [jangell@dnr.ne.gov]
Sent: Monday, June 23, 2008 3:19 PM

To: Buss, Emily D.

Subject: June 25 LPPD meeting

Attachments: concerns.doc

Follow Up Flag: Follow up Flag Status: Flagged

I will be able to attend the Loup Public Power District FERC relicensing meeting in Columbus on June 25, 2008. Attached please find the Department of Natural Resources issues for consideration. If you have any questions about the document, please feel free to contact me. Thank you.

Jean Angell Legal Counsel Department of Natural Resources 471-3931



## United States Department of the Interior



NK-300 NK-300 ADM-10.00 **BUREAU OF RECLAMATION** 

Great Plains Region Nebraska-Kansas Area Office P.O. Box 1607 Grand Island, Nebraska 68802-1607

JUN 2 3 2008

Neal Suess, President/CEO Loup Power District P.O. Box 988 Columbus, NE 68602-0988

JUN 27 200

Subject: Loup Power District – Hydropower Relicensing – Joint Agency Meeting

Dear Mr. Suess:

This is in response to your June 6, 2008 letter to the Commissioner inviting us to your June 25, 2008 Agency Follow-up Meeting concerning your District's hydroelectric project and FERC (Federal Energy Regulatory Commission) relicensing. Reclamation will not be sending a representative to this meeting.

Our primary point of contact for this project is Mr. Mike Ferguson, Great Plains Regional Office, P. O. Box 36900, Billings, MT 59101. His telephone number is 406-247-7705.

Please address all future correspondence to Mr. Ferguson and include a courtesy copy of the correspondence to this office, address as provided above. Thank you.

Sincerely,

Agron M. Thompson

Area Manager

grafia de la compresa a compresa de la compresa del compresa de la compresa de la compresa de la compresa del compresa de la compresa del la compresa de la compresa de la compresa de la compresa de la compresa de la compresa de la compresa de la compresa de la compresa de la compresa de la compresa de la compresa de la compresa della compresa de la compresa della 
cc: GP- 2020 (Mike Ferguson)

From: Robert\_Harms@fws.gov

**Sent:** Tuesday, June 24, 2008 5:23 PM

To: Waldow, George; nsuess@loup.com; Buss, Emily D.; White, Stephanie

**Cc:** rick.schneider@ngpc.ne.gov; kristal.stoner@ngpc.ne.gov; frank.albrecht@ngpc.ne.gov; gene.zuerlein@ngpc.ne.gov; joel.jorgensen@ngpc.ne.gov; mike.fritz@ngpc.ne.gov;

gene.zuerlein@ngpc.ne.gov; joel.jorgensen@ngpc.ne.gov; mike.fritz@ngpc.ne.gov mark.porath@ngpc.ne.gov; Martha\_Tacha@fws.gov; John\_Cochnar@fws.gov; Greg\_Wingfield@fws.gov; jeff\_runge@fws.gov; Donald\_Anderson@fws.gov;

richard.holland@ngpc.ne.gov; larry.hutchinson@ngpc.ne.gov

Subject: Concerns Loup Power District Relicensing

Attachments: Loup PD Concerns.doc

#### Neal/George/Emily:

The U.S. Fish and Wildlife Service (Service) and Nebraska Game and Parks Commission (Commission) have prepared a preliminary list of concerns associated with proposed relicensing of the Loup River Hydroelectric Project as requested at the May 7, 2008, meeting. They are attached. The Service and Commission look forward to discussing these with you tomorrow.

(See attached file: Loup PD Concerns.doc)

**Bob Harms** 

Robert R. Harms Fish and Wildlife Biologist U.S. Fish and Wildlife Service 203 West Second Street Grand Island, Nebraska 68801 Phone: 308-382-6468, Extension 17

Fax: 308-384-8835 robert harms@fws.gov

### Preliminary Concerns, Loup Power District Relicensing

## U.S. Fish and Wildlife Service Nebraska Game and Parks Commission June 25, 2008

- 1) Flow depletion on the Loup River below the diversion at Genoa. Affected resources include:
  - a) diminished peak flows affecting sand bar suitability for nesting and foraging piping plover and least tern;
  - b) increased susceptibility of invasive and/or woody plant species becoming established on sandbar habitats;
  - c) water diversion for hydropower, irrigation, and any associated evaporation from the Loup River may increase susceptibility of land-based predation due to shallow water in channels affecting least tern and piping plover;
  - d) water diversion from the Loup River may increase human disturbance which may affect nest initiation and/or abandonment for the least tern and piping plover;
  - e) water diversion from the Loup River may lower production of invertebrates and fish affecting food availability for the least tern, piping plover, Tier 1 species, and other riverine fish and wildlife species;
  - f) low flows affecting fish movement/migration;
  - g) water diversion from the Loup River will increase probability of fish kills due to stranding of fish in pools and increased water temperatures;
  - h) loss and/or degradation of adjacent wetland habitats connected to the river via groundwater; and
  - i) narrow channels could result in vegetative encroachment.
- 2) Flow depletion on the Loup River above the diversion at Genoa due to potential sales of water rights to other upstream water users. Affected resources include:
  - a) diminished peak flows affecting sand bar suitability for nesting and foraging piping plover and least tern;
  - b) increased susceptibility of invasive and/or woody plant species becoming established on sandbar habitats;

- c) water withdrawals for other uses on the Loup River may increase susceptibility of land based predation due to shallow water in channels affecting least tern and piping plover;
- d) water withdrawals from the Loup River may increase human disturbance which may affect nest initiation and/or abandonment for the least tern and piping plover;
- e) water withdrawals from the Loup River may lower production of invertebrates and fish affecting food availability for the least tern, piping plover, Tier 1 species, and other riverine fish and wildlife species;
- f) low flows affecting fish movement/migration;
- g) water withdrawals from the Loup River will increase probability of fish kills due to stranding of fish in pools and increased water temperatures;
- h) loss and/or degradation of adjacent wetland habitats connected to the river via groundwater; and
- i) narrower channels could result in vegetative encroachment.
- 3) Flow depletion on the Platte River system from: a) evaporative losses within the power canal system, and b) withdrawal of water from canal for irrigation uses. Affected resources include:
  - a) diminished peak flows affecting sand bar suitability for nesting piping plover and least tern;
  - b) reduced production of invertebrates and fish potentially affecting food availability for the least tern, piping plover, pallid sturgeon, Tier 1 species, and other riverine fish and wildlife resources;
  - c) reduced flows affecting pallid sturgeon migration/movement;
  - d) increased susceptibility of invasive and/or woody plant species becoming established on sandbar habitats;
  - e) potential impact on spawning cues for pallid sturgeon, catfish, sauger, and other river fish;
  - f) loss and/or degradation of adjacent wetland habitats connected to the river via groundwater;
  - g) narrower channels could result in vegetative encroachment; and

- h) thermal stress on fish.
- 4) Sediment-deprived flow that is discharged from the tailrace into the Platte River may have the following impacts:
  - a) reduced sandbar formation/maintenance for least tern, piping plover nesting and foraging habitats and
  - b) channel degradation resulting in disconnected side-channels, backwaters, a deeper, narrower main channel, and floodplain affecting least tern, piping plover and other riverine fish and wildlife resources.
- 5) Dredging and discharge activities at the settling basin. Impacts include:
  - a) overcovering of nests with discharge on nesting least terns and piping plovers;
  - b) entrapment of fish on spoil pile; and
  - c) entrainment and mortality of fish during dredging operations.
- 6) Hydrocycling. Affected resources include:
  - a) inundation of sandbars and loss of least tern and piping plover nests;
  - b) inundation of sandbars results in the loss of sandbar habitat that could have otherwise been used by least terns and piping plovers for nesting and foraging;
  - c) frequent daily erosion of sandbars affecting least tern and piping plover habitat needs;
  - d) impacts to benthic production affecting food resources for riverine fish and wildlife including listed threatened endangered species; and
  - e) seasonal hydrocycling impacts to pallid sturgeon and other riverine fish species affecting fish passage, stranding fish in pools, heat stress, and elevated levels of predation.
- 7) Recreation. Recreational benefits of the multiple use project may have degraded over the project period. Have the proposed benefit components been completed, maintained and operated, or enhanced during the project period? Affected resources include:
  - a) aquatic habitat for recreational fish species in storage reservoirs;
  - b) impediments in canal delivery system for distribution of recreational fish species;

- c) access to project property for public fishing and hunting;
- d) project operation activities resulting in fish kills within the canal and storage reservoirs;
- e) degradation of the recreational fishery due to project-related activities;
- f) a barrier to fish movement at the diversion dam; and
- g) Canal maintenance activities may affect fish.



## Loup Power District Hydroelectric Relicense Project Recreation/Land Use/Aesthetics Work Group Contact List

First Name	Last Name	Organization	Address 1	Address 2	City	State	Zip Code	Phone	Fax	E-Mail
Randy	Thoreson	National Park Service Field Office	111 E. Kellogg Blvd., Suite 105		St. Paul	MN	55101- 1256	1-651- 290-3004	1-651- 290- 3815	randy_thoreson@nps.gov
Dave	Tunink	Nebraska Game and Parks Commission	2201 North 13th		Norfolk	NE	68701	1-402 471-5553		Dave.Tunink@ngpc.ne.gov
Henry	Santin Jr.	Nance County	209 Esther St		Fullerton	NE	68638	1-308- 894-5495		santin@hamilton.net
Bob	Harms	United States Fish and Wildlife Service	Federal Building	203 West Second Street	Grand Island	NE	68801	1-308- 382-6468 ext. 17		robert_harms@fws.gov
Matt	Pillard	HDR Engineering, Inc.	8404 Indian Hills Drive		Omaha	NE	68114- 4049	402-399- 1186		matt.pillard@hdrinc.com
Ron	Ziola	Loup Power District	P.O. Box 988	2404 15th Street	Columbus	NE	68602- 0988	402-564- 3171 ext. 254		rziola@loup.com

Up to date as of 06/26/2008

From: White, Stephanie

Sent: Friday, June 27, 2008 10:47 AM randy\_thoreson@nps.gov

Cc: Pillard, Matt

Subject: Recreation/Land Use/Aesthetics Workgroup

Attachments: 080626\_Recreation\_Land\_Use\_Aesthetics\_WG\_Contact\_List\_edb.doc

Good morning Randy -

Attached please find the contact list for your workgroup. Over time you may end up adding or subtracting to this group - please keep Matt Pillard in the loop so we can appropriately reflect the group and its activities in our pre-application document and subsequent reports.

It was nice to see you this week - thanks for making the trip to Columbus. You're a very important resource for the group.

Have a nice weekend -

Stephanie

From: White, Stephanie

**Sent:** Friday, June 27, 2008 10:51 AM

To: jangell@dnr.ne.gov
Cc: jangell@dnr.ne.gov
Pillard, Matt

Subject: Water Rights Workgroup

Attachments: 080626\_Water\_Rights\_WG\_Contact\_List\_edb.doc

#### Good morning Jean -

Attached please find the contact list for your Water Rights Workgroup. You may find that the group will grow or shrink over time - please keep Matt Pillard in the loop so that we can appropriately reflect the groups membership and activities in our pre-application document as well as subsequent reports.

Thanks for contributing your time to this - as our discussion indicated on Wednesday, this is a very important topic.

Have a great weekend -

Stephanie White



## Loup Power District Hydroelectric Relicense Project Water Rights Work Group Contact List

First Name	Last Name	Organization	Address 1	Address 2	City	State	Zip Code	Phone	Fax	E-Mail
Jean	Angell	Nebraska Department of Natural Resources	State Office Building, 4th Floor	300 Centennial Mall South; P.O. Box 4676	Lincoln	NE	68509- 4676	1-404- 471-3931	1-402-471- 2900	jangell@dnr.ne.gov
Bob	Harms	United States Fish and Wildlife Service	Federal Building	203 West Second Street	Grand Island	NE	68801	1-308- 382-6468 ext. 17		robert_harms@fws.gov
Phil	Soenksen	U.S. Geologic Survey	5231 South 19th		Lincoln	NE	68512- 1271	1-402 328- 4150		pjsoenks@usgs.gov
Robert	Mohler	Lower Loup NRD	2620 Airport Drive, P.O. Box 210		Ord	NE	68862- 0210	1-308- 728-3221	1-308 728- 5669	mohler@nctc.net
David	Jundt	Nebraska Department of Health and Human Services; Division of Public Health; Northeast Regional Office	304 North 5th St. Suite C		Norfolk	NE	68701- 4093	1-402- 370-3404	1-402-370- 3493	david.jundt@dhhs.ne.gov
Pat	Engelbert	HDR Engineering, Inc.	8404 Indian Hills Drive		Omaha	NE	68114- 4049	1-402- 399-4917		pat.engelbert@hdrinc.com
John	Engel	HDR Engineering, Inc.	8404 Indian Hills Drive		Omaha	NE	68114- 4049	1-402- 926-7110		john.engel@hdrinc.com
Jim	Frear	Loup Power District	P.O. Box 988	2404 15th Street	Columbus	NE	68602- 0988	1-402- 564-3171 ext. 255		jfrear@loup.com
John	Shadle	Nebraska Public Power District	P.O. Box 519		Norfolk	NE	68702- 0519	1-402- 563-5489		jjshadl@nppd.com

Up to date as of 06/26/2008



## LOUP POWER DISTRICT

"SERVING YOU ELECTRICALLY"

GENERAL OFFICE

2404 15th Street P.O. Box 988 Phone: 402/564-3171

P.O. Box 988 Fax: Columbus, NE 68602-0988 402/9

402/564-0970

July 1, 2008

Jean Angell Legal counsel Nebraska Department of Natural Resources PO Box 94676 Lincoln, NE 68509-4676

Dear Ms. Angell:

Subject: Irrigation Agreement

Irrigation Rules and Regulations

FERC License Article 18

Enclosed is the information you requested regarding irrigators and access to project property.

Sincerely,

Konald Ziola

Engineering Manager

RZ:ar

Enc.

C: N. Suess

L. Richardson – HDR w/enc.

## **PUMP IRRIGATION AGREEMENT**

THIS AGREEMENT made and entered into this day of, 2008,
between LOUP RIVER PUBLIC POWER DISTRICT, a public corporation, hereinafter
referred to as "Loup District" and, hereinafter referred to as "Irrigator".
Loup District under its Application No. 2287, Department of Roads and Irrigation of the State of Nebraska, has an appropriation of water from the Loup River at the rate of 3500 cubic feet per second for electric power purposes, with a priority date of September 15, 1932. It is engaged in the generation of electric power, and incidental thereto owns, operates and maintains a headworks and diversion dam about seven miles west of Genoa Nebraska, and a canal to transport water from the point of diversion easterly through Nance and Platte Counties to a point on the Platte River about three miles east of Columbus, Nebraska.
Irrigator is the owner of a tract of land situated in County, Nebraska, described to wit:
·
for which said tract of land there is an approved appropriative right to divert water from the Loup River in the amount ofcubic feet per second, under Nebraska Department of Water Resources Application No, and said Irrigator is desirous of irrigating all or part of said described lands with water from the Loup River.
NOW THEREFORE IT IS MUTUALLY AGREED between the parties hereto viz:
That the Loup District will subordinate its water rights to the right of the Irrigator to appropriate the maximum amount of water as provided in paragraph 4 of Irrigator's Application and permit, and hereby permits the carriage of such water through its canal from the point of diversion to a point on Loup District's canal where the same can be conveniently applied on said described lands upon the following conditions:

- 1. That all water so taken by Irrigator from Loup District's canal will be removed by pumps or siphons in such a manner as not to interfere with the operation by Loup District of its electric power system.
- 2. That all installations made upon Loup District's right-of-way for removal of water from the canal shall be at the sole expense of the Irrigator and subject to such restrictions and such rules and regulations as Loup District may from time to time impose for the protection of its works.

The aforementioned rules and regulations established by the District, as defined in "Rules and Regulations Governing Irrigation from the

Canal, Tailrace and Reservoirs", and all amendments and additions thereto, and changes therein hereafter made are hereby made a part of this agreement and the Owner hereby agrees to comply therewith and be bound thereby to the same extent as though said rules and regulations and amendments, additions and changes were incorporated herein.

- 3. No installation for removal of water from the canal shall be placed upon said right-of-way until a plan thereof has been submitted to and approved in writing by the President/CEO of the Loup District. Such installation shall thereafter be constructed strictly in accordance with said approved plan and not otherwise.
- 4. Irrigator shall be liable to the Loup District for any and all damages suffered by the Loup District resulting from the installation and operation of such installation. Any damages so caused shall be paid within ten (10) days after rendition of statement therefore by the Loup District to the Irrigator. Failure of Irrigator to pay the amount of such statement within said ten days shall give to Loup District the right to immediately terminate this contract.
- That Loup District assumes no responsibility for supply of, or continuity of flow of, water in the canals, tailraces, or its reservoir, nor for its division or determination of priorities in its use between Irrigator and other similar irrigators.

Further, - the Loup District assumes no responsibility for maintaining at any particular elevation the water surface in any part of its canals, tailraces, or reservoir. It is expressly understood between the parties hereto that the water levels will fluctuate widely and that a lowered water level will reduce the output of the Irrigators' works.

6. Irrigator agrees to pay Loup District to compensate it for damages suffered by it for loss of use of water so used and for the carriage of such water through Loup District's canal the rate approved by Loup Board of Directors for each acre foot taken. The amount of such water carried and taken is to be metered at the point where the same is removed from the canal in the manner as prescribed by Loup District. Recording meters of a type approved by the Loup District shall be installed and maintained at the expense of the Irrigator.

On all new installations the Loup District will cover and maintain the cover over the pipe through the berm road. The Irrigator will pay the Loup District the actual costs of the initial installation.

7. An irrigation season shall be from April 1<sup>st</sup> to November 1<sup>st</sup> of each year. Irrigator will be billed for water used at the end of the irrigation season, and the amount due will be payable before January 1<sup>st</sup> of the following year.

8. Either party hereto may terminate this agreement by written notice to the other. The effective date of such termination shall be the first of January immediately following the service of such notice.

IN WITNESS WHEREOF the parties hereto have caused this Agreement to be executed.

Attest:	LOUP RIVER PUBLIC POWER DISTRICT A Public Corporation			
	By			
Assistant Secretary	President/CEO			
Witness:				
	By			
	Irrigator			

#### LOUP RIVER PUBLIC POWER DISTRICT

## RULES AND REGULATIONS GOVERNING IRRIGATION FROM THE CANAL, TAILRACE AND RESERVOIRS

- 1. No person shall be permitted to irrigate or take water from the Loup District's canals, tailraces or reservoir or to install or maintain a pump or siphon on the District's right-of-way or operate same unless the owner of the land to be irrigated shall have entered into a written contract with the District on forms provided by the District. With a properly executed contract, the District allows ingress and egress onto District property to the irrigator for the purpose of operating and maintaining said irrigation installation.
- 2. Irrigator's works and equipment shall be so arranged that they in no way interfere with Loup District operations. Piping, and pump and source of power shall be so located as to not reduce the effective width of the berm right-of-way or restrict or interfere with vehicular traffic or maintenance work thereon.

#### 3. Piping

- (a) All irrigation water shall be conveyed entirely off Loup District right-of-way with pipe. No open trenches will be permitted on Loup District right-of-way.
- (b) All piping used on Loup District right-of-way shall be of good quality and must be approved by the District before it is put in place. In general it shall be of such quality to eliminate danger of leakage, and thereby damage, to the canal banks.
- (c) Where piping crosses the canal road berm:
  - (1) No piping shall be permitted to be enclosed by culvert or other type of pipe, nor will any opening be allowed to remain around or adjacent to the irrigation pipe.
  - (2) The bottom of the pipe must be at least three feet above canal high water as established by Loup District Engineers.
  - (3) It shall be of such structural strength that heavy construction equipment passing over it will not crush it.
- 4. Canal banks must be protected at all times against erosion, seepage and other damages due to leakage from irrigator's piping and other equipment.
- 5. Where the irrigator conveys water over or across lands not belonging to himself, he shall obtain an easement in writing from the owner thereof permitting him to do so; and he shall furnish the Loup District a signed copy of the easement, said copy to be retained by the District as a part of its permanent record.
  - The easement shall be of a form acceptable to the Loup District and shall protect the District against claim of any and all damages occurring as a result of any act or acts of the irrigator on lands covered by the easement.
- 6. All pumps or siphons installed shall be equipped by the irrigator with a water meter approved by the District. The meter shall be guaranteed by the manufacturer to be accurate within two percent. It will be the duty of the irrigator to maintain the meter in good working order at all times. In the event of the failure of the water meter to function properly the owner will repair same as quickly as possible.

- 7. All pump or siphon installations shall be equipped with a good quality gate valve of a design approved by the District.
- 8. The irrigator shall furnish a plan of the proposed pumping installation or siphon installation indicating just where and how the power unit and pump will be placed, the position of the suction line and discharge, the plan of the discharge box, and other pertinent data. No installation will be permitted until the plan has been approved by the District.
- 9. The Loup District shall not be liable for any damage to irrigator's equipment due to vandalism, acts of the general public or for any other reason.
- 10. If necessary for the repair, maintenance or proper operation of the canal, the District reserves the right to remove the pump or siphon and auxiliary equipment from the District's right-of-way without the consent of, or notice to, the irrigator. When the repair or other work necessitating the removal is completed, the District will replace the landowner's equipment at approximately the same place in substantially the same condition as it was before removal. The District shall not be liable for any damage resulting from such removal. The irrigator will be required to operate his pump and other equipment so as not to damage the District's works, and he will hold the District harmless as to all damage to District's works and to other persons and property resulting from the irrigator's operation and maintenance of his equipment on District's right-of-way.
- 11. Representatives of the District shall inspect pump or siphon installations from time to time. If it is found that water is being used by the irrigator in violation of any to the terms of his contract with the District, or rules and regulations which are a part of that contract, the siphon or pump will be closed down and locked.
  - When a pump or siphon has been closed for violation of any of the rules or regulations, or the terms of the contract it shall remain closed until the District is assured that such violations have ceased and will not again be continued.
- 12. The District shall have the right to amend, change or add to the foregoing rules at any time in accordance with the terms of the contracts entered into between it and the landowners.

Tessonably required to complete such facilities or such improvements thereof. In addition, after notice and opportunity for hearing, the Licensee shall modify the project operation as may be reasonably prescribed by the Commission in order to permit the maintenance and operation of the fish and wildlife facilities constructed or improved by the United States under the provisions of this article. This article shall not be interpreted to place any obligation on the United States to construct or improve fish and wildlife facilities or to relieve the Licensee of any obligation under this license.

Article 17. The Licensee shall construct, maintain, and operate, or shall arrange for the construction, maintenance, and operation of such reasonable recreational facilities, including modifications thereto, such as access roads, wharves, launching ramps, beaches, picnic and camping areas, sanitary facilities, and utilities, giving consideration to the needs of the physically handicapped, and shall comply with such reasonable modifications of the project, as may be prescribed hereafter by the Commission during the term of this license upon its own motion or upon the recommendation of the Secretary of the Interior or other interested Federal or State agencies, after notice and opportunity for hearing.

Article 18. So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the Licensee for the purpose of full public utilization of such lands and waters for navigation and for outdoor recreational purposes, including fishing and hunting: Provided, That the Licensee may reserve from public access such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property.

Article 19. In the construction, maintenance, or operation of the project, the Licensee shall be responsible for, and shall take reasonable measures to prevent, soil erosion on lands adjacent to streams or other waters, stream sedimentation, and any form of water or air pollution. The Commission, upon request or upon its own motion, may order the Licensee to take such measures as the Commission finds to be necessary for these purposes, after notice and opportunity for hearing.

From: Pillard, Matt

Sent: Wednesday, July 02, 2008 4:07 PM

To: 'Robert\_Harms@fws.gov'

Richardson, Lisa (Omaha); Ron Ziola (rziola@loup.com) Cc: Loup Power Relicensing - FERC and ESA process discussion Subject:

**Attachments:** esa\_guide.pdf

Bob,

July 22nd will work for Loup. So we'll plan on meeting at 10:00 a.m. at Loup's office.

Also, please see the attached Hydropower Licensing and Endangered Species Guide.

Please contact me with any questions.

Thanks.

#### Matt Pillard, AICP

Environmental Planner

### HDR | ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111 Email: Matt.Pillard@hdrinc.com



Pillard, Matt From:

Sent: Wednesday, July 02, 2008 9:09 AM

To: 'randy\_thoreson@nps.gov'

Loup Power District Hydro Project - Work Group Coordination Subject:

Dear Randy,

I wanted to thank you for agreeing to chair a Work Group for the Loup Power District Hydro Project. On behalf of Loup, I wanted let you to know that HDR is available to provide administrative assistance for this effort. This includes providing a conference call service and meeting notes.

The conference call number that you can utilize is:

Toll-free dial-in number (US and Canada): (866) 994-6437

**Conference code:** 4023994909

I believe Stephanie sent you a member list for your work group.

Please let me know if we can be of any other administrative assistance.

Thank you.

#### Matt Pillard, AICP

Environmental Planner

#### HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111

Email: Matt.Pillard@hdrinc.com



From: Pillard, Matt

Sent: Wednesday, July 02, 2008 4:00 PM

To: 'Anna Baum'; 'Barb Friskopp'; 'Bobbie Kriz-Wickham'; 'Butch Koehlmoos'; 'David Jundt'; 'Frank

Albreicht'; 'Henry Santin'; 'Jason Alexander'; 'Jean Angell'; 'Joe Cothern'; 'John Bender'; 'Justin

Lavene'; 'Lacie Andreason'; 'Mark Czaplewski'; 'Randy Thoreson'; 'Richard Hadenfeldt';

'Robert Harms'; 'Robert Puschendorf'

**Subject:** Loup Power District Hydro Project - June 25 Agency Meeting Notes **Attachments:** nAgency.080625.Issues.doc; nAgency.080625\_Attachments.pdf;

Mystic.StudyRequest14.Recreation\_Counts.pdf; Mystic.StudyRequest7

\_Temperature\_Monitoring.pdf

#### Good afternoon!

As the point of contact for your respective agency for the Loup Power District Hydro Project, please find attached a draft copy of the meeting notes and associated attachments. Please distribute as needed to your fellow agency representatives.

If you have questions or comments on the meeting notes and/or attachments to the notes, please consolidate your agency's comments and send them to my attention on or before 12:00 p.m. on Friday July 11, 2008. You can make your comments in track changes directly to the Microsoft Word document if you choose. A final version of the meeting notes will be placed on the Project web site (http://www.loup.com/relicense/) by Monday July 14, 2008.

Also, for your information, I have attached two examples of final study requests from other relicensing projects.

Thank you.

#### Matt Pillard, AICP

**Environmental Planner** 

#### HDR ONE COMPANY Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111

Email: Matt.Pillard@hdrinc.com





Hydroelectric Relicensing FERC Project 1256 Project #37104

## Agency Meeting Attendees June 25, 2008 10:00 AM to 2:00 PM

Last Name	First Name	Agency / Organization
Albrecht	Frank	Nebraska Game and Parks
Alexander	Jason	United States Geological Survey
Angell	Jean	Nebraska Department of Natural Resources
Barels	Brian	Nebraska Public Power District
Bender	John	Nebraska Department of Environmental Quality
Cochnar	John	United States Fish and Wildlife Service
Engelbert	Pat	HDR
Jim	Frear	Loup Power District
Hadenfeldt	Richard	Lower Loup Natural Resources District; Nebraska Natural Resources Commission
Harms	Bob	United States Fish and Wildlife Service
Jundt	David	Nebraska Department of Health and Human Services; Division of Public Health
Mangiamelli	Joe	City of Columbus
Mohler	Robert	Lower Loup Natural Resources District
Pillard	Matt	HDR
Runge	Jeff	United States Fish and Wildlife Service
Santin	Henry	Nance County Supervisors



Last Name	First Name	Agency / Organization
Shadle	John	Nebraska Public Power District
Sigler	Bill	HDR
Soenksen	Phil	United States Geological Survey
Stoner	Kristal	Nebraska Game and Parks
Sunneberg	Jon	Nebraska Public Power District
Tacha	Martha	United States Fish and Wildlife Service
Thoreson	Randy	National Park Service
Tunink	Dave	Nebraska Game and Parks
Waldow	George	HDR
Weekley	Mark	National Park Service
White	Stephanie	HDR
Zelt	Ronald	United States Geological Survey; Nebraska Water Science Center
Ziola	Ron	Loup Power District
Zuerlein	Gene	Nebraska Game and Parks

From: Pillard, Matt

**Sent:** Friday, July 11, 2008 3:24 PM

To: Robert Harms (Robert\_Harms@fws.gov)

Subject: FW: Loup Power Relicensing - FERC and ESA process discussion

Attachments: esa\_guide.pdf

Bob,

Message from July 2.

Thanks.

Matt

From: Pillard, Matt

Sent: Wednesday, July 02, 2008 4:07 PM

To: 'Robert\_Harms@fws.gov'

Cc: Richardson, Lisa (Omaha); Ron Ziola (<a href="mailto:rziola@loup.com">rziola@loup.com</a>)

Subject: Loup Power Relicensing - FERC and ESA process discussion

Bob,

July 22nd will work for Loup. So we'll plan on meeting at 10:00 a.m. at Loup's office.

Also, please see the attached Hydropower Licensing and Endangered Species Guide.

Please contact me with any questions.

Thanks.

#### Matt Pillard, AICP

Environmental Planner

#### HDR ONE COMPANY | Many Solutions

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Email: Matt.Pillard@hdrinc.com





2404 15th Street P.O. Box 988 Columbus, NE 68602-0988 Phone: 402/564-3171 Fax: 402/564-0970

July 14, 2008

Richard Roos-Collins Senior Attorney Natural Heritage Institute 100 Pine St., Suite 1550 San Francisco, CA 94111

Re: Loup Power District Hydroelectric Relicensing Invitation to Participate in Project Scoping

Dear Mr. Roos-Collins,

In May of 2008, your organization was invited to attend public meetings regarding Loup Power District's (District) relicensing process for its hydroelectric project near Columbus, Nebraska. We appreciated the input we received at the public meetings held on June 10 and 11. At this time, we wish to invite Non-Government Organizations (NGOs) to participate in the agency discussions regarding the scope of relicensing for the Project.

There are several opportunities for NGOs to become involved.

- The District is working with numerous resource agencies to identify issues related to relicensing and we invite you to participate in this group, providing comments and attending agency information meetings.
- The District has also organized two working groups to discuss specific project issues: Recreation, Land Use & Aesthetics and Water Rights & Appropriations.

If your NGO would like to participate in the project scoping process by participating in the larger agency group or by participating in a working group, please contact either myself by email at <a href="mailto:nsuess@loup.com">nsuess@loup.com</a> or Matt Pillard with HDR by email at <a href="mailto:nsuess@loup.com">nsuess@loup.com</a> or Matt Pillard with HDR by email at <a href="mailto:nsuess@loup.com">nsuess@loup.com</a> or by phone at 402-399-1186. Please provide the name and contact information of the participant from your organization.

The next meeting of the larger agency group has been set for July 24<sup>th</sup>, 2008 to discuss potential studies. Your agency is welcome to participate in this discussion. Details of the meeting are below.

What: Agency Meeting – Potential Studies Discussion

**When:** Thursday, July 24<sup>th:</sup> 9:00 a.m. –1:30 p.m. (lunch will be provided) **Where:** Holiday Inn Express, 524 E. 23<sup>rd</sup> St., Columbus, Nebraska, 68601

Conference call participation is also available

**RSVP:** Matt Pillard, HDR, 402-399-1186, Matt.Pillard@hdrinc.com

We look forward to your participation and working with your organization throughout the relicensing process.

Sincerely,

Neal D. Suess, P.E. President/CEO



Hydroelectric Relicensing FERC Project 1256 Project #37104

## Agency Meeting Attendees June 25, 2008 10:00 AM to 2:00 PM

Last Name	First Name	Agency / Organization
Albrecht	Frank	Nebraska Game and Parks
Alexander	Jason	United States Geological Survey
Angell	Jean	Nebraska Department of Natural Resources
Barels	Brian	Nebraska Public Power District
Bender	John	Nebraska Department of Environmental Quality
Cochnar	John	United States Fish and Wildlife Service
Engelbert	Pat	HDR
Jim	Frear	Loup Power District
Hadenfeldt	Richard	Lower Loup Natural Resources District; Nebraska Natural Resources Commission
Harms	Bob	United States Fish and Wildlife Service
Jundt	David	Nebraska Department of Health and Human Services; Division of Public Health
Mangiamelli	Joe	City of Columbus
Mohler	Robert	Lower Loup Natural Resources District
Pillard	Matt	HDR
Runge	Jeff	United States Fish and Wildlife Service
Santin	Henry	Nance County Supervisors



Last Name	First Name	Agency / Organization
Shadle	John	Nebraska Public Power District
Sigler	Bill	HDR
Soenksen	Phil	United States Geological Survey
Stoner	Kristal	Nebraska Game and Parks
Sunneberg	Jon	Nebraska Public Power District
Tacha	Martha	United States Fish and Wildlife Service
Thoreson	Randy	National Park Service
Tunink	Dave	Nebraska Game and Parks
Waldow	George	HDR
Weekley	Mark	National Park Service
White	Stephanie	HDR
Zelt	Ronald	United States Geological Survey; Nebraska Water Science Center
Ziola	Ron	Loup Power District
Zuerlein	Gene	Nebraska Game and Parks

From: Pillard, Matt

**Sent:** Monday, July 14, 2008 4:18 PM

To: 'Anna Baum'; 'Barb Friskopp'; 'Bobbie Kriz-Wickham'; 'Butch Koehlmoos'; 'David Jundt'; 'Frank

Albreicht'; 'Henry Santin'; 'Jason Alexander'; 'Jean Angell'; 'Joe Cothern'; 'John Bender'; 'Justin

Lavene'; 'Lacie Andreason'; 'Mark Czaplewski'; 'Randy Thoreson'; 'Richard Hadenfeldt';

'Robert Harms'; 'Robert Puschendorf'

Subject: Loup Power District Hydro Project - Meeting Notes and Reminder

Good afternoon.

Please find on the Project website (<a href="http://www.loup.com/relicense/html/documents.html">http://www.loup.com/relicense/html/documents.html</a>) the meeting notes from the June 9 Agency Follow-up Meeting (Identify Issues and Concerns).

As a reminder, our next agency meeting is scheduled for July 25, from 9:00 a.m. to 1:30 p.m at the Holiday Inn Express (524 E 23rd St) in Columbus. Please RSVP to me so we can get an accurate count for lunch.

The purpose of this meeting is to discuss potential studies to be performed to address Project related issues. If your agency has developed preliminary study requests or has questions or information pertaining to study requests, please send them to my attention at any time.

As always, please contact me if you have any questions.

Thank you.

#### Matt Pillard, AICP

Environmental Planner

#### HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111

Email: Matt.Pillard@hdrinc.com



From: Pillard, Matt

**Sent:** Monday, July 14, 2008 4:33 PM

To: 'Anna Baum'; 'Barb Friskopp'; 'Bobbie Kriz-Wickham'; 'Butch Koehlmoos'; 'David Jundt'; 'Frank

Albreicht'; 'Henry Santin'; 'Jason Alexander'; 'Jean Angell'; 'Joe Cothern'; 'John Bender'; 'Justin

Lavene'; 'Lacie Andreason'; 'Mark Czaplewski'; 'Randy Thoreson'; 'Richard Hadenfeldt';

'Robert Harms'; 'Robert Puschendorf'

Subject: Loup Power District Hydro Project - Meeting day correction

My apologies for anther email here. Please make note:

Please find on the Project website (<a href="http://www.loup.com/relicense/html/documents.html">http://www.loup.com/relicense/html/documents.html</a>) the meeting notes from the **June 25** Agency Follow-up Meeting (Identify Issues and Concerns).

As a reminder, our next agency meeting is scheduled for **July 24**, from 9:00 a.m. to 1:30 p.m at the Holiday Inn Express (524 E 23rd St) in Columbus. Please RSVP to me so we can get an accurate count for lunch.

Sorry for the inconvenience.

Thanks.

#### Matt Pillard, AICP

**Environmental Planner** 

#### HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111

Email: Matt.Pillard@hdrinc.com



From: Pillard, Matt

**Sent:** Tuesday, July 15, 2008 6:35 AM **To:** 'Frank.Albrecht@ngpc.ne.gov'

Subject: FW: Loup Power District Hydro Project - Meeting Notes and Reminder Attachments: nAgency.080625\_Issues.doc; nAgency.080625\_Attachments.pdf;

Mystic.StudyRequest14.Recreation\_Counts.pdf; Mystic.StudyRequest7

Temperature Monitoring.pdf

#### Frank,

It looks like I had your mailing address typed incorrectly in my list-serve. Please see below. Let me know if you have any comments on the notes as it is possible you didn't get the email with them attached that was sent on July 2. The notes and associated attachments are attached. Sorry for the confusion. If you have anything that needs correcting, I'll get them corrected.

Also, the agenda for the July 24th meeting is also on the web site. Thanks.

Matt

From: Pillard, Matt

Sent: Monday, July 14, 2008 4:18 PM

**To:** 'Anna Baum'; 'Barb Friskopp'; 'Bobbie Kriz-Wickham'; 'Butch Koehlmoos'; 'David Jundt'; 'Frank Albreicht'; 'Henry Santin'; 'Jason Alexander'; 'Jean Angell'; 'Joe Cothern'; 'John Bender'; 'Justin Lavene'; 'Lacie Andreason'; 'Mark

Czaplewski'; 'Randy Thoreson'; 'Richard Hadenfeldt'; 'Robert Harms'; 'Robert Puschendorf'

Subject: Loup Power District Hydro Project - Meeting Notes and Reminder

Good afternoon.

Please find on the Project website (<a href="http://www.loup.com/relicense/html/documents.html">http://www.loup.com/relicense/html/documents.html</a>) the meeting notes from the June 25 Agency Follow-up Meeting (Identify Issues and Concerns).

As a reminder, our next agency meeting is scheduled for July 24, from 9:00 a.m. to 1:30 p.m at the Holiday Inn Express (524 E 23rd St) in Columbus. Please RSVP to me so we can get an accurate count for lunch.

The purpose of this meeting is to discuss potential studies to be performed to address Project related issues. If your agency has developed preliminary study requests or has questions or information pertaining to study requests, please send them to my attention at any time.

As always, please contact me if you have any questions.

Thank you.

Matt Pillard, AICP Environmental Planner

#### HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111

Email: Matt.Pillard@hdrinc.com



From: Randy Thoreson@nps.gov

Sent: Wednesday, July 16, 2008 2:09 PM

To: Dave.Tunink@ngpc.ne.gov; santin@hamilton.net; robert harms@fws.gov; Pillard, Matt;

rziola@loup.com

Cc: Mark Weekley@nps.gov

Loop Power Dist. recreation/land use/aesthetics work group conf. call Subject:

Attachments: Mystic.StudyRequest14.Recreation Counts.pdf

National Park Service

Rivers, Trails, and Conservation Assistance Program / Hydro Program

MN Office / Randy T. phone (651) 290-3004

Hi all,

As a follow-up to my calls to you folks, please note that we will have a conference call Thursday July 17, 2008 @ 2:00pm - 3:00pm

The call in information is:

Toll free dial-in number (866) 994-6437

Conference Code 4023994909

#### Items to discuss:

Group organization

Brainstorm list of recreation/land use/aesthetics issues of importance for the Loop Power District project Initial identification and format of Study Requests Input for the July 24, 2008 meeting

Next steps

#### Background

excerpt from June 25, 2008 meeting minutes:

#### Study Need and Requests

"The District requested that agencies begin to formulate study needs that may be necessary to address the issues and concerns identified by the agencies and forward that information to HDR as soon as possible. When developing study needs and requests, agencies should keep in mind the

\*seven(7) criteria FERC uses to asses study viability . At this point it in not necessary for agencies to address every item of the FERC criteria, the intent of the request is to consider what kind of information can be used to address the defined issues/concerns. The District is interested in collaboration on study requests, to the extent the agencies wish. Studies should focus on specific project related issues".

- \* Randy T. note: here are the seven criteria FERC uses to assess study
- 1. Describe the goals and objectives of the study.
- 2. Explain relevant resource management goals.
- 3. Explain any relevant public interest considerations.
- 4. Describe existing information concerning the subject of the study proposal.
- 5. Explain the nexus between project operations and effects on the resources to be studied.
- 6. Explain how any proposed study methodology is consistent with generally accepted practice.
- 7. Describe considerations of level of effort and cost.



"Always there when you need us"

Ronald D. Asche President & CEO Phone (402) 563-5461 Fax (402) 563-5145 rdasche@nppd.com

July 21, 2008

Neal Suess President/CEO Loup Power District 2405 15<sup>th</sup> Street P.O. Box 988 Columbus, NE 68602-0988

RE: Nebraska Public Power District Contact Person for LPD Relicensing Process

Dear Mr. Suess:

Thank you for inviting Nebraska Public Power District (NPPD) to participate in the Loup Power District's (LPD) FERC relicensing proceeding. Mr. John Shadle will act as our contact at NPPD. John can be reached at 402.563.5489 or <a href="mailto:jishadl@nppd.com">jishadl@nppd.com</a>. Mr. Shadle has worked in the natural resources and relicensing areas for many years and should be able to provide input to the process. He will also be the contact point for other departments within NPPD that may also have resources or information available for your relicensing process.

Having experienced first-hand a FERC relicensing process, NPPD understands that impacts to threatened and endangered species and river habitats have become a focal point of state and federal resource agencies in these proceedings. NPPD would encourage LPD to maintain maximum operational flexibility of its hydroelectric facilities, so when needed, they can be called upon in the most beneficial manner to help meet the State's energy needs.

Please contact Mr. Shadle directly and he will coordinate NPPD's participation in future meetings. Brian Barels, NPPD's Water Resources Manager, is also available to participate or assist in the process if you would like.

Nebraska Public Power District wishes you the best with the relicensing process. If there is anything we can do to assist, feel free to contact me.

Sincerely,

Ronald D. Asche President & CEO

Ronald D. Asche

Cc: John McClure Brian Barels John Shadle Pat L. Pope Ed Wagner Traci Bender



# United States Department of the Interior

#### FISH AND WILDLIFE SERVICE

Ecological Services Nebraska Field Office 203 West Second Street Grand Island, Nebraska 68801

July 21, 2008

FWS-NE: 2008-494

Mr. Neal Suess Loup Power District 2404 15<sup>th</sup> Street, PO Box 988 Columbus, NE 68602-0988

RE: Technical Assistance, Relicensing; Loup River Hydroelectric Project; Federal Energy Regulatory Commission Project Number 1256; Nance and Platte Counties, Nebraska

Dear Mr. Suess:

This is in regards to the proposed relicensing of the Loup River Hydroelectric Project (Project) by the Federal Energy Regulatory Commission (FERC), Project Number 1256. The Loup Power District manages operation of the Project, and is the non-federal project sponsor for the proposed relicensing action. The Project encompasses a diversion at Headwaters Park, near Genoa, Nebraska where flow at a maximum capacity of 3,500 cubic feet per second is diverted from the Loup River into a 35-mile-long canal. Flow from that canal is used to generate electricity at the Monroe and Columbus powerhouses. The Monroe Powerhouse is a run-of-the-river powerhouse. Lakes North and Babcock are located along the canal and are used to generate head pressure for the generation of electricity at the Columbus Powerhouse. Once exiting the Columbus Powerhouse, flows are discharged into the Platte River, approximately 1-mile downstream from the Loup and Platte rivers confluence. The 35-mile-long canal concurrently provides a water source to meet the irrigation needs of approximately 80 entities holding junior water rights to the Loup Power District's water right, dated 1935. Electricity generated by the Loup Power District is sold to the Nebraska Public Power District. The original 50-year federal license for the Loup River project was granted on April 17, 1934. The current license will expire in April 2014.

The U.S. Fish and Wildlife Service (Service), in coordination with the Nebraska Game and Parks Commission (Commission), has completed its preliminary review of the proposed relicensing project based on information and documentation provided at meetings on May 7, 2008, and June 25, 2008. The following comments are submitted to assist Loup Power District and its consultant HDR, in the preparation of a Pre-application document (PAD) for submittal to FERC in October 2008. A summarization of our preliminary concerns is included with this letter as an enclosure.

#### AUTHORITIES

The Service has responsibility under a number of authorities for the conservation and management of fish and wildlife resources. Chief among the federal statutes with which this office deals are the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*), Fish and Wildlife Coordination Act (FWCA) (488 Stat. 401; 16 U.S.C. 661 *et seq.*), Bald and Golden

Eagle Protection Act (BGEPA) (16 U.S.C. 703-712, as amended), and Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712, as amended). Compliance with all of these statutes and regulations is required to be in compliance with the National Environmental Policy Act (NEPA) (42 U.S.C. 4321-4347). In addition to these statues, the Service has authority under several other legislative, regulatory, and executive mandates to promote the conservation of fish and wildlife resources for the benefit of the American public.

In Nebraska, the Service has special concerns for endangered and threatened species, migratory birds, and other important fish and wildlife resources. We also are concerned about any impacts on Federal and State wildlife refuges and management areas and other public lands, as well as to other areas that support sensitive habitats. Habitats frequently used by important fish and wildlife resources are wetlands, streams, and riparian (streamside) woodlands. Special attention is given to proposals that include modification of wetlands, stream alteration, loss of riparian habitat, or contamination of important habitats. The Service recommends ways to avoid, minimize, rectify, reduce, or compensate for damaging impacts to important fish and wildlife resources and their habitats that may be attributed to land and water resource development proposals.

Please note that the Service's position on a project under the authorities of ESA, BGEPA, MBTA, FWCA, and NEPA cannot be assumed without our official written response. Pursuant to the "take" provisions under section 9 of ESA; 16 U.S.C. 688 (a and b) of BGEPA; and 16 U.S.C. 703 of MBTA, the project proponent is responsible for compliance with these federal laws regardless of whether the Service is able to respond within requested time frame.

#### ENDANGERED SPECIES ACT

Pursuant to section 7 of Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*), every federal agency, in consultation or conference with the U.S. Fish and Wildlife Service (Service), is required to ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any federally listed or proposed species and/or result in the destruction or adverse modification of designated and/or proposed critical habitat. In accordance with section 7(a) (2) of ESA, the lead federal agency (FERC) should determine if any federally listed threatened or endangered species and/or designated/proposed critical habitat would be directly and/or indirectly affected by this proposed project. The assessment of potential impacts (direct and indirect) must include an "affect" or "no effect" determination and be presented to the Service in writing. If the Service agrees with the lead federal agency's determination, the Nebraska Ecological Field Office in Grand Island, Nebraska would provide a letter of concurrence. If federally listed species and/or designated/proposed critical habitat would be adversely affected by this action, the lead federal agency would need to continue section 7 consultation with the Service prior to making any irretrievable or irreversible commitments of resources in support of the proposed project or action.

Section 9 of ESA prohibits the taking of any federally listed endangered or threatened species. Section 3(18) of ESA defines take to mean to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Our regulations (50 CFR 17.3) define harm to include significant habitat modification or degradation which actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering. Harassment is defined as an intentional or negligent action that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. The ESA provides for civil and criminal penalties for the unlawful taking of listed species. Exemptions to the prohibitions against take may be obtained through coordination with the Service in two ways:

through interagency consultation for projects with federal involvement pursuant to section 7 or through the issuance of an incidental take permit under section 10(a)(1)(B) of ESA.

In accordance with section 7 of ESA, the Service has determined that the following federally listed species may occur in the Project area or be affected by proposed relicensing of the proposed Project:

<u>Listed Species</u> <u>Expected Occurrence</u>

Pallid sturgeon (Scaphirhynchus albus)

Lower Platte River and Missouri River

Interior least tern (Sterna antillarum) Migration, nesting

Piping plover (*Charadrius melodus*) Migration, nesting

Western prairie fringed orchid Tallgrass prairie and wet meadows (*Platanthera praeclara*)

## Pallid Sturgeon

The pallid sturgeon was federally listed as an endangered species on September 6, 1990. In Nebraska, the pallid sturgeon is found in the Missouri and lower Platte rivers. Floodplains, backwaters, chutes, sloughs, islands, sandbars, and main channel waters formed the large-river ecosystem that provided macrohabitat requirements for the pallid sturgeon, a species that is associated with diverse aquatic habitats. These habitats historically were dynamic and in a constant state of change due to influences from the natural hydrograph, and sediment and runoff inputs from an enormous watershed spanning portions of ten states and Canada. Navigation, channelization and bank stabilization, loss of connectivity between a river and its floodplain, and hydropower generation projects have caused the widespread loss of this diverse array of dynamic habitats once provided to the pallid sturgeon in the Missouri and Platte Rivers, resulting in a precipitous decline in its population. Please refer to the enclosure for additional information regarding direct and indirect impacts to pallid sturgeon that are expected due to proposed relicensing of the Project.

#### **Least Tern and Piping Plover**

The least tern, federally listed as endangered, and piping plover, federally listed as threatened, nest on unvegetated or sparsely vegetated sandbars in river channels in the Missouri, Platte, Loup, and Niobrara rivers. The nesting season for the least tern and piping plover is from April 15 through September 1. Least terns feed on small fish in the river and piping plovers forage for invertebrates on exposed beach substrates. Navigation, channelization and bank stabilization, loss of connectivity between a river and its floodplain, and hydropower generation projects can adversely affect the least tern and piping plover. Please refer to the enclosure for additional information regarding direct and indirect impacts to the least tern and piping plover that are expected due to proposed relicensing of the Project.

#### Western Prairie Fringed Orchid

The western prairie fringed orchid, federally listed as threatened, inhabits tall-grass calcareous silt loam or sub-irrigated sand prairies. Declines in western prairie fringed orchid populations have been caused by the drainage and conversion of its habitats to agricultural production, channelization, siltation, road and bridge construction, grazing, having, and the application of

herbicides. Populations are known to occur in Boone, Cherry, Dodge, Garfield, Grant, Greeley, Hall, Holt, Lancaster, Loup, Madison, Otoe, Pierce, Rock, Saline, Sarpy, Seward, and Wheeler counties, and may occur at other sites in Nebraska. Changes in the hydrology of adjacent riverine wetlands and wet meadow habitats may adversely affect populations of the western prairie fringed orchid as summarized in the attached enclosure.

## Depletions to the Lower Platte River

Since 1978, the Service has concluded in all of its section 7 consultations on water projects in the Platte River basin that the Platte River ecosystem is in a state of jeopardy, and any federal action resulting in a water depletion to the Platte River system will further or continue the deterioration of the stressed habitat conditions. Due to the cumulative affect of many water depletion projects in the Platte River basin, the Service considers any depletion of flows (direct or indirect) from the Platte River system to be significant. Consequently, the Service has adopted a jeopardy standard for all section 7 consultations on federal actions which result in water depletions to the Platte River system. The Service considers the Platte River and its associated wetland habitats to be resources of national and international importance.

#### Affect/No Affect Determination

The Service recommends that the Loup Power District, in coordination with FERC, the lead Federal agency, consider the information provided above with regard to making its assessment of potential impacts of the proposed relicensing project on federally listed species and designated critical habitat and in making the "affect/no affect determination." Further, the Service recommends that the lead federal agency not limit its consideration of affect to that information located within the project footprint, but other potential affects as they become apparent during the course of other project studies and/or project development and modification. If it is determined that the proposed project may affect (beneficial of adversely) federally listed species or federally designated critical habitat, further consultation under section 7 of ESA with this office is required.

#### State Listed Species

In addition, all federally listed species are also State-listed under the Nebraska Nongame and Endangered Species Conservation Act. Further, there maybe State-listed species affected by the proposed project that are not federally listed. Specifically, lake sturgeon (*Acipensar fulvescens*), an inhabitant of the Missouri and Platte rivers, utilizes the slip-faces of submerged sandbars as foraging and resting habitat, and is thought to spawn over gravel, cobble, or other similarly-sized substrate. The lake sturgeon is listed as threatened by the State of Nebraska. The sturgeon chub (*Macrhybopsis gelida*) is listed as endangered in Nebraska, and is found in main channel habitats associated with gravel and swift current. Reasons for the decline of both species are due to the loss of suitable habitat through modification of fluvial processes, loss of floodplain connectivity, and modification to natural hydrological cycles. Additionally, the least tern and pallid sturgeon are also listed as endangered by the State of Nebraska; and the piping plover and bald eagle are listed as threatened. To determine if the proposed project may affect State-listed species, the Service recommends that the project proponent contact Kristal Stoner, Nebraska Game and Parks Commission, 2200 N. 33<sup>rd</sup> Street, Lincoln, NE 68503-0370.

# REVIEW, COMMENTS, AND RECOMMENDATIONS ON THE PROPOSED RELICENSING ACTION UNDER OTHER FISH AND WILDLIFE STATUTES

## **Bald and Golden Eagle Protection Act**

The BGEPA provides for the protection of the bald eagle (Haliaeetus leucocephalus) and golden eagle (Aquila chrysaetos) by prohibition, except under certain specific conditions, the taking, possession, and commercial use of such birds. The golden eagle is found in arid, open country with grassland for foraging in western Nebraska and usually near buttes or canyons which serve as nesting sites. Golden eagles are often a permanent resident in the Pine Ridge area of Nebraska. Bald eagles utilize mature, forested riparian areas near rivers, streams, lakes, and wetlands and occur along all the major river systems in Nebraska. Bald eagles are also attracted to power plant facilities in the winter because they provide ice free conditions and feeding habitat. The bald eagle southward migration begins as early as October and the wintering period extends from December-March. Additionally, many eagles nest in Nebraska from mid-February through mid-July. Disturbances within 0.5-mile of an active nest or within line-of-sight of the nest could cause adult eagles to discontinue nest building or to abandon eggs. Both bald and golden eagles frequent river systems in Nebraska during the winter where open water and forested corridors provide feeding, perching, and roosting habitats, respectively. The frequency and duration of eagle use of these habitats in the winter depends upon ice and weather conditions. Human disturbances and loss of wintering habitat can cause undue stress leading to cessation of feeding and failure to meet winter thermoregulatory requirements. These affects can reduce the carrying capacity of preferred wintering habitat and reproductive success for the species. To comply with the BGEPA, it is recommended that the project proponent determine whether the proposed project would impact bald or golden eagles. If it is determined that either species could be affected by the proposed project, the Service recommends that the project proponent notify this office as well as the Nebraska Game and Parks Commission (Commission) for guidance regarding avoiding adverse impacts to bald and golden eagles.

#### Fish and Wildlife Coordination Act

The FWCA requires consultation with the Service and State fish and wildlife agency for the purpose of preventing loss of and damage to fish and wildlife resources in the planning, implementation, and operation of federal and federally funded, permitted, or licensed water resource development projects. This statute requires that federal agencies take into consideration the effect that the water related project would have on fish and wildlife resources, to take action to prevent loss or damage to these resources, and to provide for the development and improvement of these resources. The comments in this letter are provided as technical assistance only and is not the document required of the Secretary of the Interior pursuant to Section 2(b) of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 *et seq.*) on any required federal environmental review or permit. This technical assistance letter is valid only for the described conditions and will have to be revised if significant environmental changes or changes in the proposed project take place. The Service anticipates FERC to include conditions to protect, mitigate damages to, and enhance the referenced fish and wildlife resources under Section 10(j) of the Federal Power Act of 1935.

To determine if the proposed project may affect fish and wildlife resources of the State of Nebraska under the FWCA, the Service recommends that the project proponent contact Carey Grell, Nebraska Game and Parks Commission, 2200 N. 33<sup>rd</sup> Street, Lincoln, NE 68503-0370.

## Wetlands, Streams, Grassland, and Riparian Habitats

If wetlands or streams will be impacted by the proposed Project, a Department of the Army permit from the U.S. Corps of Engineers may be needed. The Service recommends that impacts to wetlands, streams, and riparian areas be avoided or minimized. In accordance with the Section

404(B)(1) Guidelines (Guidelines) of the Clean Water Act, the Guidelines emphasize that avoidance and minimization precede compensation, which is to be considered solely for unavoidable adverse impacts on fish and wildlife resources and supporting ecosystems. For projects that do not require access or proximity to, or location within aquatic environments (i.e., non-water dependant project) to fulfill its basic project purpose, it is assumed that practicable alternatives exist that would cause less damage to aquatic resources than projects that are located in aquatic ecosystems. In addition to determining the least environmentally damaging practicable alternative, 40 CFR Part 230.10(a) of the Guidelines also states, "... no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences (emphasis added).

If after an alternatives analysis has been completed in accordance with the Guideline, and unavoidable impacts are to occur to aquatic habitats, the Service recommends that compensation (i.e., restoration of a degraded wetland or creation) occur for like wetland type at a ratio of 2:1 (acres of wetlands restored/created to acres of wetlands impacted). For unavoidable impacts to streams, the Service recommends that stream pattern, profile, and dimension be mitigated at a ratio of no less that 1:1 (stream length and number, pattern, and length of meanders created/restored versus stream length and number, pattern, and length of meanders impacted; sequence and number of pools and riffles created/restored versus sequence and number of pools and riffles impacted). Additionally, compensation for impacts to riparian habitats should occur at a minimum ratio of 3:1 (i.e., acres of riparian habitat replaces for acres of riparian habitat impacted) The 3:1 ratio is based on the loss of the habitat and the amount of time that will be required for planted trees to reach maturity.

## **Migratory Bird Treaty Act**

Under the MBTA, activities in grassland, wetland, stream, and woodland habitats that would otherwise result in the taking of migratory birds, eggs, young, and/or active nests should be avoided. Although the provisions of MBTA are applicable year-round, most migratory bird nesting activity in Nebraska occurs during the period of April 1 to July 15. However, some migratory birds are known to nest outside of the aforementioned primary nesting season period. For example, raptors can be expected to nest in woodland habitats during February 1 through July 15, whereas sedge wrens which occur in some wetland habitats normally nest from July 15 to September 10.

If various Project actions would occur during the primary nesting season or at any other time which may result in the take of nesting migratory birds, the Service recommends that FERC/Loup Power District arrange to have a qualified biologist conduct a field survey of the affected habitats and structures to determine the absence or presence of nesting migratory birds. For example, migratory birds can be electrocuted or collide with powerlines and be killed or injured. Bank swallows can nest on cut banks of canals and cliff swallows can nest on powerhouse and siphon structures. Routine maintenance of the canal, powerhouse, siphons and other facilities by FERC/Loup Power District could result in loss of these active nests. Surveys must be conducted during the nesting season. The Service further recommends that field surveys for nesting birds, along with information regarding the qualifications of the biologist(s) performing the surveys, be thoroughly documented and that such documentation be maintained on file by FERC/Loup Power District.

The Service requests that the following be provided to this office prior if the above conditions occur. The purpose of the request is to assist the project proponent to avoid the unnecessary take of migratory birds and the possible need for law enforcement action:

- a) A copy of any survey(s) for migratory birds done in conjunction with FERC/Loup Power District activities, if any. The survey should provide detail in regards to survey methods, date and time of survey, species observed/heard, and location of species observed.
- b) Written description of any avoidance measures implemented to avoid the take of migratory birds.
- c) Written description of any circumstances where it has been determined by the project proponent that one or more active bird nests cannot be avoided by FERC/Loup Power District activities.

The Service appreciates the opportunity to provide comments on this proposed project. Should you have any questions regarding these comments, please contact Mr. Robert Harms within our office at (308) 382-6468, extension 17.

Sincerely,

John Cochnar

Assistant Nebraska Field Supervisor

#### Enclosure

cc: FERC; (Attn: Kim Nguyen)

HDR; Minneapolis, MN (Attn: George Waldow)

NGPC; Lincoln, NE (Attn: Frank Albrecht) NGPC; Lincoln, NE (Attn: Kristal Stoner)

NGPC; Lincoln, NE (Attn: Carey Grell)

USACE; Omaha, NE (Attn: John Moeschen) NPS; St. Paul, MN (Attn: Randall Thorson)

FWS; Denver, CO (Attn: Don Anderson)

#### **Enclosure**

#### Preliminary Concerns,

# Loup River Hydroelectric Project Federal Energy Regulatory Commission Loup Power District

## U.S. Fish and Wildlife Service Nebraska Game and Parks Commission

- 1) Flow depletion on the Loup River below the diversion at Genoa. Affected resources include:
  - a) diminished natural peak flows and sediment supply affecting sand bar development and suitability for nesting and foraging piping plover and least tern;
  - b) increased susceptibility of invasive and/or woody plant species becoming established on sandbar habitats;
  - c) water diversion for hydropower, irrigation, and any associated evaporation from the Loup River may increase susceptibility of land-based predation due to shallow water in channels affecting least tern and piping plover;
  - d) water diversion from the Loup River may increase human disturbance which may affect nest initiation and/or abandonment for the least tern and piping plover;
  - e) water diversion from the Loup River may lower production of invertebrates and fish affecting food availability for the least tern, piping plover, Tier 1 species, and other riverine fish and wildlife species;
  - f) low flows affecting fish movement/migration;
  - g) water diversion from the Loup River will increase probability of fish kills due to stranding of fish in pools and increased water temperatures;
  - h) loss and/or degradation of adjacent wetland habitats connected to the river via groundwater; and
  - i) narrow channels could result in vegetative encroachment.
- 2) Flow depletion on the Loup River above the diversion at Genoa to other water users due to preference system of water rights in exchange for just compensation. Affected resources include:
  - a) diminished peak flows affecting sand bar suitability for nesting and foraging piping plover and least tern;
  - b) increased susceptibility of invasive and/or woody plant species becoming established on sandbar habitats;

- c) water withdrawals for other uses on the Loup River may increase susceptibility of land based predation due to shallow water in channels affecting least tern and piping plover;
- d) water withdrawals from the Loup River may increase human disturbance which may affect nest initiation and/or abandonment for the least tern and piping plover;
- e) water withdrawals from the Loup River may lower production of invertebrates and fish affecting food availability for the least tern, piping plover, Tier 1 species, and other riverine fish and wildlife species;
- f) low flows affecting fish movement/migration;
- g) water withdrawals from the Loup River will increase probability of fish kills due to stranding of fish in pools and increased water temperatures;
- h) loss and/or degradation of adjacent wetland habitats connected to the river via groundwater; and
- i) narrower channels could result in vegetative encroachment.
- 3) Flow depletion on the Platte River system from: a) evaporative losses within the power canal system, and b) withdrawal of water from canal for irrigation uses. Affected resources include:
  - a) diminished peak flows affecting sand bar suitability for nesting piping plover and least tern;
  - b) reduced production of invertebrates and fish potentially affecting food availability for the least tern, piping plover, pallid sturgeon, Tier 1 species, and other riverine fish and wildlife resources;
  - c) reduced flows affecting pallid sturgeon migration/movement;
  - d) increased susceptibility of invasive and/or woody plant species becoming established on sandbar habitats;
  - e) potential impact on spawning cues for pallid sturgeon, catfish, sauger, and other river fish;
  - f) loss and/or degradation of adjacent wetland habitats connected to the river via groundwater;
  - g) narrower channels could result in vegetative encroachment; and
  - h) thermal stress on fish.
- 4) Sediment-deprived flow that is discharged from the tailrace into the Platte River may have the following impacts:
  - a) reduced sandbar formation/maintenance for least tern, piping plover nesting and foraging habitats;

- b) channel degradation resulting in disconnected side-channels, backwaters, a deeper, narrower main channel, and floodplain affecting least tern, piping plover and other riverine fish and wildlife resources;
- c) changes in sand particle size may affect formation of sandbar habitats; and
- d) changes in water temperature may affect abundance and distribution of forage.
- 5) Dredging and discharge activities at the settling basin. Impacts include:
  - a) overcovering of nests with discharge on nesting least terns and piping plovers;
  - b) entrapment of fish on spoil pile; and
  - c) entrainment and mortality of fish during dredging operations.
- 6) Hydrocycling. Affected resources include:
  - a) inundation of sandbars and loss of least tern and piping plover nests;
  - b) inundation of sandbars results in the loss of sandbar habitat that could have otherwise been used by least terns and piping plovers for nesting and foraging;
  - c) frequent daily erosion of sandbars affecting least tern and piping plover habitat needs;
  - d) impacts to benthic production affecting food resources for riverine fish and wildlife including listed threatened endangered species;
  - e) hydrocycling impacts to pallid sturgeon and other riverine fish species affecting fish passage, stranding fish in pools, heat stress, impacts to benthic invertebrates, and elevated levels of predation; and
  - f) water temperature changes and affects on forage abundance and distribution.
- 7) Recreation. Recreational benefits of the multiple use project may have degraded over the project period. Have the proposed benefit components been completed, maintained and operated, or enhanced during the project period? Affected resources include:
  - a) aquatic habitat for recreational fish species in storage reservoirs;
  - b) impediments in canal delivery system for distribution of recreational fish species;
  - c) access to project property for public fishing and hunting;
  - d) project operation activities resulting in fish kills within the canal and storage reservoirs;
  - e) degradation of the recreational fishery due to project-related activities;
  - f) a barrier to fish movement at the diversion dam; and
  - g) Canal maintenance activities may affect fish.



# LOUP POWER DISTRICT

"SERVING YOU ELECTRICALLY"

GENERAL OFFICE 2404 15th Street P.O. Box 988 Columbus, NE 68602-0988 Phone: 402/564-3171 Pex: 402/564-0970

To:

May 12, 2003

Kirk Nelson, Assistant Director Nebraska Game & Parks Commission P.O. Box 30370 Lincoln NE 68503-0370

Re: Amendment of License - Loup River Public Power District Hydraulic Facilities

Dear Mr. Nelson:

The District appreciates the Nebraska Game and Parks willingness to separate the District's routine replacement of the Monroe and Columbus turbine-generator equipment from the Game and Parks operational concerns about the District's Headworks operation.

The District is willing to meet with Game and Parks personnel to discuss increasing the summer diversion from approximately 50 cfs to 75 cfs to reduce the risk of fish kills above the Beaver Creek inlet. District Headworks personnel currently monitor the temperature and water flows to reduce the possibility of summer fish kills because of elevated water temperatures. The District is also willing to review a fish by-pass at the Headworks diversion wall. Please contact me when you would like to meet and discuss these issues.

Sincerely,

R. E. White President/CEO

C:\FERCINE Game & Parks-Amendment to License-May03

# Items of Discussion with Nebraska Game and Parks August 5, 2003

# Lake North

Personal water craft often ignore the boating rules. There needs to be more enforcement of the rules.

At the request of the public and Officer Oberg, the boat dock area needs improved signage and delineation. It has been suggested that Loup mark this area in the same manner as Game and Park Lakes. Loup is requesting direction in this matter in the form of a copy of the rules and regulations, a drawing indicating were the signs and bouys need to placed and possibly a site visit by Herb Angell.

# Lake Babcock

The Nebraska Fishing Guide states that boating is prohibited on Lake Babcock. Officer Oberg has issued citations for this. No one at Loup Power recalls telling Game and Parks that boating is prohibited. Loup Power would like to know how this rule was established. Loup does not want power boats or air boats on this lake, but row boats, canoes and boats with trolling motors are acceptable.

There are some signs posted around the Lake Babcock Area that designate a wildlife area. Loup has no record of when this area was established, the boundaries of the area, and what activities are acceptable and what activities are prohibited. Loup Power would like to review any records the Game and Parks have pertaining to this area.

# Wildlife Area south of Genoa Headworks

This area has been leased to Game and Parks for many years. The lease expired in April 2003. Loup Power prepared a new lease, excluding some areas at the request of the Game and Parks and sent the new lease to Warren Schwanebeck. Loup Power has been in contact with Warren and he stated

the lease was still in the Lincoln. Loup Power would like to know the status of this lease.

Officer Pomplun has reported that there is a steady increase in ATV activity in this area. Alcohol problems are also becoming a problem. If the area is leased to Game and Parks, will he be empowered to enforce no alcohol and no ATV activity in this area?

# **Canal Berm Roads**

Officer Oberg has been enforcing no alcohol and no ATV's along the length of the berm roads. His reasoning is that Loup Power is a sub-division of the State of Nebraska and the berm roads are open to the public. Therefore, no alcohol consumption whatsoever is allowed and only vehicles that are licensed and registered to operate on public roads can operate on canal berm roads. He also stated that if the berm roads are indeed public roads, Loup Power District does not have the authority to close sections of the roads off from public access. There is much confusion as to what the different law enforcement agencies in the area enforce. Platte County Sheriff Department does not enforce alcohol and ATV issues as they consider the berm road as private property. Nance County Sheriff Department does enforce both issues as the Headworks ATV riding area is in their county and the riding area is signed very well. Are the berm roads considered public roads? What are the hunting regulations along these roads? There has been and will continue to be up-land game bird hunting along these roads. Is there a minimum distance the hunter must be from the two-track trail?

# Response to Amendment of License-May 1, 2003

Increase of minimum flow from Headworks from 50 cfs to 75 cfs needs to be addressed. Also the letter from Game and Parks states that the Game and Parks would be interested in working with Loup Power on the potential for a fish by-pass at the Headworks. Loup Power would like to discuss this issue with Game and Parks to gain a better understanding of what type of fish by-pass the letter is referring to.

# Operation of Boats on Canal

Are boats allowed to operate in the canal. Every few years we see one or two john boats or canoes in the canal. It doesn't appear to be a very popular activity. What type of regulations apply to operating power boats and personal watercraft in the canal?



# LOUP POWER DISTRICT

GENERAL OFFICE 2404 15th Street P.O. Box 988 Columbus, NE 68602-0988 Phone: 402/564-3171 Fax: 402/564-0970

August 28, 2003

Kirk Nelson Nebraska Game & Parks PO Box 30370 Lincoln, NE 68503

Dear Kirk,

Re: Game & Parks Issues

Enclosed are two signed copies of the lease for Loup properties. Please sign both copies and return one to Loup.

Regarding minimum flows as was discussed at our meeting of August 5, 2003, Loup will increase flows to 75 cfs when necessary due to elevated air temperatures.

Next, Loup is willing to consider a fish by-pass at the Genoa Headworks diversion dam. Game and Parks will provide information on the design of this fish by-pass.

Loup sent regulatory changes regarding boating at Lake Babcock to Herb Angel on August 15, 2003.

Thank you for your cooperation regarding these matters.

Sincerely,

Ronald J. Ziola

**Engineering Manager** 

RZ:mp

**Enclosures** 

C: R.White

K.Christensen

J.Frear

J.Cieloha

Date:

6/5/04

To:

Kirk Nelsen, Bruce Sackett & Frank Albrecht

From:

Sally (1-5535), with additions & corrections by Hutch & Herb

## **Meeting Notes**

What:

Meeting between Loup Public Power District (LPPD) & NGPC Staff

Where: When

3<sup>rd</sup> Fl. Conference Room at NGPC 10 am-11:30 am, August 5, 2003

Notes Copies: These notes describe items that will be followed up on by both NGPC and LPPD staff. In that much of the discussion described items with which I have minimal familiarity, I gave copies of these notes to Ted, Jim, Herb, Hutch, and Jim Frear, requesting that they give me

any comments and/or corrects.

Attendees:

LPPD Staff

**NGPC Staff** 

Kendall Christenson

Larry Hutchinson, Fisheries Jeff Schuckman, Fisheries

Jim Frear

Herb Angell, Boating

Craig Stover, Law Enforcement

Ron J. Ziola

Jim Douglas, Wildlife

Ted Blume, Law Enforcement

Larry

Dave Tunink, Fisheries

Sally Webster, Realty/ES

Agenda:

The "Outstanding Issues" detailed in the attached Loup PPD e-mail of 5/27/03.

Hutchinson chaired the meeting.

# LEASE AGREEMENT ~ THE WILDLIFE AREA(S) IN NANCE COUNTY. (+ 5 minutes)

- LPPD will re-mail lease. Jim Frear sent this lease (before it expired 4/25/03) to NGPC this past spring, but no one knows where it got lost in the process. Jim will resend it to Sally in RES. However Jim Douglas reported that Wildlife staff had reviewed the lease on the various lands and had agreed to some proposed changes.
- Lease Term. Jim Frear said the new lease can either be year-to year, or can run until 2014 when the LPPD federal license expires. Jim Douglas indicated that we would be more interested in one running until 2014. LPPD said that would be no problem, because both sides would have termination clauses.
- Lease Changes. One change excludes a duck blind on parcel "d". Parcels "d" and "h" would remain the same, but the 10 acre parcel "s" would be deleted from the renewed lease.

# **LAKE BABCOCK ~ LAW ENFORCEMENT ISSUES.** (± 80 Minutes)

- Consistency Needed in Regulations/Guidelines. Some of the issues discussed included boating, hunting, roads, alcohol use, citations, etc. Ted said that NGPC's Fishing and Boating Guides both need to be revised to be both clearer and consistent with each other and the law.
- Boating Regulations for Safety Purposes. LPPD was concerned about use of airboats and jet skis on Lake Babcock and asked about prohibiting their use. It was explained that it would be best to establish a regulation that provides either for "electric and non-power boating only", or to set a "no-wake" or "5 mph only" regulation. LPPD will prepare and submit to Herb Angell the boating regulations they want. Herb submits all boating regulations at the same time to our Commission for approval at their October meeting. Herb advised LPPD that the deadline for submitting boating regulations to him is August 15, 2003. Corrections will also be made in the

Fishing Guide concerning boating on LPPD waters. It is anticipated there will be no changes in boating use on Lake North, but boating on Lake Babcock and on the canal will be clarified.

1

- LPPD's Land Use Regulation Authority? LPPD will research whether or not they have the statutory authority to make land use regulations, including use or possession of alcoholic beverages on LPPD lands. The answer to this question could affect the accuracy of current maps, area signs, and the actions of law enforcement personnel.
- Hunting Restriction. Jim Douglas recommended that the hunting regulations follow those used for other "refuges", rather than those used for WMA's. There was discussion that this would help eliminate confusion due to semantics. However, due to the unique nature of the Lake Babcock refuge, other public uses and private homes on the lake, it did not appear such consistency in refuge regulations would work.
- Law Enforcement Issues. Concerned with discrepancies in the Boating Guide, Fishing Guide, and WMA regulations, and the need for corrections and consistency were discussed.
- Lake Babcock. Examples of the area's mixture of land uses include: about 57 houses, a bike path(s), a dog run, etc., etc.
- State Roads or LPPD Roads. The LPPD board passed a resolution on areas open to the public and to dedicate their roads to the state. LPPD's intent was to give the road to DOR, but the question is whether or not the State agreed to accept the roads and the responsibility? This affects the rules about no hunting from a State road, and enforcement of alcoholic beverages.
- In summary it was explained that NGPC regulations deal only with boating, fishing, and hunting.
   Other LPPD rules concerning public behavior need to be based on LPPD's statutory authority in order for viable law enforcement actions on LPPD property.

# REFURBISHMENT OF THE COLUMBUS POWERHOUSE. (± 5 minutes)

- Minimum Flow Requests. Jeff and Hutch explained that water gets hotter than the air in the summer, due to the reflection off the sand. Jeff reviewed his previous 50 cfs recommendations concerning when the flow is low and the temperature reaches 98 degrees there is a high risk of a fish kill, so a minimum water level is needed. The 50 cfs was based on Jeffs analysis of previous fish-kills, flow gauging data and sar femperatures. Jeff was noncorrect that the accuracy of gage data during low flows was poor. The JPPD people seemed fine with NCPCs current request to 75 cfs when air temperatures reached sit degrees as the minimum flow level needed. JPPD stated hery did not want to cause a fish kill in the over below their Louis River diversion than
- Fish By-Pass. The meeting participants briefly discussed the concept of a fish by-pass. A by-pass (fish ladders) gets the fish around a manmade obstacle, like a dam. Larry explained that NESPC is working with several sentices to provide fish passage at various sites around Netrotake Such claric normally take activatings of apportunities when retiebiliation of a structure is being planned. PPD sew they would be writing to consider the later if NGPC could provide some dissign claric. Larry seld fire would less Shore Scheiners in respect the LPPD diversion dam is Genos to consider the teasibility and need for a fish by-pass. Jun Freuz ask that Steve contact him should like so they could discuss the idea. If was emphasized that the intert would be to consider a fish by pass at some future date when LPPD needed to work on the diversion. There was a general discussion by Jeff and Larry about exacenable magnition behavior of cartish and studies of fish migration in Networks.

From: Henry Santin [santin@hamilton.net]
Sent: Wednesday, July 30, 2008 6:38 PM

To: Pillard, Matt

Subject: Re: Loup Hydro Project - Agency Meeting: Study Needs Continued

matt i think the up stream flow would be of interest especially since the twin loups irrigation canal was put into operation this elimated many senior and junior water permits it also means a more constant flow during irrigation season. the lower loup nrd at ord should be able to provide the info i will let you know for sure about the next meeting right know i should be able to make it thanks henry santin

---- Original Message -----

From: Pillard, Matt

**To:** Anna Baum; Barb Friskopp; Bobbie Kriz-Wickham; Butch Koehlmoos; Curt Alms; Dan Nitzel; David Jundt; Frank Albrecht; Henry Santin; Jason Alexander; Jean Angell; Jeff Schuckman; Jerry Kenny; Joe Cothern; John Bender; John Shadle; Joseph Mangiamelli; Justin Lavene; Lacie Andreason; Mark Czaplewski; Mary Bomberger-Brown; Randy Thoreson; Richard Hadenfeldt; Robert Harms; Robert Mohler; Robert Puschendorf; Rodney Verhoeff; Stacy Stupka-Burda; Steve Chick

Sent: Wednesday, July 30, 2008 3:44 PM

Subject: Loup Hydro Project - Agency Meeting: Study Needs Continued

Hello all.

It was decided at our last agency meeting (July 24, 2008) that another meeting was needed to continue our discussion on study needs for the remaining issues. The logistics for that meeting are:

**Date: August 19, 2008** 

Time: 10:00 a.m. - 2:00 p.m. (lunch will be provided)

Location: New World Inn & Conference Center, 265 33rd Ave., Columbus, NE

Please RSVP to me by August 14 so that we can get an accurate count of the number of attendees.

The remaining issues to be discussed relative to identification of study needs are:

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- Flow depletions on the Loup River above the diversion
- Flow depletions on the Platte River system
- Dredging and discharge at the settling basin
- Hydraulic habitat connectivity and distribution
- Vegetation species composition and distribution

If you have any thoughts on potential studies prior to this meeting please let me know.

Thanks and please contact me at your convenience with any questions you may have.

#### Matt Pillard, AICP

Environmental Planner

#### HDR | ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187| Fax: 402.399.1111

Email: Matt.Pillard@hdrinc.com

Jeff Schuckman [jeff.schuckman@ngpc.ne.gov] From:

Sent: Thursday, July 31, 2008 5:49 PM

To: Pillard, Matt Cc: Dave Tunink

Re: Loup Hydro Project - Agency Meeting: Study Needs Continued Subject:

Matt.

One study need NGPC has is concerning fish passage upstream through the Loup diversion. A tagging/sampling study is needed to determine the extent of fish passage. This does tie in to the dewatering issues of the Loup River below the diversion and should be considered as an integral part of the project evaluation during various flow scenarios. Tagged fish (sonic or conventional tagging) can be followed through the LPPD project area to evaluate upstream migration success and/or fish species assemblages above and below should be sampled for relative abundance and size stucture.

Jeff Schuckman District III Fish Mgt Supv Norfolk, NE

----Original Message----

From: "Pillard, Matt" < Matt. Pillard@hdrinc.com>

To: "Anna Baum" <abaum@upperloupnrd.org>, "Barb Friskopp" <barbara.j.friskopp@usace.army.mil>, "Bobbie Kriz-Wickham" <bobbie.wickham@nebraska.gov>, "Butch Koehlmoos" <butchk@nctc.net>, "Curt Alms" <caalms@megavision.com>, "Dan Nitzel" <danno@nohva.com>, "David Jundt" <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href="mailto:</a> <a href=" <santin@hamilton.net>, "Jason Alexander" <jalexand@usgs.gov>, "Jean Angell" <jangell@dnr.ne.gov>, "Jeff Schuckman" < jeff.schuckman@ngpc.ne.gov>, "Jerry Kenny" < kennyj@headwaterscorp.com>, "Joe Cothern" <cothern.joe@epa.gov>, "John Bender" <john.bender@ndeg.state.ne.us>, "John Shadle" <jjshadl@nppd.com>, "Joseph Mangiamelli" < jmangi@columbusne.us>, "Justin Lavene" < justin.lavene@nebraska.gov>, "Lacie Andreason" <cgenoa@cablene.com>, "Mark Czaplewski" <mark@cpnrd.org>, "Mary Bomberger-Brown" <mbrown9@unl.edu>, "Randy Thoreson" <randy thoreson@nps.gov>, "Richard Hadenfeldt" <ihdnfldt@inebraska.com>, "Robert Harms" <robert harms@fws.gov>, "Robert Mohler" <mohler@nctc.net>, "Robert Puschendorf" < bpuschendorf@nebraskahistory.org >, "Rodney Verhoeff" < rverhoeff@lpsnrd.org >, "Stacy Stupka-Burda" <sstupka-burda@nebraskahistory.org>, "Steve Chick" <steve.chick@ne.usda.gov>

Date: Wed, 30 Jul 2008 15:44:37 -0500

Subject: Loup Hydro Project - Agency Meeting: Study Needs Continued

Hello all.

It was decided at our last agency meeting (July 24, 2008) that another meeting was needed to continue our discussion on study needs for the remaining issues. The logistics for that meeting are:

**Date: August 19, 2008** 

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- Hydraulic habitat connectivity and distribution
- Vegetation species composition and distribution

If you have any thoughts on potential studies prior to this meeting please let me know.

Thanks and please contact me at your convenience with any questions you may have.

#### Matt Pillard, AICP

Environmental Planner

HDR | ONE COMPANY | Many Solutions
8404 Indian Hills Drive | Omaha, NE | 68114-4098
Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111

Email: Matt.Pillard@hdrinc.com



From: Shadle, John J. [jjshadl@nppd.com]
Sent: Wednesday, August 13, 2008 10:11 AM

To: Pillard, Matt

Subject: RE: Loup Hydro Project - 7/24 Meeting minutes and 8/19 Meeting Agenda

I took a quick looks at the June 25th meeting notes. I think you captured NPPD issue pretty well (page 2), however we are also interested in any future limitations on project operations as might results from the relicensing process. Maybe that is implied in your notes (page 6)? Also I believe Dave Tunick of the NGPC reported back form the Recreation group, not Gene Zurline?

From: Pillard, Matt [mailto:Matt.Pillard@hdrinc.com]

Sent: Wednesday, August 13, 2008 7:40 AM

**To:** Anna Baum; Barb Friskopp; Bobbie Kriz-Wickham; Butch Koehlmoos; Curt Alms; Dan Nitzel; Dave Tunink; David Jundt; Frank Albrecht; Henry Santin; Jason Alexander; Jean Angell; Jeff Schuckman; Jerry Kenny; Joe Cothern; John Bender; Shadle, John J.; Joseph Mangiamelli; Justin Lavene; Lacie Andreason; Czaplewski,, Mark- CPNRD; Mary Bomberger-Brown; Randy Thoreson; Richard Hadenfeldt; Robert Harms; Robert Mohler; Robert Puschendorf; Rodney Verhoeff; Stacy Stupka-Burda; Steve Chick

Subject: Loup Hydro Project - 7/24 Meeting minutes and 8/19 Meeting Agenda

Good morning.

The meeting minutes for the July 24th meeting will be posted to the project web site today. In addition, the agenda for our August 19 meeting has also been posted. See the address below:

http://www.loup.com/relicense/html/meetings.html.

As a reminder, the August 19 meeting will be from 10:00 to 2:00 (lunch will be provided) in the Seven Seas Room at the New World Inn & Conference Center, 265 33rd Ave., in Columbus.

If you haven't already, please let me know today or tomorrow if you and/or other representatives from your agency/organization will be able to attend. Thank you to all of you who have already replied.

Thanks and please contact me if you have any questions.

#### Matt Pillard, AICP

Environmental Planner

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Email: Matt.Pillard@hdrinc.com



## August 13, 2008

Mary Bomberger Brown Program Coordinator Tern and Plover Conservation Partnership 153C Hardin Hall 3310 Holdredge Street Lincoln, NE 68503-0931

Subject: Request for interior least tern and piping plover data

Dear Ms. Bomberger Brown:

Loup Power District (LPD) intends to file a Notice of Intent with the Federal Energy Regulatory Commission (FERC) in October 2008 to begin the relicensing process for the hydroelectric facilities located near Columbus, Nebraska.

HDR Engineering, Inc. (HDR) is acting on behalf of the Loup Public Power District in gathering information on potential issues of concern regarding the relicensing of the Loup River Hydroelectic Project. Based on Melissa Marinovich's discussion with you, HDR requests the following information on interior least terms and piping plovers which may be applicable to the project:

Loup Power District settling basin and sand pile:

- 1. Population counts for all years available, dating back to 1999
- 2. Arrival/departure dates for the birds from 1999-2008
- 3. Estimated nesting dates for all nests recorded at this site from 1999-2008
- 4. Nesting success for all nests recorded at this site from 1999-2008

Loup River bypass (from diversion structure/canal entrance to confluence with the Platte River):

- 1. Population counts for all years available, dating back to 1999
- 2. Arrival/departure dates for the birds from 1999-2008
- 3. Estimated nesting dates for all nests recorded at this site from 1999-2008
- 4. Nesting success for all nests recorded at this site from 1999-2008

Platte River from Loup Canal confluence to North Bend:

- 1. Population counts for all years available, dating back to 1999
- 2. Arrival/departure dates for the birds from 1999-2008

- 3. Estimated nesting dates for all nests recorded at this site from 1999-2008
- 4. Nesting success for all nests recorded at this site from 1999-2008

Additionally, we would like to request any information you may have regarding available habitat in the Loup and Platte Rivers from your 2008 river survey in the reaches identified above.

If possible, we request this data as a GIS layer for review and representation. All information will not be published and will be used for analytical purposes only.

If feasible, we would prefer all information electronically. We would like to offer our assistance in whatever capacity in the compilation of this data to expedite our requests. Please feel free to contact me if you have any questions or concerns regarding these requests. Thank you for your cooperation.

Sincerely,

HDR Engineering, INC

Zisa M Ruhards

Lisa Richardson, PE

Project Manager

cc: Joel Jorgenson, Nebraska Game and Parks Commission Melissa Marinovich, HDR Engineering, INC Matt Pillard, HDR Engineering, INC

From: Marinovich, Melissa

Sent: Wednesday, August 13, 2008 2:02 PM

To: 'mbrown9@unl.edu'

Cc: Richardson, Lisa (Omaha); Pillard, Matt

Subject: Request for tern and plover data

Attachments: LT&PCP.081308.MaryBomberger\_request4data.pdf

#### Hi Mary,

I just wanted to thank you again for taking the time to meet with me a few weeks ago. It was excellent to learn more about what your organization does, as well as discuss information on the terns and plovers and how it relates to the Loup Power District's operations. I also hope I can be of some assistance to your organization next year on a volunteer basis. As per our discussion, I have attached a letter from HDR requesting your assistance in obtaining some specific data and survey information. We are copying this letter to Joel Jorgenson at the Nebraska Game and Parks Commission, as we realize that much of the data we are requesting is shared with and collected by this state agency in cooperation with your organization. We are sending a paper copy of this letter through U.S. Postal Service for your files. If there is any way that I can be of assistance in the compilation of this data or if you have any further questions or concerns, please feel free to contact me. Thanks again!

#### **Melissa Marinovich**

**Environmental Scientist** 

#### **HDR** ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098

Phone: 402.399.1317 | Fax: 402.399.1111 Email: <u>melissa.marinovich@hdrinc.com</u>

## Concern to be addressed in the FERC relicensing of Loup Public Power District Presented by the Nebraska Department of Natural Resources

The suspension of diversion out of the Loup River into the Loup River Power Canal when frazil ice is present may cause flooding in the Lower Platte River basins.

#### **Background**

In March of 1993, severe flooding occurred along the south side of the Loup River at Columbus, due to an ice jam, causing millions of dollars worth of damage. In response, the Federal Emergency Management Agency (FEMA), Region VII, formed an Interagency Hazard Mitigation Team to review this event and others, and suggest measures which might be implemented to mitigate similar events in the future. The US Corps of Engineers (USCE) studied ice jam flooding in the Lower Platte River basins and published a report\* for the State of Nebraska Civil Defense Agency and Natural Resources Commission in July of 1994.

The USCE noted that recurring ice jams take place on the Loup River between Genoa and Columbus. Local residents expressed the opinion that the fluctuations in the Loup River Power Canal diversions cause or exacerbate ice jams downstream of the canal diversion. The USCE would not definitively conclude that diversion fluctuations cause ice jam flooding because of the lack of detailed historical data. However, the USCE suggested an ice data collection program for input into a predictive ice jam model. Since that time, the Nebraska Department of Natural Resources has collected ice data for an ice jam prediction model.

Besides the collection of ice data, the USCE recommended a study to evaluate the impact of the operation of the Loup Power Canal on downstream ice conditions. Such study has not been conducted.

\* USCE published a subsequent report on the subject in 1996 which can be found on the Department of Natural Resources website at http://dnr.ne.gov/floodplain/flood/SR96\_01.pdf.

From: Angell, Jean [jean.angell@nebraska.gov]
Sent: Thursday, August 14, 2008 5:56 PM

**To:** Pillard, Matt; Anna Baum; Barb Friskopp; Wickham, Bobbie; Butch Koehlmoos; Curt Alms;

Dan Nitzel; Dave Tunink; David Jundt; Frank Albrecht; Henry Santin; Jason Alexander; Jeff Schuckman; Jerry Kenny; Joe Cothern; Bender, John; John Shadle; Joseph Mangiamelli; Lavene, Justin; Lacie Andreason; Mark Czaplewski; Mary Bomberger-Brown; Randy Thoreson; Richard Hadenfeldt; Robert Harms; Robert Mohler; Bob Puschendorf Jr; Rodney

Verhoeff; Stacy Stupka-Burda; Steve Chick

Subject: RE: Loup Hydro Project - 7/24 Meeting minutes and 8/19 Meeting Agenda

Attachments: ConcernFlooding issue.doc

The Department of Natural Resources wishes to present an additional issue at the August 19, 2008 meeting. Please see the attached memo. Thank you.

Jean Angell Legal Counsel Department of Natural Resources 471-3931

From: Pillard, Matt [mailto:Matt.Pillard@hdrinc.com]

Sent: Wednesday, August 13, 2008 7:40 AM

**To:** Anna Baum; Barb Friskopp; Wickham, Bobbie; Butch Koehlmoos; Curt Alms; Dan Nitzel; Dave Tunink; David Jundt; Frank Albrecht; Henry Santin; Jason Alexander; Angell, Jean; Jeff Schuckman; Jerry Kenny; Joe Cothern; Bender, John; John Shadle; Joseph Mangiamelli; Lavene, Justin; Lacie Andreason; Mark Czaplewski; Mary Bomberger-Brown; Randy Thoreson; Richard Hadenfeldt; Robert Harms; Robert Mohler; Bob Puschendorf Jr; Rodney Verhoeff; Stacy Stupka-Burda; Steve Chick

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Thanks and please contact me if you have any questions.

#### Matt Pillard, AICP

Environmental Planner

#### HDR ONE COMPANY Many Solutions

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Email: Matt.Pillard@hdrinc.com

From: Pillard, Matt

Sent: Thursday, August 14, 2008 4:35 PM

**To:** Richardson, Lisa (Omaha); Engelbert, Pat; Sigler, Bill; Waldow, George **Subject:** FW: Loup Hydro Project - 7/24 Meeting minutes and 8/19 Meeting Agenda

----Original Message----

From: Robert Harms@fws.gov [mailto:Robert Harms@fws.gov]

Sent: Thursday, August 14, 2008 4:24 PM

To: Pillard, Matt

Cc: frank.albrecht@ngpc.ne.gov; jangell@dnr.ne.gov; jeff\_runge@fws.gov;

Donald Anderson@fws.gov; Martha Tacha@fws.gov

Subject: RE: Loup Hydro Project - 7/24 Meeting minutes and 8/19 Meeting Agenda

#### Matt:

I agree that as we become familiar with Loup Power District operations, additional affects on fish and wildlife resources may become apparent. For example, the following are items I would like to discuss at the next meeting as concerns:

Lost Creek siphon and changes in hydrology in Lost Creek due to tail race flows

Powerlines and their potential to result in electrocution and/or collisions of migratory birds

**PCBs** 

Changes in sediment/flow discharge below the canal diversion and its affects on ice jam development on the Loup and Platte rivers.

I also request that an additional item be put on the agenda: Agency Information Needs. Additional information needs include the FERC project boundaries, original license articles, number of subordinate agreements, acre-feet of water provided by subordinate agreements, etc. Jean Angel (DNR), leader of the water rights work group (of which the FWS is a member) has several information requests which are essential in order for the work group to make progress.

If you have any questions or need clarifications, please contact me on my cell phone (308) 390-0871. Thanks.

#### Bob

Robert R. Harms
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
203 West Second Street
Grand Island, Nebraska 68801
Phone: 308-382-6468, Extension 17
Fax: 308-384-8835
robert harms@fws.gov

"Pillard, Matt" <Matt.Pillard@hdr

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\* USCE published a subsequent report on the subject in 1996 which can be found on the Department of Natural Resources website at http://dnr.ne.gov/floodplain/flood/SR96\_01.pdf.

From: Mary B Brown [mbrown9@unlnotes.unl.edu]

**Sent:** Tuesday, August 26, 2008 5:07 PM

To: Marinovich, Melissa

**Subject:** More tern and plover photos

Attachments: 2008 season 019.jpg; 2008 season 022.jpg; 2008 season 025.jpg; 2008 season 046.jpg; 2008

season 052.jpg

2008 season 019.jpg is what the windrowing looked like.

2008 season 022.jpg is what the berm looked like with the limbs and branches used to re-enforce it.

2008 season 025.jpg is 2 of our technicians floating eggs to date the nest (the plover nest in between the 2 people--hard to see).

2008 season 046.jpg is another view of the berm.

2008 season 052.jpg shows the slurry pipe with the extension attached to it so the water was directed around the top end of the berm. The berm is directly in front of the pipe. If the water had not been diverted, it would have washed out the berm and the entire nesting area.

Hope these are useful. Let me know if you'd like more elaborate descriptions.

#### Mary

Mary Bomberger Brown Tern and Plover Conservation Partnership 153C Hardin Hall University of Nebraska 3310 Holdrege Street Lincoln, NE 68583-0931 USA telephone: (402) 472-8878

fax: (402) 472-3461 email: <a href="mbrown9@unl.edu">mbrown9@unl.edu</a> <a href="http://ternandplover.unl.edu">http://ternandplover.unl.edu</a>

Mary B Brown [mbrown9@unlnotes.unl.edu] Tuesday, August 26, 2008 5:10 PM Marinovich, Melissa From:

Sent:

To: Subject: one more photo **Attachments:** tern pair with fish.tif

This is just that---a tern pair with a fish.

Mary Bomberger Brown Tern and Plover Conservation Partnership 153C Hardin Hall University of Nebraska 3310 Holdrege Street Lincoln, NE 68583-0931 USA telephone: (402) 472-8878

fax: (402) 472-3461 email: <a href="mbrown9@unl.edu">mbrown9@unl.edu</a> http://ternandplover.unl.edu

From: Mary B Brown [mbrown9@unlnotes.unl.edu]

**Sent:** Tuesday, August 26, 2008 5:09 PM

To: Marinovich, Melissa Subject: tern and plover photos

Attachments: P1010061.JPG; piping plover at nest.JPG; 2008 season 014.jpg

Hello Melissa,

Here are some photos.

Piping plover at nest.jpg is exactly that.

P1010061.jpg is what the sandpile looked like in 2007 (before the berm).

2008 season 014.jpg is the berm behind a slurry pipe discharging water (the berm is the ridge of lighter colored sand).

Please acknowledge the Tern and Plover Conservation Partnership as the owner of these photos (ie., Photos provided by the Tern and Plover Conservation Partnership or Photos courtesy of the Tern and Plover Conservation Partnership) whenever you reproduce them

#### Mary

Mary Bomberger Brown
Tern and Plover Conservation Partnership
153C Hardin Hall
University of Nebraska
3310 Holdrege Street
Lincoln, NE 68583-0931 USA
telephone: (402) 472-8878

fax: (402) 472-3461 email: <a href="mbrown9@unl.edu">mbrown9@unl.edu</a> http://ternandplover.unl.edu



# STATE OF NEBRASKA

DEPARTMENT OF NATURAL RESOURCES Brian P. Dunnigan, P.E.

Acting Director

August 29, 2008

IN REPLY TO:

Pat Engelbert HDR Engineering, Inc. 8404 Indian Hills Drive Omaha, NE 68114-4049

Dear Mr. Engelbert:

Please find enclosed a copy of the requests the Nebraska Department of Natural Resources would like to have included in the Pre-application Document for the relicensing of the Loup Power District hydroelectric project. Also enclosed is a copy of the July 1994 study, <u>Lower Platte River Ice Jam Flooding</u>, completed by the US Army Corps of Engineers. Please include the study with our requests. If you desire additional information about any of the concerns, please feel free to contact me.

Sincerely,

Jean E. Angell

Legal Counsel

cc:

Joe Mangiamelli, City Administrator, City of Columbus, P.O. Box 1677, Columbus, NE

68602-1677

Mike Moser, Mayor, City of Columbus, P.O. Box 1677, Columbus, NE 68602-1677 Loup Public Power Relicensing Water Rights Workgroup Committee Members

Enclosures

# Request to address issues in the FERC relicensing of Loup Public Power District

# Requested by the Nebraska Department of Natural Resources

# August 29, 2008

1. Diversions of the Loup River into the Loup Power Canal, and the very occasional suspensions of diversions when frazil ice is present, may cause ice jam flooding in the Lower Platte River basins.

In March of 1993, severe flooding occurred downstream of the LPPD power canal along the south side of the Loup River at Columbus, due to an ice jam, causing millions of dollars worth of damage. The flood waters nearly overtopped the levee protecting the City of Columbus. The devastation included the destruction of a major highway, a state weigh station and several commercial concerns, and put a housing develop in imminent danger of inundation, as well as causing extensive damage to miles of farms. In response, the Federal Emergency Management Agency (FEMA), Region VII, formed an Interagency Hazard Mitigation Team to review this event and others, and suggest measures which might be implemented to predict and mitigate similar events in the future.

The US Corps of Engineers (USCE) studied the ice jam flooding in the Lower Platte River basin and published a report for the State of Nebraska Civil Defense Agency and the Nebraska Natural Resources Commission in July of 1994. (A copy of the study is being provided with this request.) The USCE noted that recurring ice jams take place on the Loup River between Genoa and Columbus, the stretch within which LPPD diverts water into their power canal. Local residents expressed the opinion that the fluctuations in the Loup River Power Canal diversions cause or exacerbate ice jams downstream of the canal diversion. The USCE noted that the diversion fluctuations in the LPPD power canal may affect ice formation and ice transport through the instantaneous variances of flow between zero and 3160 cfs during the period of January through March, as well as the change in the sediment regime of the river.

The USCE did not definitively conclude that diversion fluctuations cause ice jam flooding because of the lack of detailed historical data. The USCE suggested an ice data collection program for input into a predictive ice jam model, analysis of contributions to ice jams, as well as mitigation procedures Since that time, the Nebraska Department of Natural Resources has collected ice data for an ice jam prediction model.

Upon collection of ice data, the USCE recommended a study to evaluate the impact of the operation of the Loup Power Canal on downstream ice conditions. Such study has not been conducted. USCE noted that an analysis could address such issues at the potential effects of LPPD diversion fluctuation on the formation of border ice, frazil production,

frazil ice transport, and the effects of sudden decreases in river flow on ice movement (e.g., stranding ice clocks, increased frazil deposition).

The Nebraska Department of Natural Resources asks that studies be conducted on what contributions the operation of the LPPD canal have on ice jam flooding as well as what measures could be taken to mitigate ice jam flooding and resulting damages.

# 2. LPPD's appropriations are permitted only for the production of power. LPPD has been using their appropriations for other uses.

LPPD entered into an agreement with the Nebraska Game and Parks Commission to at certain times refrain from taking their full appropriation so as to keep a minimum waterflow in the reach of the river below the diversion. LPPD is using a portion of their appropriation for other than the use permitted, putting that portion of its appropriation at risk of cancellation.

LPPD entered into an agreement with farmers to divert water from the power canal into Lost Creek. LPPD is using a portion of their appropriation for other than the use permitted, putting that portion of its appropriation at risk of cancellation.

The Nebraska Department of Natural Resources has brought to LPPD's attention the fact that they are diverting water for unpermitted uses. As of this date, LPPD has not applied for a change of use. The Department will pursue the matter.

#### 3. LPPD has failed to quantify the cost of replacement power.

Nebraska law provides that waters used for irrigation have preference over waters used for manufacture of power. This means an irrigator with an appropriation junior to LPPD's appropriation may require the senior LPPD to subordinate its water use in return for just compensation. Just compensation is not an arbitrary amount. State law requires that it be an amount not greater than the cost of replacing the power which would be generated by the water so acquired. LPPD has set amounts for irrigators to take water out of priority. The rate for those irrigators taking water from the canal between the diversion on the Loup River and the power plants at Monroe and Columbus is different than the rate charged for those irrigators taking water upstream of the diversion, and at times has varied within the canal itself. How does LPPD figure "just compensation"? LPPD's Power Interference Agreement states that the amount charged irrigators is not just compensation. LPPD has not responded to this question, despite repeated requests. Charging an amount greater than just compensation puts LPPD's appropriation, and its production of power, at risk.

The Nebraska Department of Natural Resources requests that LPPD study the cost of replacement power.



### Nebraska Game and Parks Commission

2200 N. 33rd St. / P.O. Box 30370 / Lincoln, NE 68503-0370 Phone: 402-471-0641/ Fax: 402-471-5528 / www.OutdoorNebraska.org

5 September 2008

Lisa Richardson HDR Engineering, Inc. 8404 Indian Hills Drive Omaha, NE 68114

Dear Ms. Richardson:

We are writing in response to your letter dated 13 August 2008 which was directed toward both the Tern and Plover Conservation Partnership (Partnership) and the Nebraska Game and Parks Commission (Commission). The letter requested information on Interior Least Terns (*Sternula antillarum athalassos*) and Piping Plovers (*Charadrius melodus*) found in the lower Loup River and its adjacent waterways and the upper reach of the lower Platte River. We have reviewed our database and are providing the data requested at this time. The Partnership and the Commission worked jointly on this request. The tern and plover database is housed and maintained at the Nebraska Game and Parks Commission.

The Partnership is a coalition of state and local government agencies and industry groups that work together to promote conservation of Least Terns and Piping Plovers in Nebraska. We work proactively to minimize bird-human conflicts and negative impacts to commercial activity. The Commission is the state agency responsible for stewardship of Nebraska's wildlife resources, including the Least Tern and Piping Plover. The Least Tern is listed as endangered and the Piping Plover is listed as threatened under the Nebraska Nongame and Endangered Species Conservation Act. Because both species are state listed, we must condition the use of the data and qualify interpretation of the data.

In order to protect threatened and endangered species and landowner privacy, the Commission has a strict policy of maintaining confidentiality in regard to exact location information. This policy is in practice with this request, with the exception of data obtained from Loup Public Power District (LPPD) owned property. In respect of this policy, we ask that you abide by the following stipulations:

- Data is provided solely for the LPPD-FERC relicensing project and is not to be released or distributed for any other purpose
- Data remains property of the Commission and/or the Partnership and is provided only as a temporary loan
- Please acknowledge the Partnership and Commission as providing this data in all LPPD-FERC relicensing materials
- Please deny all requests for release of the data and refer all inquiries to Joel Jorgensen, Nongame Bird Program Manager (402-471-5440) or Mary Bomberger Brown, Coordinator (402-472-8878).

Please be aware that the database maintained by the Commission and the Partnership is the most up-to-date and comprehensive available on the occurrence and distribution of Nebraska's Least Terns and Piping Plovers, however, it is also incomplete. Some sites, both natural and human-created, in the state have been surveyed using different methodologies at different times. Consequently, the data should be interpreted with caution and an "absence of evidence is not evidence of absence" philosophy should be followed.

#### Additional specific comments are outlined below:

- Please be aware that the term "population" has various biological definitions and interpretations. In this request, we defined the term "population" in the general sense and the data we provide relates to the number of each species observed within the arbitrary region that is defined by the LPPD-FERC relicensing project.
- Accurately quantifying the number of individual terns and plovers at a site is challenging because both species are very mobile. Least Terns often forage several miles away from nesting sites. Individual terns and plovers may also colonize and then leave sites, in response to nest failure, throughout the nesting season. Furthermore, observers are not able to detect all individuals at a site all of the time. Thus, the number present in the "highest adult count" represents the largest number of individuals counted at a single visit during the breeding season. Using the number of nests would be a more reliable index in regard to the number of birds/pairs actually using a site.
- Caution should be used when interpreting fledge ratios. Fledge ratio is the standard metric used in quantifying tern and plover reproduction. However, almost all of the data provided here is based on observations and not on more rigorous methods such as a mark-recapture statistical analysis. There is an unknown amount of error present within these figures provided. The figures presented here represent a reasonable index of reproduction at the individual sites.
- Nest initiation dates are based on egg-floating, which is a relatively accurate and widely accepted technique.
- Arrival and departure dates are dependent on whether an observer is present or not to make the observation, thus individual birds may arrive or depart outside of the dates listed in the data.

#### Additional specific comments regarding the request:

- LPPD settling basin and sandpile. It should be noted that the Partnership has only been allowed access to and conducted monitoring in these areas since 2007. This was initiated at the request of Preferred Rocks of Genoa (previously Harwest Industrial Minerals and Legacy Resources). Prior to 2007, monitoring was conducted by LPPD personnel. Some data from the years 1987, 1988, 1990, and 1991 are in the database, but they are not included here since they are not within the 1999 2008 study period. We suggest contacting Gary Pearson, Headworks Supervisor (402-993-2807), to inquire about the data from 1999 2006. Data from 2007 and 2008 are provided.
- Regarding the Loup River bypass canal to its confluence with the Platte River, it should be noted that the bypass canal, Lake North and Lake Babcock, have not been routinely surveyed by the Commission or the Partnership and we do not have data for this waterway. We are aware that both species use Lake North and Lake Babcock during spring and fall migration. We suggest reviewing occurrence data in

- Nebraska's state ornithological journal, the *Nebraska Bird Review* (published by the Nebraska Ornithologists' Union), for more specific information.
- Not all of the data from the 2008 season is available at this time because of the short amount of time between the nesting season and the request for data. We will provide the 2008 data that is not provided here after the data has been compiled and reviewed for accuracy.
- Data on habitat from the 2008 field season. Pilot research on available river habitat, including basic measurements of elevation relative to observed river flows, was conducted downstream from river mile 57 (near Fremont, NE) to the Platte River confluence with the Missouri River. This area is outside the LPPD-FERC relicensing project boundaries.

Please feel free to contact either of us if you have questions about this data or require additional information. Please also be aware that future data requests should be made 30 days or more prior to when data are needed. We appreciate your interest in tern and plovers and look forward to working with you in the future.

Sincerely,

Joel Jorgensen

Nongame Bird Program Manager

Nebraska Game and Parks Commission

402-471-5440

Mary Bomberger Brown

Program Coordinator

Tern and Plover Conservation Partnership

402-472-8878

cc: Robert Harms, U.S. Fish and Wildlife Service

Kristal Stoner, NGPC Frank Albrecht, NGPC

September 5, 2008

Mr. Tony Provost NAGPRA Coordinator Omaha Tribe of Nebraska P.O. Box 368 Macy, Nebraska 68039

Re: Loup Power District Hydroelectric Relicensing

Platte and Colfax Counties, Nebraska

Dear Mr. Provost:

The Loup River Public Power District has retained HDR Engineering to assist with FERC relicensing of the Loup River Hydroelectric Project. This will be a multi-year endeavor since the new license application is not due for submittal until April of 2012. Preliminary work is being initiated at this time because industry experience has shown that thorough planning, an early start, and focused communication are vitally important to the interests of all participants in the relicensing process.

Enclosed for your information is a brief introduction to the Loup River Hydroelectric Project and the FERC relicensing process. Also enclosed are copies of two recent FERC publications which will help to explain the relatively new Integrated Licensing Process (ILP) that the District intends to utilize. The U.S. government regulations related to the ILP relicensing process are also enclosed (18 CFR 5).

FERC is required to consult with Native American Tribes throughout the relicensing effort. The consultation process is firmly rooted in the responsibilities given to FERC through Section 106 of the Historic Preservation Act of 1966, as amended, and the guiding regulations found in 36 CFR 800, as well as other preservation and federal trust requirements. According to FERC protocols, FERC will initiate consultation with the Omaha Tribe of Nebraska and other Native American Tribes once Loup Power District submits the initial filing, known as the Pre-Application Document (PAD). We expect the PAD to be filed with FERC in the coming months.

In the meantime, we would like to take this opportunity to coordinate with you, share project information, and provide some context for the Loup Power District's FERC filings. Once consultation begins, we expect to play an active and integral role in the FERC consultation process as a consulting party.

Although we have been unable to coordinate a time for an in-person meeting, we appreciate your willingness to meet and discuss this project. Should schedules allow, we extend an invitation to you to come to the Loup Power District facility to better acquaint you with the existing facility and the specifics of the relicensing effort. After reviewing the enclosed information, if you have any questions or would like to meet with Loup Power District prior to the FERC Tribal Consultation Meeting, please contact me at (402) 926-7026 or Mr. Neal Suess, CEO, Loup Power District (402) 564-3171.

Thank you.

Sincerely,

Lisa M. Richardson, P.E. Program Manager

**Enclosures** 

Cc: Neal Suess, Loup Power District

September 5, 2008

Mr. Francis Morris Pawnee Nation of Oklahoma PO Box 470 Pawnee, OK 74058

Re: Loup Power District Hydroelectric Relicensing

Platte and Colfax Counties, Nebraska

Dear Mr. Morris:

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Thank you.

Sincerely,

Lisa M. Richardson, P.E. Program Manager

Enclosures

Cc: Neal Suess, Loup Power District



### United States Department of the Interior

#### FISH AND WILDLIFE SERVICE

Ecological Services Nebraska Field Office 203 West Second Street Grand Island, Nebraska 68801

September 18, 2008

Mr. Neal Suess Loup Power District 2404 15<sup>th</sup> Street, PO Box 988 Columbus, NE 68602-0988

RE: Supplementary Technical Assistance, Relicensing; Loup River Hydroelectric Project; Federal Energy Regulatory Commission Project Number 1256; Nance and Platte Counties, Nebraska

Dear Mr. Suess:

This is to supplement a technical assistance letter from the U.S. Fish and Wildlife Service (Service) dated July 21, 2008, in regards to the proposed relicensing of the Loup River Hydroelectric Project (Project) by the Federal Energy Regulatory Commission (FERC), Project Number 1256. In that letter, the Service identified several concerns that the proposed relicensing action may have on federal trust fish and wildlife species including federally listed threatened and endangered species and migratory birds. However, since the date of that letter, our knowledge of Loup Power District Operations has increased thanks to discussions with the Loup Power District and its consultant and other representatives from other agencies. For this reason, it has become necessary to supplement our previous July 21 letter with some additional issues.

Additional issues include water quality impairments and data gaps for water bodies within the Project area. In particular, there is a concern that potential PCB contamination in Loup River Canal sediments may be resulting in PCB exposure and effects to fish and wildlife resources within and downstream from the Project area. We are also concerned about the ability for ice to scour and maintain sandbar habitats in the Loup River below the Genoa Diversion to the confluence of the Loup and Platte rivers. A hydrologic modification to the Lost Creek drainage due to canal discharge is also a concern. The balance of this letter will provide a brief overview of each of these concerns.

#### Water Quality

The Project area includes at least four water bodies that have been listed as impaired under Section 303(d) of the federal Clean Water Act (CWA) (33 U.S.C. 1311-1313 and 1315-1317 et seq.). Lake Babcock (LP1-L0450) and the Loup River Canal (segment MP1-10200) are listed as impaired by Esherichia coli (NDEQ, 2008). The middle segment of the Loup River Canal (LP1-21800) is listed as impaired by polychlorinated biphenyls (PCBs). Lake North (segment LP1-L0440) was previously listed as impaired by pH and nutrients (NDEQ, 2006), but nutrients were delisted using less stringent assessment methods in 2008 (NDEQ, 2008). Furthermore, water bodies within the Project area may have water quality impairments, but have not yet been fully evaluated. Such water bodies include the most upstream segment of the Loup River Canal (LO1-20200) and five Head gate Ponds (segments LO1-L0060, LO1-L0070, LO1-L0080, LO1-L0090, and LO1-L0100).

Water quality impairments that have been identified within the Project area may adversely affect fish and wildlife. Nutrient enrichment is a leading cause of water quality impairment in our Nation's waters and can result in toxic algal blooms, reduced water clarity, noxious odors, dissolved oxygen depletion, fish kills, and excessive macrophyte growth (USEPA, 2000). Although there are no aquatic life water quality standards based on E. coli, sources for high concentrations of E. coli may also be a source for other bacterial pathogens or water quality contaminants (e.g., nutrients, metals and ammonia) that can adversely affect fish and wildlife. Potential PCB contamination within the Project area is especially a concern. PCBs have a tendency to bioaccumulate in aquatic organisms and can adversely affect fish and ayian reproduction. Fish-eating predators may be especially at risk of exposure to PCBs from bioaccumulation across food-chain pathways; therefore, the Service is especially concerned with PCB exposure and effects to the federally endangered least tern (Sterna antillarum) and pallid sturgeon (Scaphirhynchus albus). Adverse reproductive effects in fish exposed to PCBs are well documented and include ovarian atresia, decreased egg viability. and reduced growth of larvae (Niimi, 1996). A study conducted by the Service to evaluate contaminant exposure and effects to shovelnose sturgeon and pallid sturgeon in the lower Platte River identified PCBs as a contaminant of concern (Schwarz et al., 2006). Concentrations of total PCBs in shovelnose sturgeon carcass and ovary tissues exceeded toxicity thresholds. Ovarian atresia and high macrophage aggregate density were also observed in shovelnose sturgeon from the lower Platte River and have been observed elsewhere in other fish species from PCB contaminated sites (Collier et al., 1992; Papoulias and Tillitt, 2003). Pallid sturgeon may be especially at risk to PCBs that bioaccumulate and cause reproductive impairment because they have a more piscivourus diet, greater maximum life-span, and a longer reproductive cycle than shovelnose sturgeon.

It is recommended that all designated water bodies within the Project area be fully evaluated for beneficial use impairments in time for the 2010 303(d) assessment report. In addition, it is recommended that Loup Power District, with input from the Service and the Nebraska Game and Parks Commission, develop an appropriate sampling plan to evaluate PCB contamination within and downstream of the Project area. At the August 19, 2008, meeting, the Loup River Canal system was described as a closed system that receives insubstantial runoff from sources outside of the Project area. In addition, fish downstream of the Loup River Canal are not expected to move into the Project area above the Columbus Power House. This indicates that PCB contamination in fish from the Loup River Canal is likely a result of fish exposure to PCBs within the Project area. PCB exposure in aquatic systems generally stem from past PCB deposits that reside in sediments (Rice et al., 2003). Therefore, sediment sampling is needed to identify potential PCB source areas within and downstream from the Project area. Biological sampling may also be needed to evaluate PCB exposure and effects to aquatic and terrestrial receptors.

#### Ice Flow

Changes in the sediment regime of the Loup River resulting from canal operations may have impacted ice formation and transport processes (U.S. Army Corps of Engineers 1994). As such, the Service is concerned that sediment modifications at the Genoa Diversion may influence the formation of ice flows. Late winter/early spring thaws can result in large ice sheets moving down river. As they move, ice sheets scour the surface of sandbar islands free of vegetation. Sandbar islands scoured free of vegetation provide important nesting and foraging habitats for the least tern and federally threatened piping plover (Charadrius melodus). High and sustained spring flows can also act to scour islands free of vegetation. However, stage changes on the Loup River are not as pronounced as what would be expected on the Platte River and thus scouring due to high flows is limited. High stages occur too infrequently on the Loup River and probably do little to scour island

free of vegetation. For these reasons, ice scour is believed to have a greater role than what it might have in other river systems in terms of maintaining habitat for the least tern and piping plover.

#### Lost Creek

The Service is concerned that the release of canal water into Lost Creek may have an adverse affect on aquatic resources found there. It is understood that releases of water into Lost Creek are done at certain times of the year to provide water for livestock. Aquatic species evolved under a natural hydrologic regime. Artificial modifications to that regime could adversely affect some species and favor others. For example, an input of canal water could rapidly change stream water temperature and result in a fish kill in Lost Creek. The life cycles of some invertebrate species involves utilizing habitats along the bank and streamline interface. Loss or degradation of these habitats due to changes in water levels may affect the reproductive cycles of these aquatic invertebrates and other vertebrate species that rely on these species as a food resource.

The Service appreciates the opportunity to provide supplemental comments on the proposed relicensing project. Should you have any questions regarding these comments, please contact Mr. Robert Harms within our office at (308) 382-6468, extension 17.

Sincerely,

June M. DeWeese

Nebraska Field Supervisor

June M Dewlesse

cc: EPA; Kansas City, KS (Attn: Ann Laverty)

EPA; Kansas City, KS (Attn: Larry Shepard) EPA; Kansas City, KS (Attn: Joe Cothern)

NDEO: Lincoln, NE (Attn: John Bender)

FERC; (Attn: Kim Nguyen)

HDR; Minneapolis, MN (Attn: George Waldow)

NGPC; Lincoln, NE (Attn: Frank Albrecht) NPS; St. Paul, MN (Attn: Randall Thorson) FWS; Denver, CO (Attn: Don Anderson)

#### REFERENCES

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- Nebraska Department of Environmental Quality (NDEQ). 2008. 2008 surface water quality integrated report. Water Quality Division. <a href="http://www.deq.state.ne.us/">http://www.deq.state.ne.us/</a>
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- Rice PR, O'Keffe PW, Kubiak TJ. 2003. Sources, pathways, and effects of PCBs, dioxins and dibenzofurans. In Hoffman DJ, Rattner BA, Burton GA Jr, Cairns J Jr., eds. Handbook of Ecotoxicology 2nd Edition. Lewis Publishers pp 501-573.
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### Nebraska Game and Parks Commission

2200 N. 33rd St. / P.O. Box 30370 / Lincoln, NE 68503-0370 Phone: 402-471-0641/ Fax: 402-471-5528 / www.OutdoorNebraska.org

September 23, 2008

Ms. Melissa Marinovich HDR 8404 Indian Hills Dr. Omaha, NE 68114-4098

Re: Data Request for the areas surrounding the Loup River, Loup Diversion Canal, and Platte River near Genoa and Columbus, Nebraska

Dear Ms. Marinovich

Please make reference to your request dated September 16, 2008 requesting information about designated threatened or endangered species for areas located in Nance, Platte, and Butler Counties. Specifically examined, were the areas surrounding the Loup River, Loup Diversion Canal, and Platte River. All records were approximately located between Fullerton and Richland and Platte Center and Clarks, within an estimated 600 square mile area.

The Nebraska Natural Heritage Program tracks occurrences of "at-risk" species and native plant communities within the state. "At-risk" species and communities are defined as those which are declining in Nebraska, declining globally or unique to Nebraska. State listed threatened and endangered species are among those tracked by the Natural Heritage Program. All at-risk species and communities are considered a valuable state resource worthy of ensuring continued existence in Nebraska and are present within the area indicated in this request.

Small white lady's slipper (Cypripedium candidum) is a state threatened species. This species grows in clumps with one flower at the tip of a flowering stem consisting of a white, pouch-shaped "slipper." This insect pollinated plant is found in moist to wet prairies, fens and sedge meadows. This orchid flowers from mid-May to June in Nebraska.

Whooping cranes (*Grus americana*) use shallow, sparsely vegetated streams and wetlands to feed and roost during their migration. According to our records whooping cranes have been present within the area of request, specifically in areas upstream of Genoa, NE. The migration period in Nebraska is approximately March 23 through May 10 and from September 16 through November 16. In addition, a 3-mile wide, 56 mile long reach of the Platte River from Lexington to Shelton, Nebraska has been federally listed as critical habitat for whooping cranes. Alterations to feeding and roosting habitats from human disturbance and depletions of instream flows have negative impacts on whooping cranes.

The least tern (*Sterna antillarum athalassos*) and piping plover (*Charadrius melodus*) nest on unvegetated or sparsely vegetated sandbars in river channels and can also utilize sandpits. The nesting season for the least tern and piping plover is from April 15 through September 15. Channel constrictions and

obstructions that disrupt natural flows in the river and influence sandbar complexes in the river limit potential habitat for these birds. Depletions of instream flows from the Platte River have also have negative impacts. Human activity in the vicinity of feeding and nesting habitats can disturb least terns and piping plovers.

The bald eagle (*Haliaeetus leucooephalus*) nests, migrates and winters statewide. Bald eagles use mature, forested, riparian areas including rivers, streams, lakes and wetlands, and occurs along all major river systems in Nebraska. The bald eagle southward migration begins as early as October and wintering period extends from December-March. The nesting season in Nebraska extends from mid-February through mid-August. Disturbances within 0.5 mile of an active nest or within line-of-sight of the nest could cause adult eagles to discontinue nest building or to abandon eggs.

River otters (*Lutra canadensis*) require large amount of space to meet their annual requirements. During a year, an otter may occupy 50 or more miles of stream course and will often move from one area to another. River otters are most often active from early evening through early morning, but may also be active during the day. This is a highly mobile species, and if present, is likely to leave during disturbance. However, otters are susceptible when they have young pups in the natal den. This species, like other Mustelidae, exhibit delayed implantation meaning that fertilized egg development can be delayed, resulting in highly variable reproductive cycles. The pups are helpless until about seven weeks of age. In Nebraska, female otters enter the natal den beginning in late February through April. River otters use dens that were dug by other species such as beaver and utilize upland dens.

All federally listed threatened and endangered species are also state listed. However, for assessment of potential impacts on federally listed, candidate or proposed threatened or endangered species, please contact John Cochnar, Nebraska Field Office, U.S. Fish and Wildlife Service, 203 W. Second St., Grand Island, NE 68801.

Please note that this correspondence does not satisfy requirements of the Nongame and Endangered Species Conservation Act. Under the authority Neb.Rev.Stat. §37-807 (3) of the Nebraska Nongame and Endangered Species Conservation Act, all Nebraska state agencies are required to consult with the Nebraska Game and Parks Commission to ensure that any actions authorized, funded or carried out by them do not jeopardize the continued existence of a state listed species. This requirement would extend to any state permit issued. Please contact me if you need assistance with determining the potential of an action to affect listed species.

If you have any questions or need additional information on this site or on the jurisdiction of the Commission under the authorities listed above, please feel free to contact me.

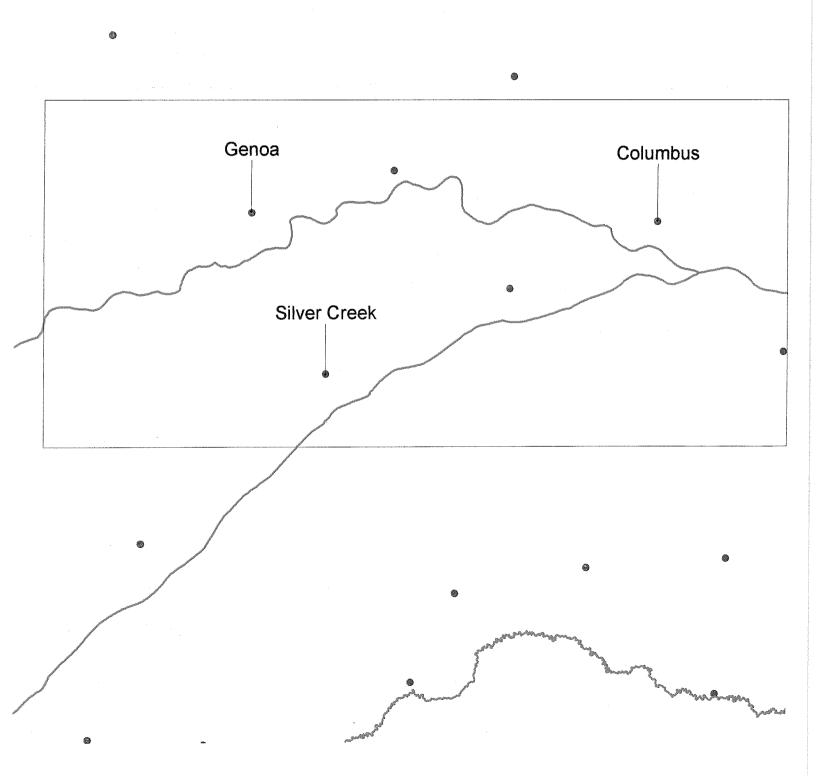
Sincerely,

Kristal Stoner

Environmental Analyst Supervisor Nebraska Natural Heritage Program Nebraska Game and Parks Commission

(402) 471-5444

Kristal.stoner@ngpc.ne.gov





Forest Service Rocky Mountain Region 740 Simms Street Golden, CO 80401 Voice: 303-275-5350 TDD: 303-275-5367

File Code: 2770

Date:

OCT 2 2 2008

Neal D. Suess President/CEO Loup Power District 2404 15th Street P.O. Box 988 Columbus, NE 68602-0988

Dear Mr. Suess:

This letter is in response to the information you have sent regarding the re-licensing process for the Loup River Hydroelectric Project facility located near Columbus, Nebraska.

There is no National Forest System land administered by the United States Forest Service located in Platte County, Nebraska, therefore, there will be no Forest Service response or involvement in the relicensing of the Loup River Hydroelectric Project. You do not need to send us any additional information concerning this project.

Thank you for providing this information on the proposed project.

Sincerely,

RANDALL KARSTAEDT Director, Physical Resources



## FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON D.C. 20426 October 23, 2008

OFFICE OF ENERGY PROJECTS

Project No. 1256-029--Nebraska Loup River Hydroelectric Project Loup River Public Power District

Ansley Griffin, Chairman Omaha Tribal Council Omaha Tribe of Nebraska P.O. Box 368 Macy, NE 68039

Reference: Consultation with the Omaha Tribe of Nebraska

Dear Mr. Griffin:

The Federal Energy Regulatory Commission (Commission) invites your participation in the relicensing process for the Loup River Hydroelectric Project located on the Loup River in Nance and Platte Counties, Nebraska. Loup River Public Power District (Loup Power District) owns and operates the project under a license issued by the Commission and is using the Commission's new Integrated Licensing Process to relicense the project. Loup Power District's current license for the project expires April 15, 2014, and an application for a new license must be filed by April 15, 2012.

The Loup River Project consists of: (1) a diversion weir on the Loup River at an elevation of 1,574 feet with wooden flashboards (or planks) to create an effective crest elevation of 1,576 feet; (2) 11 24-foot-long and 5-foot-wide steel intake gates located on the north bank of the river at elevation 1,569.5 feet; (3) three 20-foot-long and 6-foot-wide steel sluice gates at elevation 1,568 feet spanning the portion of river flowing between the downstream leg of the diversion weir and the intake gates diverting water into a settling basin; (4) a 2-mile-long, 200-foot wide, and 16-foot-deep settling basin with a floating hydraulic dredge and skimming weir at the downstream end of the settling basin; (5) a 10-mile-long, 73-foot-wide, and 14.3-foot-deep Upper Power Canal with inverted siphons bringing water to the Monroe Powerhouse; (6) the Monroe Powerhouse containing three Francis-type, turbine-generating units each with a rated capacity of 2.621 megawatts (MW); (7) a 13-mile-long, 39-foot-wide, and 19.5-foot-deep Lower

Power Canal with 2 siphons extending from the Monroe Powerhouse to Lake Babcock; (8) a concrete weir structure (Sawtooth Weir) located where the Lower Power Canal enters Lake Babcock; (9) a 760-acre regulating reservoir, Lake Babcock, with storage capacity of 11,000 acre-feet at its full pool elevation of 1,531 feet; (10) a 200-acre second regulating reservoir, Lake North, with storage capacity of 2,080 acre-feet at an elevation of 1,531 feet; (11) a concrete control structure in the south dike linking the two regulating reservoirs; (12) a 1.5-mile-long, 94- to 108-foot-wide, and 17.2- to 22.2-foot-deep intake canal bringing water from the reservoirs to the Columbus Powerhouse; (13) a 60-foot-long, 104-foot-wide, and 40-foot-high inlet structure with trashracks; (14) three 20-foot-diameter and 385-foot-long steel penstocks connecting the inlet structure with the powerhouse; (15) the Columbus Powerhouse containing three Francis-type, turbine-generating units each with a rated capacity of 15.2 MW; (16) a 5.5-mile, 42-foot-wide, and 19-foot-deep tailrace canal returning water to the river; and (17) appurtenant facilities.

The Commission staff is interested in meeting with you to discuss the Commission's relicensing process, how the tribe can participate to the fullest extent possible, your interests and concerns in the affected area, and how to establish procedures to ensure appropriate communication between Commission and tribal staffs. The meeting can be limited to Commission and your tribal staff or can be open to other tribes, <sup>1</sup> Loup Power District, or any other relicensing participants you wish. Please note that any sensitive tribal information discussed at the meeting, and likewise discussed throughout the entire relicensing process, can be kept strictly confidential.

Please tell us within 30 days from the date of this letter whether or not you would like to participate in relicensing the Loup River Hydroelectric Project and whether you would like to meet with Commission staff to discuss the project. You may respond by letter or contact the relicensing coordinator listed below by phone or email. All correspondence with the Commission regarding this project should be sent to: The Secretary, Federal Energy Regulatory Commission, 888 First Street, NE, Washington, DC 20426. Please put the project name "Loup River Hydroelectric Project" and number "P-1256-029" on the front cover of all correspondence.

<sup>&</sup>lt;sup>1</sup> Commission staff is inviting the following other tribes to participate in the relicensing process: Winnebago Tribe, Santee Sioux Tribe, Ponca Tribe of Nebraska, Pawnee Tribe, and the Ponca Tribe of Oklahoma.

If you have any questions, the Commission's relicensing coordinator for the Loup River Hydroelectric Project is: Kim Nguyen at (202) 502-6105 or <a href="mailto:kim.nguyen@ferc.gov">kim.nguyen@ferc.gov</a>. Commission staff will contact your office shortly to followup on this letter.

Sincerely,

Ann F. Miles, Director Division of Hydropower Licensing

cc: Neal D. Suess, President/CEO
Loup River Public Power District
2404 15th Street
P.O. Box 988
Columbus, Nebraska 68602-0988

Mailing List Service List

Document	Content(s)
19755811	.DOC1-3

20081023-3047 FERC PDF (Unofficial) 10/23/2008

# FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON D.C. 20426 October 23, 2008

OFFICE OF ENERGY PROJECTS

Project No. 1256-029--Nebraska Loup River Hydroelectric Project Loup River Public Power District

George Howell, President Pawnee Tribal Business Council P.O. Box 470 Pawnee, OK 74058

**Reference: Consultation with the Pawnee Tribe** 

Dear Mr. Howell:

The Federal Energy Regulatory Commission (Commission) invites your participation in the relicensing process for the Loup River Hydroelectric Project located on the Loup River in Nance and Platte Counties, Nebraska. Loup River Public Power District (Loup Power District) owns and operates the project under a license issued by the Commission and is using the Commission's new Integrated Licensing Process to relicense the project. Loup Power District's current license for the project expires April 15, 2014, and an application for a new license must be filed by April 15, 2012.

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(8) a concrete weir structure (Sawtooth Weir) located where the Lower Power Canal enters Lake Babcock; (9) a 760-acre regulating reservoir, Lake Babcock, with storage capacity of 11,000 acre-feet at its full pool elevation of 1,531 feet; (10) a 200-acre second regulating reservoir, Lake North, with storage capacity of 2,080 acre-feet at an elevation of 1,531 feet; (11) a concrete control structure in the south dike linking the two regulating reservoirs; (12) a 1.5-mile-long, 94- to 108-foot-wide, and 17.2- to 22.2-foot-deep intake canal bringing water from the reservoirs to the Columbus Powerhouse; (13) a 60-foot-long, 104-foot-wide, and 40-foot-high inlet structure with trashracks; (14) three 20-foot-diameter and 385-foot-long steel penstocks connecting the inlet structure with the powerhouse; (15) the Columbus Powerhouse containing three Francis-type, turbine-generating units each with a rated capacity of 15.2 MW; (16) a 5.5-mile, 42-foot-wide, and 19-foot-deep tailrace canal returning water to the river; and (17) appurtenant facilities.

The Commission staff is interested in meeting with you to discuss the Commission's relicensing process, how the tribe can participate to the fullest extent possible, your interests and concerns in the affected area, and how to establish procedures to ensure appropriate communication between Commission and tribal staffs. The meeting can be limited to Commission and your tribal staff or can be open to other tribes, <sup>1</sup> Loup Power District, or any other relicensing participants you wish. Please note that any sensitive tribal information discussed at the meeting, and likewise discussed throughout the entire relicensing process, can be kept strictly confidential.

Please tell us within 30 days from the date of this letter whether or not you would like to participate in relicensing the Loup River Hydroelectric Project and whether you would like to meet with Commission staff to discuss the project. You may respond by letter or contact the relicensing coordinator listed below by phone or email. All correspondence with the Commission regarding this project should be sent to: The Secretary, Federal Energy Regulatory Commission, 888 First Street, NE, Washington, DC 20426. Please put the project name "Loup River Hydroelectric Project" and number "P-1256-029" on the front cover of all correspondence.

<sup>&</sup>lt;sup>1</sup> Commission staff is inviting the following other tribes to participate in the relicensing process: Winnebago Tribe, Santee Sioux Tribe, Ponca Tribe of Oklahoma, Ponca Tribe of Nebraska, and the Omaha Tribe of Nebraska.

If you have any questions, the Commission's relicensing coordinator for the Loup River Hydroelectric Project is: Kim Nguyen at (202) 502-6105 or <a href="mailto:kim.nguyen@ferc.gov">kim.nguyen@ferc.gov</a>. Commission staff will contact your office shortly to followup on this letter.

Sincerely,

Ann F. Miles, Director Division of Hydropower Licensing

cc: Neal D. Suess, President/CEO
Loup River Public Power District
2404 15th Street
P.O. Box 988
Columbus, Nebraska 68602-0988

Mailing List Service List

Document	Content(s)	
19755386	DOC1-	- 3

20081023-3049 FERC PDF (Unofficial) 10/23/2008

# FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON D.C. 20426 October 23, 2008

OFFICE OF ENERGY PROJECTS

Project No. 1256-029--Nebraska Loup River Hydroelectric Project Loup River Public Power District

Larry Wright, Jr., Chairperson Ponca Tribe of Nebraska P.O. Box 288 Niobrara, NE 68760

Reference: Consultation with the Ponca Tribe of Nebraska

Dear Mr. Wright:

The Federal Energy Regulatory Commission (Commission) invites your participation in the relicensing process for the Loup River Hydroelectric Project located on the Loup River in Nance and Platte Counties, Nebraska. Loup River Public Power District (Loup Power District) owns and operates the project under a license issued by the Commission and is using the Commission's new Integrated Licensing Process to relicense the project. Loup Power District's current license for the project expires April 15, 2014, and an application for a new license must be filed by April 15, 2012.

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(8) a concrete weir structure (Sawtooth Weir) located where the Lower Power Canal enters Lake Babcock; (9) a 760-acre regulating reservoir, Lake Babcock, with storage capacity of 11,000 acre-feet at its full pool elevation of 1,531 feet; (10) a 200-acre second regulating reservoir, Lake North, with storage capacity of 2,080 acre-feet at an elevation of 1,531 feet; (11) a concrete control structure in the south dike linking the two regulating reservoirs; (12) a 1.5-mile-long, 94- to 108-foot-wide, and 17.2- to 22.2-foot-deep intake canal bringing water from the reservoirs to the Columbus Powerhouse; (13) a 60-foot-long, 104-foot-wide, and 40-foot-high inlet structure with trashracks; (14) three 20-foot-diameter and 385-foot-long steel penstocks connecting the inlet structure with the powerhouse; (15) the Columbus Powerhouse containing three Francis-type, turbine-generating units each with a rated capacity of 15.2 MW; (16) a 5.5-mile, 42-foot-wide, and 19-foot-deep tailrace canal returning water to the river; and (17) appurtenant facilities.

The Commission staff is interested in meeting with you to discuss the Commission's relicensing process, how the tribe can participate to the fullest extent possible, your interests and concerns in the affected area, and how to establish procedures to ensure appropriate communication between Commission and tribal staffs. The meeting can be limited to Commission and your tribal staff or can be open to other tribes, <sup>1</sup> Loup Power District, or any other relicensing participants you wish. Please note that any sensitive tribal information discussed at the meeting, and likewise discussed throughout the entire relicensing process, can be kept strictly confidential.

Please tell us within 30 days from the date of this letter whether or not you would like to participate in relicensing the Loup River Hydroelectric Project and whether you would like to meet with Commission staff to discuss the project. You may respond by letter or contact the relicensing coordinator listed below by phone or email. All correspondence with the Commission regarding this project should be sent to: The Secretary, Federal Energy Regulatory Commission, 888 First Street, NE, Washington, DC 20426. Please put the project name "Loup River Hydroelectric Project" and number "P-1256-029" on the front cover of all correspondence.

<sup>&</sup>lt;sup>1</sup> Commission staff is inviting the following other tribes to participate in the relicensing process: Winnebago Tribe, Santee Sioux Tribe, Ponca Tribe of Oklahoma, Pawnee Tribe, and the Omaha Tribe of Nebraska.

If you have any questions, the Commission's relicensing coordinator for the Loup River Hydroelectric Project is: Kim Nguyen at (202) 502-6105 or <a href="mailto:kim.nguyen@ferc.gov">kim.nguyen@ferc.gov</a>. Commission staff will contact your office shortly to followup on this letter.

Sincerely,

Ann F. Miles, Director Division of Hydropower Licensing

cc: Neal D. Suess, President/CEO
Loup River Public Power District
2404 15th Street
P.O. Box 988
Columbus, Nebraska 68602-0988

Mailing List Service List

Document	Content(s)
19755490	DOC1-3

20081023-3048 FERC PDF (Unofficial) 10/23/2008

# FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON D.C. 20426 October 23, 2008

OFFICE OF ENERGY PROJECTS

Project No. 1256-029--Nebraska Loup River Hydroelectric Project Loup River Public Power District

Trey Howe, Chairman Ponca Tribe of Oklahoma P.O. Box 2, White Eagle Drive Ponca City, OK 74601

Reference: Consultation with the Ponca Tribe of Oklahoma

Dear Mr. Howe:

The Federal Energy Regulatory Commission (Commission) invites your participation in the relicensing process for the Loup River Hydroelectric Project located on the Loup River in Nance and Platte Counties, Nebraska. Loup River Public Power District (Loup Power District) owns and operates the project under a license issued by the Commission and is using the Commission's new Integrated Licensing Process to relicense the project. Loup Power District's current license for the project expires April 15, 2014, and an application for a new license must be filed by April 15, 2012.

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(8) a concrete weir structure (Sawtooth Weir) located where the Lower Power Canal enters Lake Babcock; (9) a 760-acre regulating reservoir, Lake Babcock, with storage capacity of 11,000 acre-feet at its full pool elevation of 1,531 feet; (10) a 200-acre second regulating reservoir, Lake North, with storage capacity of 2,080 acre-feet at an elevation of 1,531 feet; (11) a concrete control structure in the south dike linking the two regulating reservoirs; (12) a 1.5-mile-long, 94- to 108-foot-wide, and 17.2- to 22.2-foot-deep intake canal bringing water from the reservoirs to the Columbus Powerhouse; (13) a 60-foot-long, 104-foot-wide, and 40-foot-high inlet structure with trashracks; (14) three 20-foot-diameter and 385-foot-long steel penstocks connecting the inlet structure with the powerhouse; (15) the Columbus Powerhouse containing three Francis-type, turbine-generating units each with a rated capacity of 15.2 MW; (16) a 5.5-mile, 42-foot-wide, and 19-foot-deep tailrace canal returning water to the river; and (17) appurtenant facilities.

The Commission staff is interested in meeting with you to discuss the Commission's relicensing process, how the tribe can participate to the fullest extent possible, your interests and concerns in the affected area, and how to establish procedures to ensure appropriate communication between Commission and tribal staffs. The meeting can be limited to Commission and your tribal staff or can be open to other tribes, Loup Power District, or any other relicensing participants you wish. Please note that any sensitive tribal information discussed at the meeting, and likewise discussed throughout the entire relicensing process, can be kept strictly confidential.

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<sup>&</sup>lt;sup>1</sup> Commission staff is inviting the following other tribes to participate in the relicensing process: Winnebago Tribe, Santee Sioux Tribe, Ponca Tribe of Nebraska, Pawnee Tribe, and the Omaha Tribe of Nebraska.

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Sincerely,

Ann F. Miles, Director
Division of Hydropower Licensing

cc: Neal D. Suess, President/CEO
Loup River Public Power District
2404 15th Street
P.O. Box 988
Columbus, Nebraska 68602-0988

Mailing List Service List

Document	Content(s)	
19755893	DOC1-	. 3

20081023-3046 FERC PDF (Unofficial) 10/23/2008

# FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON D.C. 20426 October 23, 2008

OFFICE OF ENERGY PROJECTS

Project No. 1256-029--Nebraska Loup River Hydroelectric Project Loup River Public Power District

Roger Trudell, Chairman Santee Sioux Tribal Council Route 2 Niobrara, NE 68760

**Reference: Consultation with the Santee Sioux Tribe** 

Dear Mr. Trudell:

The Federal Energy Regulatory Commission (Commission) invites your participation in the relicensing process for the Loup River Hydroelectric Project located on the Loup River in Nance and Platte Counties, Nebraska. Loup River Public Power District (Loup Power District) owns and operates the project under a license issued by the Commission and is using the Commission's new Integrated Licensing Process to relicense the project. Loup Power District's current license for the project expires April 15, 2014, and an application for a new license must be filed by April 15, 2012.

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enters Lake Babcock; (9) a 760-acre regulating reservoir, Lake Babcock, with storage capacity of 11,000 acre-feet at its full pool elevation of 1,531 feet; (10) a 200-acre second regulating reservoir, Lake North, with storage capacity of 2,080 acre-feet at an elevation of 1,531 feet; (11) a concrete control structure in the south dike linking the two regulating reservoirs; (12) a 1.5-mile-long, 94- to 108-foot-wide, and 17.2- to 22.2-foot-deep intake canal bringing water from the reservoirs to the Columbus Powerhouse; (13) a 60-foot-long, 104-foot-wide, and 40-foot-high inlet structure with trashracks; (14) three 20-foot-diameter and 385-foot-long steel penstocks connecting the inlet structure with the powerhouse; (15) the Columbus Powerhouse containing three Francis-type, turbine-generating units each with a rated capacity of 15.2 MW; (16) a 5.5-mile, 42-foot-wide, and 19-foot-deep tailrace canal returning water to the river; and (17) appurtenant facilities.

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<sup>&</sup>lt;sup>1</sup> Commission staff is inviting the following other tribes to participate in the relicensing process: Winnebago Tribe, Pawnee Tribe, Ponca Tribe of Oklahoma, Ponca Tribe of Nebraska, and the Omaha Tribe of Nebraska.

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Sincerely,

Ann F. Miles, Director Division of Hydropower Licensing

cc: Neal D. Suess, President/CEO
Loup River Public Power District
2404 15th Street
P.O. Box 988
Columbus, Nebraska 68602-0988

Mailing List Service List

Document	Content(s)
19755596	.DOC1-3

20081023-3045 FERC PDF (Unofficial) 10/23/2008

### FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON D.C. 20426

October 23, 2008

OFFICE OF ENERGY PROJECTS

Project No. 1256-029--Nebraska Loup River Hydroelectric Project Loup River Public Power District

John Blackhawk, Chairman Winnebago Tribal Council P.O. Box 687 Winnebago, NE 68071

**Reference: Consultation with the Winnebago Tribe** 

Dear Mr. Blackhawk:

The Federal Energy Regulatory Commission (Commission) invites your participation in the relicensing process for the Loup River Hydroelectric Project located on the Loup River in Nance and Platte Counties, Nebraska. Loup River Public Power District (Loup Power District) owns and operates the project under a license issued by the Commission and is using the Commission's new Integrated Licensing Process to relicense the project. Loup Power District's current license for the project expires April 15, 2014, and an application for a new license must be filed by April 15, 2012.

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capacity of 11,000 acre-feet at its full pool elevation of 1,531 feet; (10) a 200-acre second regulating reservoir, Lake North, with storage capacity of 2,080 acre-feet at an elevation of 1,531 feet; (11) a concrete control structure in the south dike linking the two regulating reservoirs; (12) a 1.5-mile-long, 94- to 108-foot-wide, and 17.2- to 22.2-foot-deep intake canal bringing water from the reservoirs to the Columbus Powerhouse; (13) a 60-foot-long, 104-foot-wide, and 40-foot-high inlet structure with trashracks; (14) three 20-foot-diameter and 385-foot-long steel penstocks connecting the inlet structure with the powerhouse; (15) the Columbus Powerhouse containing three Francis-type, turbine-generating units each with a rated capacity of 15.2 MW; (16) a 5.5-mile, 42-foot-wide, and 19-foot-deep tailrace canal returning water to the river; and (17) appurtenant facilities.

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<sup>&</sup>lt;sup>1</sup> Commission staff is inviting the following other tribes to participate in the relicensing process: Santee Sioux Tribe, Pawnee Tribe, Ponca Tribe of Oklahoma, Ponca Tribe of Nebraska, and the Omaha Tribe of Nebraska.

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Sincerely,

Ann F. Miles, Director Division of Hydropower Licensing

cc: Neal D. Suess, President/CEO
Loup River Public Power District
2404 15th Street
P.O. Box 988
Columbus, NE 68602-0988

Mailing List Service List

Document	Content(s)
19755753	DOC1-3

20081023-3050 FERC PDF (Unofficial) 10/23/2008

# ORIGINAL

# Kim Nguyen

From:

Gary Robinette [garyr@poncatribe-ne.org]

Sent:

Wednesday, October 29, 2008 10:03 AM

To:

Kim Nguyen

Subject: Project No. 1256-029 -Loup River

Ann;

The Ponca Tribe of Nebraska has no comment on the approval of the new permit.

Gary Robinette
Director of Cultural Affairs/THPO
Ponca Tribe of Nebraska

SUCKENARY OF THE CONTROL OF THE CONTROL ELENGY REGULATORY CONTROL OF THE CONTROL

This message has been scanned for malware by SurfControl plc. www.surfcontrol.com

From: Angell, Jean [jean.angell@nebraska.gov]
Sent: Monday, November 03, 2008 4:43 PM

To: Richardson, Lisa (Omaha)

Cc: Dunnigan, Brian; Andersen, Pamela; Thompson, Mike

Subject: RE: Loup Power District - Relicensing

Follow Up Flag: Follow up Flag Status: Flagged

Thank you for your prompt response to our concerns.

Ice records can be found on our website at <a href="http://dnrdata.dnr.ne.gov/Icejam/index.asp">http://dnrdata.dnr.ne.gov/Icejam/index.asp</a>. You may contact Mr. Bill Jones in our office at 402-471-3932 for more information about the records. The records will likely have meaning only to experts such as those associated with CRREL (Cold Regions Research and Engineering Laboratory), a division of the US Army Corp of Engineers located in Hanover, NH.

Jean Angell Legal Counsel Department of Natural Resources 471-3931

From: Richardson, Lisa (Omaha) [mailto:Lisa.Richardson@hdrinc.com]

Sent: Monday, November 03, 2008 4:27 PM

To: Angell, Jean

Subject: Loup Power District - Relicensing

Jean,

Attached please find the following information per our discussion this afternoon:

- PDF of letter from Loup Power District to NGPC agreeing to release additional water in the bypass reach of the Loup River per NGPC request.
- PDF of the original agreement from 1935 between the District and Freda and C.H. Newman regarding a gate to release water from the tailrace into Lost Creek.

Also, in reviewing notes from our previous agency meetings I identified the following questions that the District is does not track the information you have requested:

- times water is taken from the power canal by irrigators the District meters the water by volume and periodically checks to see that the meters are working, they do not have records of when an irrigator takes the water.
- amount of water released into Lost Creek from the tailrace there is not a gage at the gate into Lost Creek.

I believe the following information was provided to you directly or is contained within the PAD. Please let me know if you need additional information related to these items:

- number of agreements with irrigators
- points of diversion
- quantity of water taken by irrigators
- estimated power produced per acre-foot (120 kWh/acre-foot)

 operation of Columbus Powerhouse when one or more turbines is not operating (i.e., what happens with diversion)

To my knowledge you still need the following information:

- Information on how just compensation is calculated
- Agreement from 1972 suspending collection of compensation from pre-1972 irrigators
- Other agreements related to water and operation of the project during the period of initial construction
- Information on what happens to the project if a FERC license is not granted
- Break-even point for amount of water below which power production would not be economical

Please let me know if there is additional information you need. We will work with the District to provide the remaining information as soon as possible and we will provide a letter requesting the ice data that has been collected by DNR since 1994.

Regards,

Lisa

#### Lisa M. Richardson, P.E.

Professional Associate

**HDR** One Company | Many Solutions

8404 Indian Hills Drive Omaha, NE 68114-4049 Phone: 402.926.7026 Cell: 402.618.9865

Cell: 402.618.9865 Fax: 402.399.1111

From: Richardson, Lisa (Omaha)

Sent: Monday, November 03, 2008 4:27 PM

To: 'jangell@dnr.ne.gov'

Subject: Loup Power District - Relicensing

Attachments: LPD.Dredging Lost Creek Agreement.pdf; LNGPC.030823.Nelson\_Minimum\_Flows.pdf

Jean,

Attached please find the following information per our discussion this afternoon:

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Regards,

Lisa

Lisa M. Richardson, P.E.

Professional Associate

**HDR** One Company | Many Solutions

8404 Indian Hills Drive

From: Pillard, Matt

Sent: Monday, November 03, 2008 9:32 AM

To: Richardson, Lisa (Omaha)

**Subject:** FW: LPPD FERC relicensing PAD

From: Angell, Jean [mailto:jean.angell@nebraska.gov]

Sent: Monday, November 03, 2008 9:24 AM

To: Pillard, Matt

Cc: Dunnigan, Brian; Andersen, Pamela; Thompson, Mike

Subject: LPPD FERC relicensing PAD

I received your phone call about the LPPD PAD. I feel it's pretty much a waste to even respond, and here's why: I don't think I could have been much clearer about what study NDNR would like conducted. I asked at the last meeting that there be a study on what contribution, if any, LPPD's power production procedures have on ice jam flooding, given the horrendous flooding in the past and the United States Army Corp of Engineers' suggestion that this be studied once ice records were kept. I related that NDNR has been keeping ice records ever since the suggestion. I followed this up by mailing HDR another copy of the 1994 USACE report with a request that it be included in the PAD, and wrote, "The Nebraska Department of Natural Resources asks that studies be conducted on what contributions the operation of the LPPD canal have on ice jam flooding as well as what measures could be taken to mitigate ice jam flooding and resulting damages." Apparently my communication skills are lacking as the PAD states that NDNR didn't provide enough information for such study to be conducted? It was also noted in the PAD that LPPD "will continue to discuss this issue with NDNR to determine study needs." Well LPPD hasn't discussed anything with NDNR. Not this issue or the previous issues we've brought up. We have been promised information by LPPD, as well as HDR, that has not been forthcoming.

Therefore, it seems a waste to continue with you in this procedure. If NDNR communicates with anyone on this relicensing, it will likely be FERC. NDNR does not wish for you to set up another meeting.

Jean Angell Legal Counsel Department of Natural Resources 471-3931



# LOUP POWER DISTRICT

GENERAL OFFICE 2404 15th Street P.O. Box 988 Columbus, NE 68602-0988 Phone: 402/564-3171 Fax: 402/564-0970

August 28, 2003

Kirk Nelson Nebraska Game & Parks PO Box 30370 Lincoln, NE 68503

Dear Kirk,

Re: Game & Parks Issues

Enclosed are two signed copies of the lease for Loup properties. Please sign both copies and return one to Loup.

Regarding minimum flows as was discussed at our meeting of August 5, 2003, Loup will increase flows to 75 cfs when necessary due to elevated air temperatures.

Next, Loup is willing to consider a fish by-pass at the Genoa Headworks diversion dam. Game and Parks will provide information on the design of this fish by-pass.

Loup sent regulatory changes regarding boating at Lake Babcock to Herb Angel on August 15, 2003.

Thank you for your cooperation regarding these matters.

Sincerely,

Ronald J. Ziola

**Engineering Manager** 

RZ:mp

**Enclosures** 

C: R.White

K.Christensen

J.Frear

J.Cieloha

From: Bender, John [john.bender@nebraska.gov]
Sent: Monday, November 24, 2008 2:13 PM

To: Pillard, Matt Cc: Michl, Greg

**Subject:** FW: Loup Power Canal - Fish Tissue Info

Attachments: LoupPowerPCBHistoricData.xls

#### Matt,

This is the information Greg Michl was able to put together. NDEQ will be following up on this site next summer as part of the Lower Platte Basin monitoring effort. Feel free to call either me or Greg if you need more of an explanation. Greg can supply you with our protocol on fish tissue monitoring if that would help.

Please note my email address has changed to john.bender@nebraska.gov

John F. Bender Water Quality Standards Coordinator Nebraska Department of Environmental Quality 1200 N Street, P.O. Box 98922 Lincoln, NE 68509-8922

From: Michl, Greg

Phone: 402/471-4201

Sent: Wednesday, November 19, 2008 2:24 PM

**To:** Bender, John; O'Brien, Patrick

Subject: Loup Power Canal - Fish Tissue Info

John and Pat:

The PCB fish (carp) tissue consumption advisory for the Loup Power Canal came about through the following monitoring and assessment efforts:

Year 1: 1993 - Single fillet sample collected and PCB levels triggered follow-up triplicate sampling in 1994.

Year 2: 1994 - Triplicate fillet sample collected and levels supported issuing a consumption advisory.

Year 3: 1995 - Consumption advisory issued; scheduled for re-sample in 3 years.

Year 6: 1998 - Follow-up single fillet sample collected, and levels triggered triplicate fillet sampling in 1999.

Year 7: 1999 - Triplicate fillet sample collected, levels supported maintaining consumption advisory.

Year 12: 2004 - Single fillet sample collected and PCB levels were below trigger level for consumption advisory; triplicate resample scheduled for 2005 anyway.

Year 13: 2005 - Triplicate fillet sample collected, levels supported maintaining consumption advisory.

Year 17: 2009 - Single fillet sample is scheduled to be collected in 2009 as part of our Basin Rotation - advisory site follow-up sampling in the Lower Platte Basin.

I've attached an EXCEL spreadsheet with the raw PCB data for each sampling date for your use.	. If I can be of more belo
let me know, Greg	in ream be of more help

December 2, 2008

Joel Jorgensen Nongame Bird Program Manager Wildlife Division Nebraska Game and Parks Commission 2200 N. 33<sup>rd</sup> Street Lincoln, NE 68503-0931

RE: Information request for piping plover and least tern population trends in Nebraska

Dear Mr. Jorgensen:

Loup Power District (the District) filed a Notice of Intent (NOI) and a Pre-Application Document (PAD) in October 2008 to begin the Federal Energy Regulatory Commission (FERC) relicensing process for its hydroelectric facilities located on the Loup River near Columbus, Nebraska.

HDR Engineering, Inc. (HDR), on behalf of the District would like to take this opportunity to thank you for your response to our first request for information received on September 6, 2008. We realize compiling that data took staff time and effort and it is greatly appreciated.

HDR continues to gather information on potential issues of concern related to the relicensing effort for the Loup River Hydroelectric Project. Our next task is to develop detailed plans for studies that will be conducted to gather additional information relative to the issues raised by agencies. We have reviewed the information previously provided and would like to request the following additional information to help with further study plan development and to gain a better understanding of trends and factors affecting the interior least tern and piping plover populations in Nebraska:

1. We have a 2001 write-up discussing the trends in Nebraska from the 1991, 1996 and 2001 census data written by John Dinan. What types of trends have been documented for least terns and piping plovers within the last 7 years on Nebraska rivers (specifically the Loup, Niobrara, Missouri, and Platte rivers)? Is a Nebraska summary of the 2006 census data for terns and plovers available?

- 2. On a National level, what types of trends have been recorded for U.S. northern Great Plains piping plover population and Interior population of least terns in the last 20 years? We currently have the published census data for piping plovers from 1991, 1996, and 2001, do you know the current status of the 2006 national census data?
- 3. In the meeting with Melissa Marinovich in August, you briefly described the general protocol and methods for your surveys. In an effort to gain a better understanding of how these surveys are conducted, could you please provide in greater detail the methodology and protocol for the surveys? Are the same protocols followed by other agencies that are also conducting surveys? Are the protocols the same for all the rivers as well as sand and gravel pits? Are there specific data forms that are filled out for each site surveyed?
- 4. It was our understanding, based on the August meeting, that the Nebraska Game and Parks Commission is charged with keeping and summarizing census data for the state of Nebraska. Does the Commission have all information relative to these species or is some information kept separately by other agencies? How does the Commission receive data from other agencies? In summary form or in raw form?
- 5. What types of tern and plover habitat trends, regarding suitability and availability of habitat, are the Nebraska Game and Parks Commission and other agencies observing on Nebraska rivers?
- 6. What is believed to have the greatest overall effect on piping plover and least tern populations in Nebraska?
- 7. What types of conservation efforts have the Nebraska Game and Parks Commission and other agencies implemented to protect and enhance the species?
- 8. Has the Commission or its partners developed any hypotheses related to the causes for the recent trends in Nebraska? Are reasons for trends different for each river basin? Have the factors affecting population trends changed since the initial listing of the species? Have conservation efforts in Nebraska made an impact on the population?

In addition to the above, please provide any additional information, studies, reports, etc. related to the species that would be helpful in analyzing trends and potential impacts related to the Loup River Hydroelectric Project. We appreciate your assistance in providing information to assist us with the relicensing effort. The information provided will be used for analytical purposes and the only information that will be published is information related to general trends and observations. Location specific information will not be published without the consent of the Commission.

Please feel free to contact Melissa Marinovich (402-399-1317) or me (402-926-7026) if you have any questions regarding this request. Once we have had a chance to review the information requested, we would like arrange a meeting with you to discuss any further questions we may have. As the relicensing process continues, we anticipate that we may have additional information requests. Thank you for your assistance.

Sincerely,

HDR ENGINEERING, INC.

Lisa M. Richardson Project Manager

cc: Neal Suess, Loup Power District

Mary Bomberger-Brown, Tern & Plover Conservation Partnership

December 2, 2008

Ms. Jean Angell Nebraska Department of Natural Resources 301 Centennial Mall South P.O. Box 94676 Lincoln, NE 68509-4676

RE: Loup Power District Hydroelectric Relicensing – Data Request

#### Dear Jean:

During agency discussions held earlier this year, you requested several pieces of information related to the District's water rights and operation of the Loup River Hydroelectric facility. The District and HDR have previously provided the majority of the information requested. Enclosed please find the remaining outstanding items. I want to apologize for the length of time it has taken to get this information to you; however the District has been extremely busy with several other matters over the past several months. The material attached is as follows:

- Information related to calculation of "just compensation" for canal irrigators. Note: The District charges the same rate no matter where in the canal an irrigator takes their water although water taken by some irrigators may already have been used for power production at the Monroe powerhouse and thus has less potential to produce power; charging a single rate for all canal irrigators is consistent with how electric utilities charge their customers the rate is the same regardless of where on the system a customer resides. Additionally, please note that the District has historically charged upstream irrigators \$1 per acre-foot of water used this value was determined by the District's Board of Directors many years ago and no information is available on how this figure was calculated.
- The 1972 agreement suspending collection of payment from irrigators who had water rights prior to 1972.
- Agreements dealing with water rights and operation of the project during the period of initial construction. The following agreements are enclosed:
  - MOA between the District and Nebraska Game and Parks regarding waived power interference compensation for water usage at the fish hatchery at the Calamus reservoir.
  - Agreement between the District and the Bureau of Reclamation regarding replacement power for water usage on the Loup and Calamus rivers.
  - o Agreements between the District and Bureau of Reclamation regarding replacement power for the Farwell and Sargent projects.

From: Richardson, Lisa (Omaha)

Sent: Wednesday, January 21, 2009 7:02 AM

To: Frame, Gail

**Subject:** FW: Loup Power District Relicensing - Notice of Scoping Information

From: Pillard, Matt

**Sent:** Monday, December 08, 2008 11:23 AM

To: Barb Friskopp; David Jundt; Frank Albrecht; Henry Santin; Jason Alexander; Jean Angell; Joe Cothern; John Bender;

John Shadle; Joseph Mangiamelli; Randy Thoreson; Robert Harms; Robert Puschendorf; Stacy Stupka-Burda;

pcclerk@megavision.com

Cc: Neal Suess; Richardson, Lisa (Omaha); Waldow, George

Subject: Loup Power District Relicensing - Notice of Scoping Information

Good Morning.

We recently checked in with FERC regarding timeframes for the next steps in the process and I wanted to make sure that a few important dates were passed your way.

FERC has indicated they will issue their scoping document by December 15. According to the ILP process, comments on the PAD and study requests are due 60 days after the scoping document is issued. In addition, FERC is planning to have scoping meetings on January 12 and 13 (in Columbus, location unknown at this time). Preliminarily, a site visit will be held on the 12th with a public scoping meeting in the evening. The agency scoping meeting is planned for the morning of the 13th.

We are passing this information on as an FYI - the District is not responsible for setting the date for the scoping document release nor for the coordination of the scoping meetings (dates, schedule, content) but we wanted to give you a heads up since the schedule moves very quickly and we have the holidays squeezed in the middle. This information is what we have received from FERC at this time and is subject to change. Once FERC finalizes their schedule, they should notify you. We will also post the information on the web site as soon as we get it.

Thanks again and hope to see you in January.

#### Matt Pillard, AICP Senior Environmental Planner

#### HDR | ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111 Email: Matt.Pillard@hdrinc.com



 Applications and subsequent filings related to the District's Power Lease (application numbers 2287 & 2573).

There are two additional pieces of information that you requested for which the District does not have information:

- What happens if the FERC license is not granted? This is something that FERC would have to answer. The District is not aware of a situation where this has happened before, but FERC would decide what happens to the project.
- What is the break-even point for the amount of water needed to produce power, below which it would not be economical? The District is compensated by upstream water users that have water rights and agreements with the District. If water users have no agreement with the District, the DNR would shut off their rights when the District makes a call on the Loup River. This is what should be currently happening, given that the District put a call on the Loup River in 1955 and renewed the call in 2008.

As you can see, there is a lot of information and it may be difficult to track how everything fits together. Due to the complexity of this information and the likelihood that you and others in the Department would have additional questions regarding the materials provided, I would like to suggest a meeting with the District, our consultants, HDR, and representatives from the DNR, specifically you and Brain Dunnegan, as well as any others you may identify to talk about the District's water rights, what we have done in the past and our project operation, as well as to discuss which of the Department's questions will be addressed during FERC relicensing and which ones will be addressed separately.

Let me know some dates that work for you and we will try to arrange a meeting. If it needs to be in Lincoln we can accommodate that, but it might be easier to meet in Columbus, since we have all our files here and could provide additional information as needed.

If you have any questions, please feel free to contact me (402-564-3171 ext. 268) or Lisa Richardson of HDR (402-926-7026) at your convenience.

Regards,

Neal Suess President/CEO

c: Lisa Richardson, HDR Ron Ziola

 $s: \label{lem:lemma:le$ 

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#### Kim Nguyen

From: Ichoughton@hotmail.com on behalf of Louie Houghton [houghton@winnebagotribe.com]

Sent: Tuesday, December 09, 2008 11:46 AM

To: Kim Nguyen Cc: JBH; Ken

Subject: Hydroelectric Project

#### Kim,

In review of your correspondence of October 23rd this year; the Tribal Council has determined that the Winnebago Tribe will not participate in the Loup River Hydroelectric Project Relicensing Process. The Winnebago Tribe does not have property located in Nance and Platte Counties.

Thank you for contacting us on this matter.

#### Louis C. Houghton, Jr., Secretary Winnebago Tribal Council

You live life online. So we put Windows on the web. Learn more about Windows Live

From: Bob Puschendorf [bpuschendorf@nebraskahistory.org]

Sent: Thursday, December 11, 2008 3:13 PM

**To:** Pillard, Matt; Barb Friskopp; David Jundt; Frank Albrecht; Henry Santin; Jason Alexander;

Jean Angell; Joe Cothern; John Bender; John Shadle; Joseph Mangiamelli; Randy Thoreson;

Robert Harms; Stacy Stupka-Burda; pcclerk@megavision.com

Cc: Neal Suess; Richardson, Lisa (Omaha); Waldow, George

**Subject:** Re: Loup Power District Relicensing - Notice of Scoping Information

I want to inform you and the other coordinators that Stacy Stupka-Burda has left our office. I will be the contact for this project in the interim and we will pursue a person to take her place.

---- Original Message -----

From: Pillard, Matt

**To:** Barb Friskopp; David Jundt; Frank Albrecht; Henry Santin; Jason Alexander; Jean Angell; Joe Cothern; John Bender; John Shadle; Joseph Mangiamelli; Randy Thoreson; Robert Harms; Robert Puschendorf; Stacy Stupka-

Burda; pcclerk@megavision.com

Cc: Neal Suess; Richardson, Lisa (Omaha); Waldow, George

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Thanks again and hope to see you in January.

Matt Pillard, AICP Senior Environmental Planner

#### HDR | ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098

Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111

Email: Matt.Pillard@hdrinc.com



#### UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

Loup River Public Power District

Project No. 1256-029-Nebraska

#### NOTICE OF SCOPING MEETINGS AND SITE VISITS

(December 12, 2008)

- a. Type of Filings: Notice of Intent to File License Applications for New Licenses; Pre-Application Documents; Commencement of Licensing Proceedings.
- b. Project No.: 1256-029
- c. Dated Filed: October 16, 2008
- d. Submitted By: Loup River Public Power District (Loup Power District)
- e. Name of Project: Loup River Hydroelectric Project No. 1256
- f. Location: The Loup River Hydroelectric Project is located on the Loup River in Nance and Platte Counties, Nebraska.
- g. Filed Pursuant to: 18 CFR Part 5 of the Commission's Regulations
- h. Potential Applicant Contact: Neal Suess, President/CEO, Loup Power District, P.O. Box 988, 2404 15<sup>th</sup> Street, Columbus, Nebraska 68602 (866) 869-2087.
- i. FERC Contact: Kim Nguyen (202) 502-6015 or via e-mail at <a href="mailto:kim.nguyen@ferc.gov">kim.nguyen@ferc.gov</a>.
- j. Loup Power District filed Pre-Application Document (PAD) for the Loup River Project, including proposed process plan and schedule, with the Commission pursuant to 18 CFR 5.6 of the Commission's regulations.
- k. Copies of the PAD and Scoping Document 1 (SD1) are available for review at the Commission in the Public Reference Room or may be viewed on the Commission's website (<a href="http://www.ferc.gov">http://www.ferc.gov</a>), using the "eLibrary" link. Enter the docket number, excluding the last three digits, in the docket number field to access the document. For assistance, contact FERC Online Support at <a href="mailto:FERCONlineSupport@ferc.gov">FERCONlineSupport@ferc.gov</a> or toll free at 1-866-208-3676, or for TTY,

(202) 502-8659. A copy is also available for inspection and reproduction at the address in paragraph h.

Register online at <a href="http://ferc.gov/esubscribenow.htm">http://ferc.gov/esubscribenow.htm</a> to be notified via e-mail of new filings and issuances related to these or other pending projects. For assistance, contact FERC Online Support.

1. With this notice, we are soliciting comments on SD1. All comments on SD1 should be sent to the address above in paragraph h. In addition, all comments on the PAD and SD1, study requests, requests for cooperating agency status, and all communications to Commission staff related to the merits of the potential applications (original and eight copies) must be filed with the Commission at the following address: Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426. All filings with the Commission relevant to the Loup River Hydroelectric Project must include on the first page, the project name, (Loup River Project) and number (P-1256-029), and bear the heading, as appropriate, "Comments on Scoping Document 1." Any individual or entity interested in commenting on SD1 must do so by February 10, 2009.

Comments on SD1 and other permissible forms of communications with the Commission may be filed electronically via the Internet in lieu of paper. The Commission strongly encourages electronic filings. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's website (http://www.ferc.gov) under the "e-filing" link.

m. At this time, Commission staff intends to prepare a single Environmental Assessment for the project, in accordance with the National Environmental Policy Act.

# **Scoping Meetings**

We will hold two scoping meetings for each project at the times and places noted below. The daytime meetings will focus on resource agency, Indian tribes, and non-governmental organization concerns, while the evening meetings are primarily for receiving input from the public. We invite all interested individuals, organizations, Indian tribes, and agencies to attend one or all of the meetings, and to assist staff in identifying particular study needs, as well as the scope of environmental issues to be addressed in the environmental document. The times and locations of these meetings are as follows:

# **Daytime Scoping Meeting**

Date: Tuesday, January 13, 2009

Time: 9:00 a.m.

Location: Holiday Inn Express

524 E. 23<sup>rd</sup> Street

Columbus, Nebraska 68601

(402) 564-2566

#### **Evening Scoping Meeting**

Date: Monday, January 12, 2009

Time: 7:00 p.m.

Location: same as daytime meeting

SD1, which outlines the subject areas to be addressed in the environmental document, has been mailed to the individuals and entities on the Commission's mailing list. Copies of SD1 will be available at the scoping meetings, or may be viewed on the web at <a href="http://www.ferc.gov">http://www.ferc.gov</a>, using the "eLibrary" link. Follow the directions for accessing information in paragraph k. Depending on the extent of comments received, a Scoping Document 2 (SD2) may or may not be issued.

#### Site Visits

The Loup Power District and Commission staff will conduct a site visit of the key project facilities on Monday, January 12, 2009, starting at 9:00 a.m. Those wishing to participate should meet at 8:45 a.m. at:

Loup Power District Main Office 2404 15<sup>th</sup> Street Columbus, Nebraska 68602

To appropriately accommodate persons interested in attending the site visit, participants should contact Ron Ziola at (402) 564-3171 or e-mail <a href="mailto:rziola@loup.com">rziola@loup.com</a> by January 5, 2009. The Loup Power District will provide transportation from their Main Office to the project site and lunch for the site visit. Participants should dress appropriately for outdoor, winter elements. In the event of inclement weather, participants can check the Loup Power District's Relicensing Hotline at (866) 869-2087 for updates on the site visit.

# **Scoping Meeting Objectives**

At the scoping meetings, staff will: (1) present the proposed list of issues to be addressed in the EA; (2) review and discuss existing conditions and resource agency management objectives; (3) review and discuss existing information and identify preliminary information and study needs; (4) review and discuss the process plan and schedule for pre-filing activity that incorporates the time frames provided for in Part 5 of the Commission's regulations and, to the extent possible, maximizes coordination of federal, state, and tribal permitting and certification processes; and (5) discuss requests by any federal or state agency or Indian tribe acting as a cooperating agency for development of an environmental document.

Meeting participants should come prepared to discuss their issues and/or concerns. Please review the Pre-Application Document in preparation for the scoping meetings. Directions on how to obtain a copy of the PAD and SD1 are included in item k of this notice.

#### **Scoping Meeting Procedures**

The scoping meetings will be recorded by a stenographer and will become part of the formal Commission records for the projects.

n. A notice of intent to file license application, filing PAD, solicitation of comments on the PAD and SD1, solicitation of study requests, and commencement of proceedings will be issued by December 19, 2008, setting the date for filing comments on the PAD and study requests in accordance with Commission regulations and the proposed process plan.

Kimberly D. Bose, Secretary.

Oocument Content(s)	
D-1256-029Notice.DOC1	L – 4

20081212-4007 FERC PDF (Unofficial) 12/12/2008

# **Postcard Mailer**

Actual will be printed half page on light blue cardstock.

# The Federal Energy Regulatory Commission Announces Public Meeting

Loup Power District
Hydro Project

On December 12, 2008, the Federal Energy Regulatory Commission (FERC) issued its first Scoping Document for the relicensing of the Loup River Hydroelectric Project. This document identifies issues to be addressed in the environmental analysis as well as possible protection, mitigation, and enhancement measures to be considered.

To further identify issues, concerns, and opportunities associated with the relicensing, FERC will hold a public scoping meeting in January:

# **Public Scoping Meeting**

January 12, 2009, 7:00 PM Holiday Inn Express 524 E. 23<sup>rd</sup> Street, Columbus, NE

An additional Project tour and scoping meeting are scheduled for resource agency participants. To request more information, please call (866) 869-2087. The public is welcome to attend any or all events.

FERC's Scoping Document and additional information on the Loup River Hydroelectric Project can be found on the project website:

www.loup.com/relicense

From: Pillard, Matt

Sent: Friday, December 19, 2008 8:24 AM

To: 'abaum@upperloupnrd.org'; 'barbara.j.friskopp@usace.army.mil'; 'bczoning@frontiernet.net';

'bobbie.wickham@nebraska.gov'; 'bpuschendorf@nebraskahistory.org'; 'butchk@nctc.net';

'caalms@megavision.com'; 'cgenoa@cablene.com'; 'cityadmin@cablene.com';

'cothern.joe@epa.gov'; 'danno@nohva.com'; 'dave\_carlson@fws.gov';

'david.jundt@dhhs.ne.gov'; 'dtunink@ngpc.state.ne.us'; 'frank.albrecht@ngpc.ne.gov';

'jalexand@usgs.gov'; 'jangell@dnr.ne.gov'; 'jeff.schuckman@ngpc.ne.gov';

'jmangi@columbusne.us'; 'john.bender@nebraska.gov'; 'justin.lavene@nebraska.gov'; 'kennyj@headwaterscorp.com'; 'mbrown9@unl.edu'; 'monroe@megavision.com'; 'pcclerk@megavision.com'; 'randy thoreson@nps.gov'; 'robert harms@fws.gov';

'santin@hamilton.net'; 'steve.chick@ne.usda.gov'; 'Meghan Sittler'; 'Kim.Nguyen@ferc.gov'

Cc: 'nsuess@loup.com'; 'rziola@loup.com'; 'jfrear@loup.com'; Richardson, Lisa (Omaha); White,

Stephanie; Waldow, George; Sigler, Bill; Grennan, Dennis E.; Engelbert, Pat

Subject: Loup Power District Relicensing - Project Information

#### Good Morning.

As you know, the relicensing effort for the Loup Power District reached a milestone with the submittal of the Pre-Application Document to FERC on October 16, 2008. If you haven't received notice of availability of this document, it is available for viewing or download on the District's website at <a href="http://www.loup.com/relicense">http://www.loup.com/relicense</a>.

On December 12, 2008 FERC issued its Notice of Commencement for relicensing the Loup River Hydroelectric Project and its first Scoping Document, which describes the Project and identifies the proposed action (to continue to operate the Project as it operates today), alternatives to the proposed action, and protection, mitigation, and enhancement measures that will be considered during relicensing. Additionally, the Scoping Document identifies the issues to be evaluated under the National Environmental Policy Act (NEPA) during relicensing. This document is also available on the District's webpage.

If you would like to register with FERC for notification of availability of relicensing documents, please go to <a href="http://www.ferc.gov/docs-filing/esubscription.asp">http://www.ferc.gov/docs-filing/esubscription.asp</a> to be notified via e-mail of new filings and issuances related to this project.

There are a few other milestones the District wanted all of you to be aware of:

First, FERC is hosting scoping meetings in January:

Public Scoping Meeting Agency Scoping Meeting

January 12, 2009 January 13, 2009

7:00 PM 9:00 AM

Holiday Inn Express
524 E. 23rd Street
Columbus, NE
Holiday Inn Express
524 E. 23rd Street
Columbus, NE
Columbus, NE

A site visit is also being offered on Monday, January 12, at 9:00 a.m. The District will provide transportation for the site visit, so please RSVP to Ron Ziola by January 5 at (402) 564-3171 or e-mail <a href="mailto:rziola@loup.com">rziola@loup.com</a> if you plan to attend. Please plan to arrive at the District's office at 2404 15th Street by 8:45 a.m. Participants should dress for winter weather and in the event of inclement weather, participants can check the District's Hotline at (866) 869-2087 for updates on the site visit.

Finally, comments and study requests are due to FERC no later than February 20, 2009. Information necessary for this submittal can be found in FERC's Scoping Document (page 17). FERC has a "quick comment" option available, which is an easy method to submit text only comments. The Quick-Comment User Guide can be viewed at <a href="http://www.ferc.gov/docs-filing/efiling/quick-comment-guide.pdf">http://www.ferc.gov/docs-filing/efiling/quick-comment-guide.pdf</a>.

Thanks for your continued interest in this project and please contact me at any time should you have additional questions or concerns.



# Nebraska Game and Parks Commission

2200 N. 33rd St. / P.O. Box 30370 / Lincoln, NE 68503-0370 Phone: 402-471-0641/ Fax: 402-471-5528 / www.OutdoorNebraska.org

December 24, 2008

Lisa M. Richardson HDR 8404 Indian Hills Drive Omaha, NE 68114-4098

Re: request for information for piping plover and least tern population trends in Nebraska

Dear Ms. Richardson,

Please make reference to your letter dated December 2, 2008 requesting information about for piping plover and interior least tern current population trends in Nebraska. It is our understanding that this information will be used during the relicensing process of Loup Public Power.

Your questions requested detail and analysis beyond current Commission resources. To assist you as much as possible, reports and references were provided where information may be obtained that will allow HDR to conduct the necessary analysis and data accumulation necessary to fully answer your questions.

1. Regarding trends as seen in the census data from 1991, 1996, 2001 and 2006.

The Commission has not conducted significant further analysis beyond the data available in these reports. The data provided in these reports should allow analysis to address your question.

For question regarding release of 2006 International Piping Plover Census report, please contact the national coordinator,

Sue Haig or Elise Elliott-Smith (541-750-7390 or eelliott-smith@usgs.gov USGS Forest and Rangeland Ecosystem Science Center (FRESC) 3200 SW Jefferson Way Corvallis, OR 97331

Ph: 541-750-7482 Fax: 541-758-8806 susan haig@usgs.gov

#### 2. Trends at a national level.

The Commission has not conducted significant further analysis beyond the data available in these reports. The data provided in these reports should allow analysis to address your question.

For question regarding release of 2006 International Piping Plover Census report, please contact the national coordinator,

Sue Haig or Elise Elliott-Smith (541-750-7390 or eelliott-smith@usgs.gov USGS Forest and Rangeland Ecosystem Science Center (FRESC) 3200 SW Jefferson Way Corvallis, OR 97331

Ph: 541-750-7482 Fax: 541-758-8806 susan\_haig@usgs.gov

#### 3. General protocol and methods for surveys.

The protocols we follow during our surveys are as follow:

- All potential nesting habitat (dry, non- or sparsely vegetated expanses of sand relatively near water) is surveyed for the presence of birds.
- To ensure accuracy, a minimum of 2 observers are used to survey off-river sites and river habitat.
- Off-river sites are surveyed from a vehicle and/or by foot.
- River habitat is surveyed from an airboat
- Standardized data formats are used to ensure accuracy
- Data are evaluated and entered into computerized databases soon after the surveys are completed.
- Additional information in available in reports that are available to you.

The Commission does provide a survey protocol for agencies and consultants that have a particular project that may permanently or temporarily disrupt an area with least terns and piping plovers. This survey protocol has limitations as it typically only describes a method of detection, not necessarily for data collection and analysis over the short or long term. This survey protocol is enclosed.

There is standardization among data collection and between sand and gravel pits between geographic areas of Nebraska, but individual site characteristics and circumstances often require adjustments in protocols to ensure data is collected that is comparable. If HDR is designing a survey protocol, we recommend that you schedule time to meet with the Commission biologists and US Fish and Wildlife Service to design surveys that will ensure that your objectives are obtained.

#### 4. Nebraska Game and Parks Commission data responsibilities

The Nebraska Heritage Program is housed within the Nebraska Game and Parks Commission. The Nebraska Natural Heritage Program tracks occurrences of "at-risk" species and native plant communities within the state. The mission of the Nebraska Natural Heritage Program is to: (1) collect information on the status, distribution and ecology of ecological communities and rare, threatened and endangered species in Nebraska, (2) analyze and manage this information using standardized methods, (3)

disseminate this information to a wide array of conservation decision makers, and (4) use this information to actively promote the conservation of Nebraska's natural heritage. The Commission maintains databases to insure that survey information is maintained in a standardized manner consistent with other states. This information is only "summarized" or "analyzed" as needed for specific projects. Data is maintained in raw format. Our database does contain information collected by workers outside the Commission. The Heritage database is among the most complete and comprehensive available, but it does not contain all records for all at-risk species.

For additional records, we recommend that you contact Stephen K. Wilson (Stephen\_K\_Wilson@nps.gov;402 667 5524) National Park Service, for inquiries pertaining to the Niobrara system. Also, we do not maintain recent data from the Missouri River. Please contact Greg Pavelka (Gregory.A.Pavelka@usace.army.mil) with the U.S. States Army Corps of Engineers for inquiries pertaining to that system.

5. Tern and plover trends regarding suitability and availability of habitat

The most recent trend information for select areas of Nebraska is available in the 2008 Interior Least Tern and Piping Plover Monitoring, Research, Management and Outreach for the lower Platte River.

6. Greatest overall effect on piping plover and least tern populations in Nebraska

There are a myriad of factors that influence piping plover and least tern populations in Nebraska and individual locations may have different factors that have the greatest impact. I would refer you to the

- 2008 Interior Least Tern and Piping Plover Monitoring, Research, Management and Outreach for the lower Platte River,
- References such as the National Research Council of the National Academies (NRC), 2005. Endangered and Threatened Species of the Platte River. The National Academies Press, Washington, D.C. 247 pp.
- See enclosed reference list

#### 7. Conservation efforts

The Commission is the state agency responsible for stewardship of the state's wildlife resources. Moreover, the Commission administers the Nebraska Nongame and Endangered Species Conservation Act, the statute that authorizes that a species is designated as "threatened" or "endangered". The Commission is directly involved in planning, monitoring, research, education, outreach, law enforcement and management activities and the coordination and/or advising of planning, monitoring, research, law enforcement and management activities with other agencies and/or entities.

8. The final question has several very good inquiries related to hypotheses and the effectiveness of conservation actions. We suggest that you utilize available literature. There are hypotheses developed by the Commission for some areas such as the lower Platte River, and other large scale conservation efforts are underway in the Central Platte. In the Central Platte River,

adaptive management is being implemented, but the Platte River Recovery Program is relatively new and little information is available regarding it's effectiveness.

All federally listed threatened and endangered species are also state listed. However, for assessment of potential impacts on federally listed, candidate or proposed threatened or endangered species, please contact John Cochnar, Nebraska Field Office, U.S. Fish and Wildlife Service, 203 W. Second St., Grand Island, NE 68801.

Please note that this correspondence does not satisfy requirements of the Nongame and Endangered Species Conservation Act. Under the authority Neb.Rev.Stat. §37-807 (3) of the Nebraska Nongame and Endangered Species Conservation Act, all Nebraska state agencies are required to consult with the Nebraska Game and Parks Commission to ensure that any actions authorized, funded or carried out by them do not jeopardize the continued existence of a state listed species. This requirement would extend to any state permit issued. Please contact me if you need assistance with determining the potential of an action to affect listed species.

If you have any questions or need additional information on this site or on the jurisdiction of the Commission under the authorities listed above, please feel free to contact me.

Sincerely.

Kristal Stoner

**Environmental Analyst Supervisor** Nebraska Natural Heritage Program Nebraska Game and Parks Commission

(402) 471-5444

Kristal.stoner@ngpc.ne.gov

CC: Joel Jorgensen, NGPC

Rick Schneider, NGPC

Mary Bomberger Brown, TPCP

Bob Harms, USFWS



**GENERAL OFFICE**2404 15th Street
P.O. Box 988
Columbus, NE 68602-0988

Phone:
402/564-3171
Fax:
402/564-0970

January 5, 2009

Mr. Robert Puschendorf State Historic Preservation Office 1500 R Street P.O. Box 82554 Lincoln, NE 68501-2554

Re: Area of Potential Effects for the Loup River Hydroelectric Project FERC Project No. 1256; Docket No. 1256-029

Dear Mr. Puschendorf:

In October 2008 Loup Power District (the District) initiated the process to relicense the Loup River Hydroelectric Project with the Federal Energy Regulatory Commission (Commission). On December 12, 2008 the Commission issued Scoping Document 1 (SD1) and requested your agency's participation in the National Environmental Policy Act (NEPA) scoping process and to provide initial comments and suggestions regarding preliminary issues and alternatives. On December 16, 2008, under a Notice of Intent to File License Application for this project, the Commission initiated Section 106 consultation with your office and designated Loup Power District as the Commission's non-federal representative for informal consultation. Copies of these communications are attached for reference and we encourage your office to provide the Commission with comments by the February 10, 2009 deadline.

As outlined in these documents, Loup Power District has been tasked by the Commission to develop study plans to better understand the environmental issues and concerns to be addressed through the NEPA process, including issues related to cultural resources, namely:

Effects of continued project operations and maintenance on cultural, historic, archaeological, and traditional resources in the project area of potential effect and their eligibility to be included in the National Register of Historic Places (NRHP) (from Section 4.2.7 of attached).

As recommended by the Commission, the District proposes to establish the project area of potential effects (APE) as required under 36 CFR 800.4 and defined in 36 CFR 800.16 as the area shown in the PAD document (See attached from the PAD: Figure 4-1, 14 sheets) and labeled as the *Approximate Project Boundary*. The area within that boundary encompasses the entirety of the District's holdings that are subject to the relicensing effort described in the PAD. Depending on other possible project-related effects, or based on the results of any of the studies associated with this relicensing, the APE would be adjusted accordingly.

At this time we are seeking concurrence from your office regarding the proposed area of potential effects (APE).

Please do not hesitate to contact me at (402) 564-3171 if you have any questions about this request. We look forward to working with your office throughout the relicensing effort and beyond.

Sincerely,

Neal Suess President/CEO

Loup Power District

cc: Kim Nguyen, Federal Energy Regulatory Commission Frank Winchell, Federal Energy Regulatory Commission Ron Ziola, Loup Power District Lisa Richardson, HDR George Waldow, HDR

#### Attachments:

- (1) Scoping Document 1, Letter from Federal Energy Regulatory Commission to multiple parties, December 12, 2008
- (2) Notice of Commencement, Letter from Federal Energy Regulatory Commission to multiple parties, December 16, 2008
- (3) Figure 4-1, Loup River Hydroelectric Project Pre-Application Document (PAD)

From: Richardson, Lisa (Omaha)

**Sent:** Friday, January 16, 2009 1:09 PM

**To:** Frame, Gail **Subject:** FW: Project map

From: Bender, John [mailto:john.bender@nebraska.gov]

**Sent:** Thursday, January 15, 2009 12:12 PM

To: Ron Ziola

Subject: Project map

Is there a way we could obtain the GIS layers Loup used to prepare the project map (Fig. 3-3). The "Local Drainage Basins" and "Culvert Inlet Locations" would be of great help in writing the bacteria TMDLs for Babcock and the lower 1/4 mile of the canal. Having the siphon locations would be nice too.

Thanks.

Please note my email address has changed to john.bender@nebraska.gov

John F. Bender Water Quality Standards Coordinator Nebraska Department of Environmental Quality 1200 N Street, P.O. Box 98922 Lincoln, NE 68509-8922

Phone: 402/471-4201

From: Richardson, Lisa (Omaha)

Sent: Friday, January 16, 2009 1:07 PM

To: john.bender@nebraska.gov

Cc: rziola@loup.com; Frame, Gail

Subject: Loup River Hydroelectric Project

Attachments: LPD\_Stream\_Drainage\_Basins\_GIS\_Shapefiles.zip; LPD\_PAD\_Figure 3-3.081016.pdf

John,

Per your request to Ron Ziola, the attached .zip file contains shape files for the data from Figure 3-3 (also attached) of the Pre-Application Document for the Loup River Hydroelectric Project (FERC Project No. 1256). Specifically, the following data is included:

- 1. Canal Local Drainage Basins Source: USGS 7.5' Topographic Maps
- 2. Canal\_Siphons Source: Field Maps and Field Visits
- 3. Loup Drainage Inlets Source: Loup Staff Field Visits

All the files are projected in Nebraska State Plane Feet NAD 83 coordinate system.

If you have any questions, please feel free to contact me at (402) 926-7026.

Regards,

Lisa

#### Lisa M. Richardson, P.E.

Professional Associate

# **HDR** One Company | Many Solutions

8404 Indian Hills Drive Omaha, NE 68114-4049 Phone: 402.926.7026 Cell: 402.618.9865

Fax: 402.399.1111



# NEBRASKA STATE HISTORICAL SOCIETY

1500 R STREET, P.O.BOX 82554, LINCOLN, NE 68501-2554 (402) 471-3270 Fax: (402) 471-3100 1-800-833-6747 www.nebraskahistory.org

Michael J. Smith, Director/CEO

January 23, 2009

Mr. Neal Suess President/CEO Loup Public Power District 2404 15<sup>th</sup> Street Columbus, NE 68602-0988

RE: HP# 0804-127-01 - FERC Relicensing of Loup Power District

Dear Mr. Suess:

Thank you for submitting the referenced project for our review and comment. Our comment on this project and its potential to affect historic properties is required by Section 106 of the National Historic Preservation Act of 1966, as amended, and implementing regulations 36 CFR Part 800.

-OPY

It is our opinion that the Loup River Public Power complex, consisting of the 35-mile canal system, Columbus and Monroe powerhouses, and associated substations and other structures, is eligible for listing in the National Register of Historic Places.

In reviewing the proposed Area of Potential Effect (APE) for the relicensing of the Loup Power District, we agree that the APE correctly encompasses all of the District's holdings.

We will look forward to working with you as your relicensing efforts progress, and particularly the Section 106 Review that will form section 4.4.5 of the Environmental Assessment, referenced on page 19 of SD1.

If you have any questions, please do not hesitate to call me at 402-471-4773.

Sincerely,

Jill E. Dolberg

Review and Compliance Coordinator

Nebraska State Historic Preservation Office

Cc:

Kim Nguyen, Federal Energy Regulatory Commission Frank Winchell, Federal Energy Regulatory Commission

Ron Ziola, Loup Power District

Lisa Richardson, HDR George Waldow, HDR

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

Jorgensen, Joel [Joel.Jorgensen@nebraska.gov] Monday, January 26, 2009 12:14 PM From:

Sent:

Marinovich, Melissa To: FW: 2006 Nebr. report Subject:

**Attachments:** PIPL NE.doc

Melissa:

See attached.

- Joel

Joel Jorgensen Nongame Bird Program Manager **Wildlife Division Nebraska Game and Parks Commission** Lincoln, NE 68503 402-471-5440 joel.jorgensen@nebraska.gov

**From:** Elise Elliott-Smith [mailto:eelliott-smith@usqs.gov]

**Sent:** Monday, January 26, 2009 8:50 AM

To: Jorgensen, Joel

Subject: Re: 2006 Nebr. report

## The 2006 International Piping Plover Breeding Census in Nebraska (off-Missouri River)

Joel Jorgensen
Nebraska Game and Parks Commission
P.O. Box 30370
Lincoln, NE 68503
402-471-5440
joel.jorgensen@nebraska.gov

Long-term drought conditions greatly affected the 2006 International Piping Plover Census in Nebraska both by limiting habitat and access at certain sites and by concentrating and increasing birds elsewhere. The 2006 survey was conducted in a similar fashion to earlier IPPCs. All surveys were conducted 5-19 June.

Survey participants included personnel from the Nebraska Game and Parks Commission, U.S. Fish and Wildlife Service, Nebraska Public Power District, Central Nebraska Public Power and Irrigation District, the Tern and Plover Conservation Partnership, National Park Service, and several volunteers. A total of 423 kilometers of river were surveyed by airboat, 132 kilometers by canoe. A total of 61 sand and gravel pits and one large reservoir were surveyed. Two other large reservoirs (Lake Minatare and Calamus Reservoir) were monitored but not formally surveyed because it was determined that both lacked suitable habitat

In 2006, 718 adult Piping Plovers were counted in Nebraska. This total reverses the trend of decreases recorded during previous International Piping Plover Censuses and represents increases of 133% from 2001 (308 adults), 96% from 1996 (366), and 80% (398) from 1991. The overall increase is likely both the result of an actual increase of birds at certain sites and better coverage at others.

The most notable increase in birds was at Lake McConaughy, Keith County, where 358 adults were counted. Lake McConaughy has consistently been at record or near record low water levels for the past several years as the result of long-term drought, exposing large expanses of suitable habitat. The reservoir, whose water is primarily used for irrigation, was markedly lower in 2006 than during the previous three IPPCs when 60, 69, and 73 adults were recorded in 1991, 1996, and 2001 respectively. It was not until 1978 that Piping Plover were even recorded at this western Nebraska reservoir and the previous high count was 143 in 1993 (Sharpe et al. 2001).

Plover numbers were also higher on the Niobrara River. The 204 total tallied this year is notably higher than previous years when 79, 107, and 87 were recorded in 1991, 1996, and 2001, respectively. Away from the Niobrara, on the Platte, Elkhorn, and Loup Rivers, only 27 adults were counted. Furthermore, 78% (562) of all plovers recorded in Nebraska during the 2006 Census were recorded on the Niobrara River and at Lake McConaughy.

Low water levels have positively affected Piping Plover numbers at Lake McConaughy, but the impacts of low water flows on bird numbers on the central Platte River have been negative. In fact, this year's scheduled airboat surveys for almost all of the central Platte were cancelled because of a lack of water. Only 2 adults were tallied on the 29 km stretch that was surveyed. Previous Censuses yielded totals of 46 in 1991, 25 in 1996, and 4 in 2001. Numbers recorded at sand and gravel pits that are associated with and often located adjacent to rivers, such as the Platte, appear to have remained relatively stable with 129 adults recorded this year.

In Nebraska, it appears that the vast majority of suitable Piping Plover habitat was surveyed. A

number of areas that possess very limited or marginal habitat were not included in the survey. These sites have generally been surveyed in the past and it has been determined that there is a low likelihood of birds occupying them. They include some isolated sandpits and minor river systems, such as the Little Blue River. It is believed that inclusion of these areas would have had minimal impact on totals recorded during the 2006 Census.

While it serves as a useful baseline, it is difficult to know whether the survey results represent the actual number of birds in Nebraska. While this year's effort to determine detection probability is a positive step forward, there is perhaps the need to standardize other portions of the survey so that long-term inferences can be made from the data. This may be difficult, given Nebraska's varied habitat types and the various methods (e.g. airboat, foot, canoe) used to survey areas. Standardization of some aspects would be useful, however, particularly when there are personnel changes.

All survey participants deserve a great deal of credit for the effort and time that they put into the 2006 survey. Participants include: Kari Andresen, Diane Beachly, Mark Czaplewski, Kathy DeLara, Leslie Farnham, Kristy Hajny, Robert Harms, Michael Hart, Renae Held, Jim Jenniges, Joel Jorgensen, Justin King, Elizabeth Murray, Sean O'Brien, Dan Roberts, Soren Rundquist, Matt Schwartz, Robin Smith, Dugan Smith, Martha Tacha, Chris Thody, Gareth Welke, Erica Wilson, Gabriel Wilson, and Stephen Wilson.

Comparison of Census Numbers 1

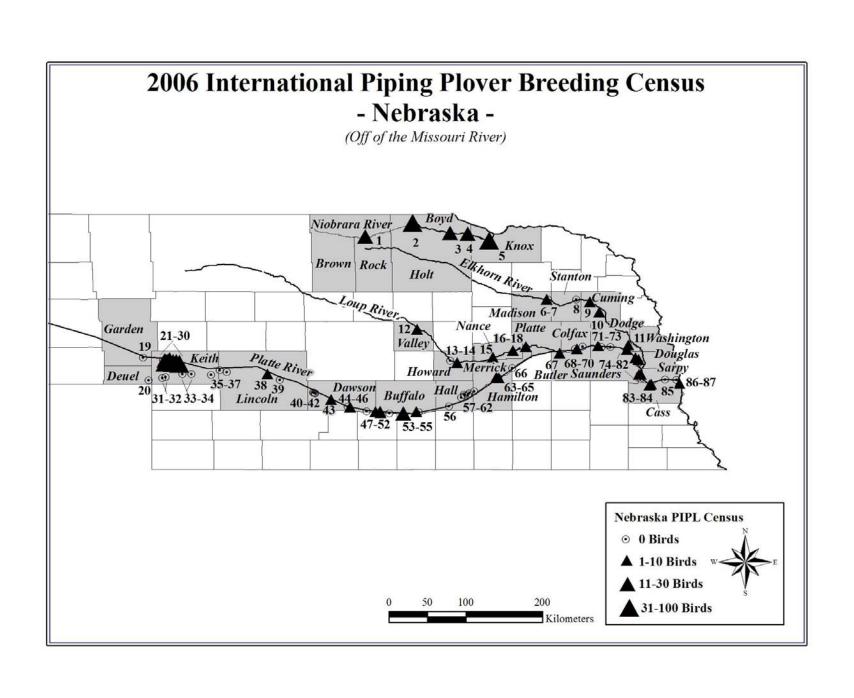
Compar	ison of CC	mous mun	10013	
	1991	1996	2001	2006
Total Adults	398	375	308	893 <sup>2</sup>

<sup>&</sup>lt;sup>1</sup>Missouri River data are included in all totals.

<b>Detectability Study</b>		
Sites Included	First	Second
Sites included	Count	Count
Central Platte River, Sandy	6	6
Channels/Johnson Pit	O	O
Central Platte (RM 230-235)	2	2
Lower Platte River, Cullom	0	0
(New Pit)	U	U
Lower Platte River,	0	0
Plattsmouth Pit <sup>1</sup>	U	U
Lower Platte River, Arps	0	0
East Pit	U	U
Lower Platte River, Arps	0	0
West Pit	U	U
Lower Platte River,	6	6
Lux S&G <sup>1</sup>	U	U
Lower Platte River, Western	6	5
Fremont Pit <sup>1</sup>	U	3
Lower Platte River, Ginger	3	3
Cove Pit (Valley #11) 1	3	3
Lower Platte River, Mallard	1	2
Pit at Valley <sup>1</sup>	1	2
Central Platte River, Central	0	0
S&G, Grand Island	U	U
North Platte River, Lake	127	107
McConaughy, Dam to Vans E	12/	107
North Platte River, Lake		
McConaughy, Cedar View to	0	0
W end		
North Platte River, Lake		
McConaughy, S side Vans to	3	33
W end		
Elkhorn River, Central S&G	2	2
Norfolk #92		
Elkhorn River, Pilger S&G,	0	0
Norfolk Pit	U	U
Central Platte River, Grigsby	7	4
Pit	,	- <b>T</b>
Lower Platte River, Dolezal	0	0
Pit East	J	J

Replicate survey was conducted first (outside of Census window) so second survey was used to calculate official state

<sup>&</sup>lt;sup>2</sup>This is the total from a single survey at each site; if more than one survey was conducted, we count only results from the first survey during the census window.



# The 2006 International Piping Plover Breeding Census in Nebraska

COUNTY/		MAP		BR	TOTAL		SITE	PIPL	91	96	01	
REGION	SITE NAME	#	DATE	PAIRS	ADULTS	KM	DESCRIPTION	HABITAT	CENSUS	CENSUS	CENSUS	OWN
Boyd/Holt Boyd/Holt/	Niobrara River, Spencer Dam to Redbird Bridge Niobrara River, Pischelville to	3	6/12	10	21	8.8	III F 5		Yes	Yes	Yes	p
Knox Boyd/Holt/	Highway 12 Niobrara River, Redbird	5	6/14	26	54	12.5	III F 5	III F 5	Yes	Yes	Yes	n.r.
Knox	Bridge to Pischelville Bridge	4	6/15	10	23	9.3	III F 5		Yes	Yes	Yes	p
Brown/Rock/ Keya Paha	Niobrara River, Norden Dam to Hwy 137 Bridge	1	6/13	5	11	49.8	III F 5	III F 5	Yes	Yes	Yes	p
Brown/Rock/ Keya Paha	Niobrara River, Spencer Dam to hwy 137	2	6/13	32	95	64.4	III F 5	III F 5	Yes	Yes	Yes	p
Buffalo	Central Platte River, Broadfoot's North of Minden - (Newark)	54	6/14	0	4	2.7	VII I 1 9 12	VII I 1 9 12	No	Yes	Yes	p
Buffalo	Central Platte River, Broadfoot's West (Kearney South)	53	6/14	0	11	3.9	VII I 1 10 13	VII I 1 9 12	Yes	Yes	Yes	p
Buffalo	Central Platte River, Elm Creek- Paulson/Bluehole Sandpit	50	6/14	5	7	2.0	VII I 2 9	VII I 2	Yes	Yes	Yes	p
Buffalo	Central Platte River, Mid- Nebraska Aggregate-Minden	55	6/14	0	0	0.3	VII I 1		Yes	Yes	Yes	p
Buffalo	Central Platte River, Sandy Channels/Johnson Pit	51	6/15	3	6	1.0	VII I 2	VII I 2	No	Yes	Yes	p
Buffalo	Central Platte River, T&F Elm Creek	49	6/15	0	0	0.4	VII I 2 10		No	No	No	p
Buffalo	Wells Pit	52	6/15	0	0	0.8			No	No	No	p
Buffalo/ Dawson	Central Platte River (RM 229-247)	48	6/9	0	2	29.0	III F 5	III F 5	Yes	Yes	Yes	p
Butler	Lower Platte River, Bellwood Central S&G	67	6/12	0	4	n.r.	VII A 9	VII A 9	No	No	No	p
Cass	Lower Platte River, Cullom (New Pit)	85	6/19	0	0	n.r.	VII A 9		Yes	Yes	Yes	p
Cass/Sarpy	Lower Platte River, Plattsmouth Pit	86	6/19	0	0	1.0	VII A 9		Yes	Yes	Yes	p
Cass/Sarpy	Lower Platte River, Plattsmouth to Salt Creek Mouth	87	6/12	0	2	41.9	III F 5	III F 5	Yes	Yes	Yes	p
Colfax	Lower Platte River, Arps East Pit	70	6/12	0	0	n.r.	VII A 9		Yes	Yes	Yes	p

The 2006 International Piping Plover Breeding Census in Nebraska (Continued)

COUNTY/		MAP		BR	TOTAL		SITE	PIPL	91	96	01	
REGION	SITE NAME	#	DATE	PAIRS	ADULTS	KM	DESCRIPTION	HABITAT	CENSUS	CENSUS	CENSUS	OWN
Colfax	Lower Platte River, Arps Pit	69	6/12	0	10	n.r.	VII A 9	VII A 9	Yes	Yes	Yes	p
Colfax	Lower Platte River, Arps West Pit	68	6/12	0	0	n.r.	VII A 10		Yes	Yes	Yes	p
Cuming	Elkhorn River, West Point (Stalp)	10	6/5	0	9	n.r.	VII A 9	VII A 9	Yes	Yes	Yes	p
Dawson	Central Platte River, Lexington Sandpit	45	6/15	2	7	0.5	VII A I 2 0	VII I 2	No	No	Yes	p
Dawson	Central Platte River, Overton S&G, Overton Pit	47	6/15	0	0	0.5	VII I 2 9		Yes	Yes	Yes	p
Dawson	Central Platte River, Paulsen Pit - Lexington	46	6/15	1	1	0.5	VII I 2 10	VII I 2	Yes	Yes	Yes	p
Dawson	Upper Platte River, Kirkpatrick's Sanpit	41	6/8	0	0	3.2	VIII E 1		Yes	Yes	Yes	p
Dawson	Upper Platte River, Koch's South - Cozad Pit	43	6/7	3	6	n.r.	VIII E 1		Yes	Yes	Yes	p
Dawson	Upper Platte River, Overton S&G, Lexington Pit	44	6/15	0	0	0.8	VIII		Yes	Yes	Yes	p
Dawson	Upper Platte River, Potter Pond	40	6/8	0	0	n.r.	VIII E 2		Yes	Yes	Yes	p
Dawson	Upper Platte River, Willow Island Sandpitt	42	6/7	0	0	n.r.	VIII E 1		No	Yes	No	p
Deuel	South Platte River, Big Springs Gravel pit	20	6/3	0	0	n.r.	n.r.		No	Yes	Yes	p
Dodge	Elkhorn River, Lyman Richey Fremont Pit (#47)	11	6/13	0	1	0.2	VII A 9	VII A 9	No	No	Yes	р
Dodge	Lower Platte River, Lux S&G	71	6/12	1	6	0.2	VII A 9	VII A 9	No	Yes	Yes	p
Dodge	Lower Platte River, Western Fremont Pit	74	6/1	0	6	0.8	VII A 9	VII A 9	Yes	Yes	Yes	p
Douglas	Lower Platte River, All Spec (Venice Pit)	78	6/14	0	0	n.r.	VII A 9		No	No	Yes	p
Douglas	Lower Platte River, Ginger Cove Pit (Valley #11)	75	6/14	0	3	0.9	VII A 9	VII A 9	Yes	Yes	Yes	р

The 2006 International Piping Plover Breeding Census in Nebraska (Continued)

COUNTY/ REGION	SITE NAME	MAP #	DATE	BR PAIRS	TOTAL ADULTS	KM	SITE DESCRIPTION	PIPL HABITAT	91 CENSUS	96 CENSUS	01 CENSUS	OWN
TEGIOT	Lower Platte River, Lyman Richie		DITTE	111110	HDCLIS	11.11	DESCRIPTION (	11.1111111	CERGOS	CERSOS	CEITIGES	OWIT
Douglas	S&G (Waterloo #40 Pit)	77	6/14	0	0	n.r.	VII A 9		No	Yes	Yes	p
Douglas	Lower Platte River, Mallard Pit at Valley	76	6/14	1	2	0.6	VII A 9	VII A 9	No	Yes	Yes	p
Garden	North Platte River, Lewellen Gravel Pit	19	6/14	0	0	0.8	VII A 9		No	Yes	Yes	р
Hall	Central Platte River, Central S&G, Grand Island	61	6/14	0	0	1.4	VII I 1 9		No	No	Yes	р
Hall	Central Platte River, Hooker Bros. S&G, Grand Island (South)	59	6/12	0	0	1.4	VII A I 1 9		No	Yes	Yes	р
Hall	Central Platte River, Hooker Bros. S&G, Grand Island (West)	58	6/12	0	0	1.0	VII A I 1 9		Yes	Yes	Yes	р
Hall	Central Platte River, Island S&G, Grand Island	60	6/12	0	0	0.8	VII A I 1 9		No	Yes	Yes	р
	Central Platte River, Lilley's in			•		4.0						
Hall	Prosser	56	6/14	0	0	1.0	VIII I 1		No	No	Yes	p
Hall	Deweese- Alda	57	6/14	0	0	0.8	VII I 1		No	No	No	p
Hamilton	Central Platte River, Mowitz Pit	65	6/8	0	6	n.r.	VII A 9	VII A 9	No	No	No	p
Howard	North Loup River, St. Paul Pit	14	6/5	0	10	0.8	VII A 9	VII A 9	No	Yes	Yes	p
Howard/ Howard/	North Loup River, Tri-County S&G	13	6/5	0	0	0.5	VII A 9		No	Yes	Yes	p
Nance/ Merrick	Loup River, Loup Diversion to North Loup Mouth North Platte River, Lake	15	6/6	3	6	54.8	III F 5	III F 5	Yes	Yes	Yes	p
Keith	McConaughy, Arthur Bay to Sandy Beach	21	6/12	10	32	6.4	VI A 1	VI A	Yes	Yes	Yes	p
Keith	North Platte River, Lake McConaughy, Cedar Vue to W end	22	6/5	0	0	6.4	VI A		Yes	Yes	Yes	p
Keith	North Platte River, Lake McConaughy, Dam to Arthur Bay	23	6/5	30	63	6.4	VI A 12	VI A	Yes	Yes	Yes	p
Keith	North Platte River, Lake McConaughy, Dam to Vans E	24	6/5	48	127	16.1	VI A	VI A	Yes	Yes	Yes	р

The 2006 International Piping Plover Breeding Census in Nebraska (Continued)

G0413177411		35.13					G****	n.n.	2.1	0.5	2.4	
COUNTY/ REGION	SITE NAME	MAP #	DATE	BR PAIRS	TOTAL ADULTS	KM	SITE DESCRIPTION	PIPL HABITAT	91 CENSUS	96 CENSUS	01 CENSUS	OWN
	North Platte River, Lake McConaughy, Lemoyne to Spring											
Keith	Park	25	6/13	27	52	8.0	VI A 12	VI A	Yes	Yes	Yes	p
17 . M.	North Platte River, Lake McConaughy, S Dam to Ogallala	26	6/7	0	0	11.2	371.4		W	<b>W</b>	V.	
Keith	Beach	26	6/7	0	0	11.3	VI A		Yes	Yes	Yes	p
	North Platte River, Lake											
Keith	McConaughy, S side Vans to W end North Platte River, Lake	27	6/7	16	33	5.3	VI A 1 12	VI A	Yes	Yes	Yes	p
	McConaughy, Sandy Beach to											
Keith	Lemoyne	28	6/12	13	31	6.4	VI A 12	VI A	Yes	Yes	Yes	p
	North Platte River, Lake McConaughy, Spring Park to Cedar											
Keith	Vue	29	6/13	13	25	8.0	VI A 12	VI A	Yes	Yes	Yes	p
	North Platte River, Lake McConaughy, Spring Park to											
Keith	Sandpit Sandpit	30	6/13	7	25	5.6	VI A 12	VI A	Yes	Yes	Yes	p
	South Platte River, Anderson S&G,											
Keith	Paxton Pit	35	6/8	0	0	0.3	VII A 9		No	No	Yes	p
Keith	South Platte River, Anderson S&G, Roscoe Pit	34	6/8	0	0	0.3	VII A 9		No	Yes	Yes	n
Keith	South Platte River, Brule Sand Pit	32	6/3	0	0	n.r.	VII A 9		No	Yes	Yes	p p
Keith	South Platte River, Brule to Roscoe	31	6/3	0	0	24.1	III F 5		No	Yes	Yes	p p
1101111	South Platte River, Ogallala Ready	31	0/5	Ü	v	2	111 1 3		110	105	100	Р
Keith	Mix/Paulson's S&G	33	6/6	0	0	0.3	VII A 9		No	No	Yes	p
	South Platte River, Sutherland Pit											-
Lincoln	(Anderson S&G)	37	6/8	0	0	0.4	VII A 9		No	Yes	Yes	p
T . 1	South Platte River, Whitney S&G,	26	6/0	0	0	0.4	7/II A O		N	N	3.7	
Lincoln	Sutherland Pit	36	6/8	0	0	0.4	VII A 9		No	No	Yes	p
Lincoln	Upper Platte River, Lexington Bridge to N. Platte Diversion	38	6/8	1	2	1.6	III E 2		Yes	Yes	Yes	s(p)
Lincoln	Upper Platte River, Maxwell Pit	39	6/8	0	0	0.2	VIII E 2		Yes	Yes	Yes	
LIIICOIII	Opper Flatte Kiver, Maxwell Pit	39	0/0	U	U	0.2	VIII E Z		1 68	1 68	i es	р

The 2006 International Piping Plover Breeding Census in Nebraska (Continued)

COUNTY/ REGION	SITE NAME	MAP #	DATE	BR PAIRS	TOTAL ADULTS	KM	SITE DESCRIPTION	PIPL HABITAT	91 CENSUS	96 CENSUS	01 CENSUS	OWN
REGION		#	DATE	raiks	ADULIS	KIVI	DESCRIPTION	ПАВПАТ	CENSUS	CENSUS	CENSUS	OWN
Madison	Elkhorn River, Central S&G Norfolk #92	6	6/5	1	2	1.4	VII A 9	VII A 9	No	Yes	Yes	p
Madison	Elkhorn River, Pilger S&G, Norfolk Pit	7	6/5	0	0	1.2	VII A 9		Yes	Yes	Yes	р
Merrick	Central Platte River, Clarks Pit	66	6/12	0	0	n.r.	VII A 9		No	No	No	p
Merrick	Central Platte River, Grigsby Pit	63	6/6	0	7	0.6	VII A 9	VII A 9	No	No	Yes	p
Merrick	Central Platte River, Hamilton County S&G	64	6/6	0	0	n.r.	VII A 9		No	No	No	р
Merrick	Central Platte River, Hooker Bros. S&G, Grand Island (East)	62	6/12	0	0	1.6	VII I 1 9		No	No	No	р
Nance	Loup River, Loup Diversion	16	6/6	0	4	1.6	VII A 9	VII A 9	Yes	Yes	Yes	p
Platte	Loup River, Central S&G, Genoa Pit	17	6/6	0	9	1.6	VII A 9	VII A 9	Yes	Yes	Yes	s/p
Platte	Loup River, Stempek Pit	18	6/6	0	0	0.1	VII A 9	, 11117	No	No	Yes	p
Sarpy	Lower Platte River, Linoma Beach Pit	82	6/14	0	0	n.r.	VII A 9		No	No	No	р
Sarpy	Lower Platte River, Western S&G at Louisville Pit	84	6/13	0	4	0.4	VII A 9	VII A 9	Yes	Yes	Yes	р
Sarpy/Saunders/ Dodge/Colflax/	Lower Platte River, Elkhorn River Mouth to Loup River											
Douglas/Platte	Mouth	81	6/12	0	8	112.6	III F 5	III F 5	Yes	Yes	Yes	p
Saunders	Lower Platte River, Bluff Pit	73	6/12	0	0	0.2	VII A 9		Yes	Yes	Yes	s/p
Saunders	Lower Platte River, Dolezal Pit East Lower Platte River, Lyman-	72	6/12	0	0	0.5	VII A 9		No	No	Yes	p
Saunders	Ritchey S&G, Western Ashland Pit	80	6/13	0	0	2.0	VII A 9		No	No	Yes	р
Saunders/Sarpy/ Cass	Lower Platte River, Salt Creek Mouth to Elkhorn River Mouth	83	6/12	0	4	11.3	III F 5	III F 5	Yes	Yes	Yes	n.r.
Saunders	Lower Platte River, Western North Pit (Big Sandy)	79	6/12	0	3	4.0	VII A 9	VII A 9	Yes	Yes	Yes	p
Stanton	Elkhorn River, Pilger S&G, Pilger Pit	8	6/19	0	0	0.8	VII A 9		Yes	Yes	Yes	p

# The 2006 International Piping Plover Breeding Census in Nebraska (Continued)

COUNTY/ REGION	SITE NAME	MAP #	DATE	BR PAIRS	TOTAL ADULTS	KM	SITE DESCRIPTION	PIPL HABITAT	91 CENSUS	96 CENSUS	01 CENSUS	OWN
Valley Washington/	North Loup River, Ulrich S&G (East)	12	6/8	0	2	0.5	VII A 9	VII A 9	Yes	Yes	Yes	p
Douglas/Sarpy/ Stanton/Dodge/ Cuming	Elkhorn River, Mouth to N Fork Elkhorn River Mouth	9	6/5	0	3	148.4	III F 5	III F 5	Yes	Yes	Yes	s/p
	Off-Missouri River Subtotal			267	749 <sup>1</sup>	695.6						
	Missouri River Subtotal			66	180 <sup>1</sup>	14.2						
Total				333	929 <sup>1</sup>	709.8						

<sup>&</sup>lt;sup>1</sup>This total is the "high count"; since two surveys were conducted at some sites for the detectability study, this total includes the highest count at each site.

Christine Thody [cthody2@unlnotes.unl.edu] Tuesday, January 27, 2009 9:23 AM From:

Sent:

Marinovich, Melissa To:

Subject: data sheet

**Attachments:** Census sheet 2007 (data).xls

#### Hi Melissa,

I'm glad you'll be able to come to the meeting. I'll send you a full agenda about a week before the meeting. I have attached a simple data sheet that we use, particularly for volunteers.

See you soon.

Chris

(See attached file: Census sheet 2007 (data).xls)

Chris Thody, Outreach Coordinator

Tern and Plover Conservation Partnership

153D Hardin Hall 3310 Holdrege Street Lincoln, NE 68583-0931

402-472-8741

Visit our website at http://ternandplover.unl.edu

	LE <i>A</i>	AST T	ERN 8	& PIPI	NG PL	.OVER	COL	ONY D	ATA S	HEET -	YEAR	2008		
PIT NAMI	E:							Pit sup						
				Least	t Terns	3				Piping	Plovers	3		
DATE	Observer's name	Adults	Nests	Chicks newly hatch	Smaller Chicks	Larger Chicks	*Fledged	Adults	Nests	Chicks newly hatch	Smaller Chicks	Larger Chicks	*Fledged	COMMENTS
														1
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														1
	+													1

Optomy

Loug River Hydroeliche Project P-125-6-029

From: Mary B Brown [mbrown9@unlnotes.unl.edu]

Sent: Thursday, January 29, 2009 3:42 PM

To: Kim Nguyen; mark.ivey@ferc.gov; David Turner; nick.jayjack@ferc.gov

Subject: Loup River Hydroelectric Project-FERC Project 1256

Attachments: Loup Public Power-FERC Study.doc; Loup Public Power FERC PAD.doc

Please find attached the comments of the Tern and Plover Conservation Partnership on the Pre-Application and Scoping Documents for the relicensing of the Loup River Hydroelectric Project-FERC Project 1256. Our comments are inserted directly into the PAD text (our text is in orange; Loup text is in black).

Thank you for giving the Tern and Plover Conservation Partnership the opportunity to participate in the relicensing process. We hope that you find these materials useful as the process moves forward. Please contact us if you have any questions or if we can be of further assistance to you.

Mary Bomberger Brown
Tern and Plover Conservation Partnership
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University of Nebraska
3310 Holdrege Street
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#### Section 5.6-Rare, Threatened and Endangered Species

Federal and state agencies list a number of species that occur in the vicinity of the Project as rare, threatened, or endangered (RTE). The RTE species that are known to occur in Nance and Platte counties as well as in adjacent counties with tributaries to the Loup River or with portions of the Lower Platte River are listed in Table 5-28. For each species, the Federal status under the Endangered Species Act of 1973 (ESA) and state status under Nebraska's Nongame and Endangered Species Conservation Act (NESCA) are shown. In addition, the NatureServe conservation status global and state ranks are provided for each species. These ranks provide an estimate of extinction risk and are based on a one-to-five scale, ranging from critically imperiled (1) to demonstrably secure (5). These status assessments are based on the best available information and consider a variety of factors, such as abundance, distribution, population trends, and threats (NatureServe, 2008). Detailed descriptions, including species occurrence, history, and habitat requirements, of the species listed in Table 5-28 are provided in Section 5.6.3, below. The Project lies within one of Nebraska's Biologically Unique Landscapes, as described by the Nebraska Natural Legacy Project. The Platte River downstream of the Project is also a Biologically Unique Landscape: Project operations directly impact this BUL. This indicates the need to manage Project property and operations in such a way that Nebraska's natural heritage is not further degraded. The RTE species that are found on or in the vicinity of the Project are identified as Tier 1 At-Risk Species by the Nebraska Natural Legacy Project (see Appendix). This status indicates the critical need to implement conservation and management measures that will assist in the recovery of these imperiled species; this includes managing Project property. operations, and downstream flow appropriately.

#### Section 5.6.3-Species Occurrence, History, and Habitat Requirements

For each RTE species that may occur in the vicinity of the Project or may be affected by the proposed re-licensing of the Project, the species occurrence, history, and habitat requirements are discussed below.

#### Piping Plover

The Northern Great Plains population of piping plovers was listed as federally threatened on December 11, 1985 (50 FR 50726-50733). In 2008, the USFWS initiated a 5-year review of the species status. Critical habitat was designated for this species on September 11, 2002 (67 FR 57637-57717), but this designation was vacated on October 13, 2005 (see Section 5.6.2, above, for additional information). No critical habitat is currently designated in the State of Nebraska for the piping plover.

Historically, piping plovers bred across three broad geographic regions: the U.S. and Canadian northern Great Plains region (from Alberta to Manitoba and south to Nebraska), the Great Lakes region, and the Atlantic Coast region. The current breeding range of the northern Great Plains population is similar to the historic breeding range, but greatly reduced as a result of human activity. The majority of the breeding pairs in the U.S. portion of the population's range are found along rivers in Montana, North Dakota, South Dakota, and Nebraska. Piping Plovers breed along these river systems, although their distribution is restricted to the least altered river

segments. In Nebraska, piping plovers are found along the Missouri, Elkhorn, Niobrara, Loup, and Platte rivers throughout the breeding season. Nesting habitat has been substantially reduced along the Missouri, Loup, and Platte rivers. Historically, Piping Plovers nested along the length of Nebraska's Missouri River boundary. The reduced breeding range of piping plovers is on the Missouri River along the Nebraska state border from Fort Randall Dam to the Niobrara River and from Gavin's Point Dam to Ponca State Park (TRC Mariah Associates Inc., 2007)... Along the entire length of the Platte and Loup rivers, loss of sandbar habitat has caused nearly all piping plovers to nest on sand and gravel mine spoil piles (Sidle and Kirsch, 1993) and at lakeshore housing developments (Tern and Plover Conservation Partnership). Most nesting on sandbars in Nebraska occurs on the Lower Platte River, where vegetation encroachment on sandbars is least advanced, and where there are sufficient river flows to construct and maintain appropriate sandbar habitat. The majority of this water flow is contributed by the Elkhorn River. There is also a nesting population on the sandy beaches of Lake McConaughy (67 FR 57636-57717). Since 1987, NGPC has coordinated and conducted a standardized least tern and piping plover survey on the Lower Platte River system from Columbus to Plattsmouth. The survey consists of counting nesting colonies, adult birds, nests, and chicks on both the river and at associated sand and gravel mines and lakeshore housing developments. Piping plovers are routinely seen and known to nest at the Project's North SMA. This area has been included in the NGPC survey since 2007 (NGPC, November 30, 2007; Tern and Plover Conservation Partnership, July 30, 2008). A review of survey information from 1987 to 2007 indicated a decline in piping plover numbers throughout Nebraska since the 1980s. During this time period, Project operations have been unchanged. It is the case, however, that the effects of Project operations are cumulative and those effects on Piping Plover populations would be delayed and not likely to be in evidence until on or after the 1987 – 2007 survey periods. During the 2007 survey, all observed river nesting colonies were noted downstream from the Nebraska State Highway 92 bridge in Douglas County, near Venice, Nebraska, and no colonies were observed on the river from the confluence of the Loup and Platte rivers to the Nebraska State Highway 92 bridge (NGPC, 2007b). This is due to a lack of water flow and sediment for sandbar development in this reach of the Platte River. Project operations, by diverting Loup River water, contribute to this lack of water flow. Hydrocycling from Project operations certainly impacts the Piping Plovers in this reach. The sandbars in this reach are low due to reduced sediment loads in the river and are easily overtopped by the fluctuating river levels due to hydrocycling: this destroys Piping Plover habitat and nests. The occurrence and nesting success of the piping plover on the Loup and Platte rivers, at sand and gravel mines, lakeshore housing developments or at the North SMA varies each year for any number of reasons, which may include weather, flood, drought, predation, habitat destruction, human disturbance, and Project operations. Due to a lack of appropriate sandbar habitat in the Loup River, nearly all Piping Plover nesting takes place at sand and gravel mines, lakeshore housing developments and the North SMA.

Piping plovers mainly use the Loup and Platte rivers for breeding, feeding, pre-migratory loafing, and nesting. Piping plovers breed in open, sandy, sparsely or non-vegetated habitats, along sand and gravel shore of rivers and lakes, river sandbars, sand and gravel mines, lakeshore housing developments, and in alkaline wetlands and sand flats. These migratory birds spend approximately 3 to 4 months on the breeding sites. Piping plovers arrive in mid-April with nesting and egg-laying commencing in mid-May. Hatching occurs in late May to mid-June after a 25 – 28 day incubation period. During this time, each individual's range is limited to the

wetland, lakeshore, sandbar or section of beach on which the nest is located. The shallow nests, frequently lined with small pebbles or shell fragments, are located on dry salt flats, barren sandbars, or gravel beaches with less than 5 to 20 percent vegetation. Piping plovers frequently nest in least tern colonies.

Diet items may include aquatic or subsurface worms, insects, crustaceans, mollusks, and other small aquatic invertebrates. Piping plovers leave the nesting sites in August. Although no one critical factor can be attributed to the decline of the species, almost certainly, the reasons for the decline in populations include habitat alteration and destruction, over-utilization of piping plover habitat by humans (i.e., Project operations), weather events, predation, and inadequate regulatory mechanisms (USFWS, June 28, 1994).

Piping plovers have been known to nest at the North SMA since the 1980s; the North SMA has only been included in the NGPC survey since 2007.

#### Interior Least Tern

The interior least tern was listed as a federally endangered species on May 28, 1985 (50 FR 21784-21792). On April 22, 2008, USFWS initiated a 5-year review of this species status (73 FR 21643-21645). No critical habitat has been designated for the interior least tern. The interior least tern is migratory and historically bred along the Missouri, Mississippi, Arkansas, Ohio, Red, and Rio Grande river systems and the rivers of central Texas. The historic breeding range extended from Montana to Texas and from southern Indiana to New Mexico. Currently, the interior least tern continues to breed throughout most of these river systems, although its distribution is substantially restricted and limited to the least altered river segments. Historically, Least Tterns nested along the length of Nebraska's Missouri River boundary. This has been restricted to Fort Randall Dam to the Niobrara River and from Gavin's Point Dam to Ponca State park (TRC Mariah Associates Inc., 2007). In Nebraska, interior least terns breed along the lower section of the Niobrara River (from Keya Paha County to the Missouri River), and this distribution is similar to historic distribution. Interior least terms are also found and breed along the Platte River from North Platte, Nebraska, to the Missouri River and along the South Platte River to Ogallala, Nebraska. Most nesting on sandbars in the Platte River occurs on the Lower Platte River, where vegetation encroachment on sandbars is least advanced, and where there are sufficient river flows and sediment to construct and maintain appropriate sandbar habitat. The majority of this water flow and sediment is contributed by the Elkhorn River. There is a small breeding population at Lake McConaughy. On the Loup River, interior least terms breed as far west as Arcadia, Nebraska, but are most common between St. Paul, Nebraska, and the Loup River's confluence with the Platte River at Columbus. Due to a lack of appropriate sandbar habitat in the Loup River, nearly all Least Tern nesting takes place at sand and gravel mines, lakeshore housing developments and the North SMA.

Since 1987, NGPC has coordinated and conducted a standardized least tern and piping plover survey on the Lower Platte River system from Columbus to Plattsmouth. The survey consists of counting nesting colonies, adult birds, nests, and chicks on both the river and at associated sand and gravel mines. Least terns are routinely seen and are also known to nest at the Project's North

SMA and this area has been included in the NGPC survey since 2007 (NGPC, November 30, 2007; Tern and Plover Conservation Partnership, July 30, 2008). A review of survey information from 1987 to 2007 indicated that least tern numbers have more or less remained stable in Nebraska since the 1980s. During this time period, Project operations have been unchanged. It is the case, however, that the effects of Project operations are cumulative and those effects on Least Form populations would be delayed and not likely to be in evidence until on or after the 1987 -2007 survey periods. During the 2007 survey, all observed river nesting colonies were noted downstream from the Nebraska State Highway 92 bridge, and no colonies were observed on the river from the confluence of the Loup and Platte rivers to the Nebraska State Highway 92 bridge (NGPC, 2007). This is due to a lack of water flow and sandbar development in the Platte River in this reach. Project operations, by diverting Loup River water, contribute to this lack of water flow. Hydrocycling from Project operations certainly impacts the Least Terns in this reach. The sandbars in this reach are low due to decreased sediment loads and easily overtopped by the fluctuating river levels due to hydrocycling; this destroys Least Tern habitat and nests. As with the piping plover, the occurrence and nesting success of the least tern on the Loup and Platte rivers, at sand and gravel mines, lakeshore housing developments or at the North SMA varies each year for any number of possible reasons, these include weather, flood, drought, predation, habitat destruction, human disturbance, and Project operations.

Similar to the piping plovers, interior least terns arrive in late April to mid-June. Interior Least Terns nest in colonies on open, sandy, sparsely or non-vegetated habitats found along sand and gravel shore of rivers and lakes, river sandbars, sand and gravel mines, lakeshore housing developments. The nest is a shallow depression with small stones, twigs, or other debris nearby. Egg laying begins in late May with an incubation period of 17-21 days. Fledging occurs 3 weeks after hatching, and departure from the colonies is usually complete by early September. Each individual bird's range during breeding is limited to a reach of the river near the nest; this species has been known to fly up to 3.2 kilometers from the nest site to forage.

Interior least terms feed primarily on small fish, but their diet may also include crustaceans, insects, mollusks, and annelids. Although no one critical factor may be attributed to the decline of the species, possible population pressures include habitat alteration and destruction as well as human disturbance (i.e., Project operations) (USFWS, September 1990).

#### 5.6.5-Existing or Proposed Protection, Mitigation, and Enhancement Measures

Since the mid-1980s when the piping plover and interior least tern were listed under the federal Endangered Species Act and the Nebraska Nongame and Endangered Species Conservation Act, as threatened and endangered, respectively, the District has cooperated with resource agencies to implement measures to protect these species. The primary existing PM&E measure for piping plovers and interior least terns is the voluntary cooperation among the District, USFWS, NGPC, and the Tern and Plover Conservation Partnership. The isolation, broad expanse, and frequent flooding/wetting of the North SMA, described in Section 4.2.7, have made it a popular nesting site for piping plovers and interior least terns. For a number of years, the District has voluntarily cooperated with USFWS, NGPC, and the Tern and Plover Conservation Partnership to protect the nesting birds. This has led to suspension of dredging activity during most of the nesting/fledging season each year. District, Preferred Rocks of Genoa, and Tern and Plover Conservation Partnership personnel watch closely for the arrival of piping plovers and interior

least terns in the North SMA. After the birds' arrival, the District begins making plans to suspend dredging. Typically, dredging is suspended in early June until mid- to late august, allowing the birds to nest, forage, and raise young. Dredging and discharge activities resume when the last young have fledged and the birds have begun migration.

Before dredging was suspended in 2008, the District protected nesting areas by helping to maintain a sand berm and by attaching an extension pipe to one of the dredge outlet pipes in order to divert the discharge water around the berm. This was necessary because the District continued to dredge after the terms and plovers began nesting and dredge water breached the northwest corner of the protective berm. The District suspended dredging after they completed dredging through that outlet pipe. The breach threatened to wash out Least Tern and Piping Plover nests (water came within 10-12 feet of active nests). Preferred Rocks of Genoa, not the District, built the berm to protect the Bird Management Area; 2008 was the first year a protective berm was constructed. A number of deterrent methods have also been used to direct nesting birds to the safest and most suitable habitat in the North SMA. By continuing dredging operations outside of the nesting/fledging season, the district helps provide suitable, productive habitat for the piping plovers and interior least terns.

In addition to the District's efforts, Preferred Rocks of Genoa, USFWS, and NGPC have developed an MOU to ensure cooperative, proactive management strategies to avoid negative impacts on piping plovers and interior least terns from Preferred Rocks of Genoa's industrial operations while avoiding delay of these operations. The District and the Tern and Plover Conservation Partnership are cooperating parties to the MOU. Although the MOU has not been signed by all parties, it is being implemented informally, and the District continues to work with USFWS, NGPC, and the Tern and Plover Conservation Partnership to suspend dredging activities during the nesting season to further protect these imperiled species (Preferred Rocks of Genoa, USFWS, and NGPC, 2008).

Along with the MOU, Preferred Rocks of Genoa has developed an Adaptive Management Plan (AMP) (see Appendix G) for the North SMA to address the actions that Preferred Rocks of Genoa will take to improve nesting habitat within the Active habitat Zone (AHZ). This AMP includes protocols to monitor piping plover and interior least tern nesting, to discourage nesting in areas of sand removal activity during the nesting season, and to protect nests and colonies outside of the AHZ. After one year of informally implementing the MOU and AMP, this plan and process appears to be addressing the goals of protecting the nesting birds as well as allowing for the continued deposition of dredged material and removal of sand.

- Photo 5-7. Protective berm in 2008; limbs and branches stabilize sand. This photograph illustrates the reconstructed berm after it was breached by Project dredge water in 2008.
- Photo 5-8. Protective berm for piping plovers and interior least terms in 2008. This photograph illustrates the reconstructed berm after it was breached by dredge water in 2008. The open area was flooded by dredge water that came within 10 12 of active nests.
- Photo 5-9. Discharge pipe extension to divert water around berm in 2008. This photograph illustrates the extension pipe which diverted dredge water around the berm so that it would not

be breached a second time. This allowed the District to continue dredging later into the nesting season.

#### 5.8 Aesthetic Resources

...The extensive North and South SMAs, located on either side of the 2-mile-long Settling Basin, are substantial visual features. The North SMA rises over 80 feet high and covers approximately 320 acres. Except for the steel pipelines leading to it, the North SMA has the appearance of a partially vegetated sandy bluff. Public access is restricted because of several safety issues and because this area is used for nesting by one threatened and one endangered bird species. Bird watchers and natural history enthusiasts would be interested in having access to the North SMA to observe the Least Terns and Piping Plovers. While this might interfere with daily District and Preferred Rocks of Genoa activities, opening the North SMA for a seasonal birding event would, very probably, be quite popular with the public. The South SMA is located between the Settling Basin and the Loup River. This undulating, partially timbered landscape serves as both a sand deposition area and a popular OHV park.....

# Section 6.3-Dredging and discharge activities at the Settling Basin may affect piping plover and interior least tern nesting activities on the North Sand Management Area (North SMA)

The District has been working with USFWS, NGPC, and the Tern and Plover Conservation Partnership for a number of years to protect piping plover and interior least tern nesting activities on the District's North SMA. In addition, Preferred Rocks of Genoa, which began sand removal operations at the north SMA in 2006, has also been cooperating with the District and the Tern and Plover Conservation Partnership to protect these species. In conjunction with the USFWS and NGPC, Preferred Rocks of Genoa has developed an adaptive management plan to protect and enhance nesting activities of piping plovers and interior least terns at the North SMA.

Dredging of the Settling Basin occurs 24 hours per day from ice-out in the spring until approximately June 1. The District has an informal agreement with USFWS, NGPC, and the Tern and Plover Conservation Partnership to suspend dredging operations in the spring to protect the nesting habitat of the piping plover and interior least tern at the North SMA. The mechanism for the District to suspend dredging is based on the return of the birds and signs that the birds have started to nest. The Tern and Plover Conservation Partnership or USFWS survey team closely observes the birds, looking for nesting behavior. When nesting has been identified, the District is notified and dredging is suspended as soon as possible, with particular care given to the location of the nests. Before dredging was suspended in 2008, the District protected nesting areas by helping to maintain a sand berm and attaching an extension pipe to one of the outlet pipes in order to divert the discharge water around the berm. This was necessary because the District continued to dredge after the terns and plovers began nesting and dredge water breached the northwest corner of the protective berm. The District suspended dredging after they completed dredging through that outlet pipe. This breach threatened to wash out Least Tern and Piping Plover nests. Preferred Rocks of Genoa built the berm to protect the Bird Management Area: 2008 was the first year a protective berm was constructed.

At the North SMA, appropriate District and Preferred Rocks of Genoa personnel are trained to recognize piping plovers and interior least terns and monitor the area for the presence of the birds and their nests. In addition, the District and Preferred Rocks of Genoa allow member of the Tern and Plover Conservation Partnership to perform weekly surveys of the North SMA during the critical nesting period for these species. The Tern and Plover Conservation Partnership has worked closely with the District to direct birds to more suitable nesting habitat in a designated "bird management area" and away from dredging activity by use of Mylar® flagging and windrowing. The "bird management area" is part of the adaptive management plan implemented by Preferred Rocks of Genoa. When District, Preferred Rocks of Genoa or Tern and Plover Conservation Partnership personnel identify a piping plover or interior least tern nest, the nest is flagged so that the District can monitor dredging operations to ensure that nests are not inundated with dredge material prior to suspending dredging operations. If the nests are likely to be affected by dredging activities, the district constructs berms to protect nests from dredging discharge. To date, Tern and Plover Conservation Partnership personnel have not witnessed any flooding of nests at this site, even though dredge water came uncomfortably close (10 – 12 feet) to nests in 2008. The District resumes continuous dredging activities after all nests are clear and the birds have migrated away from the area, usually around mid-August. Dredging activity normally continues until just before ice-in. Table 6-3, below, lists the beginning and ending dates for dredging activities for the last 6 years.

Based on the information provided by the District and the Tern and Plover Conservation Partnership, USFWS has concurred with the District recommendation that no formal studies are needed regarding dredging activities and flooding of nests; continued vigilance on this issue is critical. However, USFWS noted that continued improvement for the species may be possible through the adaptive management plan.

# Dredging and discharge activities may cause entrapment, entrainment, and mortality of fish.

The District and Tern and Plover Conservation Partnership staff have observed small fish discharged onto the North SMA during dredging activities. Initial discussions with resource agencies identified this as a potential issue for study; however, during subsequent discussions, specifically the August 19, 2008 agency meeting, it was determined that there are no indications that dredging activities affect fisheries in the Loup Power Canal System. In addition, it was noted that the discharged fish provide a good food source for the interior least terns nesting on the North SMA; therefore, entrainment and entrapment of fish resulting from dredge operations may not be an issue. It may in fact be useful to foraging Least Terns when these fish are concentrated in small, ephemeral pools on the North SMA.

Based on the lack of evidence of negative effects on Project fisheries and the noted benefit to interior least terms, no formal studies are proposed related to potential impacts of dredge operations on fish.

Appendix

Cooperative Least Tern and Piping Plover Threatened and Endangered Species Management Plan at the LPPD Headworks Sand Management Zone.

Improve nesting habitat (AHZ): Within the Loup Public Power District Headworks Sand Management Zone, Preferred Rocks of Genoa shall create an area that is conducive to nesting of piping plovers and least terms (AHZ). This may include the following actions:

Clearing areas of vegetation within the adaptive habitat zone
Creating watering hole(s) for potential foraging and loafing habitat
Limit or eliminate vehicle traffic in the designated areas, especially OHV traffic. The
potential exists for OHV users to move from the South SMA to the North SMA.

Monitor least tern and piping plover nesting: Monitoring tern and plover nesting in the sand management zone and determining the effects of the above measures are crucial to the success of the Plan and its ability to promote least tern and piping plover conservation. Therefore, twice-weekly field visits by a biologist will be made during the nesting season (April 1 to August 31 or as bird activity dictates) to document nesting, nest fate and nest productivity. These visits will be coordinated with both LPPD and Preferred Rocks of Genoa. On the designated meeting day LPPD, Preferred Rocks of Genoa, and the Biologists will discuss:

a) Locations of nests/colonies

Upcoming activities on the sand pile

Possible changes/improvements to the AMP (requires authorization from all parties involved in the MOU)

Discourage nesting in active areas of the SMZ: Preferred Rocks of Genoa will attempt to discourage nesting in areas that may be impacted by its sand management activities during the nesting season. Possible ways to deter the birds from these areas may include: Allowing vegetation and promoting the growth of vegetation in certain areas Windrowing the pile in areas that will be impacted by sand management activities during the nesting season

Keeping activity high in the sand management zone

Protection of nests and colonies outside the AHZ: In the case of a nest which is outside of the AHZ and which may be impacted by the Preferred Rocks of Genoa operations, Preferred Rocks of Genoa will ensure the nest is appropriately marked and to berm/silt fence the area to protect it from the operations. If the nest could be impacted by LPPD dredge discharge, LPPD will implement the same nest protection procedures (berming, redirecting flow, etc) use in previous years.

#### Study No. 2.0, Hydrocycling

Goal - Determine the effect of Project operations on the sub-daily hydrograph and stage of the Platte River downstream of the Tailrace Canal relative to a baseline or alternative condition.

Reason for Study – Hydrocycling affects Platte River stage and discharge on a sub-daily basis. Resource agencies have indicated that changes in stage and discharge are thought to be factors in creation and maintenance of riverine habitat, including piping plover, interior least tern, and sturgeon habitat. Additionally, changes in stage and discharge may affect fish mobility.

Methodology – The proposed methodology for this study is as follows:

- 1. Utilize existing (15-minute increment) NDNR and USGS gage data to evaluate the hydrograph during Project operations and compare against baseline or alternative hydrographs.
- 2. Utilize existing hydraulic model information from USACE and other agencies to evaluate change in stage during Project operations and compare against baseline or alternative hydrographs.
- 3. Utilize existing hydraulic model information from USACE and other agencies to evaluate change in stage during Project operations and compare against the effective or dominant discharge.

Interior Least Terns and Piping Plovers nest on high, dry, non- or sparsely vegetated expanses of sand, including midstream sandbars in the Loup and Platte rivers. These sandbars are built and maintained by the amount of sediment transported and deposited by river flow. Any mechanism that reduces the amount of sediment being transported by the Loup and Platte, reduces the number and size of sandbars in those rivers. In order for tern and plover nests on sandbars to be successful, they must be located high enough above the surface of the water that they are not inundated and washed out. The sandbars that are currently available to the birds for nesting are smaller in size and lower in height than they have been historically, due to reduced sediment flows in the Loup and Platte rivers. Consequently, these sandbars and the nests are more vulnerable to inundation than they have been in the past. By mimicking flood events, hydrocycling can endanger tern and plover nests.

We propose that Loup Public Power-FERC study the actual height of the sandbars in the Loup Bypass Reach and the Lower Platte River in relation to the fluctuation in river height due to hydrocycling.

Study No. 5.0, Flow Depletion in the Loup River Bypass Reach

Goal – Determine the magnitude of flow reduction in the Loup River bypass reach resulting from Project operations relative to a baseline or alternative condition.

Reason for Study – Diminished flows related to Project operations may affect riverine habitat distribution, including piping plover and interior least tern habitat and fisheries habitat.

Methodology – The proposed methodology for this study is as follows:

- 1. Use existing gage data to determine flow frequency and flow duration curves for current Project operations and baseline or alternative operations.
- 2. Evaluate frequency of effective or dominant discharge events.
- 3. Utilize hydraulic model information from USACE and other agencies to evaluate change in stage during Project operations and compare against baseline or alternative hydrographs.

Interior Least Terns and Piping Plovers nest on high, dry, non- or sparsely vegetated expanses of sand, including midstream sandbars in the Loup and Platte rivers. These sandbars are built and maintained by the amount of sediment transported and deposited by river flow. Anything that reduces the amount of sediment being transported by the Loup and Platte reduces the number and size of sandbars in those rivers.

We propose that Loup Public Power-FERC include an assessment of how many fewer sandbars, appropriate for tern and plover nesting, are present in the Loup and Platte rivers as a consequence of the Project's sedimentation transport regime.

#### Study No. 1.0, Sedimentation

Goal – Determine if Project operations materially affect sediment transport within the Loup River bypass reach and the Platte River downstream of the Tailrace Canal relative to a baseline or alternative condition.

Reason for Study – Sediment transport is a factor in sandbar formation, aquatic and terrestrial habitat creation and maintenance, bank erosion, and channel aggradation/degradation. Additionally, sediment transport may be a factor in ice jam formation and associated flooding.

Methodology – The proposed methodology for this study is as follows:

- 1. Develop a sediment budget from existing data
- 2. Conduct a specific gage analysis using existing USGS data
- 3. Determine rate of aggradations/degradations from existing cross section data
- 4. Review existing ice information in the vicinity of the Project

Interior Least Terns and Piping Plovers nest on high, dry, non- or sparsely vegetated expanses of sand, including midstream sandbars in the Loup and Platte rivers. These sandbars are built and maintained by the amount of sediment transported and deposited by river flow. Anything that reduces the amount of sediment being transported by the Loup and Platte rivers, reduces the number and size of sandbars in those rivers.

We propose that Loup Public Power-FERC include an assessment of how many fewer sandbars, appropriate for tern and plover nesting, are present in the Loup and Platte rivers as a consequence of the Project's sedimentation transport regime.

Study No. 6.0, Fish Sampling

Goal – Determine the species abundance, composition, and distribution of sport fisheries in the Loup Power Canal.

Reason for Study - To determine the health of the sport fishery population in the Loup Power Canal

Methodology – NGPC will conduct sampling along representative sections of the canal. The District will provide assistance regarding access to the canal.

Interior Least Terns, due their size, forage only on small fish; small is defined as "beak length or less" (2 inches and less). Chicks require even smaller fish. We propose that this study include an analysis of all species of fish present in the canal and settling basin, not only sport fish. The analysis should include an assessment of fish size.

Study No. 8.0, Recreation User Survey

Goal – Determine the public awareness, usage, and demand of the Project's existing recreational facilities to determine if potential improvements are needed.

Reason for Study – Provide information for use in developing a recreation plan for Project facilities.

Methodology – Use recreational user interviews and survey cards to determine the following:

- 1. Type of use
- 2. Frequency of use
- 3. Most commonly used facilities
- 4. Distance traveled
- 5. Needed improvements

Bird watching and other forms of nature study are increasingly popular with the public. The presence of parks, common areas and green spaces, which are necessary for these activities, increase the economic value of surrounding properties. People involved in these activities spend money in the area, making it of value to the local economies. Even though it is an industrial-commercial area, Project property supports a diverse bird community, all of which is protected by the federal International Migratory Bird Treaty (IMBTA) Act. Bank and Rough-winged Swallows, Belted Kingfishers, and Barn and Great Horned Owls nest in holes in banks and dredge piles. Various hawks, eagles. warblers, sparrows, wrens and other birds nest in the trees, shrubs, and fields on Project property. Any Project related activities that interfere with these birds are violations of the IMBTA and damage the recreational value of the area. We propose that Loup Public Power-FERC manage Project property in such a way that nesting habitat is not disturbed during the nesting season. This management style includes not digging out sandbanks with nests, not mowing fields with nests, and not removing trees and shrubs with nests during the nesting season. It also includes not removing or modifying habitat used by migrating or overwintering birds such as Bald Eagles or waterfowl.

Study No. 10, Land Use Inventory

Goal – Determine specific land use of properties that abut the Project Boundary to identify potential conflicts and/or opportunities

Reason for Study – There may be existing land uses that conflict with Project operation or public recreation opportunities. There may also be opportunities for increased or improved access to Project facilities. This information will be useful for development of a recreation plan for the Project.

Methodology – The proposed methodology for this study is as follows;

- 1. Use existing land use GIS layers to determine existing land use, and verify these findings via on-site survey.
- 2. Interview adjacent landowners of potentially conflicting land uses to determine if they have comments or concerns regarding existing Project operations or recreational uses.

Through the term of the proposed renewed FERC license, landowners probably will use their property in ways very different from what they are doing now. Agricultural and economic needs will change and the human population will increase in size. These land use and population changes will likely impact the animal and plant diversity found on Project property. We propose that Loup Public Power-FERC include "future plans" questions in the proposed landowner interviews. We propose that Loup Public Power-FERC include interviews of people, not only landowners, who use the land for other purposes.

What are the sources of water quality impairments in the Loup Power Canal and regulating reservoirs associated with PCB, E. coli, pH, and nutrient levels?

PCBs have been detected in tissue samples of fish sampled in the Loup Power Canal, resulting in a consumption advisory for fish caught in Segment LP1-21800 of the Loup Power Canal)....NDEQ sampling in 1993 detected PCB levels slightly above maximum consumption levels in fish caught near the US Highway 30 bridge over the Tailrace Canal.... NDEQ testing in 2003 of fish samples from the canal indicated non-detectable PCB levels.

Ingesting even trace amounts of PCBs can be harmful to fish eating birds such as the endangered Interior Least Tern. The birds can suffer liver, stomach, and thyroid damage, anemia, impaired immune systems, and reduced reproduction. If PCB contaminated fish in the Loup Power Canal are consumed by the terns and/or fed to their chicks, the reproductive success and recovery of this legally protected species could be affected. Trace amounts of the PCBs would be present in tissues the birds are growing while the PCB tainted fish are in their diet. These tissues include egg shells, downy plumage of chicks, and molting adult feathers; PCBs may also be present in fecal material. We propose that Loup Public Power-FERC collect and analyze tissues from Interior Least Terns for the presence of PCBs. This study would address the question of PCB contamination in the Loup Power Canal.

From: Richardson, Lisa (Omaha)

Sent: Wednesday, February 04, 2009 3:54 PM

To: Frame, Gail

**Subject:** FW: HP#0804-127-01 - FERC Relicensing of Loup Power District

From: Dolberg, Jill <a href="mailto:jill.dolberg@nebraska.gov">[mailto:jill.dolberg@nebraska.gov</a>]
Sent: Wednesday, February 04, 2009 2:10 PM

**To:** Madson, Michael J.

Subject: RE: HP#0804-127-01 - FERC Relicensing of Loup Power District

Mike,

I agree that the APE for this project is, in our opinion, the area within the licensed Project Boundary. I apologize for the confusion.

Jill Dolberg

Review and Compliance Coordinator Nebraska State Historic Preservation Office

From: Madson, Michael J. [mailto:Michael.Madson@hdrinc.com]

Sent: Wednesday, February 04, 2009 1:38 PM

To: Dolberg, Jill

Cc: Richardson, Lisa (Omaha)

**Subject:** HP#0804-127-01 - FERC Relicensing of Loup Power District

Jill - Thank you for sending your letter of January 23 agreeing to the APE proposed in a letter from Loup Power District President Neal Suess on January 5. I think some clarification is in order however to avoid any future misunderstanding regarding the extent of the APE.

Mr. Suess' letter stated that "As recommended by the Commission, the District proposes to establish the project area of potential effects (APE) as required under 36 CFR 800.4 and defined in 36 CFR 800.16 as the area shown in the PAD document (See attached from the PAD: Figure 4-1, 14 sheets) and labeled as the Approximate Project Boundary. The area within that boundary encompasses the entirety of the District's holdings that are subject to the relicensing effort described in the PAD." We specifically targeted the area within the footprint shown on the attached figures (to the January 5 letter) as the Project Boundary currently licensed by FERC. The District holds other properties outside of this area that are not related to the current FERC license or the relicensing effort, including economic development properties and an administrative building in Columbus.

Your response stated that SHPO agreed "that the APE correctly encompasses all of the District's holdings" without specifically targeting the area subject to the relicensing effort. Please clarify that the APE for this project is, in the opinion of the SHPO, the area within the licensed Project Boundary. This clarification is necessary to avoid future misunderstanding about need for historic property identification on District properties that are not related to the relicensing effort.

Sincerely, Mike

Michael J. Madson, M.S., RPA Professional Associate

From: Robert\_Harms@fws.gov

Sent: Wednesday, February 04, 2009 8:01 AM

To: Pillard, Matt; Waldow, George

Subject: Loup PAD and SD

Importance: High

#### George/Matt:

The FWS is in the process of preparing written comments on the Preapplication Document (PAD) and Scoping Document (SD) for the Loup relicensing action. We have also provided some study suggestions/comments

in our letter. 2 questions for you--we are planning to submit our written comments on the PAD and SD to Kimberly Bose of FERC by February 10--is that the deadline or is February 20 the deadline for comments? Also, I was under the impression that Loup, HDR, and the agencies were going to meet in February/March 2009 time frame to further discuss study plans including how the study requests meet the 7 FERC criteria. At this point, I had not planned to discuss how the study plans discussed in the PAD and SD meet the 7 FERC criteria in our current letter.

#### Bob

Robert R. Harms
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
203 West Second Street
Grand Island, Nebraska 68801
Phone: 308-382-6468, Extension 17

Fax: 308-384-8835 robert harms@fws.gov

From: Richardson, Lisa (Omaha)

Sent: Thursday, February 05, 2009 11:42 AM

To: Frame, Gail

FW: Loup Power District Relicensing - SD1 Errata Notice Subject:

Attachments: FERC.090204.errata notice.pdf

From: Pillard, Matt

Sent: Wednesday, February 04, 2009 4:48 PM

To: Mike LeValley@fws.gov; mark weekley@nps.gov; frank.albrecht@nebraska.gov; gene.zuerlein@nebraska.gov; kristal.stoner@nebraska.gov; john.bender@nebraska.gov; marty.link@ndeq.state.ne.us; NeDoJ@ago.ne.gov; ieff.schuckman@nebraska.gov; jeff\_runge@fws.gov; robert\_harms@fws.gov; barbara.j.friskopp@usace.army.mil; abaum@upperloupnrd.org; angle\_tornes@nps.gov; randy\_thoreson@nps.gov; bpuschendorf@nebraskahistory.org; Rex.Amack@nebraska.gov; lori.moore@nema.ne.gov; jangell@dnr.ne.gov; agr.webmaster@nebraska.gov; jay.ringenberg@ndeg.state.ne.us; mike.linder@ndeg.state.ne.us; pjsoenks@usgs.gov; rswanson@usgs.gov; mkuzila1@unl.edu; david.jundt@dhhs.ne.gov; dozman@usgs.gov; jmiyoshi@lpnnrd.org; steve.chick@ne.usda.gov; pcclerk@megavision.com; pchwy@megavision.com; cityadmin@cablene.com; bczoning@frontiernet.net; cityadmin@cablene.com; rbishop@cpnrd.org; mark@cpnrd.org; jhdnfldt@inebraska.com; jwinkler@papionrd.org; lpsnrd@lpsnrd.org; jmmoser@megavision.com; jmangi@columbusne.us; cgenoa@cablene.com; cgenoa@cablene.com; monroe@megavision.com; monroe@megavision.com; calms@neb.rr.com; danno@nohva.com; mbrown9@unl.edu; provost@huntel.net; rtrudell@santeedakota.org; jblackhawk@aol.com; pawneenationpres@hotmail.com; omndn@yahoo.com; CoraJones@bia.gov; rverhoeff@lpsnrd.org; butchk@nctc.net; mohler@nctc.net; jmsunne@nppd.com; dave.tunink@nebraska.gov; rbzelt@usgs.gov; John Cochnar@fws.gov; Martha Tacha@fws.gov; jalexand@usgs.gov; Engelbert, Pat; Engel, John; Pillard, Matt; jjshadl@nppd.com; rziola@loup.com; Greg Wingfield@fws.gov; cothern.joe@epa.gov; justin.lavene@nebraska.gov; bobbie.wickham@nebraska.gov; santin@hamilton.net; tpetr@loup.com; rziola@loup.com; nsuess@loup.com; arobak@loup.com; jfrear@loup.com; Waldow, George; Grennan, Dennis E.; Richardson, Lisa (Omaha); Sigler, Bill; King, Wendy; bdietsch@usgs.gov; mferguson@gp.usbr.gov; athompson@gp.usbr.gov; bpuschendorf@nebraskahistory.org; kennyj@headwaterscorp.com; mdrain@cnppid.com; donald anderson@fws.gov; rswanson@usqs.gov; matt schwarz@fws.gov; jeddins@achp.gov; kenneth.sessa@dhs.gov; peggy.harding@ferc.gov; Willie Taylor@ios.doi.gov; Robert F Stewart@ios.doi.gov; djjarecke@clarkswb.net; al.berndt@nebraska.gov; dave carlson@fws.gov; astuthman@leg.ne.gov; ksullivan@leg.ne.gov; clangemeier@leg.ne.gov; adubas@leg.ne.gov; White, Stephanie; houghton@winnebagotribe.com; Kim.Nguyen@ferc.gov; chairmanrhodd@ponca.com; June Deweese@fws.gov; don simpson@blm.gov; mark.ivy@ferc.gov; nicholas.jayjack@ferc.gov; david.turner@ferc.gov; jdolberg@nebraskahistory.org; prescott.brownell@noaa.gov; Nicholas Chevance@nps.gov; Robert.Dach@noaa.gov; cox@columbusne.us

Cc: Neal Suess; Ron Ziola; Jim Frear (jfrear@loup.com); Richardson, Lisa (Omaha); Waldow, George; Engelbert, Pat;

Sialer, Bill

Subject: Loup Power District Relicensing - SD1 Errata Notice

Loup Power District wanted to inform you that FERC is issuing an errata to SD1 that clarifies the deadline for comments on the PAD, SD1 and for study requests is February 10. See the attached notice.

Thank you.

#### Matt Pillard, AICP

Senior Environmental Planner

#### HDR ONE COMPANY Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111

Email: Matt.Pillard@hdrinc.com



From: Richardson, Lisa (Omaha)

Sent: Friday, February 06, 2009 6:31 AM

To: Frame, Gail

**Subject:** FW: Loup Power District Relicensing - Notice of Meetings

From: Pillard, Matt

Sent: Thursday, February 05, 2009 3:52 PM

To: tprovost@omahatribeepd.com; rtrudell@santeedakota.org; jblackhawk@aol.com; omndn@yahoo.com; mferquson@gp.usbr.gov; chairmanrhodd@ponca.com; calms@neb.rr.com; danno@nohva.com; mbrown9@unl.edu; prescott.brownell@noaa.gov; Mike LeValley@fws.gov; mark weekley@nps.gov; jeff runge@fws.gov; robert harms@fws.gov; barbara.j.friskopp@usace.army.mil; angie tornes@nps.gov; randy thoreson@nps.gov; pjsoenks@usqs.gov; dozman@usqs.gov; CoraJones@bia.gov; rbzelt@usqs.gov; John Cochnar@fws.gov; Martha Tacha@fws.gov; jalexand@usqs.gov; cothern.joe@epa.gov; Greg Wingfield@fws.gov; bdietsch@usqs.gov; athompson@qp.usbr.qov; donald anderson@fws.qov; matt schwarz@fws.qov; rswanson@usqs.qov; Willie Taylor@ios.doi.gov; Robert F Stewart@ios.doi.gov; jeddins@achp.gov; kenneth.sessa@dhs.gov; dave carlson@fws.gov; June Deweese@fws.gov; don simpson@blm.gov; rldach@yahoo.com; Nicholas Chevance@nps.gov; pcclerk@megavision.com; pchwy@megavision.com; cityadmin@cablene.com; bczoning@frontiernet.net; cityadmin@cablene.com; jmmoser@megavision.com; jmangi@columbusne.us; cgenoa@cablene.com; cgenoa@cablene.com; monroe@megavision.com; monroe@megavision.com; santin@hamilton.net; djjarecke@clarkswb.net; cox@columbusne.us; frank.albrecht@nebraska.gov; gene.zuerlein@nebraska.gov; rick.sneider@nebraska.gov; john.bender@nebraska.gov; marty.link@nebraska.gov; jeff.schuckman@nebraska.gov; bpuschendorf@nebraskahistory.org; Rex.Amack@nebraska.gov; lori.moore@nema.ne.gov; jangell@dnr.ne.gov; agr.webmaster@nebraska.gov; jay.ringenberg@ndeg.state.ne.us; mike.linder@ndeg.state.ne.us; rswanson@usgs.gov; mkuzila1@unl.edu; david.jundt@dhhs.ne.gov; steve.chick@ne.usda.gov; dave.tunink@nebraska.gov; justin.lavene@nebraska.gov; bobbie.wickham@nebraska.gov; bpuschendorf@nebraskahistory.org; al.berndt@nebraska.gov; jdolberg@nebraskahistory.org; abaum@upperloupnrd.org; jmiyoshi@lpnnrd.org; rbishop@cpnrd.org; mark@cpnrd.org; jhdnfldt@inebraska.com; jwinkler@papionrd.org; lpsnrd@lpsnrd.org; rverhoeff@lpsnrd.org; butchk@nctc.net; mohler@nctc.net; jmsunne@nppd.com; jjshadl@nppd.com; kennyi@headwaterscorp.com; mdrain@cnppid.com; jon.bruning@ago.ne.gov; astuthman@leq.ne.gov; ksullivan@leg.ne.gov; clangemeier@leg.ne.gov; adubas@leg.ne.gov

**Cc:** <u>Kim.Nguyen@ferc.gov</u>; <u>peggy.harding@ferc.gov</u>; <u>david.turner@ferc.gov</u>; <u>nicholas.jayjack@ferc.gov</u>; <u>mark.ivy@ferc.gov</u>; <u>rziola@loup.com</u>; <u>tpetr@loup.com</u>; <u>nsuess@loup.com</u>; <u>arobak@loup.com</u>; <u>jfrear@loup.com</u>; Engelbert, Pat; Engel, John; Waldow, George; Grennan, Dennis E.; Richardson, Lisa (Omaha); Sigler, Bill; White, Stephanie

**Subject:** Loup Power District Relicensing - Notice of Meetings

Good Afternoon.

Loup Power District has identified date(s) for the Study Plan Meeting(s) to discuss and seek consensus on the proposed study plan for relicensing the Loup River Hydroelectric Project (FERC Project No. 1256). The Districts' Proposed Study Plan will be issued by March 27, 2009 and will provide details of the studies proposed by the District in the PAD as well as details of any studies requested by stakeholders.

#### **Study Plan Meeting Details:**

April 21, 2009 9:00 AM – 5:00 PM Holiday Inn Express 524 E 23<sup>rd</sup> St, Columbus

FERC representatives will be in attendance at the meeting. The meeting will also be available by teleconference.

Lunch will be provided so we ask that you let us know how many people to expect from your agency. Please RSVP to Angell Robak, Loup Power District at arobak@loup.com or (402) 564-3171, ext. 275.

If needed, follow-up meetings will be held in Columbus on May 28 and July 1 from 9:00 AM to 5:00 PM to continue study plan issue resolution. Please mark your calendars.

If you do not wish to receive future emails regarding the Loup Power District Relicensing effort, plus let me know and we'll get you removed from this distribution list.

Thanks.

#### Matt Pillard, AICP

Senior Environmental Planner

#### HDR | ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111 Email: Matt.Pillard@hdrinc.com



Pillard, Matt From:

Sent: Thursday, February 05, 2009 1:50 PM

To: Frame, Gail

FW: Loup Power District Relicensing - SD1 Errata Notice Subject:

**From:** Stoner, kristal [mailto:kristal.stoner@nebraska.gov]

Sent: Thursday, February 05, 2009 1:47 PM

To: Pillard, Matt

Subject: RE: Loup Power District Relicensing - SD1 Errata Notice

Matt,

Please take me off the mailing list. I switched jobs, so the Loup Relicensing is no longer my responsibility. You should probably add Rick Schneider as the new contact in my place.

#### Kristal Stoner

Wildlife Diversity Program Manager Nebraska Game and Parks Commission 2200 N 33rd Street, Lincoln, NE 68503 kristal.stoner@nebraska.gov 402-471-5444

#### \*\*\*Note new email address\*\*\*

**From:** Pillard, Matt [Matt.Pillard@hdrinc.com] Sent: Wednesday, February 04, 2009 4:47 PM

To: Mike LeValley@fws.gov; Weekley, Mark; Albrecht, Frank; Zuerlein, Gene; Stoner, kristal; Bender, John; Link, Marty; AGO - Department of Justice; Schuckman, Jeff; jeff runge@fws.gov; robert harms@fws.gov; barbara.i.friskopp@usace.army.mil; abaum@upperloupnrd.org; angie\_tornes@nps.gov; randy\_thoreson@nps.gov; bpuschendorf@nebraskahistory.org; Amack, Rex; lori.moore@nema.ne.gov; Angell, Jean; Nebraska Department of Agriculture; Ringenberg, Jay; Linder, Mike; pjsoenks@usgs.gov; rswanson@usgs.gov; mkuzila1@unl.edu; Jundt, David; dozman@usqs.gov; jmiyoshi@lpnnrd.org; steve.chick@ne.usda.gov; pcclerk@megavision.com; Platte County Hwy Supt -Liss; cityadmin@cablene.com; bczoning@frontiernet.net; cityadmin@cablene.com; rbishop@cpnrd.org; mark@cpnrd.org; jhdnfldt@inebraska.com; jwinkler@papionrd.org; lpsnrd@lpsnrd.org; jmmoser@megavision.com; imangi@columbusne.us; cgenoa@cablene.com; cgenoa@cablene.com; monroe@megavision.com; monroe@megavision.com; calms@neb.rr.com; danno@nohva.com; mbrown9@unl.edu; provost@huntel.net; rtrudell@santeedakota.org; jblackhawk@aol.com; pawneenationpres@hotmail.com; omndn@yahoo.com; CoraJones@bia.gov; rverhoeff@lpsnrd.org; butchk@nctc.net; mohler@nctc.net; jmsunne@nppd.com; Tunink, Dave; rbzelt@usgs.gov; John Cochnar@fws.gov; Martha Tacha@fws.gov; jalexand@usgs.gov; Engelbert, Pat; Engel, John; Pillard, Matt; jjshadl@nppd.com; rziola@loup.com; Greg Wingfield@fws.gov; cothern.joe@epa.gov; Lavene, Justin; Wickham, Bobbie; santin@hamilton.net; tpetr@loup.com; rziola@loup.com; nsuess@loup.com; arobak@loup.com; ifrear@loup.com; Waldow, George; Grennan, Dennis E.; Richardson, Lisa (Omaha); Sigler, Bill; King, Wendy; bdietsch@usgs.gov; mferguson@gp.usbr.gov; athompson@gp.usbr.gov; bpuschendorf@nebraskahistory.org; kennyj@headwaterscorp.com; mdrain@cnppid.com; donald anderson@fws.gov; rswanson@usqs.gov; matt schwarz@fws.gov; jeddins@achp.gov; kenneth.sessa@dhs.gov; peggy.harding@ferc.gov; Willie\_Taylor@ios.doi.gov; Robert\_F\_Stewart@ios.doi.gov; djjarecke@clarkswb.net; Berndt, Al; dave\_carlson@fws.gov;

Arnie Stuthman; ksullivan@leg.ne.gov; Chris Langemeier; Annette Dubas; White, Stephanie;

houghton@winnebagotribe.com; Kim.Nguyen@ferc.gov; chairmanrhodd@ponca.com; June Deweese@fws.gov;

don simpson@blm.gov; mark.ivy@ferc.gov; nicholas.jayjack@ferc.gov; david.turner@ferc.gov;

jdolberg@nebraskahistory.org; prescott.brownell@noaa.gov; Nicholas Chevance@nps.gov; Robert.Dach@noaa.gov;

cox@columbusne.us

Cc: Neal Suess; Ron Ziola; Jim Frear (<u>ifrear@loup.com</u>); Richardson, Lisa (Omaha); Waldow, George; Engelbert, Pat;

Sigler, Bill

Subject: Loup Power District Relicensing - SD1 Errata Notice

Loup Power District wanted to inform you that FERC is issuing an errata to SD1 that clarifies the deadline for comments on the PAD, SD1 and for study requests is February 10. See the attached notice.

Thank you.

#### Matt Pillard, AICP

Senior Environmental Planner

HDR | ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098

Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111

Email: Matt.Pillard@hdrinc.com





## STATE OF NEBRASKA

### DEPARTMENT OF NATURAL RESOURCES

Brian P. Dunnigan, P.E.

February 9, 2009

IN REPLY TO:

Kimberly D. Bose, Secretary Federal Energy Regulatory Commission 888 First Street, N.E., Room 1A Washington, DC 20426

Re: Relicensing of Loup River Hydroelectric Project (P1256-029)

Dear Secretary Bose:

The Nebraska Department of Natural Resources (NDNR) is requesting a study: (1) of the effects the Loup River Hydroelectric Project has on ice jam flooding, (2) a predictive model of the Projects effects on ice jam flooding, and (3) prevention, alleviation and mitigation of ice jam flooding caused by the Project. The NDNR is the official state agency for all matters pertaining to floodplain management.

In March of 1993, severe flooding due to the combination of ice jams and rapid snowmelt occurred within the Lower Platte River basin in Nebraska. One of the areas most affected was along the Loup River at Columbus, NE, between the diversion by the Loup Public Power District (LPPD) and its tail race into the Platte River. The event caused many millions of dollars worth of damage, including road closures; destruction of a major highway, weigh station, motel and farm implement dealership; flooding of residential, agricultural, industrial, and commercial areas; and damage to bridge abutments, levees, dikes, and other river training structures.

In response to the 1993 flooding event, the Federal Emergency Management Agency formed an Interagency Hazard Mitigation Team to review the event and suggest measures which might be implemented to mitigate similar future events. The United States Army Corps of Engineers (USACE) completed a comprehensive Section 22 Study of ice jam flooding in the Lower Platte River Basin. (A copy of the July 1994 Section 22 report is attached.)

The USACE gathered and analyzed historical data relating to ice jams, intending to develop guidance in mitigating or alleviating ice jam flooding in the area. Information was obtained through searches of state and federal agency records, a literature search, weather and river discharge records, and public meetings. The USACE Cold Regions Research and Engineering Laboratory developed a model to predict the occurrence of ice events. It was noted that little specific data was available for jams occurring in the area where the LPPD diverts and discharges into the river and that the model cannot be applied with confidence without obtaining this additional data. A data collection program for future field observations was recommended and developed. NDNR has the data that has been collected.

Kimberly D. Bose February 9, 2009 Page 2 of 3

The USACE report detailed the LPPD's hydropower operation, including: diversion of the Loup River and outflow into the Platte River; the fluctuation of diversions, and response to the formation of frazil ice. Local residents opined that the fluctuations in water level cause or exacerbate ice jams in the Loup River downstream from the canal diversion. The report suggested that a future "qualitative study could address such issues as the potential effects of raising and lowering water levels on the formation of border ice, frazil production, frazil ice transport, and the effects of sudden decreases in river flow on ice movement (e.g., stranding ice blocks, increased frazil deposition). In addition, it was noted that "[c]hanges in the sediment regime of the river resulting from canal operations may also have impacted ice formation and transport processes." The USACE recommended that after collection of data, a study be done to evaluate the impact of the operation of the Loup Power Canal on downstream ice conditions.

It is this USACE-recommended study that the NDNR is requesting be done prior to LPPD being allowed to relicense its project. Such study of the effects of the LPPD operation on ice jam flooding was requested by the NDNR at a meeting with LPPD on August 19, 2008. Copies of the USACE report containing their recommendation for a study were distributed. Aerial photographs showing a three mile ice jam were displayed. It was noted that the levee holding back the Platte River from the City of Columbus was nearly overtopped and that a levee surrounding a housing development had nearly failed.

In a letter to LPPD on August 29, 2008, the NDNR again requested that a study on the effect the LPPD operation has on ice jam flooding be studied. Our request is attached.

The October 16, 2008, Pre-Application document (PAD) included the NDNR's statement that the LPPD operation may cause ice jam flooding, NDNR's request for a study, several paragraphs regarding the USCE study, and the statement, "The Nebraska Department of Natural resources asks that studies be conducted on what contributions the operation of the LPPD canal have on ice jam flooding as well as what measures could be taken to mitigate ice jam flooding and resulting damages." (See PAD Volume 2 – Appendices.) LPPD responded to the NDNR concern by stating on page 6-22 of the PAD, "The NDNR request for a study does not provide enough information to define the goal, reasons for study, and methodology for the District to conduct a study; therefore, no formal studies are proposed at this time. The District will continue to discuss this issue with NDNR to determine study needs." This issue has not been discussed further other than LPPD's reference to a conversation with the Nebraska Emergency Management Agency in which the Agency didn't remember the USACE report.

The NDNR is confounded by LPPD's response to our request for a study. NDNR has provided to LPPD: a history of ice jam flooding in the project area; the USACE report suggesting a connection between LPPD operations and ice jam flooding and that a study be conducted; and our concern for the residents, business people and travelers in the area, and the economic effects of the flooding on the State Treasury.

Kimberly D. Bose February 9, 2009 Page 3 of 3

Again, the NDNR requests that a study be conducted on the effect of the LPPD project on ice jam flooding, additional modeling to predict future flooding events, and any possible mitigation and or ways to alleviate damage.

Sincerely,

Brian P. Dunnigan, P.E.

Director

Enclosures

cc: Loup Public Power District

## Re: Loup River Nebraska Project No. 1256-029

#### TITLE OF PROPOSED STUDY

Study by the U.S. Army Cold Regions Research and Engineering Laboratory of the possible effect of the operation of the Loup Public Power District hydroelectric operation on ice jam flooding in the Platte River Basin; additional predictive modeling of ice events; and methods for prevention and mitigation of ice jam flooding.

## REQUESTER OF PROPOSED STUDY

Nebraska Department of Natural Resources 300 Centennial Mall South P.O. Box 94677 Lincoln, NE 68509-4676

## STUDY GOALS, OBJECTIVES, AND RESULTING INFORMATION

The goal of the requested study is to discover the effect the operation of the Loup Public Power District hydroelectric operation has on ice jam flooding in the Platte River Basin, refinement of predictive modeling of ice events in the Platte River Basin, and possible prevention and mitigations of ice jam flooding through operation changes or responses to ice formation.

#### STUDY AREA

The geographic scope of the proposed study is the Platte River Basin between the diversion of the Loup River at a point 34 miles upstream of the confluence of the Loup and Platte Rivers into the Loup Public Power Canal, downstream to the confluence of the Platter and Missouri Rivers.

# RELEVANT RESOURCE MANAGEMENT GOALS OR PUBLIC INTEREST CONSIDERATIONS

The requester Nebraska Department of Natural Resources (NDNR) is the official state agency for all matters pertaining to floodplain management, is the home of the Nebraska Ice Report data base, and has jurisdiction over all matters pertaining to surface water rights. The Department wishes to prevent recurring destruction to roads, structures, residences and businesses from ice jam flooding.

## Nebraska Revised Statute 61-206

Department of Natural Resources; jurisdiction; rules; hearings; orders; powers and duties. Department of Natural Resources; jurisdiction; rules; hearings; orders; powers and duties. (1) The Department of Natural Resources is given jurisdiction over all matters pertaining to water rights for irrigation, power, or other useful purposes except as such jurisdiction is specifically limited by statute. Such department shall adopt and promulgate rules and regulations governing matters coming before it. It may refuse to allow any water to be used by claimants until their rights have been determined and made of record. It may request information relative to irrigation

and water power works from any county, irrigation, or power officers and from any other persons. It may have hearings on complaints, petitions, or applications in connection with any of such matters. Such hearings shall be had at the time and place designated by the department. The department shall have power to certify official acts, compel attendance of witnesses, take testimony by deposition as in suits at law, and examine books, papers, documents, and records of any county, party, or parties interested in any of the matters mentioned in this section or have such examinations made by its qualified representative and shall make and preserve a true and complete transcript of its proceedings and hearings. If a final decision is made without a hearing, a hearing shall be held at the request of any party to the proceeding if the request is made within thirty days after the decision is rendered. If a hearing is held at the request of one or more parties, the department may require each such requesting party and each person who requests to be made a party to such hearing to pay the proportional share of the cost of such transcript. Upon any hearing, the department shall receive any evidence relevant to the matter under investigation and the burden of proof shall be upon the person making the complaint, petition, and application. After such hearing and investigation, the department shall render a decision in the premises in writing and shall issue such order or orders duly certified as it may deem necessary.

- (2) The department shall serve as the official agency of the state in connection with water resources development, soil and water conservation, flood prevention, watershed protection, and flood control.
- (3) The department shall:
- (a) Offer assistance as appropriate to the supervisors or directors of any subdivision of government with responsibilities in the area of natural resources conservation, development, and use in the carrying out of any of their powers and programs;
- (b) Keep the supervisors or directors of each such subdivision informed of the activities and experience of all other such subdivisions and facilitate cooperation and an interchange of advice and experience between such subdivisions;
- (c) Coordinate the programs of such subdivisions so far as this may be done by advice and consultation;
- (d) Secure the cooperation and assistance of the United States, any of its agencies, and agencies of this state in the work of such subdivisions;
- (e) Disseminate information throughout the state concerning the activities and programs of such subdivisions;
- (f) Plan, develop, and promote the implementation of a comprehensive program of resource development, conservation, and utilization for the soil and water resources of this state in cooperation with other local, state, and federal agencies and organizations;
- (g) When necessary for the proper administration of the functions of the department, rent or lease space outside the State Capitol; and

(h) Assist such local governmental organizations as villages, cities, counties, and natural resources districts in securing, planning, and developing information on flood plains to be used in developing regulations and ordinances on proper use of these flood plains.

## Nebraska Revised Statute 31-1017

Department; flood plain management; powers and duties.

31-1017 Department; flood plain management; powers and duties. The department shall be the official state agency for all matters pertaining to flood plain management. In carrying out that function, the department shall have the power and authority to:

- (1) Coordinate flood plain management activities of local, state, and federal agencies;
- (2) Receive federal funds intended to accomplish flood plain management objectives;
- (3) Prepare and distribute information and conduct educational activities which will aid the public and local units of government in complying with the purposes of sections 31-1001 to 31-1023;
- (4) Provide local governments having jurisdiction over flood-prone lands with technical data and maps adequate to develop or support reasonable flood plain management regulation;
- (5) Adopt and promulgate rules and regulations establishing minimum standards for local flood plain management regulation. In addition to the public notice requirement in the Administrative Procedure Act, the department shall, at least twenty days in advance, notify by mail the clerks of all cities, villages, and counties which might be affected of any hearing to consider the adoption, amendment, or repeal of such minimum standards. Such minimum standards shall be designed to protect human life, health, and property and to preserve the capacity of the flood plain to discharge the waters of the base flood and shall take into consideration (a) the danger to life and property by water which may be backed up or diverted by proposed obstructions and land uses, (b) the danger that proposed obstructions or land uses will be swept downstream to the injury of others, (c) the availability of alternate locations for proposed obstructions and land uses, (d) the opportunities for construction or alteration of proposed obstructions in such a manner as to lessen the danger, (e) the permanence of proposed obstructions or land uses, (f) the anticipated development in the foreseeable future of areas which may be affected by proposed obstructions or land uses, (g) hardship factors which may result from approval or denial of proposed obstructions or land uses, and (h) such other factors as are in harmony with the purposes of sections 31-1001 to 31-1023. Such minimum standards may, when required by law, distinguish between farm and nonfarm activities and shall provide for anticipated developments and gradations in flood hazards. If deemed necessary by the department to adequately accomplish the purposes of such sections, such standards may be more restrictive than those contained in the national flood insurance program standards, except that the department shall not adopt standards which conflict with those of the national flood insurance program in such a way that compliance with both sets of standards is not possible;

- (6) Provide local governments and other state and local agencies with technical assistance, engineering assistance, model ordinances, assistance in evaluating permit applications and possible violations of flood plain management regulations, assistance in personnel training, and assistance in monitoring administration and enforcement activities;
- (7) Serve as a repository for all known flood data within the state;
- (8) Assist federal, state, or local agencies in the planning and implementation of flood plain management activities, such as flood warning systems, land acquisition programs, and relocation programs;
- (9) Enter upon any lands and waters in the state for the purpose of making any investigation or survey or as otherwise necessary to carry out the purposes of such sections. Such right of entry shall extend to all employees, surveyors, or other agents of the department in the official performance of their duties, and such persons shall not be liable to prosecution for trespass when performing their official duties;
- (10) Enter into contracts or other arrangements with any state or federal agency or person as defined in section 49-801 as necessary to carry out the purposes of sections 31-1001 to 31-1023; and
- (11) Adopt and enforce such rules and regulations as are necessary to carry out the duties and responsibilities of such sections.

## NEED FOR PROPOSED STUDY

In 1994 the U.S. Army Corps of Engineers created a simple model of ice jam events in the Platte River valley, noted the lack of specific data needed to refine the model, created an ice data collection system, and suggested that a study be done upon the collection of such ice data. Without such study it can only be surmised by the USACE, NDNR, other agencies and citizens that the operation of the Loup Public Power District project contributes to ice jam flooding. Without an accurate model the State has no tools to predict, prevent or mitigate ice jam flooding. Many ice jam events have occurred in the project area, causing millions of dollars worth of damage. The NDNR is not capable of conducting a study but recognizes that the Army Cold Regions Research and Engineering Laboratory is capable of such study and cooperated with the USACE Section 22 study on Lower Platter River Ice Jam Flooding. NDNR has the data CRREL requested. LPPD should pay CRREL to perform the study to find out how its operations can be changed to prevent future flooding.

## **NEXUS TO PROJECT**

#### Direct effects:

The operation of the Loup Public Power District project may directly affect ice jam flooding through the winter time changes in diversion of the Loup River at the time of frazil ice formation.

## Indirect and cumulative effects:

The operation of the Loup Public Power District project may change the river contours, cause channel degradation, allow vegetative encroachment and otherwise impact the river's ability to carry the entire flow during those infrequent times when diversion is interrupted.

#### STUDY METHODOLOGY

The U.S. Army Cold Regions Research and Engineering Laboratory will gather ice data, including that data collected since the March 1993 ice jam flood, refine the predictive model for ice events, and study possible preventions and mitigations of ice jam flooding.

## LEVEL OF EFFORT AND COST

The NDNR does not know the level of effort and cost the study would require. The NDNR believes only the U.S. Army Cold Regions Research and Engineering Laboratory is capable of conducting the study.

## LITERATURE CITED

Loup River Hydroelectric Project FERC Project N. 1256 Pre-Application Document Volumes 1 and 2

Lower Platte River Ice Jam Flooding (attached)

Section 22

July 1994

Prepared by the Ice Engineering Research Branch, U.S. Army Cold Regions Research and Engineering Laboratory in Hanover, NH, and Hydrologic Engineering Branch, Engineering Division, U.S. Army Engineer District in Omaha, NE.

February 10, 2009

William McDonald US Department of Interior, Bureau of Reclamation 1849 C Street NW Washington, DC 20240

Dear McDonald;

Loup Power District has identified date(s) for the Study Plan Meeting(s) to discuss and seek consensus on the proposed study plan for relicensing the Loup River Hydroelectric Project (FERC Project No. 1256). The Districts' Proposed Study Plan will be issued by March 27, 2009 and will provide details of the studies proposed by the District in the PAD as well as details of any studies requested by stakeholders.

#### **Study Plan Meeting Details:**

April 21, 2009 9:00 AM – 5:00 PM Holiday Inn Express 524 E 23rd St, Columbus

FERC representatives will be in attendance at the meeting. The meeting will also be available by teleconference.

Lunch will be provided so we ask that you let us know how many people to expect from your agency. Please RSVP to Angell Robak, Loup Power District at **arobak@loup.com** or (402) 564-3171, ext. 275.

If needed, follow-up meetings will be held in Columbus on May 28 and July 1 from 9:00 AM to 5:00 PM to continue study plan issue resolution. Please mark your calendars.

The Integrated Licensing Process (ILP) is a very fast moving process with strict deadlines; to minimize delay in transmitting information to Relicensing Participants the District is requesting e-mail addresses from all participants to expedite the flow of information. Please send an email to **matt.pillard@hdrinc.com** to receive future communication via e-mail. If you do not wish to receive future mailings, please respond accordingly.

Sincerely, Kisa M. Parlands

Lisa M. Richardson Project Manager



February 18, 2009

Mr. Robert Harms
U.S. Fish and Wildlife Service
Nebraska Field Office
203 West Second Street
Federal Building, Second Floor
Grand Island, Nebraska 68801

Re: Loup River Hydroelectric Project FERC Project Number 1256

Confirmation of threatened and endangered species list

Dear Mr. Harms:

As you are aware, Loup Power District (the District) filed a Notice of Intent (NOI) and a Pre-Application Document (PAD) in October 2008 to begin the Federal Energy Regulatory Commission (FERC) relicensing process for its hydroelectric facilities located on the Loup River near Columbus, Nebraska (Project). In FERC's Notice of Commencement on December 16, 2008, FERC initiated informal consultation with the U.S. Fish and Wildlife Service (USFWS) and designated Loup Power District as the non-federal representative to conduct ESA section 7 consultation.

HDR Engineering, Inc. (HDR) is acting on behalf of the District in gathering information to assist with the licensing process. In letters dated July 21, 2008 and September 18, 2008, the USFWS provided technical assistance to the District in determining the potential issues related to threatened or endangered species. In accordance with section 7 of the Endangered Species Act (ESA), USFWS developed a list of federally listed species that may occur in the Project area or may be affected by the proposed relicensing of the Project. These species were:

- Pallid Sturgeon
- Least Tern
- Piping Plover
- Western Prairie Fringed Orchid

I would like to request confirmation of the species listed in the aforementioned letter as the federally listed threatened and endangered species which may be applicable to the Project.

If you require any additional information or have any questions concerning this request please contact me at (402) 926-7026 or Matt Pillard at (402) 399-1186.

.Sincerely,

HDR ENGINEERING, INC.

Sisa M Ruhardin

Lisa M. Richardson, P.E.

Project Manager

cc: Neal Suess, Loup Power District

Kim Nguyen, FERC

February 19, 2009

Mr. Brian Dunnigan Nebraska Department of Natural Resources 301 Centennial Mall South P.O. Box 94676 Lincoln, NE 68509-4676

RE: Loup Power District Hydroelectric Project

Dear Brian:

I am writing to request a one-on-one meeting with you to discuss unresolved issues related to the District's hydroelectric relicensing as well as other water rights administration issues that the District and the DNR staff have previously discussed. To date, our efforts to schedule a meeting and resolve these issues have been unsuccessful and I would like to meet with you to discuss how the District and the DNR can work together to get these issues resolved. After our one-on-one meeting, I propose a meeting between our respective staffs to work out the details on the issues.

The District is committed to working with all agencies to resolve issues related to relicensing as well as non-relicensing issues. Further, we have a long-standing relationship with the DNR and we will be working with your agency well beyond the relicensing effort. If you have any questions, please feel free to contact me (402) 564-3171, ext. 268.

Regards,

Neal Suess President/CEO

cc: Lisa Richardson, HDR Ron Ziola, LPD

s:\Hydro Relicensing\DNR-dunnigan letter-Feb09



March 2, 2009

Mr. Frank Albrecht Assistant Division Administrator Nebraska Game and Parks Commission 2200 North 33<sup>rd</sup> Street P.O. Box 30370 Lincoln, Nebraska 68503-0370

Re: Loup River Hydroelectric Project

FERC Project Number 1256 Species Occurrence Data Request

#### Dear Mr. Albrecht:

As you are aware, Loup Power District (the District) filed a Notice of Intent (NOI) and a Pre-Application Document (PAD) in October 2008 to begin the Federal Energy Regulatory Commission (FERC) relicensing process for its hydroelectric facilities located on the Loup River near Columbus, Nebraska (Project). In FERC's Notice of Commencement on December 16, 2008, FERC initiated informal consultation with the U.S. Fish and Wildlife Service (USFWS) and designated Loup Power District (District) as the non-federal representative to conduct Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.) section 7 consultation.

In compliance with the ESA, HDR Engineering, Inc. (HDR) is acting on behalf of the District in gathering information to assist with the development of a Biological Assessment. In a letter dated September 23, 2008, the Nebraska Game and Parks Commission (Commission) identified the following protected species as having occurrence data around the Loup River, Loup Diversion Canal, and the Platte River in Nance, Platte and Butler counties:

- Small White Lady's Slipper
- Whooping Crane
- Interior Least Tern
- Piping Plover
- Bald Eagle
- River Otter

In a letter dated July 21, 2008 and September 18, 2008, the USFWS provided technical assistance to the District in determining the potential issues related to threatened or endangered species. In accordance with section 7 of the ESA, USFWS developed a list of federally-protected species that may occur in the Project area or may be affected by the proposed relicensing of the Project. These species were:

- Pallid Sturgeon
- Least Tern
- Piping Plover
- Western Prairie Fringed Orchid

I am writing to request Nebraska Heritage Database species occurrence data for the species listed in the aforementioned letters that may be found in the Project area (see Figure 1). Included in this data, please provide the date of the occurrence (if available) and/or whether or not the record is considered historical. If feasible, I would prefer information provided in a GIS shapefile format; however, I understand the sensitive nature of the information requested and paper maps would be sufficient.

I appreciate your continued assistance in providing information to assist us with the relicensing effort for the Loup River Hydroelectric Project. The information provided will be used for analytical purposes only. Location specific information will not be published or shared without the express consent of the Commission.

If you require any additional information or have any questions concerning this request please contact me at (402) 926-7026 or Matt Pillard at (402) 399-1186.

Sincerely,

HDR ENGINEERING, INC.

Fish M. Ruhandin

Lisa M. Richardson, P.E.

Project Manager

cc: Neal Suess, Loup Power District

Kim Nguyen, FERC June DeWeese, USFWS

## Selzle, Lydia

From: Damgaard, Quinn V.

Sent: Monday, March 23, 2009 9:22 AM
To: John.Bender@NDEQ.State.NE.US
Cc: Pillard, Matt; Richardson, Lisa (Omaha)

Subject: Request: LPD Fish Kill Individual Reporting Sheets

#### John:

In the text you provided Mr. Matt Pillard in July 2008 (below) you referenced individual reporting sheets concerning project-related fish kills. To my knowledge, neither HDR nor LPD has requested these to date. This information may now prove valuable and your transmittal of this info would be appreciated at your earliest convenience.

Thanks for your continued assistance on the LPD Relicensing Project.

Quinn Damgaard Environmental Scientist HDR Engineering, Inc. 8404 Indian Hills Drive Omaha, NE 68114-4049 Phone: 402.399.1041 Fax: 402.399.1111

----Original Message----

From: John.Bender@NDEQ.State.NE.US [mailto:John.Bender@NDEQ.State.NE.US]

Sent: Thursday, July 03, 2008 2:46 PM

To: Pillard, Matt

Subject: Re: Loup Power District Hydro Project - June 25 Agency Meeting Notes

#### Matt,

Here is the information I promised. The file with fish kill info is just a summary of those involving the Power Canal, the Loup River below the diversion, Tail Race, and Lakes Babcock and North. Not included is info on kills in the Platte River around Columbus because all of them were above the Tail Race confluence. There are individual reporting sheets on each kill if you need them.

I have also included the Integrated Reports from 2004, 2006 and 2008. They are prepared every other year to satisfy both our 305b and 303d obligations. The 303d (list of impaired waters ) is included within this

report. Listings of Part 4 or 5 are waters with problems. Note that the most recent approved Report as far as EPA is concerned is our 2004 submittal. They have yet to take action on the 2006 and 2008 submittals.

However for our purposes, we view the 2008 Report as the one that guides our actions. Look for the following entries:

LO1-L0060, LO1-L0070, LO1-L0080, LO1-L0090, LO1-L0100; these are the Headgate ponds 1 thru 5 (they may have been combined so that there are only two in existence, but this is how they are listed).

LO1-10000, LO1-20000; Loup River segments below the diversion LO1-20200; this is the Power canal within the Loup Basin LP1-L0440, LP1-L0450; Lakes North and Babcock LP1-21800; Power canal within the Lower Platte Basin (include a portion of the tail race) MP1-10200; Power canal within the Middle Platte Basin (lower end of tail

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race)
```

(See attached file: LoupFishKills.xls)(See attached file: 2008 final IR.pdf)(See attached

file: Draft 2006 Integrated Report.pdf)(See attached

file: 2004 Integrated Report-final.pdf)

John F. Bender Water Quality Standards Coordinator Nebraska Department of Environmental Quality 402/471-4201

"Pillard, Matt"
<Matt.Pillard@hdr
inc.com>

07/02/2008 04:00 PM "Anna Baum"

<abaum@upperloupnrd.org>, "Barb Friskopp"

<barbara.j.friskopp@usace.army.mil>

, "Bobbie Kriz-Wickham"

<bobbie.wickham@nebraska.gov>,

"Butch Koehlmoos"

<butchk@nctc.net>, "David Jundt"

<david.jundt@dhhs.ne.gov>, "Frank
Albreicht"

<frank.albreicht@ngpc.ne.gov>,

"Henry Santin"

<santin@hamiliton.net>, "Jason

Alexander" <jalexand@usgs.gov>,

"Jean Angell" <jangell@dnr.ne.gov>,

"Joe Cothern"

<cothern.joe@epa.gov>, "John
Parter"

Bender"

<john.bender@ndeq.state.ne.us>,

"Justin Lavene"

<justin.lavene@nebraska.gov>,

"Lacie Andreason"

<cgenoa@cablene.com>, "Mark

Czaplewski" <mark@cpnrd.org>,

"Randy Thoreson"

<randy\_thoreson@nps.gov>, "Richard

Hadenfeldt"

<jhdnfldt@inebraska.com>, "Robert

Harms" <robert\_harms@fws.gov>,

"Robert Puschendorf"

<bpuschendorf@nebraskahistory.org>

СC

Subject

Loup Power District Hydro Project - June 25 Agency Meeting Notes

#### Good afternoon!

As the point of contact for your respective agency for the Loup Power District Hydro Project, please find attached a draft copy of the meeting notes and associated attachments. Please distribute as needed to your fellow agency representatives.

If you have questions or comments on the meeting notes and/or attachments to the notes, please consolidate your agency's comments and send them to my attention on or before 12:00 p.m. on Friday July 11, 2008. You can make your comments in track changes directly to the Microsoft Word document if you choose. A final version of the meeting notes will be placed on the Project web site (http://www.loup.com/relicense/) by Monday July 14, 2008.

Also, for your information, I have attached two examples of final study requests from other relicensing projects.

Thank you.

Matt Pillard, AICP Environmental Planner

HDR | ONE COMPANY | Many Solutions Sol

8404 Indian Hills Drive | Omaha, NE | 68114-4098

Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111

Email: Matt.Pillard@hdrinc.com

[attachment "nAgency.080625.Issues.doc" deleted by John Bender/NDEQ] [attachment "nAgency.080625\_Attachments.pdf" deleted by John Bender/NDEQ] [attachment "Mystic.StudyRequest14.Recreation\_Counts.pdf" deleted by John Bender/NDEQ] [attachment "Mystic.StudyRequest7\_Temperature\_Monitoring.pdf" deleted by John Bender/NDEQ] (Embedded image moved to file: pic15144.jpg)

## Selzle, Lydia

From: Neal Suess [nsuess@loup.com]
Sent: Thursday, March 26, 2009 1:26 PM
To: brian.dunnigan@nebraska.gov

Subject: Potential Meeting between Loup Power District Staff and DNR Staff

#### Brian:

It has been several weeks since we had our meeting and I wanted to go ahead try to set up a meeting between our respective staffs (including you and I) to discuss various issues that we talked about in late February. As I have said previously, it is my belief that the DNR and the District have many common goals and a meeting of our staff's could go along way to understanding our issues that we have. These issues would include:

- water rights on the Loup River
- 2. DNR concerns with the District's relicensing effort
- 3. other issues that have developed over the past several years

We have looked at our calendars here at the District and we offer up the following dates for a potential meeting between us.

April 6, Monday April 24, Friday April 27, Monday

We would be willing to meet either here at our offices in Columbus or in Lincoln at your offices, whichever is most convenient for you. If none of these dates work, we would be happy to look and see if we can find a convenient date that works for us in May.

Thanks for your time in meeting with me the other day and I look forward to hearing from you on when we might be able to get together and discuss these issues.

## Neal Suess, P.E.

Loup Power District P.O. Box 988 (2404 15th Street) Columbus, NE 68602-0988

Fax: 402-564-0970 Cell: 402-910-8979 E-Mail: nsuess@loup.com

Phone: 402-564-3171



**GENERAL OFFICE**2404 15th Street
P.O. Box 988
Columbus, NE 68602-0988

Phone: 402/564-3171 Fax: 402/564-0970

March 26, 2009

Ansley Griffin, Chairman Omaha Tribal Council Omaha Tribe of Nebraska P.O. Box 368 Macy, NE 68039

Reference: Loup River Hydroelectric Project

Platte and Nance counties, Nebraska

FERC Project No. 1256 Docket No. P-1256-029

Dear Mr. Griffin:

On October 23, 2008, the Federal Energy Regulatory Commission (FERC) notified you about the Loup River Hydroelectric Project and invited you to participate in the relicensing process. The Loup River Public Power District (District) has been tasked by FERC to develop various documents and studies that will assist their consideration of the relicensing application. The District is also tasked to help coordinate consultation with interested parties and ensure appropriate communication with tribal staff; particularly with regard to the requirements of the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (Section 106). With this letter, I wish to extend to you the District's invitation to participate in development and implementation of the studies to evaluate Project effects. The District submitted its Proposed Study Plan to FERC on March 27, 2009. This plan includes details on all of the studies the District plans to conduct, including studies related natural and water resources, recreation and other land uses and cultural resources (including places of traditional cultural value, archaeological sites, and the historic built environment).

Please notify me of your interest in participating in the studies. If you have comments about the project, please notify me at your earliest convenience so that we may arrange for the kinds of communication and review procedures needed to fully accommodate your participation. With your statement of participation, we can inform you of new developments and study products produced for the relicensing review, and we can provide opportunities to you to participate in meetings and the development of information leading to FERC's decisions.



Phone: 402/564-3171 Fax: 402/564-0970

If you have any questions about the project or the FERC-led review process, please do not hesitate to contact me at (402) 564-3171 ext. 268 or nsuess@loup.com. We look forward to working with you throughout the relicensing effort and beyond.

Sincerely,

Neal Suess President/CEO

Loup Power District

CC: Kim Nguyen, FERC



Phone: 402/564-3171 Fax: 402/564-0970

March 26, 2009

George Howell, President Pawnee Tribal Business Council P.O. Box 470 Pawnee, OK 74058

Reference: Loup River Hydroelectric Project

Platte and Nance counties, Nebraska

FERC Project No. 1256 Docket No. P-1256-029

Dear Mr. Howell:

On October 23, 2008, the Federal Energy Regulatory Commission (FERC) notified you about the Loup River Hydroelectric Project and invited you to participate in the relicensing process. The Loup River Public Power District (District) has been tasked by FERC to develop various documents and studies that will assist their consideration of the relicensing application. The District is also tasked to help coordinate consultation with interested parties and ensure appropriate communication with tribal staff; particularly with regard to the requirements of the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (Section 106). With this letter, I wish to extend to you the District's invitation to participate in development and implementation of the studies to evaluate Project effects. The District submitted its Proposed Study Plan to FERC on March 27, 2009. This plan includes details on all of the studies the District plans to conduct, including studies related natural and water resources, recreation and other land uses and cultural resources (including places of traditional cultural value, archaeological sites, and the historic built environment).

Please notify me of your interest in participating in the studies. If you have comments about the project, please notify me at your earliest convenience so that we may arrange for the kinds of communication and review procedures needed to fully accommodate your participation. With your statement of participation, we can inform you of new developments and study products produced for the relicensing review, and we can provide opportunities to you to participate in meetings and the development of information leading to FERC's decisions.



Phone: 402/564-3171 Fax: 402/564-0970

If you have any questions about the project or the FERC-led review process, please do not hesitate to contact me at (402) 564-3171 ext. 268 or nsuess@loup.com. We look forward to working with you throughout the relicensing effort and beyond.

Sincerely,

Neal Suess President/CEO

Loup Power District

CC: Kim Nguyen, FERC



**GENERAL OFFICE**2404 15th Street
P.O. Box 988
Columbus, NE 68602-0988

Phone: 402/564-3171 Fax: 402/564-0970

March 26, 2009

Larry Wright, Jr., Chairperson Ponca Tribe of Nebraska P.O. Box 288 Niobrara, NE 68760

Reference: Loup River Hydroelectric Project

Platte and Nance counties, Nebraska

FERC Project No. 1256 Docket No. P-1256-029

Dear Mr. Wright:

On October 23, 2008, the Federal Energy Regulatory Commission (FERC) notified you about the Loup River Hydroelectric Project and invited you to participate in the relicensing process. The Loup River Public Power District (District) has been tasked by FERC to develop various documents and studies that will assist their consideration of the relicensing application. The District is also tasked to help coordinate consultation with interested parties and ensure appropriate communication with tribal staff; particularly with regard to the requirements of the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (Section 106). We understand that you previously declined in writing on 10/29/08 to participate in the project. However, with this letter, I wish to extend to you the District's invitation to participate in development and implementation of the studies to evaluate Project effects. The District submitted its Proposed Study Plan to FERC on March 27, 2009. This plan includes details on all of the studies the District plans to conduct, including studies related natural and water resources, recreation and other land uses and cultural resources (including places of traditional cultural value, archaeological sites, and the historic built environment).

Please notify me of your interest in participating in the studies. If you have comments about the project, please notify me at your earliest convenience so that we may arrange for the kinds of communication and review procedures needed to fully accommodate your participation. With your statement of participation, we can inform you of new developments and study products produced for the relicensing review, and we can provide opportunities to you to participate in meetings and the development of information leading to FERC's decisions.



Phone: 402/564-3171 Fax: 402/564-0970

If you have any questions about the project or the FERC-led review process, please do not hesitate to contact me at (402) 564-3171 ext. 268 or nsuess@loup.com. We look forward to working with you throughout the relicensing effort and beyond.

Sincerely,

Neal Suess President/CEO

Loup Power District

CC: Kim Nguyen, FERC



**GENERAL OFFICE**2404 15th Street
P.O. Box 988
Columbus, NE 68602-0988

Phone: 402/564-3171 Fax: 402/564-0970

March 26, 2009

Trey Howe, Chairman Ponca Tribe of Oklahoma P.O. Box 2, White Eagle Drive Ponca City, OK 74601

Reference: Loup River Hydroelectric Project

Platte and Nance counties, Nebraska

FERC Project No. 1256 Docket No. P-1256-029

Dear Mr. Howe:

On October 23, 2008, the Federal Energy Regulatory Commission (FERC) notified you about the Loup River Hydroelectric Project and invited you to participate in the relicensing process. The Loup River Public Power District (District) has been tasked by FERC to develop various documents and studies that will assist their consideration of the relicensing application. The District is also tasked to help coordinate consultation with interested parties and ensure appropriate communication with tribal staff; particularly with regard to the requirements of the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (Section 106). With this letter, I wish to extend to you the District's invitation to participate in development and implementation of the studies to evaluate Project effects. The District submitted its Proposed Study Plan to FERC on March 27, 2009. This plan includes details on all of the studies the District plans to conduct, including studies related natural and water resources, recreation and other land uses and cultural resources (including places of traditional cultural value, archaeological sites, and the historic built environment).

Please notify me of your interest in participating in the studies. If you have comments about the project, please notify me at your earliest convenience so that we may arrange for the kinds of communication and review procedures needed to fully accommodate your participation. With your statement of participation, we can inform you of new developments and study products produced for the relicensing review, and we can provide opportunities to you to participate in meetings and the development of information leading to FERC's decisions.



Phone: 402/564-3171 Fax: 402/564-0970

If you have any questions about the project or the FERC-led review process, please do not hesitate to contact me at (402) 564-3171 ext. 268 or nsuess@loup.com. We look forward to working with you throughout the relicensing effort and beyond.

Sincerely,

Neal Suess President/CEO

Loup Power District

CC: Kim Nguyen, FERC



**GENERAL OFFICE**2404 15th Street
P.O. Box 988
Columbus, NE 68602-0988

Phone: 402/564-3171 Fax: 402/564-0970

March 26, 2009

Roger Trudell, Chairman Santee Sioux Tribal Council Route 2 Niobrara, NE 68760

Reference: Loup River Hydroelectric Project

Platte and Nance counties, Nebraska

FERC Project No. 1256 Docket No. P-1256-029

Dear Mr. Trudell:

On October 23, 2008, the Federal Energy Regulatory Commission (FERC) notified you about the Loup River Hydroelectric Project and invited you to participate in the relicensing process. The Loup River Public Power District (District) has been tasked by FERC to develop various documents and studies that will assist their consideration of the relicensing application. The District is also tasked to help coordinate consultation with interested parties and ensure appropriate communication with tribal staff; particularly with regard to the requirements of the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (Section 106). With this letter, I wish to extend to you the District's invitation to participate in development and implementation of the studies to evaluate Project effects. The District submitted its Proposed Study Plan to FERC on March 27, 2009. This plan includes details on all of the studies the District plans to conduct, including studies related natural and water resources, recreation and other land uses and cultural resources (including places of traditional cultural value, archaeological sites, and the historic built environment).

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Phone: 402/564-3171 Fax: 402/564-0970

If you have any questions about the project or the FERC-led review process, please do not hesitate to contact me at (402) 564-3171 ext. 268 or nsuess@loup.com. We look forward to working with you throughout the relicensing effort and beyond.

Sincerely,

Neal Suess President/CEO

Loup Power District

CC: Kim Nguyen, FERC



**GENERAL OFFICE**2404 15th Street
P.O. Box 988
Columbus, NE 68602-0988

Phone: 402/564-3171 Fax: 402/564-0970

March 26, 2009

John Blackhawk, Chairman Winnebago Tribal Council P.O. Box 687 Winnebago, NE 68071

Reference: Loup River Hydroelectric Project

Platte and Nance counties, Nebraska

FERC Project No. 1256 Docket No. P-1256-029

Dear Mr. Blackhawk:

On October 23, 2008, the Federal Energy Regulatory Commission (FERC) notified you about the Loup River Hydroelectric Project and invited you to participate in the relicensing process. The Loup River Public Power District (District) has been tasked by FERC to develop various documents and studies that will assist their consideration of the relicensing application. The District is also tasked to help coordinate consultation with interested parties and ensure appropriate communication with tribal staff; particularly with regard to the requirements of the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (Section 106). We understand that you previously declined in writing on 12/09/08 to participate in the project. However, with this letter, I wish to extend to you the District's invitation to participate in development and implementation of the studies to evaluate Project effects. The District submitted its Proposed Study Plan to FERC on March 27, 2009. This plan includes details on all of the studies the District plans to conduct, including studies related natural and water resources, recreation and other land uses and cultural resources (including places of traditional cultural value, archaeological sites, and the historic built environment).

Please notify me of your interest in participating in the studies. If you have comments about the project, please notify me at your earliest convenience so that we may arrange for the kinds of communication and review procedures needed to fully accommodate your participation. With your statement of participation, we can inform you of new developments and study products produced for the relicensing review, and we can provide opportunities to you to participate in meetings and the development of information leading to FERC's decisions.



Phone: 402/564-3171 Fax: 402/564-0970

If you have any questions about the project or the FERC-led review process, please do not hesitate to contact me at (402) 564-3171 ext. 268 or nsuess@loup.com. We look forward to working with you throughout the relicensing effort and beyond.

Sincerely,

Neal Suess President/CEO

Loup Power District

CC: Kim Nguyen, FERC

## Selzle, Lydia

From: Pavelka, Gregory A NWO [Gregory.A.Pavelka@usace.army.mil]

**Sent:** Monday, March 30, 2009 12:37 PM

To: Marinovich, Melissa Cc: Crane, Kelly A NWO

Subject: RE: Tern and Plover data and habitat

Attachments: FRLCGP.XLW.xls

#### Dear Melissa,

Billings was cold and snowy, but on the drive home through southeast Montana we were rewarded with views of lots of pronghorns and mule deer feeding down in the valleys. Attached is an Excel spreadsheet with tern and plover data for the Fort Randall, Lewis & Clark Lake and Gavins Point Sergments for 1986-2008. The spreadsheets are divided by segment and species. Kelly Crane, the Omaha District Emergent Sandbar Habitat Coordinator, will be able to provide you with data and designs for our ESH work. I have CCed her on this e-mail. Kelly's phone number is 402-995-2505. If you have any questions, please e-mail me or call me at 402-667-2581.

#### Greg

From: Marinovich, Melissa [mailto:Melissa.Marinovich@hdrinc.com]

**Sent:** Monday, March 23, 2009 7:06 AM

To: Pavelka, Gregory A NWO

Subject: RE: Tern and Plover data and habitat

No problem. Enjoy your time in Montana. It's my favorite state!

#### Melissa

From: Pavelka, Gregory A NWO [mailto:Gregory.A.Pavelka@usace.army.mil]

Sent: Sunday, March 22, 2009 1:44 PM

**To:** Marinovich, Melissa

Subject: RE: Tern and Plover data and habitat

#### Hi Melissa,

I will be out of town all next week attending a conference in Billings. I will get the data to you on Monday, March 30. Thanks for your patience.

#### Greg

**From:** Marinovich, Melissa [mailto:Melissa.Marinovich@hdrinc.com]

**Sent:** Friday, March 20, 2009 9:07 AM

To: Pavelka, Gregory A NWO

**Subject:** Tern and Plover data and habitat

Hi Greg,

I received your name from the NE Game and Parks Commission with regards to tern and plover data on the Missouri River. I also introduced myself to you at the Tern and Plover Meeting in February. I am currently involved in two projects

with potential tern and plover issues. The Nebraska Highway N-12 USACE EIS (Niobrara east and west) and the Loup Hydroelectric FERC Relicensing Project. A portion of my involvement in both of these projects is to develop biological assessments for the projects. I am also helping to develop study plans on the Loup project. We are currently in the process of collecting tern and plover census/bird/nest count data for the last 22 years on all of the Nebraska rivers and was told you were the keeper of all data from the Missouri River. Could you please share the nest/bird count data for terns and plovers that has been collected on the Missouri River between Fort Randall to below Gavins Point from 1987-2008?

We are also attempting to collect as much information as possible on available/suitable tern and plover habitat. I know the USACE has been working to mechanically create/restore habitat in the Missouri River. Are there any papers or is there any information that you could provide regarding habitat measurements, requirements and amount of habitat available in the afore mentioned reaches of the Missouri River?

We hope to develop meaningful studies based on the most recent and best available information. Your assistance in these endeavors is much appreciated. I understand the sensitive nature of the information and would like to assure you that this information will be used for analytical purposes only and location specific data will not be published without the permission of the USACE.

Thank you for taking some time to talk with me at the meeting in February and I look forward to speaking with you again.

#### **Melissa Marinovich**

**Environmental Scientist** 

## HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1317 | Fax: 402.399.1111

Email: melissa.marinovich@hdrinc.com

## Selzle, Lydia

From: Pillard, Matt

**Sent:** Monday, March 30, 2009 4:39 PM

To: frank.albrecht@nebraska.gov; jalexand@usgs.gov; calms@neb.rr.com;

cgenoa@cablene.com; jangell@dnr.ne.gov; abaum@upperloupnrd.org;

john.bender@nebraska.gov; al.berndt@nebraska.gov; rbishop@cpnrd.org; mbrown9 @unl.edu; prescott.brownell@noaa.gov; steve.chick@ne.usda.gov; cothern.joe@epa.gov;

adubas@leg.ne.gov; mferguson@gp.usbr.gov; barbara.j.friskopp@usace.army.mil;

peggy.harding@ferc.gov; robert\_harms@fws.gov; djjarecke@clarkswb.net; lpsnrd@lpsnrd.org; CoraJones@bia.gov; david.jundt@dhhs.ne.gov; kennyj@headwaterscorp.com; butchk@nctc.net; cityadmin@cablene.com; monroe@megavision.com; bobbie.wickham@nebraska.gov; mkuzila1@unl.edu; clangemeier@leg.ne.gov; justin.lavene@nebraska.gov; bczoning@frontiernet.net;

pcclerk@megavision.com; jmangi@columbusne.us; jmiyoshi@lpnnrd.org; jeddins@achp.gov; danno@nohva.com; tprovost@omahatribeepd.com; bpuschendorf@nebraskahistory.org;

chairmanrhodd@ponca.com; kenneth.sessa@dhs.gov; don\_simpson@blm.gov; msittler@lpsnrd.org; Robert\_F\_Stewart@ios.doi.gov; astuthman@leg.ne.gov; ksullivan@leg.ne.gov; jmsunne@nppd.com; Willie Taylor@ios.doi.gov;

randy\_thoreson@nps.gov; jwinkler@papionrd.org

Cc: Kim.Nguyen@ferc.gov; nsuess@loup.com; rziola@loup.com; jfrear@loup.com; Richardson,

Lisa (Omaha); Waldow, George; Engelbert, Pat; Sigler, Bill; White, Stephanie

Subject: Loup Power District Relicensing - Agency Meeting Reminder

Good afternoon. This e-mail is a reminder of the upcoming Study Plan Meeting. Please note that the start time has been changed to 8:30 AM.

April 21, 2009 8:30 AM – 5:00 PM Holiday Inn Express 524 E 23<sup>rd</sup> St, Columbus

This is the first study plan meeting designed to facilitate agreement between the District and participating agencies on what studies are needed, how studies will be conducted, and how the data from each study will be used (e.g., to evaluate species impacts, etc). This information will be incorporated into the revised study plan to be submitted July 27<sup>th</sup> to FERC.

The Proposed Study Plan was submitted to FERC on March 27, 2009. An electronic copy of the document can be found at the following location: <a href="http://www.loup.com/relicense/html/documents.html">http://www.loup.com/relicense/html/documents.html</a>

In order to streamline and maximize study plan discussions, the 12 study plans will be divided into the following discussion topics:

Discussion Topic	Associated Study Plans	Discussion Forum
Aquatic Resources	<ul> <li>Sedimentation</li> <li>Hydrocycling</li> <li>Water Temperature in the Platte River</li> <li>Water Temperature in the Loup River Bypass Reach</li> <li>Flow Depletion and Flow Diversion</li> <li>Fish Passage</li> <li>Ice Jam Flooding on the Loup</li> </ul>	April 21 Meeting in Columbus.

	River*	
Cultural Resources	Section 106 Compliance	Separate meeting with
		State Historical
		Preservation Office
Recreation, Land Use, and	<ul> <li>Recreation User Survey</li> </ul>	Conference call meeting
Aesthetics	<ul> <li>Creel Survey / Fish Sampling</li> </ul>	with the existing
	<ul> <li>Land Use Inventory</li> </ul>	Recreation Workgroup &
		appropriate local partners
		such as CART and
		NOHVA

<sup>\*</sup>Ice Jam Flooding on the Loup River will be discussed at a separate meeting with DNR.

As the following agenda shows, the first half of the meeting will review the study plan process and highlight all proposed study plans; the afternoon will focus exclusively on Aquatic Resources with the exception of Ice Jam Flooding on the Loup River. Ice will be discussed at a separate meeting with DNR that will be open to broader participation by others interested in this topic. Similarly, Cultural Resources and Recreation, Land Use, and Aesthetics will be discussed in alternate forums as indicated, but will also be open to others interested in this topic.

3/21/09 Meeting Agenda

8:30 AM	Welcome and Introductions	
8:45 AM	Review Study Plan Process & Study Criteria	
9:00 AM	Study Plan Collaboration & Discussion Topic Activities	
9:15 AM	Study Plan Overview	
	Sedimentation	
	Hydrocycling	
	Water Temperature in the Platte River	
	Water Temperature in the Loup River Bypass Reach	
	Flow Depletion and Flow Diversion	
	Fish Sampling	
	Fish Passage	
	Recreation User Survey	
	Creel Survey	
	Land Use Inventory	
	Section 106 Compliance	
	Ice Jam Flooding on the Loup River	
	Studies Not Included	
11:30 AM	Discussion of Study Baseline	
Noon	Lunch	
12:30 PM	Facilitated Aquatic Resources Discussion by Study	
	Flow Depletion and Diversion	
	Sedimentation	
	Hydrocycling	
	Water Temperature in the Platte River	
	Water Temperature in the Loup River Bypass Reach	
	Fish Passage	
4:45	Discussion of Future Meetings & Next Steps	
5:00 PM	Adjourn	

Please bring your own copies of the Proposed Study Plans as working materials.

## RSVP for lunch no later than April 14, 2009 to:

Angell Robak at <a href="mailto:arobak@loup.com">arobak@loup.com</a> (402) 564-3171, ext. 275.

FERC representatives will be in attendance at the meeting. Participants are welcome to participate via conference call. Call-in details follow:

Conference Call 1-866-994-6437 Conference Code: 4023994909

If needed, follow-up meetings will be held in Columbus on May 28 and July 1 from 8:30 AM to 5:00 PM to continue study plan issue resolution.

If you do not wish to receive emails regarding the Loup Power District Relicensing effort, please let me know and you will be removed from future distributions.

Mr. George Howell Pawnee Tribal Business Council

PO Box 470

Pawnee, OK 74058

Dear Mr. Howell:

This letter is a reminder of the upcoming Study Plan Meeting for the Loup Hydroelectric Plant Relicensing Project. Please note that the start time has been changed to 8:30 AM.

April 21, 2009 , 8:30~AM - 5:00~PMHoliday Inn Express,  $524~E~23^{rd}$  St, Columbus

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Jesa M Ruhandr

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If needed, follow-up meetings will be held in Columbus on May 28 and July 1 from 8:30 AM to 5:00 PM to continue study plan issue resolution.

The Integrated Licensing Process (ILP) is a very fast moving process with strict deadlines; to minimize delay in transmitting information to Relicensing Participants the District is requesting e-mail addresses from all participants to expedite the flow of information. Please send an email to **matt.pillard@hdrinc.com** to receive future communication via e-mail. If you do not wish to receive future mailings, please respond accordingly.

Sincerely,

Lisa Richardson Project Manager



## Nebraska Game and Parks Commission

2200 N. 33<sup>rd</sup> St. / P.O. Box 30370 / Lincoln, NE 68503-0370 Phone: 402-471-0641 / Fax: 402-471-5528 /

http://www.ngpc.state.ne.us

April 7, 2009

Lisa Richardson Project Manager HDR Engineering, Inc. 8404 Indian Hills Drive Omaha, Ne 68114-4098

Dear Ms. Richardson,

This letter is in response to your letter to Frank Albrecht at the Nebraska Game and Parks Commission (NGPC) on March 2, requesting species occurrence data in the area of the Loup River hydroelectric facilities. You requested information on occurrences of Small White Lady's Slipper, Whooping Crane, Interior Least Tern, Piping Plover, Bald Eagle, River Otter, Pallid Sturgeon, and Western Prairie Fringed Orchid. This letter was forwarded to the Nebraska Natural Heritage Program here at NGPC.

The Nebraska Natural Heritage Program tracks occurrences of "at-risk" species within the state. "Atrisk" species are defined as those that are rare or declining in Nebraska, unique to Nebraska, or declining globally. State and federally listed threatened and endangered species are among those tracked by the Natural Heritage Program. The Program also tracks occurrences of the various types of natural plant communities in the state, both rare and common. Conservation of these communities serves as a "coarse filter" to help conserve the majority of species and preclude their decline to "atrisk" status. All "at-risk" species and natural communities are considered a valuable state resource worthy of ensuring their continued existence in Nebraska. Below is a summary of the information we have provided in response to your request.

I am sending you as an e-mail attachment a table ('LPD Species Occurrence Request.xls') with information on the species' occurrences within 2 miles of the hydroelectric facilities. For descriptions of the fields in the table see the attached 'Field Definitions.xls.' Occurrence data were tabulated by polygons (or 'blocks') representing five-mile portions of the buffered route (using a 2-mile buffer from the perimeter of the shapefile your company sent). Each polygon was then given a unique identifier or 'block number.' There are 11 blocks. The attached shapefile ('LPD\_boundary\_buffer') shows the

block locations.

Each species occurrence was assigned the number of the block it fell in. A species occurrence which fell across block boundaries is listed for each of the blocks it overlapped with. If a species or community is listed more than once for a block it indicates that we have documented more than one occurrence of that species or community within that block.

You will notice that we do not have any occurrences recorded for Bald Eagle, Pallid Sturgeon, or Western Prairie Fringed Orchid in the area of interest. Be aware that we have not surveyed the entire study area so there are likely to be more occurrences of listed species, including these three, in locations in the area which have suitable habitat. Thus the data should be interpreted with caution and an "absence of evidence is not evidence of absence" philosophy followed.

An additional resource that may be useful to you is a set of range maps we have developed for Nebraska's listed species. A document which includes these range maps is freely downloadable from the University of Nebraska-Lincoln Digital Commons. Also in the document is a table of species by county and the metadata for the shapefile used to create the range maps. To get the document, go to <a href="http://digitalcommons.unl.edu/nebgamewhitepap/30">http://digitalcommons.unl.edu/nebgamewhitepap/30</a> and click on 'Download.' It takes a few moments to download so be patient. I am attaching to this e-mail the shapefile used to create the maps.

Please note that this correspondence does not satisfy requirements of the Nongame and Endangered Species Conservation Act. Under the authority Neb.Rev.Stat. §37-807 (3) of the Nebraska Nongame and Endangered Species Conservation Act, all Nebraska state agencies are required to consult with the Nebraska Game and Parks Commission to ensure that any actions authorized, funded or carried out by them do not jeopardize the continued existence of a state listed species. This requirement would extend to any state permit issued. Please contact Rick Schneider (Rick.Schneider@nebraska.gov, 402-471-5569) for assistance with determining the potential of an action to affect listed species.

Thank you for your inquiry. Please let me know if you have questions concerning the data or the attached invoice.

Sincerely,

Rachel Simpson Data Manager Nebraska Natural Heritage Program Rachel.Simpson@nebraska.gov 402-471-5427

From: Simpson, rachel [rachel.simpson@nebraska.gov]

**Sent:** Tuesday, April 07, 2009 9:37 AM

To: Marinovich, Melissa

**Subject:** Loup River hydroelectric facilities - your request for information from Nebraska Game and

Parks Commission

Attachments: NGPC Loup River data request.zip

Dear Melissa,

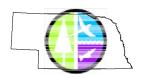
Attached is a zip file with material in response to Lisa Richardson's request for information regarding occurrences of specific listed species in the area of the Loup River hydroelectric facilities. The cover letter 'NGPC Data Request...' explains what material is included.

If you would send me a quick e-mail to confirm you have received the file I would appreciate it.

Thank you.

Best, Rachel

Rachel Simpson
Data Manager
Nebraska Natural Heritage Program
Nebraska Game and Parks Commission
2200 N. 33rd St.
Lincoln, NE 68503
rachel.simpson@nebraska.gov
402-471-5427



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Rachel Simpson Data Manager Nebraska Natural Heritage Program Rachel.Simpson@nebraska.gov 402-471-5427

#### HERITAGE DATA FIELD DEFINITIONS

Note in Heritage terminology: an "element" refers to an element of conservation interest. It can be a subspecies, species, ecological community or ecological system.

Element ty: Element type. Broad taxonomic group (e.g. bird, fish, plant, insect, etc.)

Eo id, Eoid: Element occurrence identification. Unique number identifying each

element occurrence record. Can be used when requesting additional

information about a particular record.

Eorank cd: Element occurrence rank code. A comparative evaluation summarizing

the estimated viability of the occurrence.

A =excellent B =good C =marginal D =poor E =extant H =

historical X = extirpated blank = unknown.

Fed stat: Federal status. Status under the federal Endangered Species Act.

Gname: Global name. Scientific name of species element or the ecological

community name derived from the National Vegetation Classification.

Gcomname: Global common name of an element.

G\_rank: Global rank of an element (species or community). Refer to separate

handout defining Heritage ranks.

Lgcy stat: Legacy status. At-risk status of a species as designated in the Nebraska

Natural Legacy Plan. Tier I species are those that are globally or

nationally most at-risk of extinction and which occur in Nebraska. Tier II species are typically those that are not at-risk from a global or national

perspective but are rare or imperiled within Nebraska.

Obs date: Date the element was last observed at the site.

Rank description. Brief description of the assigned element occurrence

rank (Eorank).

Scomname: State common name of an element.

Sname: State scientific name of species element or state name of ecological

community element.

S rank: State rank of element. Refer to separate handout defining Heritage ranks.

State\_stat:

State status. Status under the Nebraska Nongame and Endangered Species Conservation Act.





#### **Heritage Element Occurrence Ranks**

In the Heritage terminology, an Element is an element of biodiversity. It can be a species, subspecies or ecological community.

An Element Occurrence (EO) is an area of land and/or water in which a species or ecological community is, or was, present. An EO should have practical conservation value for the Element as evidenced by potential continued (or historical) presence and/or regular recurrence at a given location. For species, an EO is generally a local population, but in some cases may be a portion of a population. For vertebrates, EO's typically consist of nesting, roosting, denning, or other sites important to the life history of the species. For plants and invertebrates, an EO is typically a site where a population occurs. For communities, an EO may represent a stand or patch, or a cluster of stands or patches, of an ecological community.

EO ranks provide a succinct assessment of estimated viability, or probability of persistence of occurrences of a given element. In other words, EO ranks provide an assessment of the likelihood that, if current conditions prevail, an occurrence will persist for a defined period of time, typically 20-100 years. EO ranks are considered in assigning global and state element ranks and are a critical tool for conservation planning.

An EO rank represents the relative value of an EO with respect to others for that element, defined according to criteria derived from specific EO rank factors. There are three rank factors, each reflecting what is currently known about an EO: size of the population or ecological community, condition of the population or community, and the landscape context within which the population or community is set. EO ranks are assigned on the basis of data obtained from recent field surveys (except for historical occurrences) by knowledgeable individuals.

#### EO Rank

A = Excellent estimated viability

B = Good estimated viability

C = Fair estimated viability

D = Poor estimated viability

E = Verified extant (viability not assessed)

F = Failed to find

H = Historical

X = Extirpated

From: Bender, John [john.bender@nebraska.gov]

**Sent:** Friday, April 10, 2009 8:45 AM

**To:** Damgaard, Quinn V.

Cc: Bubb, Dave

**Subject:** FW: Loup Power canal fish kill a few years ago.

Attachments: Loup Canal fish kill notification and report August 2005.doc; supplement to the loup canal fish

kill 8-12-05.wpd; Loup Power Canal.doc

#### Quinn,

I am forwarding you the information Dave Bubb put together regarding fish kills in the vicinity of the Loup Power project. There are three attachments. One of the files is a WordPerfect document, but Word will open it. If you have questions, let me or Dave know.

Please note my email address has changed to john.bender@nebraska.gov

John F. Bender

Water Quality Standards Coordinator Nebraska Department of Environmental Quality 1200 N Street, P.O. Box 98922

Lincoln, NE 68509-8922 Phone: 402/471-4201

From: Bubb, Dave

**Sent:** Thursday, April 09, 2009 3:01 PM

**To:** Bender, John

**Subject:** FW: Loup Power canal fish kill a few years ago.

John, these are the two that I know of. There's only one fish kill, the other is a complaint.

Thanks, Dave.

From: Schuckman, Jeff

**Sent:** Monday, April 06, 2009 11:57 AM

**To:** Bubb, Dave

**Subject:** RE: Loup Power canal fish kill a few years ago.

Dave,

I remember it well and it came up recently at some meetings for FERC relicensing for the canal system. I sent this information to the consultants and LPPD this winter. Here it is for you.

Jeff Schuckman Northeast Region Fish Mgt Supv Norfolk, NE 68701 402-370-3374

Please note new email address! jeff.schuckman@nebraska.gov

From: Bubb, Dave

Sent: Thursday, April 02, 2009 2:06 PM

**To:** Schuckman, Jeff

**Subject:** Loup Power canal fish kill a few years ago.

Jeff, do you recall a fish kill in the Loup Power canal several years ago? They'd shut the water off in the canal because of work at Monroe, and it had become stagnant. Seems like it may have been in '05 or around there. If you have a copy of that report would you please send it to me. We had a request for information and can't seem to find mine anywhere.

Hope things are going well.

Have a good afternoon.

Dave Bubb

# STATE OF NEBRASKA DEPARTMENT OF ENVIRONMENTAL QUALITY/GAME & PARKS COMMISSION FISH KILL NOTIFICATION FORM

		OIV PORM	(Revised Nov. 2002)			
Incident #:	Date Reported: Aug	gust 12, 2005	Time: 0815			
(County (FIPS Code)/ MM/DD/YY)	Received By: Dave		Agency: NGPC			
	· · · · · · · · · · · · · · · · · · ·					
REPORTING PARTY		II DI 4	02 246 2010			
Name: Bill Rombach		Home Phone: 4 Work Phone:	02-246-2010			
Address: Platte Center, NE		work Phone:				
OBSERVATIONS: (Species, Numbers,	Sizes, Present Status, Age of k	Kill, Stressed Fish, Gaspin	g, Water Quality, etc.)			
(Date/Time: 8-12-05/0930) Dave T	unink received the ca	all of a fish kill, Jo	eff Schuckman and			
Dave Bubb investigated. Upon arriv	ring at the Loup Cana	al at the 48 <sup>th</sup> stree	t bridge, hundreds of			
stressed and dying/dead fish were ob	served. Stressed fish	were at the surfa	ce gasping for air.			
Water quality sampling followed and						
Bubb took the water samples to the l						
the canal were extremely low, down	to 0.25 ppm. A mor	e details report or	the fish kill			
investigation is attached.						
NAME OF WATER BODY: Loup	Canal	TOV	VN: Columbus			
LOCATION/DIRECTIONS: Loup						
of canal were affected in Platte Cour		i Columbus to GC	moa. About 17 miles			
of canal were affected in Flatte Cour	ity.					
LEGAL: <sup>1</sup> / <sub>4</sub> of <sup>1</sup> / <sub>4</sub> of Section	; T. N; R.	E/W; County				
BASIN:	STEAM SEGMEN	NT (WQ Standard	ls.):			
NOTIFICATIONS (Nama/Data)						
NOTIFICATIONS (Name/Date)  NDEQ: Lincoln (471-4239)	G & P.	Lincoln (471-55	53)Tunink/8-12-05			
Field Office:		ffice: Schuckman				
Other: Dave Bubb/8-12-05		Officer: Oberg/8-1				
0 mar. 2 w 0 2 moo, 0 12 00	Const	2111 <b>4</b> 11 22 <b>4</b> 18 2				
INVESTIGATION						
If not required, explain why not:						
Investigation (Name/Date):						
Schuckman, Bubb/ 8-12-05						
	Results of Investigation:					
See attached report.						
Additional Comments:						
Additional Comments.						

	INFORMATION	ATION	STIG	INVE	POST	1
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#### FISH KILLED

Size Range	Number	\$ Value
	Total #	Total Value \$
	Size Range	

CAUSE OF KILL:	
Low dissolved oxygen.	
RESPONSIBLE PARTY	
Name:	Phone:
Address:	

#### **LEGAL ACTION**

Notice of Violation Issued (Date):	Request for Enforcement (Who/Date):	
Fine (Amount/Date)	Reimbursement (Amount/Date):	
Compliance Order Issued (Describe):		
Other (Describe):		

Additional Comments:			

#### CORRESPONDENCE

Reporting Party Notified:	
Copy of Report to NDEQ:	Copies of Report to G & P:
Other:	

#### **MEMORANDUM**

To: Fish Kill File From: Dave Bubb

Date: February 22, 2005

Subject: Loup Public Power Canal

On February 17, 2005 I received a phone call from Greg Michl regarding a potential fish kill in the Loup Public Power Canal below the power generation station at Columbus. I had taken the afternoon off but had left word with Greg to contact me at home if there was a need. During our conversation he indicated that Marty Link had been contacted by Malcolm Sutherland who was reporting the fish kill.

I had spoken with Mr. Sutherland several years ago about the sluicing activities. He explained that the canal gets flushed of the sediment by rapidly dropping the water level and this causes the silt to flush out of the canal and eventually to the Platte River. Lake Babcock is basically drained and has only the canal running through it. He said that he notices dead fish when this activity occurs. I spoke with John Cieloha, Loup Public Power, after the first complaint from Mr. Sutherland several years ago. Mr. Cieloha said he would contact us when they were planning to sluice the canal, he also said that he was not aware of any significant fish kills caused by the sluicing.

Because of the flow in the canal any dead fish would likely be well into the Platte River by morning and would be hard to find so I decided to conduct an investigation that evening.

When I arrived at Columbus at approximately 1930 I made observations of the canal just prior to where it flows into the Platte River and saw no dead fish. After making observation at this area I started to make my way upstream along the canal. I used a spotlight and flashlight to make observations of the canal at various locations. I did not see any dead fish at any location along the canal. It is possible that some were missed because it was dark and the spotlight would not be as effective as during the daylight but I'm confident that if there was a significant fish kill I would have seen some of them.

After spending approximately an hour and a half looking for fish and not seeing any I decided to conclude my investigation and return home.

From: Pillard, Matt

**Sent:** Monday, April 13, 2009 12:49 PM

**To:** abaum@upperloupnrd.org; adubas@leg.ne.gov;

al.berndt@nebraska.gov; astuthman@leg.ne.gov;

barbara.j.friskopp@usace.army.mil; bczoning@frontiernet.net;

bobbie.wickham@nebraska.gov; bpuschendorf@nebraskahistory.org;

butchk@nctc.net; calms@neb.rr.com; cgenoa@cablene.com;

cityadmin@cablene.com; clangemeier@leg.ne.gov;

cothern.joe@epa.gov; danno@nohva.com; david.jundt@dhhs.ne.gov;

djjarecke@clarkswb.net; don\_simpson@blm.gov; frank.albrecht@nebraska.gov; jalexand@usgs.gov;

jangell@dnr.ne.gov; jeddins@achp.gov; jmangi@columbusne.us;

jmiyoshi@lpnnrd.org; jmsunne@nppd.com;

john.bender@nebraska.gov; justin.lavene@nebraska.gov;

jwinkler@papionrd.org; kenneth.sessa@dhs.gov; kennyj@headwaterscorp.com; ksullivan@leg.ne.gov;

lpsnrd@lpsnrd.org; mbrown9@unl.edu; mferguson@gp.usbr.gov; mkuzila1@unl.edu; monroe@megavision.com; msittler@lpsnrd.org;

pcclerk@megavision.com; peggy.harding@ferc.gov; prescott.brownell@noaa.gov; randy\_thoreson@nps.gov; rbishop@cpnrd.org; Robert\_F\_Stewart@ios.doi.gov; robert harms@fws.gov; steve.chick@ne.usda.gov;

Willie Taylor@ios.doi.gov

**Cc:** nsuess@loup.com; jfrear@loup.com; rziola@loup.com;

arobak@loup.com; Richardson, Lisa (Omaha); Waldow, George; Engelbert, Pat; Sigler, Bill; White, Stephanie; King, Wendy; Damgaard,

Quinn V.

**Subject:** Loup Power District Relicensing - Study Plan Meeting Reminder

Follow Up Flag: Follow Up Flag Status: Flagged

Relicensing Participants -

This e-mail is to remind you of the Study Plan meeting scheduled for April 21 at the Holiday Inn Express, 524 E 23rd St, in Columbus, Nebraska. If you have not yet done so, please RSVP to Angell Robak by the end of the day tomorrow (Tuesday, 4/14/09). She can be reached at <a href="mailto:arobak@loup.com">arobak@loup.com</a> or (402) 564-3171, ext. 275.

For those of you not able to attend in person but wishing to do so via conference call, meeting materials will be posted to <a href="http://www.loup.com/relicense/html/agencymeetingsresources.html">http://www.loup.com/relicense/html/agencymeetingsresources.html</a> in advance of the meeting (by end of day 4/17/09). Dial-in information is as follows:

1-866-994-6437

Passcode: 4023994909

Here are a few reminders:

- The meeting time has been moved up to 8:30 AM We have a lot of material to cover and will start promptly at 8:30 AM.
- The overpass on Highway 81 is closed for construction if you are coming from the south or west, you will have to take a detour which includes several at-grade rail crossings. Please allow extra time for travel and train delays. Train traffic tends to be heavy in the mornings between 7:30 and 8:15 AM.
- Please bring your own copy of the Study Plan. It can be found on line at: http://www.loup.com/relicense/html/documentsPSP.html
- We will focus the afternoon's discussion on the goals and objectives of Study Plans 1-7 only.
   Please come ready to discuss.

#### **Future Meetings and Discussions**

Please let me know if you would like to participate in any of the following:

- May 5: Cultural Resources; Study 11
- May 11: Recreational Resources; Studies 8, 9, 10
- May 27-28: Aquatic Resources (continued); Studies 1-7, 12
- July 1: Additional discussion as needed

We look forward to seeing you on April 21st.

#### Matt Pillard, AICP

Senior Environmental Planner

#### HDR ONE COMPANY | Many Solutions

I	8404 Indian Hills Drive   Omaha, NE   68114 Phone: 402.399.1186   Cell: 402.689.5187  Email: <u>Matt.Pillard@hdrinc.com</u>	
	3 September 19 reserves and any services of the services and the contract the services and the services are services and the services and the services and the services are services and the services and the services and the services are services and the services and the services are services are services and the services are services and the services are services and the services are services are services and the services are services	

SHPO Project reference: HP#0804-127-01



Dave Heineman Governor

### STATE OF NEBRASKA

#### DEPARTMENT OF NATURAL RESOURCES

Brian P. Dunnigan, P.E.

Director

April 14, 2009

IN REPLY TO:

Secretary Kimberly D. Bose Federal Energy Regulatory Commission 888 First Street, NE Washington, DC 20426

Subject:

Relicensing of Loup River Hydroelectric Project (P1256-029)

Proposed Study Plan

Dear Secretary Bose:

The Nebraska Department of Natural Resources (the DNR) is participating in the Federal Energy Regulatory Commission (FERC) Integrated Licensing Process for the relicensing of the Loup River Hydroelectric Project (P1256-029). The operator of the project is Loup Power District (LPD). As part of the relicensing process, interested parties submitted issues to LPD and requested that they be studied. In response, LPD proffered a Proposed Study Plan.

The DNR submitted as an issue the possibility that the operation of the Loup River Hydroelectric Project may contribute to ice jam flooding. Loup Power District included "Ice Jam Flooding on the Loup River" within the Proposed Study Plan. A study plan meeting will be held April 21, 2009. Included in the announcement of this meeting was a notation that ice jam flooding on the Loup River would be discussed. It was also noted, however, that ice jam flooding on the Loup River will be discussed at a separate meeting with the DNR. In fact, a separate meeting to discuss relicensing issues, including ice jam flooding, is scheduled for April 27, 2009.

LPD's announcement of the April 21, 2009, study plan meeting advised that FERC representatives will be in attendance. Because FERC will presumably not be in attendance at the April 27 meeting, DNR wishes to notify FERC that the lack of discussion of the proposed study plan of ice jam flooding at the April 21, 2009, meeting does not indicate the DNR's acceptance of the study of ice jam flooding on the Loup River proposed by LPD.

Thank you for making this notification part of the record of the Relicensing of Loup River Hydroelectric Project (P1256-029).

Sincerely,

Jelin S. Ungell Jean E. Angell

Legal Counsel

cc: Brian P. Dunnigan

Neal Suess, President/CEO, Loup Power District

Pat Engelbert, HDR Engineering, Inc

legal/angell

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From: Simpson, rachel [rachel.simpson@nebraska.gov]

**Sent:** Tuesday, April 14, 2009 4:45 PM

To: Marinovich, Melissa Cc: Schneider, Rick

Subject: Re: Species Occurrence Data Request - Loup River Hydroelectric Project

Dear Melissa,

This is in response to your question about the Small White Lady's Slipper in the Loup River Hydroelectric Project area. We do not have any element occurrences from inside the boundary you sent. However, as stated in the letter, the species could occur anywhere in its range in which there is suitable habitat.

If you have additional questions regarding specific location information please contact Rick Schneider at 402-471-5569.

Thank you for your time.

Best, Rachel

Rachel Simpson
Data Manager
Nebraska Natural Heritage Program
Nebraska Game and Parks Commission
2200 N. 33rd St.
Lincoln, NE 68503
rachel.simpson@nebraska.gov
402-471-5427

From: Martha\_Tacha@fws.gov

Sent: Wednesday, April 15, 2009 10:35 AM

To: Marinovich, Melissa

Subject: NE whooping crane migration corridor and observation data

Attachments: StateSpecific\_NE\_Flyway.zip; Confirmed\_NE\_w\_crane\_sightings\_thru\_Spring\_2008.zip;

Required Reading for Users of the Whooping Crane Migration GIS.doc

#### Melissa-

Here are the GIS files you requested- the required files for a layer are zipped together. I apologize for the slow response. These will hopefully be updated within the coming month to reflect a recalculation of the migration corridor and to include the Fall 2008 confirmed sightings. You might contact me again in about a month to get the updates.

The migration corridor layer depicts 5 bands (sub-corridors) that include 75-, 80-, 85-, 90-, and 95-percent of sightings in Nebraska and within 25 miles of the north and south borders in adjoining states. The point data of confirmed sightings is current through Spring 2008.

Please read the "Required reading...." document that discusses some of the limitations and potential misinterpretations of the data. *This document needs to accompany any redistribution of the data set or products derived from the dataset.* 

Thanks for your patience, Melissa. Martha

Martha C. Tacha U.S. Fish and Wildlife Service 203 West Second Street Grand Island, NE 68801 Phone: 308.382.6468, ext 19

Fax: 308.384.8835

(See attached file: StateSpecific\_NE\_Flyway.zip) (See attached file: Confirmed\_NE\_w\_crane\_sightings\_thru\_Spring\_2008.zip) (See attached file: Required Reading for Users of the Whooping Crane Migration GIS.doc)

#### Required Reading for Users of the Whooping Crane Tracking Project Database

CWCTP-GIS data or derivatives thereof (e.g., shape files, jpegs) may not be distributed or posted on the Internet without inclusion of this explanatory document.

The Cooperative Whooping Crane Tracking Project (CWCTP) was initiated in 1975 to collect a variety of information on whooping crane migration through the U.S. portion of the Central Flyway. Since its inception in 1975, a network of Federal and State cooperating agencies has collected information on whooping crane stopovers and funneled it to the U.S. Fish and Wildlife Service (Service) Nebraska Field Office where a database of sighting information is maintained. The WCTP database includes a hardcopy file of whooping crane sighting reports and a digital database in various formats based on those sighting reports. A subset of the database along with sight evaluation (habitat) information collected between 1975 and 1999 was summarized by Austin and Richert (2001).\*

In the Fall of 2007, the CWCTP database was converted to a GIS format (ArcGIS 9.2) to facilitate input, updates, and provide output options in a spatial context. During this process, inconsistencies between the digital database and sighting report forms were identified and corrected. Location information in various formats was derived from data in the corrected database, and new fields were added to the corrected database (e.g., latitude and longitude in decimal degrees, an accuracy field, and location comment field). The attached file contains observation data through the 2008 Spring migration and is referred to as the CWCTP-GIS (2008a).

The appropriate use of the CWCTP-GIS is constrained by limitations inherent in both the GIS technology and bias inherent in any database comprised of incidental observations. Without an understanding of the assumptions and limitations of the data, analyses and output from the spatial database can result in faulty conclusions. The following assumptions and characteristics of the database are crucial to interpreting output correctly. Other, unknown biases also may exist in the data.

- First and foremost, the database is comprised of incidental sightings of whooping cranes during migration. Whooping cranes are largely opportunistic in their use of stopover sites along the Central Flyway, and will use sites with available habitat when weather or diurnal conditions require a break in migration. Because much of the Central Flyway is sparsely populated, only a small percent of stopovers are observed, those observed may not be identified, those identified may not be reported, and those reported may not be confirmed (only confirmed sightings are included in the database). Based on the crane population and average flight distances, as little as 4 percent of crane stopovers are reported. Therefore, absence of documented whooping crane use of a given area in the Central Flyway does NOT mean that whooping cranes do not use that area or that various projects in the vicinity will not potentially adversely affect the species.
- ➤ In the database, the location of each sighting is based on the first observation of the crane group even though, in many cases, the group was observed at multiple locations in a local area. For this and other reasons described below, only broad-scale analyses of whooping crane occurrences are appropriate. GIS **cannot** be legitimately used with this database for measurements of distance of whooping crane groups from various habitat types or

geographic entities (i.e., using various available GIS data layers). In addition, point locations of whooping crane groups known to roost in various wetlands or rivers may not coincide with those wetlands. The user needs to refer to the attribute table or contact the Nebraska Field Office, USFWS, for more specific information on individual observations.

- Precision of the data: When a "Cadastral" location (Township, Range, Section, ¼-Section) was provided on the original sighting form, the geographic point representing that sighting was placed in the center of the indicated Section or ¼-Section and the latitude and longitude of that point were recorded in degrees, minutes, and seconds (DMS). These records are indicated by "Cadastral" in the accuracy field. When Cadastral information was lacking, DMS latitude and longitude were derived by adding seconds (00) to the degrees and minutes of latitude and longitude originally estimated and recorded on the observation form. These observations are identified by "Historic" in the accuracy field. GPS latitude and longitude were used when available, but when none of the above were reported, the point was placed based on text description of location (e.g., 3 miles N of Denton), and identified in the accuracy field with "Landmark". DMS latitude and longitude were converted to decimal degrees, which were used to populate the GIS data layer.
- ➤ Bias: Bias is an inherent characteristic of any data obtained through incidental sightings. That is, for the subset of crane use that is recorded, relatively more sightings are recorded in areas such as national wildlife refuges where knowledgeable observers are available to look for cranes and report their presence. Conversely, areas of high use may not be documented due to the absence of observers. However, use of areas such as national wildlife refuges is also determined to some extent by habitat management on the areas and availability of alternative habitat in the region. For these reasons, representations of the crane migration corridor based on percent of confirmed sightings should be interpreted conservatively, particularly in Oklahoma and Kansas where a high percent of sightings occur on a few national wildlife refuges. Whooping crane migration patterns and subsequent observations were also likely influenced by regional weather patterns such as wind and precipitation, as well as local farming practices which influence food availability. Factors such as these vary among regions and years and were not considered in this database.

The CWCTP-GIS will be updated annually following the Fall migration and distributed to State cooperators and Fish and Wildlife Service Ecological Services Field Offices in the Central Flyway. Contact information for these offices can be found at http://www.fws.gov. Federal regulatory agencies and project proponents should contact the appropriate Fish and Wildlife Service for help in evaluating potential project impacts to the endangered whooping crane.

<sup>\*</sup> Austin, E.A. and A.L. Richert. 2001. A comprehensive review of observational and site evaluation data of migrant whooping cranes in the United States, 1943-99. U.S. Geological Survey. Northern Prairie Wildlife Research Center, Jamestown, North Dakota, and State Museum, University of Nebraska, Lincoln, Nebraska. 157 pp.

From: Crane, Kelly A NWO [Kelly.A.Crane@usace.army.mil]

**Sent:** Monday, April 20, 2009 10:09 AM

To: Marinovich, Melissa Cc: Crane, Kelly A NWO

Subject: RE: Tern and Plover created habitat

Hi Melissa. Sorry for the delay. The ftp site listed below contains designs for emergent sandbars below Gavins Point at river miles 775, 781, and 795.

775 and 795 construction was completed fall of 08 and 781 is ready to go out for bid in the next few weeks.

Please call me with any questions or if you have difficulty getting to any of the files.

ftp://ftp.usace.army.mil/pub/nwo/ESH Plans/

Look forward to hearing from you.

Kelly 995.2505

----Original Message----

From: Marinovich, Melissa [mailto:Melissa.Marinovich@hdrinc.com]

Sent: Monday, April 20, 2009 7:32 AM

To: Crane, Kelly A NWO

Subject: Tern and Plover created habitat

Hi Kelly,

I just wanted to check in with you. I haven't received anything from you yet and just wanted to make sure you had the correct email address (hopefully I have the correct address for you:-)). Let me know if you receive this so I know I have the correct address. Thanks!

Melissa Marinovich

Environmental Scientist

HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098

Phone: 402.399.1317 | Fax: 402.399.1111

Email: melissa.marinovich@hdrinc.com <mailto:melissa.marinovich@hdrinc.com>

From: Crane, Kelly A NWO [Kelly.A.Crane@usace.army.mil]

**Sent:** Monday, April 20, 2009 12:58 PM

To: Marinovich, Melissa Cc: Crane, Kelly A NWO

Subject: RE: Tern and Plover created habitat

Hi Melissa!

My answers in the body of your message.

----Original Message----

From: Marinovich, Melissa <a href="mailto:Melissa.Marinovich@hdrinc.com">[mailto:Melissa.Marinovich@hdrinc.com]</a>

Sent: Monday, April 20, 2009 10:56 AM

To: Crane, Kelly A NWO

Subject: RE: Tern and Plover created habitat

Hi Kelly,

I didn't have any problems accessing the files. Just to clarify, I have a few more questions:

- Did the USFWS determine how many hectares/acres (minimum or maximum) the sandbars needed to be or did USACE determine this? The BiOp stated a minimum of 10 acres. Since then they have agreed that smaller than 10 acres would be acceptable especially if we could maximize plover forage by making several smaller vs. one large one.
- What was the basis for deciding how big (area) the sandbars needed to be to create suitable habitat? We have made our bars as big as 130 acres (in Lewis & Clark Lake) and as small as 10. FWS is on all of our design teams.

They really don't seem concerned with the total size when we build in some inner channel features that will be "wet" at least and preferably hold some water during normal flow scenarios. Main size determination is the size of the existing shallowly submerged bar.

- Were these decisions based on studies that USACE conducted? Did area also depend on minimum/maximum/average flows, like height did? The min, max flows, etc did not influence the size as much as height. The size is usually determined by the size of the existing shallowly submerged bar more than some pre determined criteria.

I know you'd probably rather get theses comments in writing, but I could probably talk to some of these questions better than I am conveying in writing...so give me a call if you need or want.

Thanks for all your help and as more questions crop up in the future, I may call you. Thanks again!

Melissa

----Original Message----

From: Crane, Kelly A NWO [mailto:Kelly.A.Crane@usace.army.mil]

Sent: Monday, April 20, 2009 10:09 AM

To: Marinovich, Melissa Cc: Crane, Kelly A NWO

Subject: RE: Tern and Plover created habitat

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Please call me with any questions or if you have difficulty getting to any of the files.

ftp://ftp.usace.army.mil/pub/nwo/ESH\_Plans/

Look forward to hearing from you.

Kelly 995.2505

----Original Message----

From: Marinovich, Melissa <a href="mailto:Melissa.Marinovich@hdrinc.com">[mailto:Melissa.Marinovich@hdrinc.com]</a>

Sent: Monday, April 20, 2009 7:32 AM

To: Crane, Kelly A NWO

Subject: Tern and Plover created habitat

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Melissa Marinovich

Environmental Scientist

HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098

Phone: 402.399.1317 | Fax: 402.399.1111

Email: melissa.marinovich@hdrinc.com <mailto:melissa.marinovich@hdrinc.com>

From: Engelbert, Pat

**Sent:** Thursday, April 23, 2009 11:23 AM

To: Richardson, Lisa (Omaha)

**Subject:** FW: Requested paper on sandbar studies in lower Platte

Not sure where this belongs on PW. Can you file this, or direct me to where it should be filed?

\_\_\_\_

From: Lewis, Gary

**Sent:** Thursday, April 23, 2009 10:38 AM **To:** Engelbert, Pat; Waldow, George

Cc: Hunt, George

Subject: FW: Requested paper on sandbar studies in lower Platte

FYI, this should probably go in the project correspondence files.

\_\_\_\_

From: Mary B Brown [mailto:mbrown9@unlnotes.unl.edu]

**Sent:** Thursday, April 23, 2009 9:27 AM

To: Lewis, Gary

Subject: Re: Requested paper on sandbar studies in lower Platte

Thanks, Gary. I enjoyed (and certainly benefitted from) our conversation at the Columbus meeting. Conversations like that, and the information in the article, are what we need to help make better decisions for the terns and plovers. If you are aware of any similar publications, please let me know.

Mary Bomberger Brown Tern and Plover Conservation Partnership 153C Hardin Hall University of Nebraska 3310 Holdrege Street Lincoln, NE 68583-0931 USA telephone: (402) 472-8878 fax: (402) 472-2946

email: mbrown9@unl.edu http://ternandplover.unl.edu

"Lewis, Gary" < <a href="mailto:Gary.Lewis@hdrinc.com">Gary.Lewis@hdrinc.com</a>>

04/23/2009 10:21 AM

То

"MBROWN9@UNL.EDU" <MBROWN9@UNL.EDU>

"Engelbert, Pat" < <a href="mailto:Pat.Engelbert@hdrinc.com">Pat.Engelbert@hdrinc.com</a>>

Subject

Requested paper on sandbar studies in lower Platte

Mary,

Thanks for attending the meeting in Columbus and for visiting about the subject. Here is a not-so-great copy of the GSA Bulletin paper by Smith that I mentioned, explaining his observations of the evolution and dissection of sandbars in the lower Platte. I think someone told me he was a Professor at Kearney State when he did this work, but the paper lists his affiliation in 1971 as the University of Illinois. I've never attempted to contact him. I am not aware of any other study where someone actually observed these processes on site versus remotely.

Regards,

**Gary Lewis** 

#### Gary L. Lewis, Ph.D., P.E., D.WRE Senior Water Resources Engineer

**HDR ONE COMPANY | Many Solutions** 

303 East 17th Avenue | Suite 700 | Denver, CO 80203 Phone: 303.764.1562 | Fax: 303.860.7139 | Cell: 303.619.9021

Email: gary.lewis@hdrinc.com

www.hdrinc.com

[attachment "Transverse Bars and Braiding in the Lower Platte River, Nebraska.pdf" deleted by Mary B Brown/SNR/IANR/UNEBR]

From: Pillard, Matt

**Sent:** Monday, April 27, 2009 9:56 PM frank.albrecht@nebraska.gov

**Cc:** jeff.schuckman@nebraska.gov; dave.tunink@nebraska.gov; richard.holland@nebraska.gov;

Marinovich, Melissa; Richardson, Lisa (Omaha)

Subject: Loup Power District Relicensing - data needs meeting

Frank,

As we discussed, HDR would like to meet with you to discuss the following:

- Data (tern and plover, Heritage Program Database, etc) we have obtained and our intended use of that data relative to meeting study objectives
- Discuss other data that may exist, or existing data in other formats, that will help in meeting study objectives (such as the Loup River fisheries 1971 Report?)
- Discuss the data gaps that exist relative to aiding in addressing study objectives
- Discuss the Nebraska Heritage Program Database and the data we may still need from this source to supplement the data we already have

I have copied Jeff, Dave, and Rick on this e-mail for their potential involvement as warranted. I would not anticipated this meeting lasting longer than 2 hours.

We are available to meet any time on May 4, 5, or 6, May 7 (8:30 to 10:30), or May 8. We would plan to come to your offices in Lincoln.

Please let me know if any of these times work for you.

Thanks.

#### Matt Pillard, AICP

Senior Environmental Planner

#### HDR | ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111





From: Jeff Runge@fws.gov

Sent: Tuesday, April 28, 2009 11:14 AM

To: Richardson, Lisa (Omaha)

abaum@upperloupnrd.org; adubas@leg.ne.gov; al.berndt@nebraska.gov; arobak@loup.com; Cc:

astuthman@leg.ne.gov; barbara.j.friskopp@usace.army.mil; bczoning@frontiernet.net; Sigler, Bill; bobbie.wickham@nebraska.gov; bpuschendorf@nebraskahistory.org; butchk@nctc.net;

calms@neb.rr.com; cgenoa@cablene.com; cityadmin@cablene.com; clangemeier@leg.ne.gov; cothern.joe@epa.gov; danno@nohva.com; david.jundt@dhhs.ne.gov; david.turner@ferc.gov; djjarecke@clarkswb.net; don simpson@blm.gov; frank.albrecht@nebraska.gov; Waldow, George; jalexand@usgs.gov; jangell@dnr.ne.gov; jeddins@achp.gov; jjshadl@nppd.com;

imangi@columbusne.us; jmiyoshi@lpnnrd.org; jmsunne@nppd.com;

john.bender@nebraska.gov; julias@poncatribe-ne.org; justin.lavene@nebraska.gov; jwinkler@papionrd.org; kenneth.sessa@dhs.gov; kennyj@headwaterscorp.com; ksullivan@leg.ne.gov; lpsnrd@lpsnrd.org; mark.ivy@ferc.gov; Pillard, Matt; mbrown9

@unl.edu; mferguson@gp.usbr.gov; mkuzila1@unl.edu; mohler@nctc.net; monroe@megavision.com; msittler@lpsnrd.org; nicholas.jayjack@ferc.gov;

nsuess@loup.com; Engelbert, Pat; pcclerk@megavision.com; peggy.harding@ferc.gov;

prescott.brownell@noaa.gov; Damgaard, Quinn V.; randy thoreson@nps.gov; rbishop@cpnrd.org; Robert\_F\_Stewart@ios.doi.gov; robert\_harms@fws.gov; rziola@loup.com; White, Stephanie; steve.chick@ne.usda.gov; King, Wendy;

Willie Taylor@ios.doi.gov; zach nelson@bennelson.senate.gov Re: Loup Power District FERC Relicensing - Study Plan Meetings

Thank you for the information Lisa. At the April 21 meeting, our office had identified discrepancies between the Proposed Study Plan and SD2. Will there be a revision or supplement to the Proposed Study Plan that will include objectives and methods for all key resource needs identified in SD2? Our office would like to address the objectives and methods for these key resource needs at the May 27-28 meeting.

Jeff Runge

Subject:

\*\*\*\*\*\*\*\*\*\*\*

Jeff Runge Fish and Wildlife Biologist U.S. Fish and Wildlife Service 203 W. Second Street Grand Island, NE 68801 (308) 382-6468, Ext. 22 (308) 379-8553 Cell (308) 384-8835 Fax \*\*\*\*\*\*\*\*\*\*\*\*

"Richardson, Lisa (Omaha)" <Lisa.Richardson@hdrinc.com>

04/28/09 10:40 AM

To"abaum@upperloupnrd.org"

<abaum@upperloupnrd.org>, "adubas@leg.ne.gov"

<adubas@leg.ne.gov>, "al.berndt@nebraska.gov"

<al.berndt@nebraska.gov>,

"astuthman@leg.ne.gov" <astuthman@leg.ne.gov>,

"barbara.j.friskopp@usace.army.mil"

<sup>&</sup>quot;Richardson, Lisa (Omaha)" <Lisa.Richardson@hdrinc.com>

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barbara.j.friskopp@usace.army.mil>,
"bczoning@frontiernet.net"
<br/>bczoning@frontiernet.net>,
"bobbie.wickham@nebraska.gov"
<bobbie.wickham@nebraska.gov>,
"bpuschendorf@nebraskahistory.org"
<bpuschendorf@nebraskahistory.org>,
"butchk@nctc.net" <butchk@nctc.net>,
"calms@neb.rr.com" <calms@neb.rr.com>,
"cgenoa@cablene.com" <cgenoa@cablene.com>.
"cityadmin@cablene.com"
<cityadmin@cablene.com>,
"clangemeier@leg.ne.gov"
<clangemeier@leg.ne.gov>, "cothern.joe@epa.gov"
<cothern.joe@epa.gov>, "danno@nohva.com"
<danno@nohva.com>, "david.jundt@dhhs.ne.gov"
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"jangell@dnr.ne.gov" <jangell@dnr.ne.gov>,
"jeddins@achp.gov" < jeddins@achp.gov>,
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<jmiyoshi@lpnnrd.org>, "jmsunne@nppd.com"
<jmsunne@nppd.com>,
"john.bender@nebraska.gov"
<john.bender@nebraska.gov>,
"justin.lavene@nebraska.gov"
<justin.lavene@nebraska.gov>,
"jwinkler@papionrd.org" <jwinkler@papionrd.org>,
"kenneth.sessa@dhs.gov"
<kenneth.sessa@dhs.gov>,
"kennyi@headwaterscorp.com"
<kennyj@headwaterscorp.com>,
"ksullivan@leg.ne.gov" <ksullivan@leg.ne.gov>,
"lpsnrd@lpsnrd.org" <lpsnrd@lpsnrd.org>,
"mbrown9@unl.edu" <mbrown9@unl.edu>,
"mferguson@gp.usbr.gov"
<mferguson@gp.usbr.gov>, "mkuzila1@unl.edu"
<mkuzila1@unl.edu>, "monroe@megavision.com"
<monroe@megavision.com>, "msittler@lpsnrd.org"
<msittler@lpsnrd.org>, "pcclerk@megavision.com"
<pcclerk@megavision.com>,
"peggy.harding@ferc.gov"
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"prescott.brownell@noaa.gov"
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"randy thoreson@nps.gov"
<randy thoreson@nps.gov>, "rbishop@cpnrd.org"
<rbishop@cpnrd.org>.
"Robert F Stewart@ios.doi.gov"
<Robert F Stewart@ios.doi.gov>,
"robert harms@fws.gov"
<robert harms@fws.gov>,
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<steve.chick@ne.usda.gov>,
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"Willie_Taylor@ios.doi.gov"

<Willie_Taylor@ios.doi.gov>,
"david.turner@ferc.gov" <david.turner@ferc.gov>,
"nicholas.jayjack@ferc.gov"

<nicholas.jayjack@ferc.gov>, "mark.ivy@ferc.gov"

<mark.ivy@ferc.gov>, "julias@poncatribe-ne.org"

<julias@poncatribe-ne.org>, "jeff_runge@fws.gov"

<jeff_runge@fws.gov>, "mohler@nctc.net"

<mohler@nctc.net>, "jjshadl@nppd.com"

<jjshadl@nppd.com>,
"zach_nelson@bennelson.senate.gov"

<zach_nelson@bennelson.senate.gov>
```

cc"nsuess@loup.com" <nsuess@loup.com>,
 "rziola@loup.com" <rziola@loup.com>,
 "arobak@loup.com" <arobak@loup.com>,
 "Waldow, George"
 <George.Waldow@hdrinc.com>, "Engelbert, Pat"
 <Pat.Engelbert@hdrinc.com>, "Sigler, Bill"
 <Bill.Sigler@hdrinc.com>, "White, Stephanie"
 <Stephanie.White@hdrinc.com>, "King, Wendy"
 <Wendy.King@hdrinc.com>, "Damgaard, Quinn
 V." <Quinn.Damgaard@hdrinc.com>, "Pillard,
 Matt" <Matt.Pillard@hdrinc.com>

SubjectLoup Power District FERC Relicensing - Study Plan Meetings

#### Relicensing Participants,

Thanks to those of you who attended the study plan meeting on Tuesday, April 21<sup>st</sup> in Columbus. A transcript of the discussion will be available by May 8 on the project website at: <a href="http://www.loup.com/relicense/html/agencymeetingsresources.html">http://www.loup.com/relicense/html/agencymeetingsresources.html</a>.

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Date and Time	Topic	Location*	
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#### RSVP 48 hours in advance of each meeting to:

Angell Robak at <a href="mailto:arobak@loup.com">arobak@loup.com</a> (402) 564-3171, ext. 275.

The consensus derived at these meetings will guide the revised study plan to be submitted July 27<sup>th</sup> to FERC.

The Proposed Study Plan was submitted to FERC on March 27, 2009. An electronic copy of the document can be found at the following location: <a href="http://www.loup.com/relicense/html/documents.html">http://www.loup.com/relicense/html/documents.html</a>

SHPO Project reference: HP#0804-127-01

Thanks again,

Lisa

Lisa M. Richardson, P.E.

Project Manager

**HDR One Company | Many Solutions** 

8404 Indian Hills Drive Omaha, NE 68114-4049 Phone: 402.926.7026

Cell: 402.618.9865 Fax: 402.399.1111

Richardson, Lisa (Omaha) From:

Sent: Tuesday, April 28, 2009 10:40 AM

abaum@upperloupnrd.org; adubas@leg.ne.gov; al.berndt@nebraska.gov; To:

astuthman@leg.ne.gov; barbara.j.friskopp@usace.army.mil; bczoning@frontiernet.net; bobbie.wickham@nebraska.gov; bpuschendorf@nebraskahistory.org; butchk@nctc.net;

calms@neb.rr.com; cgenoa@cablene.com; cityadmin@cablene.com; clangemeier@leg.ne.gov; cothern.ioe@epa.gov; danno@nohva.com; david.jundt@dhhs.ne.gov; djjarecke@clarkswb.net; don simpson@blm.gov;

frank.albrecht@nebraska.gov; jalexand@usgs.gov; jangell@dnr.ne.gov; jeddins@achp.gov;

jmangi@columbusne.us; jmiyoshi@lpnnrd.org; jmsunne@nppd.com;

john.bender@nebraska.gov; justin.lavene@nebraska.gov; jwinkler@papionrd.org; kenneth.sessa@dhs.gov; kennyi@headwaterscorp.com; ksullivan@leg.ne.gov; lpsnrd@lpsnrd.org; mbrown9@unl.edu; mferguson@gp.usbr.gov; mkuzila1@unl.edu;

monroe@megavision.com; msittler@lpsnrd.org; pcclerk@megavision.com; peggy.harding@ferc.gov; prescott.brownell@noaa.gov; randy thoreson@nps.gov; rbishop@cpnrd.org; Robert\_F\_Stewart@ios.doi.gov; robert\_harms@fws.gov; steve.chick@ne.usda.gov; Willie Taylor@ios.doi.gov; david.turner@ferc.gov; nicholas.jayjack@ferc.gov; mark.ivy@ferc.gov; julias@poncatribe-ne.org;

jeff\_runge@fws.gov; mohler@nctc.net; jjshadl@nppd.com;

zach nelson@bennelson.senate.gov

nsuess@loup.com; rziola@loup.com; arobak@loup.com; Waldow, George; Engelbert, Pat; Cc:

Sigler, Bill; White, Stephanie; King, Wendy; Damgaard, Quinn V.; Pillard, Matt

Loup Power District FERC Relicensing - Study Plan Meetings Subject:

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SHPO Project reference: HP#0804-127-01

Thanks again,

Lisa

## **Lisa M. Richardson, P.E.** Project Manager

## **HDR** One Company | *Many Solutions* 8404 Indian Hills Drive

Omaha, NE 68114-4049 Phone: 402.926.7026

Cell: 402.618.9865 Fax: 402.399.1111

From: Pillard, Matt

**Sent:** Friday, May 08, 2009 9:12 AM

To: abaum@upperloupnrd.org; adubas@leg.ne.gov; al.berndt@nebraska.gov;

astuthman@leg.ne.gov; barbara.j.friskopp@usace.army.mil; bczoning@frontiernet.net; bobbie.wickham@nebraska.gov; bpuschendorf@nebraskahistory.org; butchk@nctc.net;

calms@neb.rr.com; cgenoa@cablene.com; cityadmin@cablene.com; clangemeier@leg.ne.gov; cothern.joe@epa.gov; danno@nohva.com; david.jundt@dhhs.ne.gov; djjarecke@clarkswb.net; don\_simpson@blm.gov; frank.albrecht@nebraska.gov; jalexand@usgs.gov; jean.angell@nebraska.gov;

jeddins@achp.gov; jmangi@columbusne.us; jmiyoshi@lpnnrd.org; jmsunne@nppd.com;

john.bender@nebraska.gov; justin.lavene@nebraska.gov; jwinkler@papionrd.org; kenneth.sessa@dhs.gov; kennyj@headwaterscorp.com; ksullivan@leg.ne.gov; lpsnrd@lpsnrd.org; mbrown9@unl.edu; mferguson@gp.usbr.gov; mkuzila1@unl.edu;

monroe@megavision.com; msittler@lpsnrd.org; pcclerk@megavision.com; peggy.harding@ferc.gov; prescott.brownell@noaa.gov; randy\_thoreson@nps.gov; rbishop@cpnrd.org; Robert\_F\_Stewart@ios.doi.gov; robert\_harms@fws.gov; steve.chick@ne.usda.gov; Willie\_Taylor@ios.doi.gov; david.turner@ferc.gov; nicholas.jayjack@ferc.gov; mark.ivy@ferc.gov; julias@poncatribe-ne.org;

jeff\_runge@fws.gov; mohler@nctc.net; jjshadl@nppd.com;

zach nelson@bennelson.senate.gov

Cc: nsuess@loup.com; rziola@loup.com; arobak@loup.com; Richardson, Lisa (Omaha); Waldow,

George; Engelbert, Pat; Sigler, Bill; White, Stephanie; King, Wendy; Damgaard, Quinn V.

Subject: Loup Power District FERC Relicensing - Study Plan Meeting Information

Attachments: Directions to Loup Power District Main Office .pdf

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The following materials will be posted by 12:00 PM today on the project website at: <a href="http://www.loup.com/relicense/html/agencymeetingsresources.html">http://www.loup.com/relicense/html/agencymeetingsresources.html</a>:

- April 21 Study Plan Meeting Transcript
- Agenda and Handout for May 11<sup>th</sup> Discussion of Recreation Studies (8-10)

#### **Reminders:**

#### Recreation, Land Use, and Aesthetics Study Plan Meeting

The Recreation, Land Use, and Aesthetics Study Plan meeting is on **May 11**. Meeting materials are available on the project website. Please RSVP to Angell Robak by **noon on May 8**<sup>th</sup> at <u>arobak@loup.com</u> or (402) 564-3171, ext. 275. Due to local road construction, please see the attached directions to the Loup District Offices.

#### **Aquatic Resources Study Plan Meetings**

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Also, please let Angell or myself know if you would be interested in gathering at the Powerhouse Park after the meeting on Wednesday, May 27 for a picnic dinner and socializing. We appreciate your time and input on this relicensing effort.

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#### **RSVP to:**

Angell Robak at arobak@loup.com (402) 564-3171, ext. 275.

SHPO Project reference: HP#0804-127-01

Thanks again,

#### Matt Pillard, AICP Senior Environmental Planner

#### HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111 Email: Matt.Pillard@hdrinc.com



From: Richardson, Lisa (Omaha)

**Sent:** Wednesday, April 29, 2009 12:57 PM

To: King, Wendy

Subject: FW:

Attachments: Agenda.090505.SHPO.doc

From: Madson, Michael J.

**Sent:** Wednesday, April 29, 2009 11:35 AM **To:** Dolberg, Jill; Robert Puschendorf **Cc:** Richardson, Lisa (Omaha)

**Subject:** 

Looking forward to Tuesday.

Please see the attached agenda. Call me ahead of time if you have any comments, questions or additions.

Mike

Michael J. Madson, M.S., RPA
Professional Associate
Senior Archaeologist/Cultural Resources Project Manager
HDR ONE COMPANY | Many Solutions
701 Xenia Avenue South | Suite 600 | Minneapolis, MN | 55416

Phone: 763-278-5921 | Fax: 763-591-5413 | Mobile: 612-501-6237 | Email: michael.madson@hdrinc.com

From: Pillard, Matt

**Sent:** Friday, May 08, 2009 4:01 PM **To:** julias@poncatribe-ne.org

Cc: Richardson, Lisa (Omaha); Frame, Gail; King, Wendy

Subject: FW: Loup Power District FERC Relicensing - Study Plan Meeting Information

Attachments: Directions to Loup Power District Main Office .pdf

#### Good Afternoon Julia.

Please see the information below regarding upcoming meetings on the Loup Power District Relicensing project. Please let me know if you have any questions. We'll add you to our database for future emails.

#### Thanks!

#### Matt

From: Pillard, Matt

**Sent:** Friday, May 08, 2009 9:12 AM

To: abaum@upperloupnrd.org; adubas@leg.ne.gov; al.berndt@nebraska.gov; astuthman@leg.ne.gov; barbara.j.friskopp@usace.army.mil; bczoning@frontiernet.net; bobbie.wickham@nebraska.gov; bpuschendorf@nebraskahistory.org; butchk@nctc.net; calms@neb.rr.com; cgenoa@cablene.com; cityadmin@cablene.com; clangemeier@leg.ne.gov; cothern.joe@epa.gov; danno@nohva.com; david.jundt@dhhs.ne.gov; djjarecke@clarkswb.net; don simpson@blm.gov; frank.albrecht@nebraska.gov; jalexand@usgs.gov; 'jean.angell@nebraska.gov'; jeddins@achp.gov; jmangi@columbusne.us; jmiyoshi@lpnnrd.org; jmsunne@nppd.com; john.bender@nebraska.gov; justin.lavene@nebraska.gov; jwinkler@papionrd.org; kenneth.sessa@dhs.gov; kennyj@headwaterscorp.com; ksullivan@leg.ne.gov; lpsnrd@lpsnrd.org; mbrown9@unl.edu; mferguson@gp.usbr.gov; mkuzila1@unl.edu; monroe@megavision.com; msittler@lpsnrd.org; pcclerk@megavision.com; peggy.harding@ferc.gov; prescott.brownell@noaa.gov; randy thoreson@nps.gov; rbishop@cpnrd.org; Robert F Stewart@ios.doi.gov; robert harms@fws.gov; steve.chick@ne.usda.gov; Willie Taylor@ios.doi.gov; david.turner@ferc.gov; mohler@nctc.net; jishadl@nppd.com; zach nelson@bennelson.senate.gov

**Cc:** <u>nsuess@loup.com</u>; <u>rziola@loup.com</u>; <u>arobak@loup.com</u>; Richardson, Lisa (Omaha); Waldow, George; Engelbert, Pat; Sigler, Bill; White, Stephanie; King, Wendy; Damgaard, Quinn V.

Subject: Loup Power District FERC Relicensing - Study Plan Meeting Information

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#### **RSVP to:**

Angell Robak at <a href="mailto:arobak@loup.com">arobak@loup.com</a> (402) 564-3171, ext. 275.

SHPO Project reference: HP#0804-127-01

Thanks again,

Matt Pillard, AICP Senior Environmental Planner

#### HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111

Email: Matt.Pillard@hdrinc.com



From: Pavelka, Gregory A NWO [Gregory.A.Pavelka@usace.army.mil]

**Sent:** Friday, May 15, 2009 8:59 AM

To: Marinovich, Melissa

Subject: RE: Another Missouri River Habitat Question

Hi Melissa,

The extensive study I mentioned is the pre-decisional EIS for ESH. It probably won't be released until the spring of 2010 at the earliest. The plovers are back and have been seen as far north as Fort Peck Lake in eastern Montana. Our crew at Gavins Point is just now starting to find nests. We have been seeing common terns, but least terns have not been verified yet. I would expect they will start showing up next week. It is a long flight from South America. Have a good weekend.

Greg

----Original Message----

From: Marinovich, Melissa [mailto:Melissa.Marinovich@hdrinc.com]

Sent: Thursday, May 14, 2009 3:00 PM

To: Pavelka, Gregory A NWO

Subject: Another Missouri River Habitat Question

Hi Greg,

Have the birds returned to the river yet? I know the plovers are milling around the Platte and sandpits, but the terns have not been spotted yet. I am currently helping gather additional information on sandbar habitat availability for terns and plovers in different river systems. In one of our phone conversations, you had mentioned that an extensive study was done (in preparation of the pre-decision EIS on Emergent Sandbar Habitat) that looked at digital photography of all the habitat in the Missouri River from 1998 to 2008. I haven't been able to find any information on this study and was wondering if you could send me either a link, copy of the report, or any additional information on this study. Thanks for all your help! Happy spring!

Melissa Marinovich

Environmental Scientist

HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098

Phone: 402.399.1317 | Fax: 402.399.1111

Email: melissa.marinovich@hdrinc.com <mailto:melissa.marinovich@hdrinc.com>

From: Schainost, Steve [steve.schainost@nebraska.gov]

**Sent:** Monday, May 18, 2009 7:24 PM

To: Marinovich, Melissa Subject: RE: Johnson Fish reports?

The Sargent "will be" a rock ramp when it is done. I believe they are purchasing and stockpiling rock right now and will do the work in the fall. Belmont is a denil fish ladder. At Milburn Dam, they built a new supplemental spillway. The main spillway is a triple box culvert through the dam that can handle up to 700 cfs. The fishway is a single box culvert that is set 6 feet (?) higher, again through the dam, and is designed to handle a maximum of 100 cfs. The gates on all four are vertical slide gates that are computer controlled. I can provide photos when I get back to the office. I believe a rock ramp would be the most suitable and cost effective for the Loup Diversion which, if memory serves, is only a few feet high.

Steve Schainost

Note: new email address - steve.schainost@nebraska.gov

From: Marinovich, Melissa [Melissa.Marinovich@hdrinc.com]

Sent: Monday, May 18, 2009 6:09

To: Schainost, Steve Cc: Sigler, Bill

Subject: RE: Johnson Fish reports?

Dear Mr. Schainost

Thank you for the quick reply! Later this week would be great. Also, we've been looking a lot at fish passage possibilities for the diversion structure (I think you talked to Bill Sigler about this a while ago) and I just wanted to clarify - I was told that there were three different fish passage designs at Sargent, Milburn, and Belmont (?). Is this correct? And if so, do you have any design plans for these structures with regards to the different types of fish passage used at each one? I was under the impression that the Sargent structure is a "rock ramp", the Milburn structure is a side channel, and the Belmont structure is a fish ladder. I really appreciate your help in this and look forward to hearing from you again later in the week. Thanks again!

#### Melissa

----Original Message----

From: Schainost, Steve <a href="mailto:steve.schainost@nebraska.gov">[mailto:steve.schainost@nebraska.gov]</a>

Sent: Sunday, May 17, 2009 9:10 PM

To: Marinovich, Melissa

Subject: RE: Johnson Fish reports?

Dear Ms. Marinovich:

I'm out of town right now but can send you the Loup fish collection info later this week. I don't have anything for the Power Canal.

Steve Schainost

Note: new email address - <a href="mailto:steve.schainost@nebraska.gov">steve.schainost@nebraska.gov</a>

From: Marinovich, Melissa [Melissa.Marinovich@hdrinc.com]

Sent: Thursday, May 14, 2009 12:40

To: Schainost, Steve

Subject: Johnson Fish reports?

Hi Steve,

I am working on the Loup Hydroelectric FERC Relicensing Project. I was recently in a meeting with Rich Holland discussing fish sampling in the Loup River and Loup Power Canal. He mentioned a few different fish survey resources that we had not yet come across and said that you would likely have these resources. He mentioned a Johnson survey(s) from the 1940's and some statewide surveys from 2005. He told me to contact you about those resources and gave me your contact information. If you have copies of these reports or any fish survey/sampling information on the Loup River or Loup Power Canal, could you possibly send me a copy of these reports/survey information? I will also attempt to contact you by phone. Thanks for your help and if you have any questions, please email or call. Thanks!

Melissa Marinovich Environmental Scientist

HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098

Phone: 402.399.1317 | Fax: 402.399.1111

Email: melissa.marinovich@hdrinc.com<mailto:melissa.marinovich@hdrinc.com>

Cc:

From: Pillard, Matt

**Sent:** Tuesday, May 19, 2009 4:41 PM

To: abaum@upperloupnrd.org; adubas@leg.ne.gov; al.berndt@nebraska.gov;

astuthman@leg.ne.gov; barbara.j.friskopp@usace.army.mil; bczoning@frontiernet.net; bob.puschendorf@nebraska.gov; bobbie.wickham@nebraska.gov; butchk@nctc.net;

calms@neb.rr.com; cgenoa@cablene.com; cityadmin@cablene.com;

clangemeier@leg.ne.gov; CoraJones@bia.gov; cothern.joe@epa.gov; danno@nohva.com;

david.jundt@dhhs.ne.gov; david.turner@ferc.gov; djjarecke@clarkswb.net; don\_simpson@blm.gov; frank.albrecht@nebraska.gov; jalexand@usgs.gov;

jangell@nebraska.gov; jblackhawk@aol.com; jeddins@achp.gov; jeff\_runge@fws.gov;

jill.dolberg@nebraska.gov; jjshadl@nppd.com; jmangi@columbusne.us; jmiyoshi@lpnnrd.org;

jmsunne@nppd.com; john.bender@nebraska.gov; julias@poncatribe-ne.org; justin.lavene@nebraska.gov; jwinkler@papionrd.org; kenneth.sessa@dhs.gov; kennyj@headwaterscorp.com; Kim.Nguyen@ferc.gov; ksullivan@leg.ne.gov;

lpsnrd@lpsnrd.org; mark.ivy@ferc.gov; mbrown9@unl.edu; mferguson@gp.usbr.gov; mkuzila1@unl.edu; mohler@nctc.net; monroe@megavision.com; msittler@lpsnrd.org; nicholas.jayjack@ferc.gov; pcclerk@megavision.com; peggy.harding@ferc.gov; prescott.brownell@noaa.gov; randy\_thoreson@nps.gov; rbishop@cpnrd.org; Robert F Stewart@ios.doi.gov; robert harms@fws.gov; rtrudell@santeedakota.org;

steve.chick@ne.usda.gov; Willie\_Taylor@ios.doi.gov; zach\_nelson@bennelson.senate.gov Angel Robak; Neil Suess; Ron Ziola; Teresa Petr; Damgaard, Quinn V.; Engelbert, Pat;

Frame, Gail; Grennan, Dennis E.; King, Wendy; Pillard, Matt; Richardson, Lisa (Omaha);

Sigler, Bill; Waldow, George; White, Stephanie

Subject: Loup Power District - Study Plan Meeting Reminder

#### STUDY PLAN MEETING REMINDER

Date and Time	Topic	Location*
Modernedou May 27	Continued Discussion on Goals and	Holiday Inn Express
Wednesday, May 27	Objectives (as needed) and New	524 E 23rd St
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	1-12)	

<sup>\*</sup>Instructions to help navigate summer road construction can be found at the end of this e-mail.

#### Please RSVP to Angell Robak by noon on May 22nd

<u>arobak@loup.com</u> (402) 564-3171, ext. 275.

Supporting materials can be found on line:

http://www.loup.com/relicense/html/agencymeetingsresources.html

- 4/21 Study Plan Meeting Outcomes Memo
- Agenda for next week's meeting
- Transcript of the 5/11/09 Recreation, Land Use, and Aesthetics Study Plan Meeting (posted by Friday, May 22nd)
- Handouts for next week's meeting (posted by Friday, May 22nd)

This meeting will be available by conference call for those of you unable to travel: 866-994-6437 Passcode: 4023994909

Please let Angell or myself know if you would be interested in gathering at the Powerhouse Park after the meeting on Wednesday, May 27 for a picnic dinner and socializing.

We appreciate your time and input on this relicensing effort.

SHPO Project reference: HP#0804-127-01

Thanks again,

## Matt Pillard, AICP

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#### HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111

Email: Matt.Pillard@hdrinc.com



Directions to Holiday Inn Express with 30/81 Viaduct out of service:

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In addition to rail traffic, there is a heavy amount of local traffic taking students to school and employees going to the east industrial area for work.

Cc:

From: Pillard, Matt

**Sent:** Tuesday, May 19, 2009 4:41 PM

To: abaum@upperloupnrd.org; adubas@leg.ne.gov; al.berndt@nebraska.gov;

astuthman@leg.ne.gov; barbara.j.friskopp@usace.army.mil; bczoning@frontiernet.net; bob.puschendorf@nebraska.gov; bobbie.wickham@nebraska.gov; butchk@nctc.net;

calms@neb.rr.com; cgenoa@cablene.com; cityadmin@cablene.com;

clangemeier@leg.ne.gov; CoraJones@bia.gov; cothern.joe@epa.gov; danno@nohva.com;

david.jundt@dhhs.ne.gov; david.turner@ferc.gov; djjarecke@clarkswb.net; don\_simpson@blm.gov; frank.albrecht@nebraska.gov; jalexand@usgs.gov;

jangell@nebraska.gov; jblackhawk@aol.com; jeddins@achp.gov; jeff\_runge@fws.gov;

jill.dolberg@nebraska.gov; jjshadl@nppd.com; jmangi@columbusne.us; jmiyoshi@lpnnrd.org;

jmsunne@nppd.com; john.bender@nebraska.gov; julias@poncatribe-ne.org; justin.lavene@nebraska.gov; jwinkler@papionrd.org; kenneth.sessa@dhs.gov; kennyj@headwaterscorp.com; Kim.Nguyen@ferc.gov; ksullivan@leg.ne.gov;

lpsnrd@lpsnrd.org; mark.ivy@ferc.gov; mbrown9@unl.edu; mferguson@gp.usbr.gov; mkuzila1@unl.edu; mohler@nctc.net; monroe@megavision.com; msittler@lpsnrd.org; nicholas.jayjack@ferc.gov; pcclerk@megavision.com; peggy.harding@ferc.gov; prescott.brownell@noaa.gov; randy\_thoreson@nps.gov; rbishop@cpnrd.org; Robert F Stewart@ios.doi.gov; robert harms@fws.gov; rtrudell@santeedakota.org;

steve.chick@ne.usda.gov; Willie\_Taylor@ios.doi.gov; zach\_nelson@bennelson.senate.gov Angel Robak; Neil Suess; Ron Ziola; Teresa Petr; Damgaard, Quinn V.; Engelbert, Pat;

Frame, Gail; Grennan, Dennis E.; King, Wendy; Pillard, Matt; Richardson, Lisa (Omaha);

Sigler, Bill; Waldow, George; White, Stephanie

Subject: Loup Power District - Study Plan Meeting Reminder

#### STUDY PLAN MEETING REMINDER

Date and Time	Topic	Location*
Modernedou May 27	Continued Discussion on Goals and	Holiday Inn Express
Wednesday, May 27	Objectives (as needed) and New	524 E 23rd St
Thursday, May 28 8:30 AM – 5:00 PM both days	Discussion on Methodologies (Studies	Columbus, NE
	1-12)	

<sup>\*</sup>Instructions to help navigate summer road construction can be found at the end of this e-mail.

#### Please RSVP to Angell Robak by noon on May 22nd

<u>arobak@loup.com</u> (402) 564-3171, ext. 275.

Supporting materials can be found on line:

http://www.loup.com/relicense/html/agencymeetingsresources.html

- 4/21 Study Plan Meeting Outcomes Memo
- Agenda for next week's meeting
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- Handouts for next week's meeting (posted by Friday, May 22nd)

This meeting will be available by conference call for those of you unable to travel: 866-994-6437 Passcode: 4023994909

Please let Angell or myself know if you would be interested in gathering at the Powerhouse Park after the meeting on Wednesday, May 27 for a picnic dinner and socializing.

We appreciate your time and input on this relicensing effort.

SHPO Project reference: HP#0804-127-01

Thanks again,

## Matt Pillard, AICP

Senior Environmental Planner

#### HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111

Email: Matt.Pillard@hdrinc.com



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In addition to rail traffic, there is a heavy amount of local traffic taking students to school and employees going to the east industrial area for work.

From: Pillard, Matt

**Sent:** Wednesday, May 20, 2009 12:24 PM

**To:** todd.crawford@mail.house.gov; louis.pofahl@mail.house.gov;

emily brummund@johanns.senate.gov

Cc:Richardson, Lisa (Omaha); Frame, Gail; King, WendySubject:FW: Loup Power District - Study Plan Meeting Reminder

#### Good afternoon.

The email below was sent to a variety of Federal, state, local entities, and citizens regarding an upcoming meeting that is integral in the Loup Power District's FERC relicensing process. We thought you would want to be aware of this meeting and the coordination that has occurred and will be occurring by the Loup Power District for this effort. If you have any questions or comments, please do not hesitate to contact me.

Thank you.

#### Matt Pillard, AICP

Senior Environmental Planner

#### HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111 Email: Matt.Pillard@hdrinc.com



From: Pillard, Matt

**Sent:** Tuesday, May 19, 2009 4:41 PM

To: 'abaum@upperloupnrd.org'; 'adubas@leg.ne.gov'; 'al.berndt@nebraska.gov'; 'astuthman@leg.ne.gov'; 'barbara.j.friskopp@usace.army.mil'; 'bczoning@frontiernet.net'; 'bob.puschendorf@nebraska.gov'; 'bobbie.wickham@nebraska.gov'; 'butchk@nctc.net'; 'calms@neb.rr.com'; 'cgenoa@cablene.com'; 'cityadmin@cablene.com'; 'clangemeier@leg.ne.gov'; 'CoraJones@bia.gov'; 'cothern.joe@epa.gov'; 'danno@nohva.com'; 'david.jundt@dhhs.ne.gov'; 'david.turner@ferc.gov'; 'djjjarecke@clarkswb.net'; 'don\_simpson@blm.gov'; 'frank.albrecht@nebraska.gov'; 'jalexand@usgs.gov'; 'jangell@nebraska.gov'; 'jblackhawk@aol.com'; 'jeddins@achp.gov'; 'jeff\_runge@fws.gov'; 'jill.dolberg@nebraska.gov'; 'jjshadl@nppd.com'; 'jmangi@columbusne.us'; 'jmiyoshi@lpnnrd.org'; 'jmsunne@nppd.com'; 'john.bender@nebraska.gov'; 'julias@poncatribe-ne.org'; 'justin.lavene@nebraska.gov'; 'jwinkler@papionrd.org'; 'kenneth.sessa@dhs.gov'; 'kennyj@headwaterscorp.com'; 'Kim.Nguyen@ferc.gov'; 'ksullivan@leg.ne.gov'; 'lpsnrd@lpsnrd.org'; 'mark.ivy@ferc.gov'; 'mbrown9@unl.edu'; 'mferguson@gp.usbr.gov'; 'mkuzila1@unl.edu'; 'mohler@nctc.net'; 'monroe@megavision.com'; 'msittler@lpsnrd.org'; 'nicholas.jayjack@ferc.gov'; 'pcclerk@megavision.com'; 'peggy.harding@ferc.gov'; 'prescott.brownell@noaa.gov'; 'randy\_thoreson@nps.gov'; 'rbishop@cpnrd.org'; 'Robert\_F\_Stewart@ios.doi.gov'; 'robert\_harms@fws.gov'; 'rtrudell@santeedakota.org'; 'steve.chick@ne.usda.gov'; 'Willie\_Taylor@ios.doi.gov'; 'zach\_nelson@bennelson.senate.gov'

**Cc:** 'Angel Robak'; 'Neil Suess'; 'Ron Ziola'; 'Teresa Petr'; Damgaard, Quinn V.; Engelbert, Pat; Frame, Gail; Grennan, Dennis E.; King, Wendy; Pillard, Matt; Richardson, Lisa (Omaha); Sigler, Bill; Waldow, George; White, Stephanie

**Subject:** Loup Power District - Study Plan Meeting Reminder

#### STUDY PLAN MEETING REMINDER

Date and Time Topic Location\*

Wednesday, May 27 Thursday, May 28 8:30 AM – 5:00 PM both days Continued Discussion on Goals and Objectives (as needed) and New Discussion on Methodologies (Studies 1-12) Holiday Inn Express 524 E 23rd St Columbus, NE

#### Please RSVP to Angell Robak by noon on May 22nd

<u>arobak@loup.com</u> (402) 564-3171, ext. 275.

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We appreciate your time and input on this relicensing effort.

SHPO Project reference: HP#0804-127-01

Thanks again,

## Matt Pillard, AICP Senior Environmental Planner

## HDR | ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111 Email: Matt.Pillard@hdrinc.com



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<sup>\*</sup>Instructions to help navigate summer road construction can be found at the end of this e-mail.

From: Pillard, Matt

**Sent:** Wednesday, May 20, 2009 4:22 PM

To: ncpza@hamilton.net
Cc: king, Wendy; Frame, Gail

Subject: FW: Loup Power District - Study Plan Meeting Reminder

Mary,

Please see message below relative to the Loup Power District FERC relicensing process. We updated our database to include Hamilton County Planning and Zoning. Let me know if you have any questions.

Thanks.

#### Matt Pillard, AICP

Senior Environmental Planner

#### HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111 Email: Matt.Pillard@hdrinc.com



From: Pillard, Matt

**Sent:** Tuesday, May 19, 2009 4:41 PM

To: 'abaum@upperloupnrd.org'; 'adubas@leg.ne.gov'; 'al.berndt@nebraska.gov'; 'astuthman@leg.ne.gov'; 'barbara.j.friskopp@usace.army.mil'; 'bczoning@frontiernet.net'; 'bob.puschendorf@nebraska.gov'; 'butchk@nctc.net'; 'calms@neb.rr.com'; 'cgenoa@cablene.com'; 'cityadmin@cablene.com'; 'clangemeier@leg.ne.gov'; 'CoraJones@bia.gov'; 'cothern.joe@epa.gov'; 'danno@nohva.com'; 'david.jundt@dhhs.ne.gov'; 'david.turner@ferc.gov'; 'djjarecke@clarkswb.net'; 'don\_simpson@blm.gov'; 'frank.albrecht@nebraska.gov'; 'jalexand@usgs.gov'; 'jangell@nebraska.gov'; 'jblackhawk@aol.com'; 'jeddins@achp.gov'; 'jeff\_runge@fws.gov'; 'jill.dolberg@nebraska.gov'; 'jjshadl@nppd.com'; 'jmangi@columbusne.us'; 'jmiyoshi@lpnnrd.org'; 'jmsunne@nppd.com'; 'john.bender@nebraska.gov'; 'julias@poncatribe-ne.org'; 'justin.lavene@nebraska.gov'; 'jwinkler@papionrd.org'; 'kenneth.sessa@dhs.gov'; 'kennyj@headwaterscorp.com'; 'Kim.Nguyen@ferc.gov'; 'ksullivan@leg.ne.gov'; 'lpsnrd@lpsnrd.org'; 'mark.ivy@ferc.gov'; 'mbrown9@unl.edu'; 'mferguson@gp.usbr.gov'; 'mkuzila1@unl.edu'; 'mohler@nctc.net'; 'monroe@megavision.com'; 'msittler@lpsnrd.org'; 'nicholas.jayjack@ferc.gov'; 'pcclerk@megavision.com'; 'peggy.harding@ferc.gov'; 'prescott.brownell@noaa.gov'; 'randy\_thoreson@nps.gov'; 'rbishop@cpnrd.org'; 'Robert\_F\_Stewart@ios.doi.gov'; 'robert\_harms@fws.gov'; 'rtrudell@santeedakota.org'; 'steve.chick@ne.usda.gov'; 'Willie\_Taylor@ios.doi.gov'; 'zach\_nelson@bennelson.senate.gov'

Cc: 'Angel Robak'; 'Neil Suess'; 'Ron Ziola'; 'Teresa Petr'; Damgaard, Quinn V.; Engelbert, Pat; Frame, Gail; Grennan,

**Cc:** 'Angel Robak'; 'Neil Suess'; 'Ron Ziola'; 'Teresa Petr'; Damgaard, Quinn V.; Engelbert, Pat; Frame, Gail; Grennan Dennis E.; King, Wendy; Pillard, Matt; Richardson, Lisa (Omaha); Sigler, Bill; Waldow, George; White, Stephanie

Subject: Loup Power District - Study Plan Meeting Reminder

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1-12)

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SHPO Project reference: HP#0804-127-01

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Matt Pillard, AICP Senior Environmental Planner

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From: Schainost, Steve [steve.schainost@nebraska.gov]

**Sent:** Thursday, May 21, 2009 9:55 AM

To: Marinovich, Melissa
Subject: RE: Johnson Fish reports?
Attachments: Loup River fishes.xls

Dear Ms. Marinovich:

I have attached an excel spreadsheet with the data that I have for fish collections from the Loup River, proper, and the Loup Power Canal. I didn't realize that I had data from the Canal but we did collect there in the early 70's.

I did not include any tributary data or anything from above the forks. If you need/want this data, let me know.

Steve Schainost

Note: new email address - <a href="mailto:steve.schainost@nebraska.gov">steve.schainost@nebraska.gov</a>

From: Marinovich, Melissa [Melissa.Marinovich@hdrinc.com]

Sent: Monday, May 18, 2009 6:09

To: Schainost, Steve Cc: Sigler, Bill

Subject: RE: Johnson Fish reports?

Dear Mr. Schainost

Thank you for the quick reply! Later this week would be great. Also, we've been looking a lot at fish passage possibilities for the diversion structure (I think you talked to Bill Sigler about this a while ago) and I just wanted to clarify - I was told that there were three different fish passage designs at Sargent, Milburn, and Belmont (?). Is this correct? And if so, do you have any design plans for these structures with regards to the different types of fish passage used at each one? I was under the impression that the Sargent structure is a "rock ramp", the Milburn structure is a side channel, and the Belmont structure is a fish ladder. I really appreciate your help in this and look forward to hearing from you again later in the week. Thanks again!

#### Melissa

----Original Message----

From: Schainost, Steve [mailto:steve.schainost@nebraska.gov]

Sent: Sunday, May 17, 2009 9:10 PM

To: Marinovich, Melissa

Subject: RE: Johnson Fish reports?

Dear Ms. Marinovich:

I'm out of town right now but can send you the Loup fish collection info later this week. I don't have anything for the Power Canal.

Steve Schainost

Note: new email address - <a href="mailto:steve.schainost@nebraska.gov">steve.schainost@nebraska.gov</a>

From: Marinovich, Melissa [Melissa.Marinovich@hdrinc.com]

Sent: Thursday, May 14, 2009 12:40

To: Schainost, Steve

Subject: Johnson Fish reports?

Hi Steve,

I am working on the Loup Hydroelectric FERC Relicensing Project. I was recently in a meeting with Rich Holland discussing fish sampling in the Loup River and Loup Power Canal. He mentioned a few different fish survey resources that we had not yet come across and said that you would likely have these resources. He mentioned a Johnson survey(s) from the 1940's and some statewide surveys from 2005. He told me to contact you about those resources and gave me your contact information. If you have copies of these reports or any fish survey/sampling information on the Loup River or Loup Power Canal, could you possibly send me a copy of these reports/survey information? I will also attempt to contact you by phone. Thanks for your help and if you have any questions, please email or call. Thanks!

Melissa Marinovich Environmental Scientist

HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098

Phone: 402.399.1317 | Fax: 402.399.1111

Email: melissa.marinovich@hdrinc.com<mailto:melissa.marinovich@hdrinc.com>

From: Pavelka, Gregory A NWO [Gregory.A.Pavelka@usace.army.mil]

**Sent:** Tuesday, June 02, 2009 10:39 AM

To: Marinovich, Melissa

Subject: RE: Another Missouri River Habitat Question

Hi Melissa,

Sorry it has taken so long for me to respond to your e-mail. I do not know if the USFWS had any concerns about how cycling would effect the pallid sturgeon. Mike Olson, 701-250-4481, would be the person at the USFWS to contact. I am not sure when cycling began; it may have been in 2004. I know that it was not done in 2007 and 2008 because low releases out of Gavins Point made it unnecessary. We have no real data to tell if cycling caused the birds to avoid nesting in low areas. Cycling is done every third day and the Gavins Point crew normally surveys the sandbars every seventh day. (Our permit requires a minimum of five days between nest visits and the Gavins Point crew is normally on a weekly rotation.) Therefore there is no way for us to determine if a tern or plover initiated a nest in a low spot on one of the low days and then lost the nest during the high day cycle. Virginia Tech conducted a piping plover study from 2005-2007 and the USGS conducted a least tern study from 2006-2008, which may answer this question as both studies included much shorter return nest visit periods. Neither study has been published yet. The Virginia Tech study is to be published later this summer and the USGS I believe will be published in 2010. Cycling was terminated when it was determined that chicks had hatched out below Gavins Point. This was done to eliminate the possibility that chicks feeding in low areas could be lost or cut off from the main sandbar as flows increased with the high cycle.

I hope this has been helpful to you.

#### Greg

----Original Message----

From: Marinovich, Melissa [mailto:Melissa.Marinovich@hdrinc.com]

Sent: Tuesday, May 19, 2009 9:03 AM

To: Pavelka, Gregory A NWO

Subject: RE: Another Missouri River Habitat Question

Thanks, Greg!

I have a few new questions for you (they just keep coming). Regarding the "every third day cycling" at Gavins Point - just a clarification - this was not mentioned in the 2003 BiOp, but was developed through meetings with USFWS to not only coax the birds to nest higher, but also to conserve water during the drought years, correct? Prior to this "cycling" the USACE was using the Steady Release and/or Flow-to-target release methods to help the birds nest higher and/or conserve water? My question is, when this method of cycling was developed, were there any concerns that the USFWS voiced on how this "cycling" might affect the Pallid Sturgeon? Since the initial "every third day cycling" began in May 2004 (correct me if this is incorrect), has it proven to have helped the birds avoid nest inundation? Is it proving to be a positive measure, or are you finding detrimental effects such as overcrowding or chicks later in the season being too far away from food sources? We're just trying to gain a better understanding of how the daily cycling that the LPPD does (on a much smaller scale than Gavins) may have an effect on the terns, plovers, and pallid sturgeon. Thanks again for all your knowledge and help.

#### Melissa

----Original Message----

From: Pavelka, Gregory A NWO [mailto:Gregory.A.Pavelka@usace.army.mil]

Sent: Friday, May 15, 2009 1:41 PM

To: Marinovich, Melissa

Subject: RE: Another Missouri River Habitat Question

Hi Melissa,

The contractor was David Miller and Associates. I don't have any contact information on them, but you could contact Brad Thompson at our Omaha District office and he could get the information to you. Brad's phone number is 402-995-2678. Have a good weekend.

#### Greg

----Original Message----

From: Marinovich, Melissa [mailto:Melissa.Marinovich@hdrinc.com]

Sent: Friday, May 15, 2009 9:52 AM

To: Pavelka, Gregory A NWO

Subject: RE: Another Missouri River Habitat Question

Thanks for the quick reply! One more question - who did the study? I may have some questions on their methodology as we may be looking at designing a similar study on the Platte River. Glad to hear the birds are beginning their return. I also saw the common terns passing through on the Platte River about a week ago.

#### Melissa

----Original Message----

From: Pavelka, Gregory A NWO [mailto:Gregory.A.Pavelka@usace.army.mil]

Sent: Friday, May 15, 2009 8:59 AM

To: Marinovich, Melissa

Subject: RE: Another Missouri River Habitat Question

Hi Melissa,

The extensive study I mentioned is the pre-decisional EIS for ESH. It probably won't be released until the spring of 2010 at the earliest. The plovers are back and have been seen as far north as Fort Peck Lake in eastern Montana. Our crew at Gavins Point is just now starting to find nests. We have been seeing common terns, but least terns have not been verified yet. I would expect they will start showing up next week. It is a long flight from South America. Have a good weekend.

## Greg

----Original Message----

From: Marinovich, Melissa [mailto:Melissa.Marinovich@hdrinc.com]

Sent: Thursday, May 14, 2009 3:00 PM

To: Pavelka, Gregory A NWO

Subject: Another Missouri River Habitat Question

Hi Greg,

Have the birds returned to the river yet? I know the plovers are milling around the Platte and sandpits, but the terns have not been spotted yet. I am currently helping gather additional information on sandbar habitat availability for terns and plovers in different river systems. In one of our phone conversations, you had mentioned that an extensive study was done (in preparation of the pre-decision EIS on Emergent Sandbar Habitat) that looked at

digital photography of all the habitat in the Missouri River from 1998 to 2008. I haven't been able to find any information on this study and was wondering if you could send me either a link, copy of the report, or any additional information on this study. Thanks for all your help! Happy spring!

Melissa Marinovich

**Environmental Scientist** 

HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098

Phone: 402.399.1317 | Fax: 402.399.1111

Email: melissa.marinovich@hdrinc.com <mailto:melissa.marinovich@hdrinc.com>

From: Richardson, Lisa (Omaha)

Sent: Wednesday, June 03, 2009 6:42 AM

To: King, Wendy

**Subject:** FW: FERC Relicensing - May 5 Meeting Notes

From: Dolberg, Jill [mailto:jill.dolberg@nebraska.gov]

**Sent:** Tuesday, June 02, 2009 1:47 PM

To: Richardson, Lisa (Omaha)

Cc: Nunn, Jessie

Subject: RE: FERC Relicensing - May 5 Meeting Notes

Hi Lisa.

The notes look great. I don't have any comments. I am glad you included that I promised an example of documentation for such a district. I'd forgotten! I'll get on that...

#### Jill Dolberg

From: Richardson, Lisa (Omaha) [mailto:Lisa.Richardson@hdrinc.com]

**Sent:** Tuesday, June 02, 2009 5:56 AM

To: Dolberg, Jill; Nunn, Jessie

Cc: Madson, Michael J.; Waldow, George; Neal Suess; <a href="rziola@loup.com">rziola@loup.com</a>

Subject: FERC Relicensing - May 5 Meeting Notes

RF: HP#0804-127-01

Jill & Jessie,

Attached are notes from our May 5 meeting to discuss Loup Power District's FERC relicensing and the proposed Study for Section 106 compliance. Please let me know if you have any comments on the notes. We would like to post them to the project website by the end of the week if possible.

Feel free to give me a call if you have any questions.

Regards,

Lisa

## Lisa M. Richardson, P.E.

Professional Associate

## **HDR** One Company | Many Solutions

8404 Indian Hills Drive Omaha, NE 68114-4049 Phone: 402.926.7026 Cell: 402.618.9865

Fax: 402.399.1111

2404 15th Street
P.O. Box 988
Columbus, NE 68602-0988

402/564-3171 Fax: 402/564-0970

June 4, 2009

Mr. Rick Schneider Nebraska Game and Parks Commission 2200 North 33<sup>rd</sup> Street P.O. Box 30370 Lincoln, Nebraska 68503-0370

Re: Loup River Hydroelectric Project

FERC Project Number 1256 Species Occurrence Data Request

Dear Mr. Schneider:

As you are aware, Loup Power District (the District) filed a Notice of Intent (NOI) and a Pre-Application Document (PAD) in October 2008 to begin the Federal Energy Regulatory Commission (FERC) relicensing process for its hydroelectric facilities located on the Loup River near Columbus, Nebraska (Project). In FERC's Notice of Commencement on December 16, 2008, FERC initiated informal consultation with the U.S. Fish and Wildlife Service (USFWS) and designated Loup Power District (District) as the non-federal representative to conduct Endangered Species Act (ESA) (16 U.S.C. 1531 *et seq.*) section 7 consultation.

In compliance with the ESA, the District is gathering information to assist with the development of a Biological Assessment on behalf of FERC. In a letter dated September 23, 2008, the Nebraska Game and Parks Commission (Commission) identified the following protected species as having occurrence data around the Loup River, Loup Diversion Canal, and the Platte River in Nance, Platte and Butler counties:

- Small White Lady's Slipper
- Whooping Crane
- Interior Least Tern
- Piping Plover
- Bald Eagle
- River Otter

In a letter dated July 21, 2008 and September 18, 2008, the USFWS provided technical assistance to the District in determining the potential issues related to threatened or endangered species. In accordance with section 7 of the ESA, USFWS developed a list of federally-protected species that may occur in the Project area or may be affected by the proposed relicensing of the Project. These species were:

- Pallid Sturgeon
- Least Tern
- Piping Plover
- Western Prairie Fringed Orchid

In response to a letter requesting species occurrence data for the Project area (Figure 1) (dated March 2, 2009), the Commission conducted a search of Nebraska Heritage Database records for a 2-mile buffer area

surrounding the Project area. The Commission emailed the requested records in an excel spreadsheet and a shapefile format. HDR translated this data into the attached figure (Figure 2). Due to the phrasing of the original request, no records were received for the Loup River paralleling the Project Area (Loup River Bypass Reach).

The District would like to request Nebraska Heritage Database species occurrence data for the species listed in the aforementioned letters as well as any Tier I At-Risk Species (as defined in the Nebraska Natural Legacy Project) that may be found within a 1-mile buffer of the lower Loup River from the diversion at Genoa downstream to the confluence with the Platte River. The District also requests any occurrence data for Tier I At-Risk Species that may be found within a 1-mile buffer of the Project area. Included in this data, please provide the date of the occurrence (if available) and/or whether or not the record is considered historical. If feasible, the District would prefer information provided as points in a GIS shapefile format; however, due to the sensitive nature of the information requested, paper maps would be sufficient.

I appreciate your continued assistance in providing information to assist us with the relicensing effort for the Loup River Hydroelectric Project. The information provided will be used for analytical purposes only. This information will not be published or shared without the express consent of the Commission.

If you require any additional information or have any questions concerning this request please contact me at (402) 564-3171 ext. 268 or Matt Pillard at (402) 399-1186.

Sincerely,

Neal D. Suess

President/CEO

Loup Public Power District

Matt Pillard, HDR cc:

Well I.

Kim Nguyen, FERC June DeWeese, USFWS

From: Jorgensen, Joel [Joel.Jorgensen@nebraska.gov]

**Sent:** Sunday, June 07, 2009 3:11 PM

To: Marinovich, Melissa

Subject: RE: Tern and Plover Data question

Melissa:

We are having some internal discussions as to best address your requests. I need to touch base with a couple people and then I hope to get back to you shortly. I can forward the raw count data (used in the graphics) from 1987-2008 early next week.

In addition to the data that Mary Brown and I summarized and prepared, it is my understanding the Heritage Program also provided HDR with data. While the data that has been provided can be deconstructed to provide a greater level of precision, I do not believe a large amount of additional data remains unprovided. Nonetheless, we hope we can provide the all data that is available while ensuring that is done in a way that does not compromise our obligations and responsibilities.

-Joel

## Joel Jorgensen

Nongame Bird Program Manager Wildlife Division Nebraska Game and Parks Commission Lincoln, NE 68503 402-471-5440 joel.jorgensen@nebraska.gov

\*\*\*NOTE NEW EMAIL ADDRESS\*\*\*

**From:** Marinovich, Melissa [Melissa.Marinovich@hdrinc.com]

**Sent:** Friday, June 05, 2009 10:59 AM

To: Jorgensen, Joel

**Subject:** FW: Tern and Plover Data question

Joel,

Just following up. I'm sure you've been very busy with field work. Did you get a chance to look over the data we have? Specifically we are looking for nest counts and any reproductive success data on the Loup and lower Platte Rivers from 1987-2008. We need specific numbers so we are able to do our analysis. What data do you have and for which years?

#### Melissa

From: Marinovich, Melissa

**Sent:** Wednesday, May 27, 2009 8:05 AM

To: 'Jorgensen, Joel'

Subject: RE: Tern and Plover Data question

Hi Joel,

Sorry about that. We just got Microsoft 2007 and I'm still trying to figure out all the quirks (including how to make the files easily transferable). I attached it in a PDF format. Let me know if you are unable to open this for any reason. Thanks!.

#### Melissa

From: Jorgensen, Joel [mailto:Joel.Jorgensen@nebraska.gov]

**Sent:** Tuesday, May 26, 2009 4:33 PM

To: Marinovich, Melissa

Subject: RE: Tern and Plover Data question

Melissa:

I am unable to open the file (need an .xls rather than .xlsx). If you can resend that would be great.

-Joel

## Joel Jorgensen

Nongame Bird Program Manager Wildlife Division Nebraska Game & Parks Commission Lincoln, NE 68503 402-471-5440 joel.jorgensen@nebraska.gov

WATCH MORE: NONGAME BIRD PROGRAM TELEVISION

**From:** Marinovich, Melissa [mailto:Melissa.Marinovich@hdrinc.com]

**Sent:** Tuesday, May 19, 2009 12:41 PM

To: Jorgensen, Joel

**Subject:** Tern and Plover Data question

Hi Joel,

Hope bird migration season is going well so far for you. I heard that the plovers have been spotted, but still waiting on the return of the least terns. I saw quite a few common terns on the river in the last two weeks, so I would assume the least terns are not too far behind, although it's a long flight from South America © I have a few questions for you regarding the tern and plover data you have collected in the database.

In an attempt to further develop the studies in the study plans for Loup, I need to get a better handle on what tern and plover data is available on some of the different river reaches. I know we've talked about this before, but I have a few more questions. Attached is a spreadsheet of all the data we have accumulated from NGPC and International Piping Plover Census data (please let me know if you are unable to open it). Could you please take a moment to look this over and let me know if there is additional data that you have on these two river reaches and specify whether it is river or sandpit data? I guess I am specifically interested in more than just adult census information, such as nest counts, egg counts, fledge ratios, etc. Do they exist for the Loup River? Sandpits adjacent to Loup River?

Also, in response to a previous data request (NGPC letter dated 9/5/08) you provided us with some bar graphs depicting numbers of piping plovers and least terns on the lower Platte River and on sandpits adjacent to the lower Platte River (Columbus to Plattsmouth). We may need to use these numbers for a comparison study we are developing and was

wondering if you have access to actual number counts for the years of 1987-2008, rather than just trying to guesstimate based on the charts.

Once I get a better handle on what you have and what we need, I will be sending another, more specific data request letter to you.

## **Melissa Marinovich**

**Environmental Scientist** 

## **HDR** ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098

Phone: 402.399.1317 | Fax: 402.399.1111 Email: melissa.marinovich@hdrinc.com

From: Marinovich, Melissa

**Sent:** Monday, June 15, 2009 9:43 AM

To: 'Jorgensen, Joel' Cc: Damgaard, Quinn V.

**Subject:** Tern and Plover Data meeting on 6/9/09 **Attachments:** 090609\_NGPC\_Meeting\_Notes.pdf

Joel:

I just wanted to thank you again for taking the time to meet with Quinn and I last Tuesday (June 9) regarding the Tern and Plover data needs for the Loup Relicensing Project - Proposed Study Plan. Attached are my notes from our meeting. Please look them over and let me know if you have any questions, comments or revisions by the end of next week (June 19, 2009). Thanks again!

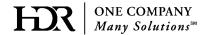
#### **Melissa Marinovich**

**Environmental Scientist** 

## **HDR** ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1317 | Fax: 402.399.1111

Phone: 402.399.1317 | Fax: 402.399.111 | Email: melissa.marinovich@hdrinc.com



# Meeting Notes

Subject: Proposed Study Plan – Tern and Plover Data Gathering		
Client: Loup Power District		
Project: Loup FERC Re-Licensing	Project No: 13704	
Meeting Date: June 9, 2009	Meeting Location: 2200 N. 33 <sup>rd</sup> Street, Lincoln, NE	
Notes by: Melissa Marinovich		

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#### Attendees:

Joel Jorgensen (NGPC), Melissa Marinovich (HDR), Quinn Damgaard (HDR)

## **Topics Discussed:**

The purpose of this meeting was to discuss the tern and plover data LPD has already gathered, to request the tern and plover data still needed from the NGPC for use in conducting the revised studies, to explain the proposed study plans to Joel Jorgensen, and to request feedback on the best metrics (bird numbers) to be using when conducting the studies as proposed. The meeting began at 2:00pm in the 3<sup>rd</sup> Floor Conference Room at NGPC.

#### I. Introductions

#### II. LPD Acquired Data

- Outline of all Tern and Plover data that the Project has collected to date for the Loup and lower Platte Rivers and from which sources this data has been obtained.
- > Is there any nesting or reproductive success data available for the Loup River that the Project is missing?
  - Some data is available for plovers on the Loup from the early 90's limited years
  - Most of the data consisted of 1 day of survey for a given year
  - There is not much information from the last 10 years other than the piping plover census vears
  - Very little, if any, reproductive success data
  - NGPC cautions LPD in using this data to draw conclusions, as the data is very scarse, incomplete, and was not collected with the intent of using it for future analysis

#### III. LPD Data Needs

- All available nest counts and reproductive success data (if available) on the Loup River and lower Platte River (1986-2008?)
  - Some data available, but limited
  - Most data from earlier years was collected by John Dinan and may have consisted of a few days of survey in late June and a few days of follow-up survey in early July
  - Caution using this information as there are a lot of variables not figured into the numbers, such as nest success (generally wasn't documented), re-nesting, detectability, double-counting, etc.
  - o HDR asked for further clarification on where to go for the data? Should some data be collected from Tern and Plover Conservation Partnership (Partnership)?
    - NGPC has all of the data. They sync their database with all other agencies as soon as data has been internally reviewed by the other agencies and the Partnership.

Phone (402) 399-1000

Fax (402) 399-1238

- Nest location data (or nest counts) on the lower Platte River (by river segment) for all years available. Segments are:
  - Loup/Platte Confluence to North Bend
  - North Bend to Leshara
  - Leshara to Ashland
  - Ashland to Louisville
  - Louisville to Missouri confluence
  - The data that NGPC has on the lower Platte River is segmented by river mile
    - HDR asked what source NGPC uses to identify the river miles on the Platte River
      - NGPC uses an older version of a USACE map
      - Jeff Runge, USFWS, may have a river mile shapefile for the Platte
  - The NGPC data is kept in a Microsoft access database will have to look into how to best provide the data to HDR/LPD
- Nest location data on Loup River for all years available
  - o Once again, very limited data on the Loup especially nesting data
  - Joel will talk to Rick Schneider (NE Heritage Database Supervisor) about how best to provide data
  - NGPC may have HDR/LPD sign a data use agreement

## IV. Explanation of Proposed Study Plans

- > HDR outlined the tern and plover related objectives and activities for Studies 1.0 (sedimentation), 2.0 (hydrocycling), and 5.0 (flow depletion/flow diversion)
  - Joel expressed concern in using the nesting data for drawing conclusions in Study 1.0.
    - HDR asked what metric would be best to use for evaluating effects to terns and plovers? Nest counts? Fledge ratios?
      - All metrics have their flaws.
        - Nest counts may not be the best reflection of the success of a population because there may be nests that were counted that did not produce chicks or may have missed nests.
        - Fledge ratio is a difficult metric to collect accurately. This metric
          is often collected observationally, leaving the door open for
          several flaws, such as detectability issues, double-counting,
          other factors not taken into account.
        - Caution in relying too much on the limited amounts and limited accuracy of the data – may not be enough data to see a relationship, but doesn't mean it's not there
  - For Study 2.0, when making river comparisons, Casey Lott, USACE, may be a good contact to discuss the Red and Arkansas Rivers – he has done a lot of work on those river systems with terns
  - For Study 5.0. Joel expressed concern with the use of limited data on the Loup River
    - There is extremely limited data on the Loup River
    - Terns are colonial so there may be some major flaws with limiting the analysis
      of the Loup River to 5 miles upstream of the diversion

#### V. Deadlines for Receiving Data from NGPC

- HDR asked how long it may take to receive the requested data from NGPC
  - Joel will talk with Rick Schneider about the requested data and get it too HDR/LPD as soon as possible
  - Melissa made the point that the revised study plan is to be submitted on the 27<sup>th</sup> of July and there is a need for the data prior to this date. Can NGPC let HDR/LPD know what of the requested data is available by July 3 at the latest, with the actual data to follow ASAP?

- NGPC committed to at least letting HDR know exactly what data will be made available by July 3
- NGPC will get the data to HDR/LPD as soon as possible and will try to move quickly on this, but unable to set an exact date – Joel will be out of the office for the next two weeks, but will discuss with Rick Schneider

#### VI. Action Items

Action	Responsible Party	Due Date
Contact Jeff Runge (USFWS) to request the river miles shapefile for the Platte River	Melissa Marinovich, HDR	June 10, 2009
Discuss providing NGPC data with Rick Schneider	Joel Jorgensen, NGPC	June 10, 2009
Provide information on the availability of requested data	Joel Jorgensen, NGPC	July 3, 2009
Provide NGPC requested tern and plover data	Joel Jorgensen, NGPC	As soon as possible

## VII. Adjorn

Meeting concluded at 3:18pm.

From: Pillard, Matt

**Sent:** Tuesday, June 23, 2009 12:14 PM

**To:** frank.albrecht@nebraska.gov; john.bender@nebraska.gov; jeff\_runge@fws.gov; robert\_harms@fws.gov; barbara.j.friskopp@usace.army.mil; abaum@upperloupnrd.org;

robert\_narms@tws.gov; barbara.j.triskopp@usace.army.mii; abaum@upperioupnrd.org; randy\_thoreson@nps.gov; bob.puschendorf@nebraska.gov; jean.angell@nebraska.gov;

mkuzila1@unl.edu; david.jundt@dhhs.ne.gov; jmiyoshi@lpnnrd.org;

steve.chick@ne.usda.gov; pcclerk@megavision.com; cityadmin@cablene.com; ncpza@hamilton.net; rbishop@cpnrd.org; jwinkler@papionrd.org; lpsnrd@lpsnrd.org;

jmangi@columbusne.us; cgenoa@cablene.com; monroe@megavision.com;

calms@neb.rr.com; danno@nohva.com; mbrown9@unl.edu; rtrudell@santeedakota.org; jblackhawk@aol.com; vwills@pawneenation.org; CoraJones@bia.gov; msittler@lpsnrd.org;

butchk@nctc.net; mohler@nctc.net; jmsunne@nppd.com; jalexand@usgs.gov;

jjshadl@nppd.com; cothern.joe@epa.gov; justin.lavene@nebraska.gov;

bobbie.wickham@nebraska.gov; kennyj@headwaterscorp.com; mferguson@gp.usbr.gov;

Willie\_Taylor@ios.doi.gov; Robert\_F\_Stewart@ios.doi.gov; jeddins@achp.gov; kenneth.sessa@dhs.gov; peggy.harding@ferc.gov; djjarecke@clarkswb.net; al.berndt@nebraska.gov; astuthman@leg.ne.gov; ksullivan@leg.ne.gov; clangemeier@leg.ne.gov; adubas@leg.ne.gov; Kim.Nguyen@ferc.gov;

chairmanrhodd@ponca.com; asheridan@omahatribe.com; don simpson@blm.gov;

david.turner@ferc.gov; nicholas.jayjack@ferc.gov; mark.ivy@ferc.gov;

jill.dolberg@nebraska.gov; prescott.brownell@noaa.gov; lewrightjr@gmail.com; thowe@ponca.com; zach nelson@bennelson.senate.gov; julias@poncatribe-ne.org;

todd.crawford@mail.house.gov; louis-pofahl@mail.house.gov;

emily\_brummund@johanns.senate.gov; deb.vanmatre@mail.house.gov;

patricia.leppert@ferc.gov

**Cc:** Angel Robak; Jim Frear; Neil Suess; Ron Ziola; Teresa Petr; Damgaard, Quinn V.; Engelbert,

Pat; Frame, Gail; Grennan, Dennis E.; King, Wendy; Pillard, Matt; Richardson, Lisa (Omaha);

Sigler, Bill; Waldow, George; White, Stephanie

Subject: Loup Power District FERC Relicensing - Study Plan Information

Relicensing Participants,

Thanks to those of you who attended the study plan meetings on May  $27^{th}$  &  $28^{th}$  in Columbus. Transcripts of the discussion for each day have been posted on the project website at:

http://www.loup.com/relicense/html/agencymeetingsresources.html.

Additionally, the District has prepared a memo documenting the outcomes of the meeting and outlining the District's intended approach related to the Goals, Objectives, and Activities for each of the aquatic resources studies (1 through 7 and 12) based on the discussion from the meetings. This memo is also posted to the project website.

I would also like to remind you that comments on the District's Proposed Study Plan are due on June 26, 2009. Please submit your comments to the District at the following:

Neal Suess, President/CEO Attn: Relicensing Loup Power District PO Box 988 2404 15<sup>th</sup> Street Columbus, NE 68602

Fax: (402) 564-0970 relicense@loup.com

Comments are due on June 26<sup>th</sup>, in the interest of time, please fax your comments in addition to sending via mail or e-mail.

If you have any questions, feel free to give me a call.

Regards,

## Matt Pillard, AICP

Senior Environmental Planner

## HDR | ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111 Email: Matt.Pillard@hdrinc.com



From: Albrecht, Frank [frank.albrecht@nebraska.gov]

Sent: Friday, June 26, 2009 2:23 PM
To: Neil Suess; relicense@loup.com

Cc: Tunink, Dave; Holland, Richard; Koch, Michelle; Pillard, Matt; Ron Ziola; Damgaard, Quinn V.;

Engelbert, Pat; Richardson, Lisa (Omaha); Waldow, George; jeff\_runge@fws.gov; robert\_harms@fws.gov; Jorgensen, Joel; Albrecht, Frank; Nelson, Kirk; Grell, Carey;

Schuckman, Jeff

Subject: Loup Power District FERC Relicensing - Study Plan Information

Dear Mr Suess,

Nebraska Game & Parks Commission staff members would like to thank you for the opportunity to work with you on the development of the Study Plan associated with the Loup Power District- FERC relicensing. Recently, we were able to contribute information for the proposed studies at several meetings held in Columbus (May 11, May 27-28, 2009). Also, please reference letters dated September 23, 2008 (Kristal Stoner to Melissa Marinovich), a joint letter developed by the US Fish and Wildlife Service and the NGPC (letter dated July 21, 2008), and a letter dated February 6, 2009 (Frank Albrecht to Kimberly Bose, FERC) for a detailed description of our earlier comments and concerns.

During the May 11<sup>th</sup> meeting, one of the proposed studies, a Recreational User Survey, was discussed in detail. There was a recommendation to modify the survey to include the Loup Power District Wildlife Management Area which is managed by the Nebraska Game & Parks Commission. Including this Wildlife Management Area in the survey would provide some interesting information. However, we believe that it is not necessary to include the area in the survey at this time. If FERC requires the modification, we would be happy to assist any way we can.

The other studies outlined in the plan will address Sedimentation, Hydrocycling, Water Temperature in the Loup River Bypass Reach, Flow Depletion and Diversion, Fish Passage, Land Use Inventory, Section 106 Compliance, and Ice Jam Flooding. Fish Sampling (Study #6) will not be included as a part of the Project relicensing. Rather, the District will cooperate with the Nebraska Game & Parks Commission to provide access for future NGPC-performed sampling.

Staff members pointed out other concerns and recommendations to the study goals and objectives at the May, 2009 meetings. Our comments on the studies can be viewed in the Meeting Transcripts which are located on the LPD website. Overall, we believe that the proposed studies will provide valuable information to help manage the public-trust fish and wildlife resources of the state.

If you have any questions or need any additional information, feel free to call or email me. Thank you again for the opportunity to provide additional comments.

Sincerely,

Frank Albrecht Assistant Division Administrator Realty and Environmental Services Division Nebraska Game and Parks Commission 2200 N. 33rd St. Lincoln, NE 68503

From: Pillard, Matt

**Sent:** Tuesday, June 30, 2009 11:07 AM

To: Frame, Gail

Subject: FW: New Email Address

From: Robert Mohler [mailto:robertm@llnrd.org]

**Sent:** Monday, June 29, 2009 3:56 PM

To: Charles E. Kokes; Chuck Wagner; 'Kelsy Moses'; Pillard, Matt; <a href="mailto:jmanqi@columbusne.us">jmanqi@columbusne.us</a>; 'Ann Mohler'

**Subject:** New Email Address

Please be advised that in the course of progress, the email address for the office, and consequently my email address, will be changed. My current address is <a href="mailto:robertm@llnrd.org">robertm@llnrd.org</a> The previous address including "nctc" will not work in the near future. Please change your address book if you want to stay in touch with me.

Thanks,

Robert T. Mohler

From: Jeff\_Runge@fws.gov

**Sent:** Tuesday, June 30, 2009 4:40 PM

To: Marinovich, Melissa

**Subject:** Fw: Platte River mile marker shape file

Attachments: Platte\_River\_Mile.shp.xml; Platte\_River\_Mile.dbf; Platte\_River\_Mile.sbx;

Platte River Mile.shx; Platte River Mile.prj; Platte River Mile.shp; Platte River Mile.shp

---- Forwarded by Jeff Runge/R6/FWS/DOI on 06/30/09 04:39 PM -----

Jeff

Runge/R6/FWS/DOI Tomelissa.marinovich@hdr.inc.com

06/30/09 04:37 PM ccMatt Schwarz/R6/FWS/DOI@FWS

SubjectRe: Platte River mile marker shape file

## Melissa,

The attached shapefile has the river miles from Plattsmouth to the North/South Platte confluence. I believe the projection is NAD 83 Zone 14.

I can be reached at the number below if you have any questions.

Jeff

(See attached file: Platte\_River\_Mile.shp.xml)(See attached file: Platte\_River\_Mile.dbf)(See attached file: Platte\_River\_Mile.sbx)(See attached file: Platte\_River\_Mile.shx)(See attached file: Platte\_River\_Mile.shp)(See attached file: Platte\_River\_Mile.shp)

\*\*\*\*\*\*\*\*\*

Matt Schwarz/R6/FWS/DOI

Matt

Schwarz/R6/FWS/DOI Tomelissa.marinovich@hdr.inc.com

06/25/09 04:38 PM ccJeff Runge/R6/FWS/DOI@FWS

## Melissa,

I looked for the subject file but could not locate it. I talked with Jeff and he will be able to provide you with the file upon his return next week.

Matthew S. Schwarz Environmental Toxicologist United States Fish and Wildlife Service Nebraska Field Office 203 West 2nd Street Grand Island, NE 68801 P: 308 382 6468 x21

F: 308 384 8835

matt\_schwarz@fws.gov

From: Stephen\_K\_Wilson@nps.gov
Sent: Tuesday, June 30, 2009 7:53 AM

To: Marinovich, Melissa Subject: Re: Just checking in again

Attachments: LTPP\_NiobraraRiver\_Census03-09\_NPS.xlsx; 022309\_niobraraltpp.ppt

HI Melissa, I pulled the Census numbers together, but need to pull the nesting numbers, site distribution, fledglings etc., together. I have put my powerpoint as an attachment which you can look at. I know you can see the data that was used to create the figures/tables but I consider these data provisional as I am in the process of writing a 2003-2009 status report on least terns and piping plovers on the Niobrara River.

Please clarify the use of these data.

Stephen

Stephen K. Wilson Resource Management/GIS Specialist Missouri National Recreational River P.O. Box 666 Yankton, SD 57078

605 665 0209 phone 605 237 3160 cell 605 665 4183 fax

"Marinovich, Melissa" <Melissa.Marinovich@hdrinc.com>

To "Stephen\_K\_Wilson@nps.gov" < Stephen\_K\_Wilson@nps.gov>

CC

05/20/2009 04:02 PM

Subject Just checking in again

Hi Stephen,

Bird season is kicking off and our project timelines have started running quite a bit faster than the last time I contacted you. Below is the last correspondence I sent you and received from you. Could you please revisit my requests as soon as possible? For the N-12 project we are hoping produce a Draft EIS by August, which means I really have to kick it into high gear with the BA and biological status sections. Thanks again!

#### Melissa Marinovich

**Environmental Scientist** 

Sent: 4/16/09

Thanks a lot, Stephen, and congratulations on the new baby! With respect to the N-12 project, we are only interested in the information for the 15 mile segment (Pischelville Bridge to Missouri) at this time for analysis in the BA. I am especially interested in the section of the river from the Verdigre Creek confluence to the Missouri confluence, if any nesting or foraging occurs there. Also, for the Loup FERC re-licensing project, we are interested in overall population trends on the Niobrara River and what management practices have been enacted to improve population status. Thanks again for your help. Let me know if you have any additional questions.

**From:** Stephen K Wilson@nps.gov [mailto:Stephen K Wilson@nps.gov]

Sent: Thursday, April 16, 2009 3:28 PM

To: Marinovich, Melissa

Subject: Re: FW: Tern and Plover Niobrara River data

Sorry for the delay. I actually haven't been in the office much with a new baby at home. I will work on the numbers for you next week, but quickly the NPS completes weekly nesting/productivity surveys on the lower 15 miles of the Niobrara River (Pischelville Bridge to Missouri River). Nests are located and followed until hatch, and then broods are followed until fledging. An adult census is completed in mid-June. The aforementioned survey began in 2003 and continues today.

Beginning in 2005, we began censusing the lower 40 miles of Niobrara River and continue today. The Nebraska Public Power District completes a census upstream from Spencer Dam to HWY 137, at which point the NPS continues the census to Norden Bridge. I am not sure if you want this detail that far up from HWY 12... If you do let me know.

## Stephen

Stephen K. Wilson Resource Management/GIS Specialist Missouri National Recreational River P.O. Box 666 Yankton, SD 57078

402 667 5524 phone 402 667 5536 fax "Marinovich, Melissa" < Melissa. Marinovich@hdrinc.com>

04/15/2009 12:10 PM

To "Stephen K Wilson@nps.gov" <Stephen K Wilson@nps.gov> cc

Subject FW: Tern and Plover Niobrara River data

#### Dear Stephen,

I sent you the attached email back in March and hadn't heard back from you. I'm sure you've been extremely busy with bird migration season fired up and a slough of other tasks. I have a few questions, just to clarify what is available. What types of tern and plover count information does NPS collect/have on the Niobrara River (eg. Adult counts, nest counts, fledge ratios, etc.)? For which segments of the river are you responsible to survey? For which years do you have data collected? I am trying to collect information on the Niobrara River to discuss the status and distribution of these species in biological assessments I am preparing for the afore mentioned projects. Your assistance in this collection of data would be greatly appreciated. Thank you for your time and let me know if you have any questions. Thanks again!

From: Marinovich, Melissa

**Sent:** Friday, March 20, 2009 9:13 AM **To:** 'Stephen\_K\_Wilson@nps.gov'

Subject: Tern and Plover Niobrara River data

Hi Stephen,

I received your name from the NE Game and Parks Commission with regards to tern and plover data on the Niobrara River. I am currently involved in two projects with potential tern and plover issues. The Nebraska Highway N-12 USACE EIS (Niobrara east and west) and the Loup Hydroelectric FERC Relicensing Project. A portion of my involvement in both of these projects is to develop biological assessments for the projects. I am also helping to develop study plans on the Loup project. We are currently in the process of collecting tern and plover census/bird/nest count data for the last 22 years on all of the Nebraska rivers and was told you were the keeper of all data from the Niobrara River. Could you please share the nest/bird count data for terns and plovers that has been collected on the Niobrara River from 1987-2008?

We hope to develop meaningful studies based on the most recent and best available information. Your assistance in these endeavors is much appreciated. I understand the sensitive nature of the information and would like to assure you that this information will be used for analytical purposes only and location specific data will not be published without the permission of the National Park Service.

Thank you for your time and if you have any questions please feel free to contact me. Thanks!

#### **Melissa Marinovich**

**Environmental Scientist** 

#### **HDR ONE COMPANY | Many Solutions**

8404 Indian Hills Drive | Omaha, NE | 68114-4098

Phone: 402.399.1317 | Fax: 402.399.1111 Email: melissa.marinovich@hdrinc.com

From: Jeff\_Runge@fws.gov

**Sent:** Monday, July 06, 2009 9:22 AM

To: Marinovich, Melissa

Subject: RE: Platte River mile marker shape file

I don't have a shapefile for the Loup. You may want to contact Rich Kern of the Nebraska Department of Natural Resources. He has a hardcopy list of river miles per certain landmarks such as river confluences. You can create a shapefile and verify the work with Rich's data.

Jeff

\*\*\*\*\*\*\*\*\*\*

"Marinovich, Melissa" < <u>Melissa.Marinovich@hdrinc.com</u>>

"Marinovich, Melissa"

<<u>Melissa.Marinovich@hdrinc.com</u>> To"Jeff Runge@fws.gov" <Jeff Runge@fws.gov>

cc

07/02/09 07:09 AM

SubjectRE: Platte River mile marker shape file

Jeff,

Thanks again for the river mile info on the Platte. Do you also have any river mile files for the Loup River? Anything you can provide would be helpful. Thanks again!

Melissa

From: <u>Jeff Runge@fws.gov</u> [mailto:<u>Jeff Runge@fws.gov</u>]

**Sent:** Tuesday, June 30, 2009 4:40 PM

To: Marinovich, Melissa

Subject: Fw: Platte River mile marker shape file

---- Forwarded by Jeff Runge/R6/FWS/DOI on 06/30/09 04:39 PM -----

Jeff
Pungo/P6/FWS/DOL

Runge/R6/FWS/DOI melissa.marinovich@hdr.inc.c

To

06/30/09 04:37 PM

cc Matt

Schwarz/R6/FWS/DOI@FWS

Subject

Re: Platte River mile marker

shape file

Melissa,

The attached shapefile has the river miles from Plattsmouth to the North/South Platte confluence. I believe the projection is NAD 83 Zone 14.

I can be reached at the number below if you have any questions.

Jeff

(See attached file: Platte\_River\_Mile.shp.xml)(See attached file: Platte\_River\_Mile.dbf)(See attached file: Platte\_River\_Mile.sbx)(See attached file: Platte\_River\_Mile.shx)(See attached file: Platte\_River\_Mile.sbn)(See attached file: Platte\_River\_Mile.sbn)(See attached file: Platte\_River\_Mile.shp)

\*\*\*\*\*\*\*\*\*\*

Matt Schwarz/R6/FWS/DOI

Matt To

Schwarz/R6/FWS/DOI <u>melissa.marinovich@hdr.in</u>

cc

06/25/09 04:38 PM Jeff Runge/R6/FWS/DOI@

Subject

Platte River mile marker sha file

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#### Melissa,

I looked for the subject file but could not locate it. I talked with Jeff and he will be able to provide you with the file upon his return next week.

Matthew S. Schwarz
Environmental Toxicologist
United States Fish and Wildlife Service
Nebraska Field Office
203 West 2nd Street
Grand Island, NE 68801

P: 308 382 6468 x21 F: 308 384 8835

matt schwarz@fws.gov

From: Richardson, Lisa (Omaha)
Sent: Saturday, July 11, 2009 6:34 PM

To: King, Wendy

**Subject:** FW: revised study plan

From: Richardson, Lisa (Omaha)

**Sent:** Wednesday, July 08, 2009 5:11 PM **To:** 'Angell, Jean'; <a href="mailto:relicense@loup.com">relicense@loup.com</a>

Cc: Dunnigan, Brian; Thompson, Mike; Schneider, Jim; Neal Suess; Waldow, George; Engelbert, Pat

**Subject:** RE: revised study plan

Jean,

The District will respond to the study plan you submitted in June as part of the Revised Study Plan. As you are aware, we coordinated with the Omaha District regarding assistance developing an ice study prior to the May 27<sup>th</sup> meeting. At that time they indicated that they did not have time to assist us and referred us directly to CRREL. Since that time we have been coordinating with CRREL and will be receiving a proposal from them next week on appropriate methods to determine if, and to what extent, do hydro project operations exacerbate ice jam formation and related flooding in the Loup River bypass reach? Once we receive CRREL's proposal we will compare it with the study submitted by the DNR and identify which elements to incorporate into our Revised Study Plan.

We will provide a response to the DNR's study request as part of the Revised Study Plan that will be submitted to FERC on July 27<sup>th</sup>, but we will not be providing a separate response to the DNR prior to then.

Please feel free to give me a call if you have any questions.

Regards,

Lisa

**From:** Angell, Jean [mailto:jean.angell@nebraska.gov]

**Sent:** Tuesday, July 07, 2009 10:20 AM

**To:** Richardson, Lisa (Omaha); <a href="mailto:relicense@loup.com">relicense@loup.com</a> **Cc:** Dunnigan, Brian; Thompson, Mike; Schneider, Jim

**Subject:** revised study plan

The Department of Natural Resources and LPD attempted to create a plan to study the effect, if any, of LPD's operation on ice jam flooding in the Lower Platte River Basin. Because of the inability of the Department and LPD to jointly devise a satisfactory plan, the Department enlisted the services of the U.S. Army Corps of Engineers and submitted a plan created by them to you on June 25, 2009. The schedule of pre-application activity for the LPD FERC relicensing provides for creation of a revised study plan by July 27, 2009. The Department wishes to know if it is LPD's intent to respond to the study plan submitted by us. Thank you for your attention to this.

Jean Angell Legal Counsel Department of Natural Resources 471-3931

From: Jorgensen, Joel [Joel.Jorgensen@nebraska.gov]

**Sent:** Monday, July 13, 2009 3:13 PM

To: Marinovich, Melissa Subject: RE: Data questions

#### Melissa:

Just letting you know I have read your email and I am working to address these questions in the limited time I have been in the office recently. I can respond that data for the Lower Platte River includes only river data.

-Joel

#### Joel Jorgensen

Nongame Bird Program Manager Wildlife Division Nebraska Game & Parks Commission Lincoln, NE 68503 402-471-5440 joel.jorgensen@nebraska.gov

From: Marinovich, Melissa [mailto:Melissa.Marinovich@hdrinc.com]

**Sent:** Tuesday, June 30, 2009 8:44 AM

To: Jorgensen, Joel

**Cc:** Richardson, Lisa (Omaha) **Subject:** Data questions

Hi Joel,

After beginning to sift through the tern and plover data you provided recently (thanks again), I've started to come up with a few questions.

First – the lower platte river data – does this data include both river sites and sandpits adjacent to the river?

Second – looking at the Loup River data – I noted that data from 1996 was absent. Since this was a PP census year, is there data available for this year? Also, with regards to PP Census numbers for 2001 – the adult census numbers and locations differ greatly between John Dinan's summary and the numbers and location listed in the data we received for these years. My question is – where did the numbers on the Loup River for the PP census years come from? Did John use a formula to estimate number of birds? Is the tern and plover database missing some of the data used from the census years?

Any help you could lend in answering these questions would be great. I just want to make sure we are using the most correct numbers. Thanks again!

#### **Melissa Marinovich**

**Environmental Scientist** 

From: Mary B Brown [mbrown9@unlnotes.unl.edu]

**Sent:** Tuesday, July 14, 2009 1:10 PM

To: Marinovich, Melissa

Cc: joel.jorgensen@nebraska.gov; martha\_tacha@fws.gov

**Subject:** RE: phone message

#### Hello Melissa,

We (the TPCP) work with Peter Melcher at Preferred Rocks of Genoa, the USFWS, and NGPC to design and implement the management plan for the sand management zone (sandpile). Since the TPCP does the routine monitoring of the birds on the sandpile, we (the TPCP) have the most direct contact with Preferred Rocks. Over the winter and early spring, we meet with Preferred Rocks and discuss their work plans for the coming season and construct an adaptive management plan to protect the birds. We define a "bird management area" on top of the sandpile and Preferred Rocks (using their equipment and employees) constructs a sand berm around the "bird management area". They also construct a couple of small pond-wetland areas for the birds to use. Preferred Rocks windrows the sand outside of the bermed area to deter the birds from nesting there. Within the bermed area, Preferred removes all of the woody vegetation (cottonwood trees, etc). Preferred Rocks also has 2 employees that regularly tour the sandpile to help us locate nests and monitor the birds. Last year, water flowing from a LPPD slurry pipe washed out one end of the protective berm, nearly flooding several nests. LPPD helped rebuild and reinforce the berm, along with adding an extension tube to the slurry pipe. This extension tube diverted the slurry water around the sand berm. After the nesting season is over, I discuss, with Mr. Melcher and the 2 Preferred Rocks employees that monitor the birds, what procedures worked well for the birds and how we can improve on our procedures.

Hope this is helpful, Mary

Mary Bomberger Brown
Tern and Plover Conservation Partnership
153C Hardin Hall
University of Nebraska
3310 Holdrege Street
Lincoln, NE 68583-0931 USA
telephone: (402) 472-8878

fax: (402) 472-2946 email: <a href="mbrown9@unl.edu">mbrown9@unl.edu</a> http://ternandplover.unl.edu

"Marinovich, Melissa" < Melissa.Marinovich@hdrinc.com >

To Mary B Brown < mbrown9@unInotes.unl.edu>

CC

07/13/2009 07:20 AM Subject RE: phone message

#### Good morning, Mary!

Thanks for the quick response! I didn't get the chance to check my email over the weekend, so I'm sorry it took so long to get back to you. I am writing some background text on the tern and plover management practices that have recently been employed at the sand management area and I wanted to make sure I had the information correct.

The current practices that are in effect to protect the birds under the agreement with Preferred Rocks of Genoa are: sand berm, diverting dredge discharge (with pipe extensions as needed), directing nest site selection (using wind rowing in the sand and Mylar flagging), and monitoring birds – Correct?

Also – did the Tern and Plover Conservation Partnership develop the management practices for this site or was it a group effort with TPCP, USFWS, and NGPC?

That was all I had. I just wanted to make sure I had the correct information on tern and plover management at the sand pile. Hope your bird season is going well. It's been some high water on the Platte (from what I've noticed driving over the interstate bridge in the mornings ©). I would love the opportunity to get out and help the Partnership in any way that I can this season. Thanks again!

#### Melissa

From: Mary B Brown [mailto:mbrown9@unlnotes.unl.edu]

Sent: Saturday, July 11, 2009 6:18 PM

**To:** Marinovich, Melissa **Subject:** phone message

Hello Melissa,

Chris said that you phoned on Friday with a question about the Loup relicensing project. What can I do for you?

Let me know, Mary
Mary Bomberger Brown
Tern and Plover Conservation Partnership
153C Hardin Hall
University of Nebraska
3310 Holdrege Street
Lincoln, NE 68583-0931 USA
telephone: (402) 472-8878

fax: (402) 472-2946 email: <a href="mbrown9@unl.edu">mbrown9@unl.edu</a> http://ternandplover.unl.edu

From: Jorgensen, Joel [Joel.Jorgensen@nebraska.gov]

**Sent:** Thursday, July 16, 2009 10:47 AM

To: Marinovich, Melissa Subject: 1996 Loup Data

Attachments: Loup\_1996\_hert\_output.dbf

#### Melissa:

I believe the 1996 Loup data presents a similar situation as the 2001 data. I have been unable to locate an additional file containing the data. I requested that the Heritage Program provide their data and an output is attached containing Loup River data for 1996. I hope this is helpful.

- Joel

\_\_\_\_\_

Joel Jorgensen
Nongame Bird Program Manager
Wildlife Division
Nebraska Game and Parks Commission
Lincoln, NE 68503
402-471-5440

joel.jorgensen@nebraska.gov

From: Jorgensen, Joel [Joel.Jorgensen@nebraska.gov]

**Sent:** Thursday, July 16, 2009 10:14 AM

To: Marinovich, Melissa Subject: 2001 Loup Data Attachments: 1930\_001.pdf

#### Melissa:

I reviewed this matter. It appears in the database that I sent provided data from one pit (Columbus #71) and I assume this is because an original file and/or documents containing field data has not been located. Nonetheless, I did find a summary from the 2001 IPPC. Attached you will find a summary that includes terns. I hope this is helpful and it should correspond with data in the 2001 IPPC report.

Thanks for bringing this omission to my attention. Our tern and plover database continues to be a work in progress. It is my understanding that as recently as 2005-06 data was entered into an electronic format from years of surveys. We continue to make advancements but there our are omissions and also data that has not been entered.

I will follow up with additional information shortly.

-Joel

#### Joel Jorgensen

Nongame Bird Program Manager Wildlife Division Nebraska Game & Parks Commission Lincoln, NE 68503 402-471-5440 joel.jorgensen@nebraska.gov



### United States Department of the Interior

U.S. GEOLOGICAL SURVEY Water Resources Discipline Nebraska Water Science Center 5231 South 19<sup>th</sup> Street Lincoln, NE 68512-1271

July 17, 2009

John Cochnar Acting Field Supervisor Nebraska Field Office U.S. Fish and Wildlife Service 203 West Second Street Grand Island, Nebraska 68801



Dear Mr. Cochnar,

In response to USFWS letter (FWS-NE:2009) dated May 20, 2009, the U.S. Geological Survey (USGS), Nebraska Water Science Center (NEWSC) has completed a review of the hydrological and geomorphological methods in the Loup River Hydroelectric (LRH) Proposed Study Plan (PSP) for Federal Energy Regulatory Commission (FERC) as part of the re-licensing process. The NEWSC recuses itself from commenting on the methods associated with investigating water temperature because of known potential for USGS involvement with the temperature component of the investigation.

You will find the review report attached this letter. The review was completed by hydrologist Jason S. Alexander, and underwent colleague review by two USGS hydrologists familiar with the Platte River system. The report was approved by our regional approving official on July 15, 2009 for publication as a USGS Administrative Report. The report is citable, but may only be released to the public by your agency.

Please let me know if we can be of further assistance.

Sincerely,

Robert B. Swanson

Director, USGS-NEWSC

Enc

## Technical Review of Hydrologic and Geomorphologic Components of the Proposed Study Plan for Federal Energy Regulatory Commission Re-licensing of the Loup River Hydroelectric Project, Nebraska

# USGS Administrative Report Interagency Agreement 601819H417

#### Prepared for

John Cochnar
U.S. Fish and Wildlife Service
Nebraska Field Office
Grand Island, Nebraska

#### **Prepared By**

Jason S. Alexander, Hydrologist U.S. Geological Survey Nebraska Water Science Center Lincoln, Nebraska

July 17, 2009

#### SUMMARY AND BACKGROUND

The Loup River Hydroelectric (LRH) project is managed by the Loup River Public Power District (LRPPD) of Nebraska and operates under license granted by the Federal Energy Regulatory Commission (FERC). LRPPD is seeking a new operating license for LRH through FERC's Integrated Licensing Process, which includes the participation of agencies with regulatory or stakeholder interest in the resources potentially affected by LRH operations. The Loup River is the largest tributary by annual volume to the lower Platte River, and is a primary source of water in the lower Platte River (defined herein as the reach of the Platte River between the Loup River confluence and the Missouri River confluence) in the late summer. LRH interacts with the Loup River and lower Platte River by diverting some of the flow and sediment of the Loup River into a canal system at the Genoa Headworks facility. The canals eventually deliver the water to intake facilities to generate power at two hydroelectric facilities—the Monroe and Columbus Powerhouses. The diverted water eventually is delivered to the lower Platte River through a tailrace canal fed by the power-generating turbines at the Columbus Powerhouse facility.

The U.S. Fish and Wildlife Service (USFWS) formally requested assistance from the U.S. Geological Survey (USGS), in the review of LRPPD's Proposed Study Plan (2009), hereafter referred to simply as the 'PSP'. The PSP is part of the FERC relicensing process and outlines LRPPD's objectives and methods for investigating and assessing potential resource impacts from LRH operations. The lower Platte River is known to provide some habitat value for bird and fish species listed under state and federal threatened and endangered species laws. These species, and their associated habitats, may be affected by LRH operations and interactions with the flow and sediment regimes of the Loup and Platte Rivers. Because of the USGS's expertise in riverine processes, the USFWS specifically requested a review of the hydrologic and geomorphologic studies outlined in the PSP.

#### REQUEST FOR TECHNICAL REVIEW

On May 20, 2009, Mr. John Cochnar, Acting Supervisor of the Nebraska Field Office of the USFWS, requested that the USGS assist in reviewing the PSP for the LRH relicensing process. The review specifically requested assistance with the hydrology and geomorphology-related study objectives. The letter from Mr. Cochnar is attached as an appendix to this report. Mr. Jason Alexander, USGS Hydrologist, conducted the review, which was peer-reviewed for scientific and technical quality by Mr. Phil Soenksen, Surface Water Specialist, Nebraska Water Science Center (NEWSC), Lincoln, Nebraska, and Ms. Caroline Elliot, USGS Hydrologist, Columbia Environmental Research Center, (CERC), Columbia Missouri.

#### **USGS REVIEW**

Only the methodologies in the PSP in the range of USGS NEWSC expertise were reviewed: sedimentation, hydrocycling, and ice jams. Methods for assessing water temperature in the Platte River were not evaluated because the issue was removed from the study plan at the April 21, 2009, PSP meeting. Additionally, some of the particular methods within the sections, for example those methods associated with bird and fish ecology, were not reviewed. The following sections are organized in sequence, but because of the close association of

sedimentation and hydrocycling processes, there may be some subject overlap and repetition between those sections. The word 'project' in the following sections refers to Loup River Hydroelectric operations as described in the LRH FERC pre-application document (PAD) dated October 16, 2008.

#### **Sedimentation**

The PSP states that the objectives of the sedimentation study are to:

- Determine the effect, if any, that project operations have on stream morphology and sediment transport in the Loup River bypass reach and in the lower Platte River.
- Compare the availability of sandbar nesting habitat for interior least terns and piping plovers to their respective populations.
- Compare the general habitat characteristics of the pallid sturgeon in multiple locations.

A technical evaluation of relevant proposed methods for achieving these purposes follows, organized by PSP task.

#### Task 1 - Data Collection and Evaluation

#### Summary of Concerns:

The purpose of surveying a single cross section upstream from the project diversion weir is never clarified in the subsequent tasks. The USGS assumes the purpose of this survey would be to characterize channel geometry in the Loup River upstream from the project, for comparison with similar data in the Loup River bypass reach, and potentially to assess any impacts on downstream channel geometry from flow and sediment diversions at the diversion weir.

#### Suggested Method Improvement:

The measurement of cross-section geometry at a single point and at a single transect is unlikely to provide adequate information to characterize the geometry of the Loup River upstream from the project diversion. To represent the range of channel geometries upstream from the project, a single sampling of several channel cross sections, spaced at some systematic interval at a discharge magnitude of interest, would better represent the flow regime that directly relates to the goals of the sedimentation study. This exercise could be supplemented with a geographic information systems (GIS) analysis of channel geometry characteristics digitized from aerial photos, which could be used to estimate the ranges of channel planimetric changes associated with the diversion operations (Elliott and Jacobson, 2006). Additionally, within Task 4 of this report LRPPD proposes to characterize channel morphology in the Loup and Platte Rivers downstream from the project using USGS discharge-measurement data. Although channel geometry is partially represented in discharge-measurement data, the sub-aerial (portion of the channel bed that is above the water surface at the time of the discharge measurement) component of the cross section is not included as part of the measured cross section, because it is not relevant to the discharge measurement. The sub-aerial component of channel geometry is a key measure of sandbar habitat for the piping plover and interior least tern, because it is a determinant of nesting-habitat suitability and probability of late-season nest survival (Sidle and others, 1992; Ziewitz and others, 1992; Kirsch, 1996; Parham, 2007; Brown and Jorgensen, 2008). This issue is discussed further under Task 4 (later in this report).

#### Task 2 - Sediment Budget

#### Summary of Concerns:

The PSP states that an updated sediment budget will be constructed based on a sediment budget and yield analysis completed by the Missouri River Basin Commission (MRBC) for its 1975 report. The sediment yield component of the Missouri River Basin (1975) document was written as basin-scale sediment analysis (that is, for the entire Missouri River Basin). As such, the approach of combining soil-loss equations and flow-frequency analysis with sediment rating curves was likely to have provided adequate accuracy and precision for the MRBC study because the sediment yields of any particular sub-basin of the Missouri probably were within the error margin of the total sediment yield at the mouth. This coarse precision is demonstrated in table 5-13 of the PAD, where the sediment yield of the bypass reach, and the small tributaries within it (Beaver Creek, Looking Glass Creek), were reported to be as large as the entire yield of the Platte River upstream from the confluence with the Loup River, and the total yield of the Loup River at Columbus was reported to be almost four times the sediment yield of the Platte upstream from the confluence. Although the Loup River likely carries a heavy sediment load, a comparison of annual hydrology for the Loup River at Columbus (06794500) and the Platte River at Duncan (06774000) USGS streamflow-gaging stations for the period with overlapping annual statistics (1942-78) indicates that the mean daily flow of the Loup River at Columbus is, on average, 60 percent of the mean daily flow of the Platte River at Duncan; this disparity is because of the long season when flows in the Loup River bypass reach are extremely low because of the project diversion. Although peak flows of the Platte River at Duncan are, on average, only 64 percent of the magnitude of the Loup River peaks at Columbus (for the overlapping statistical record), it is unlikely over the long term that the Loup River bypass reach is transporting four times the sediment with 60 percent of the mean daily flow of the central Platte River. This particular interpretation would be different if both rivers had gravel beds, in which case bedload transport would be limited primarily to the high-flow periods.

An additional cautionary note with regard to the MRBC sediment budget and yield analysis is the fact that many of the sediment rating curves were applied to flows well beyond the magnitude of discharges for which sediment samples were available. For example, the sediment rating curves used for the Loup River at Genoa were constructed with data for discharges ranging from 1,000 cubic feet per second (ft³/s) to approximately 10,000 ft³/s, but were applied to discharges as large as 40,000 ft³/s. It is very likely that the sediment rating curves have uncertainties of an order of magnitude when they are applied to discharges beyond the range for which the sediment transport measurements exist. The flows exceeding 10,000 ft³/s were shown to transport a substantial proportion of the estimated total sediment yield. Furthermore, the sediment rating curves should reflect a change in the discharge-transport relation at river stages where flows go into the overbank segments of a flood section, because the average cross-sectional velocity decreases, the channel width—to-depth ratio increases, and sediment begins to deposit on the floodplain.

Also of concern is the fact that the PSP never states how the impact, if any, of project operations on the sediment budget will be assessed, nor does the PSP state the timescales for which the sediment budget will be constructed (decadal, annual, seasonal). An issue that may be of concern to the USFWS, and that could be addressed with an adequate sediment budget, would be improving the understanding of spatial variation in the sources of sediment that form and maintain sandbars (habitat for terns and plovers). A river draws its sediment supply from one or

more of several sources including the upstream supply transported by the main channel and tributaries, the bed of the river, the bars deposited on the river bed, and the river banks. In an equilibrium condition, the upstream supply is equal to the transport potential, and cross-section adjustment is minimized or balanced. When the upstream supply is greater than the transport capacity, the bed, banks, or bars of the river aggrade, and the thalweg frequently shifts. In a situation where the transport potential exceeds the upstream sediment supply, a relative sediment deficit exists, and the river begins to erode sediment from the bed, banks, and (or) bars (Mackin, 1948; Lane, 1955; Langbein and Leopold, 1964; Parker, 1978; Howard, 1988). Deficit conditions are the most frequently encountered conditions at clear-water hydropower tailwaters such as the LRH tailrace (Williams and Wolman, 1984; Schmidt and Wilcock, 2008). A similar example in Nebraska is the J2 return on the central Platte River (Bureau of Reclamation, 2006).

The upstream sediment supply to the lower Platte River upstream from the Elkhorn is likely provided primarily by its two largest tributaries, the Platte River upstream from the Loup River and the Loup River. After the spring and early summer peak flows of the Loup River have passed, the project begins to divert most of the flow at the headworks, and flows in the bypass reach eventually are reduced to a relatively minor fraction of the total flow. The reduced flows in the bypass reach most likely result in a seasonally reduced sediment transport potential. The most logical hypothesized results of this reduction in sediment transport potential are sediment surplus in the bypass reach of the Loup River because of a seasonal inability to transport its load, and sediment supply deficit at the tailrace, where the flow is returned as 'clear water' inflow to the lower Platte River. Data from published sources tend to support this hypothesis. For example, Chen and others (1999) suggested that the bed of the Loup River in the bypass reach, analyzed for a short period, was aggrading, whereas the bed of the Platte River at North Bend indicated no statistically significant trend. More recent data published by Brown and Jorgensen (2008) suggest that the height of sand bars in the Platte River relative to a reference discharge systematically decreases in the upstream direction between the Elkhorn River and North Bend. To our knowledge, these data do not extend much further upstream than North Bend. The systematic growth in sandbar height in the downstream direction could be caused by several factors including increases in discharge resulting in higher stages during sandbar-building floods; increase in sediment supply in the downstream direction, either from tributaries or from upstream erosion of the bed or bars; faster bar-erosion rates over the summer season near the tailrace than in reaches farther downstream; and reductions in high-bank channel width, resulting in channel confinement and higher stages during sandbar-building events.

#### Suggested Method Improvement:

The PSP states that the MRBC sediment budget analysis will be updated with new data, including Bureau of Reclamation (BOR) sediment-transport equations, and LRH dredging records. In addition to these improvements, the following method improvements would provide stakeholders with less uncertainty and greater clarity:

1. The analysis should focus on sediment <u>transport potential</u> at key nodes along the river using sediment-rating curves, and using the soil-loss equations (and sediment-delivery ratios) only where necessary to provide estimates of yield increases where important, ungaged tributaries supply sediment. The sediment rating curve for any particular node can be assumed to provide a measure of the sediment transport potential at a given discharge. Because the Loup and Platte

Rivers are both sand-bed, braided channels, one also can assume that these rivers are transporting sediment at their potential rate because the sediment grain sizes are highly transportable and available from either upstream or local sources. The Missouri River Basin Commission (1975) and the Bureau of Reclamation (2003) reports provide sediment transport rating curves for several important nodes within the Platte River system. At nodes where sediment rating curves are not available, rating curves from other Platte River system nodes with similar river morphology and grain sizes could be applied (the MRBC report used this approach for many of its nodes). This procedure could be accompanied by a sensitivity analysis, using several of the available rating curves applied at one node to quantify a range of transport potential estimates, and checked against available sediment-concentration data at any particular node. Where soilloss estimates (including rill and gully erosion) are used, uncertainty estimates or sensitivity analyses should be developed and reported.

- 2. Uncertainties of the sediment budget would be best reduced by limiting much of the analysis to discharges within the range for which suspended-sediment concentration measurement data are available. If flows outside the range of the sediment data are to be explored, then an accompanying analysis of the range of uncertainty should be included, and those ranges reported.
- 3. The sediment budget should focus on a range of hydrologic conditions (less frequent to more frequent, but within the range of sediment measurements) and during the season(s) of interest to stakeholders. The USGS assumes that seasons of interest would include the nesting period for piping plover and interior least tern, and the migration and spawning period for the pallid sturgeon. For example, the project likely has the greatest effect on sediment supply during years or periods of sustained average to below-average discharge because these are the conditions when the diversion constitutes a large proportion of the total flow of the Loup River, and flows in the bypass reach persistently are lowest. Likewise, the Loup River may provide an adequate supply of sediment to build sandbars in the lower Platte River during above-average flow years, or years when peak flows are unusually large, because the diversion may constitute only a minor fraction of the total flow during these events. Such seasonal analyses may be critical to understanding trends in nesting over a series of years (Task 5 of PSP sedimentation study).
- 4. The grain-size distribution of sediment contributed from any tributaries reported to be contributing sediment should be characterized. This information would be needed for determining if the tributary sediment supply is important to bar-building processes. For example, tributaries with dominant grain sizes in the silt-to-clay range [less than 0.0625 millimeter (mm)] would not provide material that would contribute appreciably to bedload, and therefore would not be important as sediment sources for sandbar construction in the lower Platte River.

### Task 3 - Effective Discharge

Summary of Concerns: The purpose of the effective discharge analysis is not clearly presented in this section of the PSP. Effective discharge estimation is a common method used to assess potential convergence between sediment-transport efficiency and channel geometry; however, the PSP language is not clear on how the LRPPD will use the effective discharge analysis to determine what effects, if any, the project has on sedimentation in the Loup and Platte

Rivers. Although Task 4 states that effective discharge analysis will be used in conjunction with the stream-morphology analysis, how the two analyses will be linked to evaluate project effects is not elucidated. Furthermore, the method of effective discharge analysis has been most commonly developed and applied to meandering rivers where causation between discharge, sediment caliber, and channel geometry has been explored extensively (Knighton, 1998). The planform of the Loup and Platte Rivers, except for some short reaches in the bypass reach of the Loup, typically does not exhibit the most common characteristics of meandering rivers, such as lower width-to-depth ratios, strongly asymmetric cross-section form, and formation of point bars and meander loops. The channel features of primary concern to piping plovers and interior least terns are mid-channel sandbars (Faanes, 1983; Sidle and others, 1992; Kirsch, 1996), most of which are dynamic, and likely to be seasonally adjusted to the hydrology and sediment supply, without regard to the overall exceedance of any single discharge target level. Whereas the broadscale width between the high banks of the Platte River and Loup River channels may be adjustable over the long term to the interaction between less-frequent discharges and geologic constraints (Joeckel and Henebry, 2008; Fotherby, 2009), the elevation and extent of active midchannel sandbars from year-to-year likely is determined by the local elevation and duration of the stage of the annual peak flow, the local slope, the caliber and supply of sediment, and reshaping by the intervening lower-magnitude (higher-frequency) flows (Smith, 1971; Germanowski and Schumm, 1993; Bridge, 2003).

#### Suggested Method Improvement:

Two changes to the technical approach, or its description, would be beneficial and bring additional clarity to stakeholders.

- 1. The goal of the effective discharge analysis, and the procedure for assessing impacts from the project should be clearly stated to allow the USFWS to fully evaluate the usefulness of this part of the study.
- 2. The PSP states that the effective discharge will be formulated using the flow-frequency curve and sediment-discharge rating curves for each study station. The 'Unit Stream Power' method is the proposed method for developing sediment-discharge rating curves for each streamflow-gaging station. The PSP states that this method, as well as the Einstein method, were adequate for prediction of sediment discharge in the Middle Loup River. Although the 'Unit Stream Power Method' is a valid approach for calculating sediment discharge (Yang, 1973), the USGS suggests using several methods of sediment discharge estimation to allow stakeholders to understand the range of uncertainty associated with these types of calculations. This also would allow the existing equations, such as those developed by the MRBC and the BOR, to be compared against the new estimates from sediment-discharge rating curves developed per the final PSP. This type of comparison would not require a significant time (cost) expansion, because the flow-frequency curves need only be 'plugged' into the existing equations.

## Task 4 - Stream Channel Morphology

#### Summary of Concerns:

The PSP proposes to 'review and evaluate' existing stream morphology information reported by the USGS to determine project effects thereon. There are a number of reasons for

concern with this approach to the evaluation of project effects. A primary limitation of the stream channel morphology information from USGS measurements is the fact that the measurement data are entirely sub-aqueous, with only the locations of the margins of sandbars noted. No sub-aerial survey information exists to allow for an evaluation of the sandbar elevations or trends in sandbar height, which is the primary habitat component of concern for recovery of the piping plover and interior least tern species.

In addition, USGS discharge measurement data for large rivers are limited mostly to bridge measurements, and therefore are limited to trends at a single cross section, which may or may not be representative of the upstream and downstream river morphology. For example, in comparing sections at bridges to those located at distance from bridges during near-median flow conditions at North Bend and near Ashland, Ginting and Zelt (2008) reported that for the deepest 30 percent of cross sections, the wetted channel was significantly deeper at the bridge. Although the continuity of these data sets are valuable resources for long-term trend evaluations at a site, they are weak as a representation of channel trends for reaches extending for many channel widths to miles long, and provide no information for the evaluation of sandbar elevation or morphology.

A defensible evaluation of trends in river morphology with time for a reach of several miles involves, at a minimum, a sample consisting of numerous cross sections, spaced at some physically or geomorphologically relevant interval. Such sampling is important for characterizing whether or not a particular trend resulted from a local depositional pattern or change in channel hydraulics, or if the trend is systematic and representative at a larger scale (segment to systemic). Cross-section sampling is a common method for evaluating channel morphology, and numerous examples exist in the literature. One example of such sampling in Nebraska is the BOR (2006) evaluation of trends in aggradation and degradation in the central Platte River. The study re-visited historical cross sections and assessed trends in channel degradation and aggradation for several tens of miles of the river. Data from the BOR (2006) study were used to statistically compare and evaluate the relative stability of entire reaches of river, and to relate stability to particular physical and geomorphological controls. Another example is the study by Buchanan (1981) of the braided section of the Niobrara River. Buchanan (1981) re-surveyed historical BOR cross sections and indicated that an approximate balance existed between the number and magnitude of aggrading and degrading cross sections, and that no spatial trend in aggradation or degradation was present.

Of possibly even greater concern than the reasons listed above is the fact that no analysis of historical cross sections or channel geometry is proposed at all for the reach immediately downstream from the LRH tailrace. In the PSP, the first cross-section evaluation is proposed to occur at North Bend, 30 miles downstream from the tailrace. This is of concern because the reach heginning at the tailrace confluence with the Platte River is the reach most likely to be affected by the project operations, because it is the location where a sediment deficit is most likely to occur as a result of the clear-water power-canal return flows. As a familiar comparison, this would be the equivalent of assessing the impacts the J2 hydropower return flows on the morphology of the central Platte River, but not collecting any information on channel morphology between the J2 return and the Kearney bridge. The BOR (2006) showed that the impacts from J2 return flows are most significant within the first 10 miles downstream from the clear-water return, and are substantially diminished at Kearney, 30 miles downstream.

#### Suggested Method Improvement:

The lack of historical (or modern) channel geometry data between the LRH tailrace and North Bend, Nebraska, on the lower Platte River, diminishes the power of any determination of projects effects on lower Platte River morphology. The proposed methods could be improved in the following ways:

- I. The USGS has not performed a search for historical channel sections in the Platte River between the LRH tailrace and North Bend. A search for such information is suggested as an initial component of the study of channel morphology impacts. If such information does not exist, other methods for evaluating bar and bed erosion could be employed.
- 2. In the absence of several historical channel cross sections, other methods of evaluation of project impacts on channel morphology could be employed. Below are some examples.
  - a. The hypothesis could be tested that a sediment deficit exists at the LRH clear-water return to the Platte River. An abundance of literature indicates that sediment deficits caused by clear-water returns from dams diminish in the downstream direction as the river mobilizes sediment from the bed, bars, banks, and tributaries (Williams and Wolman, 1984; Carling, 1988; Collier and others, 1996; Graf, 1999; Grant and others, 2003; Schmidt and Wilcock, 2008). This also is the pattern observed on the central Platte River below the J2 return.
  - b. If a sediment deficit does exist, certain morphologic patterns that could be evaluated over a season would be expected (and studied in replicate for 2 or more years). For example, bars might have lower top heights, and be less extensive near the return, as compared with downstream bars, because the local supply of sediment might be limiting relative to the transport capacity. More importantly, it also might be expected that bars would erode at a faster rate over a season than those upstream from the tailrace, and the seasonal rate of bar erosion would diminish in the downstream direction below the tailrace as the river entrains sediment from the bed, bars, tributaries, and banks (although the banks of the Platte River segment between the tailrace and North Bend are extensively protected by riprap, which likely limits their erosion). These hypotheses could be tested during a couple of seasons, at a minimum, by repeat surveys of a systematic set of cross sections at the beginning and end of the nesting season (and preferably with intervening data), for 2 or more years. Ideally, such a study would be undertaken in conjunction with the Tern and Plover Conservation Partnership surveys, to help improve the quality and extent of their longitudinal sandbar-elevation data (Brown and Jorgensen, 2008). This would not require sampling every bar, but would, as with any other study, depend on selecting a statistically adequate sample of cross sections to evaluate bar elevations and erosion rates longitudinally downstream. The cross sections could be sampled at locations where channel width and slope are relatively constant (although the entire lower Platte River slope is relatively constant; see Bentall, 1991) to minimize the effect of hydraulic variation amongst study reaches, or organized into reaches between important tributaries to assist in accounting for additional sediment and

water inputs. Nonetheless, a meaningful study to evaluate effects from the tailrace clear-water return on the lower Platte is needed, but the methods presently (2009) outlined in the PSP are not adequate to produce meaningful conclusions.

#### Hydrocycling

The PSP states that the goal of the hydrocycling study is to 'determine if project hydrocycling operations adversely affect or benefit the habitat used by interior least terns, piping plovers, and pallid sturgeon in the lower Platte River.' (Loup River Public Power District, 2009). A technical evaluation of relevant proposed methods for achieving this purpose is presented in the following subsections, organized by PSP task.

#### Task 1 - Data collection

The sources of hydrologic information cited in the PSP data-collection effort for this task are fully adequate for existing data. However, as discussed in Tasks 2 and 3 of this section of the report, the periods of record and spatial resolution of the data and its evaluation appear to be inadequate to achieve the goals of the hydrocycling study.

#### Task 2 - Gage analysis

#### Summary of Concerns:

The PSP states that for this task, LRPPD will determine the timing, frequency, rate of change, travel time, conveyance losses or gains, and magnitude of sub-daily flow and stage changes attributable to project hydrocycling. The period listed for this analysis is the period during which the Nebraska Department of Natural Resources (NDNR) streamflow-gaging station at the Eighth Street Bridge at Columbus has been in operation. NDNR lists the beginning of the period of record for this streamflow gage (6794500) as September 23, 2008. LRPPD should clarify the period of years for which the gage analysis will be evaluated, listing the period of record explicitly.

#### Suggested Method Improvement:

The USGS asserts that the evaluation of the effects of hydrocycling on flow-regime components for only 1–2 water years is inadequate to assess project effects. Hydrocycling in years with below-average peak and daily flows, as compared with hydrocycling in years with above-average daily and peak flows, would be expected to have differing levels of effects on the habitats of the species of concern. For example, in years when flows are below average, the daily tide created in the lower Platte River by the LRH Columbus powerplant may constitute multiple tens of percent change in the magnitude of flow, whereas in above-average years, the daily tide would be expected to constitute a far smaller relative change.

The addition of an analysis of a range of seasonal hydrologic conditions would provide the USFWS and other stakeholders with better information to assess effects to species of concern. Either a longer period of record (for example, 20 years has been recommended by practitioners of the Ecological Limits of Hydrologic Alteration (ELOHA) approach (Ecological Limits of Hydrologic Alteration, 2009) or a discontinuous set of water years that includes replicates of low-, median-, and high-flow conditions could provide an adequate source of data for this analysis.

## Task 3 – Hydrographs for the Project versus Alternative Conditions <u>Summary of Concerns:</u>

The PSP states that synthetic hydrographs will be created and evaluated against current (2009) project operations for the weekly, monthly, and seasonal maximum, minimum, and mean flows and stage heights. The PSP does not state how these metrics will be calculated and evaluated (that is, on the basis of measurements, a flow-routing model, use of hydrologic alteration evaluation software, theory, etc.).

#### Suggested Method Improvement:

The USGS suggests that the synthetic hydrographs and associated descriptive metrics be calculated for a range of hydrologic conditions in the lower Platte River, including drought, median, and above-average flow conditions. Such an assessment would provide the USFWS with better information for evaluating the range of potential effects on habitat components of interest. For example, effects to the hydraulic microhabitats of sturgeon would be expected to be greatest in years when flow is below average because the daily magnitude of relative stage change would be greatest when the power return constitutes a larger proportion of the total flow. The magnitude of the daily tides may have little or diminished effect in years when flows are above average.

## Task 4 - Seasonal inundation heights (stages)

#### Summary of Concerns:

The PSP states that 'pre-nesting high flow (benchmark) events will be identified for each interior least tern and piping plover nesting season by identifying the highest river stage that occurred from May 1 to May 21. Subsequent flow events occurring from May 22 to August 1 that are equal to or greater than the benchmark events will be identified and counted.' Again, the period of analysis is listed as 'the time period during which the NDNR gage at the 8<sup>th</sup> [Eighth] Street Bridge in Columbus has been in operation.'

The assessment of effects from LRH operations based on the early season high flow in relation to any later season high flows is a valid approach, and has been used in recent investigations by the Tern and Plover Conservation Partnership (Parham, 2007; Brown and Jorgensen, 2008). However, there are two important technical concerns with the implementation of this approach, as proposed. First, bar elevations are not affected solely by the magnitude of antecedent high flows, they are affected by a combination of channel geometry, sediment supply, and river stage and flow regime, which are variable in space and time, and involve consideration of the duration of various flow levels. Secondly, the amplitude of the hydrocycle wave, which determines the daily high and low stages, likely varies considerably as it attenuates downstream from the tailrace. If bar elevations differ because of the effects of either a sediment deficit near the tailrace (see Task 4 under Sedimentation) or differences in discharge resulting from tributary or groundwater gains, then the late-season inundations would affect different reaches of the river with differing magnitudes. For example, data published by the Tern and Plover Conservation Partnership (Brown and Jorgensen, 2008) indicate that bar heights increase relative to a reference discharge in the downstream direction. This indicates that late-season inundation likelihood increases in the upstream direction (from the Elkhorn confluence to the tailrace confluence). Second, the attenuation of the hydrocycle wave downstream from the tailrace causes the daily

stage changes to vary in space between the tailrace and the mouth of the Platte River. The differences in wave amplitude also may cause spatial differences in bar and bank erosion rates. Thus, the combination and interaction of spatial differences in sediment supply and hydrocycling wave amplitude would indicate that any evaluation of hydrocycling effects on bar inundation at a particular observation point is representative only of the local conditions.

#### Suggested Method Improvement:

The best current (2009) information available indicates that bar inundation heights (stages) vary by location in the lower Platte River, making an evaluation at a single point in space inadequate for assessing impacts of project operations for the entire reach of interest. The proposed methods could be improved in the following ways:

- 1. The USFWS should ask that the period of evaluation be explicitly defined by LRPPD so that an assessment of the adequacy of the period can be made.
- 2. The spatial variation in sandbar heights relative to daily and late-season highs should be evaluated between the LRH tailrace and the Elkhorn River. The sandbar survey could be part of the evaluation of the spatial variation in bar erosion (see Task 4 under Sedimentation), or could be an enhancement of the spatial extent and surveying techniques used by the Tern and Plover Conservation Partnership (Brown and Jorgensen, 2008).
- 3. The amplitude of the daily tides associated with hydrocycling should be evaluated in a spatially explicit manner to evaluate the extent, magnitude, and spatial variability in project hydrocycling impacts on sandbar inundation. A key location to begin such an evaluation is the reach immediately downstream from the tailrace, where the amplitude of daily tides is likely the largest.
- 4. Quantification of the spatial variation of the rates of bar erosion by hydrocycling tides following the annual peak flow would fill a data gap, and should be included in the study design. Again, the rates of bar erosion would be expected to be higher immediately downstream from the tailrace than in reaches farther downstream from the tailrace because the likelihood of sediment-deficit effects and the daily tide amplitude are greatest near the tailrace. The improvement of spatial-data density does not alleviate the need for improvement in temporal frequency of inundation monitoring at a subset of sites. Time-lapse photography is one possible monitoring technique that could provide understanding of temporal change in the inundation-stage relation. These types of data would be more useful for evaluating in relation to the nesting data, which are spatially explicit and time sensitive.

## Task 5 - Effects of hydrocycling on sediment transport parameters <a href="Summary of Concerns">Summary of Concerns</a>:

The PSP states that the effects of hydrocycling on sediment transport parameters will be evaluated using methodologies outlined for the Sedimentation study. The proposed method of evaluation is to determine the total daily sediment transport for existing and alternative hydrologic conditions. The USGS assumes that the 'alternative conditions' are the synthetically derived conditions described under Task 3. The USGS expects that the primary effect of

hydrocycling on sediment transport is the erosive effect of the daily tide on sandbars and banks. The daily tide increases the erosive effects of Platte River streamflow by saturating the bars and banks during the daily high, increasing positive pore-water stresses on the material, and then rapidly reducing the hydrostatic pressure during the daily low, causing the material to slough (Schmidt and Graf, 1990; Simon and others, 2002). This process commonly produces a scalloped face on the bars and banks. This erosive effect likely would be compounded in reaches of river that are in a relative sediment-deficit state, as may be the case below the LRH tailrace.

#### Suggested Method Improvement:

In addition to the LRPPD-proposed evaluation of sediment transport at the daily-scale, the USGS suggests evaluating whether or not hydrocycling has an effect on sandbar erosion, and whether or not the expected spatial variation in daily tide amplitude has an effect on the spatial variation of bar erosion. Such an analysis may be critical to evaluating whether or not bar erosion rates are higher near the tailrace than downstream, and whether or not hydrocycling has an effect on avian habitat by lowering the elevation of the sandbars during the season of interest. This evaluation could be coupled with the methods of Task 4 (this section), and Task 4 within the Sedimentation section.

## Water Temperature in the Loup River Bypass Reach

The USGS recuses itself from commenting on this section because it may have an integral role in developing a proposal for water-temperature monitoring, and should avoid the perception of gaining unfair advantage over others to perform this part of the study.

#### Ice Jam Flooding in the Loup River

The PSP states that the goal of the study of ice-jam flooding in the Loup River is to 'qualitatively determine if the operation of the Loup Power Canal has a material effect on the formation of ice jams or a material effect on the severity of flooding caused by ice jams in the Loup River bypass reach'. A technical evaluation of relevant proposed methods for achieving these purposes follows, organized by task.

#### Task 1 - Data collection

#### Summary of Concerns:

The PSP states that the primary sources of data for ice will be the NDNR database of ice reports, and USGS and NDNR streamflow data. It is our understanding that the LRH operations occasionally are halted when ice buildup in the canal prevents diversion, or when LRPPD wishes to avoid additional sedimentation from ice-attached sediments while the canal dredge is unable to operate.

#### Suggested Method Improvement:

Additional resolution as to the effects of project operations on the timing and hydraulic effects of ice could be obtained with additional temporal analysis of existing hydrologic and discharge measurement data. The proposed study methods could be improved in the following ways:

- 1. The USGS discharge-measurement records also contain observations of ice such as the percent ice cover, types of ice, and a field determination of the primary hydraulic control (channel or ice). The USGS suggests adding a review of discharge measurement records as a supplement to the NDNR ice observation database.
- 2. If records of temporary halting of the project diversions because of ice buildup in the canal exist, the USGS suggests comparing the NDNR records for ice jams during years or months when the project was unable to divert with years when the diversion was operating for the entire winter. Records of when diversions were halted also could be inferred from the flow records of USGS streamflow-gaging stations 06792500 (Loup River Power Canal near Genoa, Nebraska) and 06793000.(Loup River near Genoa, Nebraska)

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## Appendix 1.

Letter from Mr. John Cochnar, U.S. Fish and Wildlife Service, to Bob Swanson, Director of U.S. Geological Survey Nebraska Water Science Center



## United States Department of the Interior

#### FISH AND WILDLIFE SERVICE

Ecological Services Nebraska Field Office 203 West Second Street Grand Island, Nebraska 68801

May 20, 2009

FWS-NE: 2009-489

Robert Swanson Nebraska Water Science Center U.S. Geological Survey 5231 South 19th Street Lincoln, NE 68512-1271

RE: Request for Technical Assistance, Loup Power District Proposed Study Plan, Federal Energy Regulatory Commission Project No. 1256

Dear Mr. Swanson:

The Nebraska Field Office of the U.S. Fish and Wildlife Service (Service) recognizes the U.S. Geological Survey, Nebraska Water Science Center as the federal leader in water resource science in Nebraska. The Service is requesting your agency's assistance on reviewing the Proposed Study Plan for the Loup River Hydroelectric Project as part of their project relicensing regulated by the Federal Energy Regulatory Commission because of your office's experience in water resources. The Service wants to ensure that methodologies defined in the Proposed Study Plan provide a sound scientific means of addressing the Plan's hydrology and geomorphology-related study objectives. A formal review of methodologies by your office would ensure that the best science is applied to project relicensing decisions that affect federal trust natural resources.

If you have any further questions, please contact Mr. Jeff Runge at (308)382-6468, extension 22.

Sincerely,

John Cochnar

Acting Nebraska Field Supervisor

From: Kern, Rich [rich.kern@nebraska.gov]
Sent: Tuesday, July 21, 2009 7:26 AM

To: Marinovich, Melissa

Subject: RE: River Miles for the Loup River

I guess I didn't send a message with those attachments.

I don't think they were self-explanatory so you will probably have to call me at (402) 471-3948. I am a part-timer so am just here Mon & Thur from 7-11 and Tue & Wed from 7-1.

From: Marinovich, Melissa [mailto:Melissa.Marinovich@hdrinc.com]

Sent: Monday, July 20, 2009 10:54 AM

To: Kern, Rich

Subject: RE: River Miles for the Loup River

Thanks for all your help, Rich!

#### Melissa

From: Kern, Rich [mailto:rich.kern@nebraska.gov]

Sent: Monday, July 20, 2009 10:53 AM

To: Marinovich, Melissa

**Subject:** RE: River Miles for the Loup River

Hi Melissa,

I found the paper copies and will get those scanned and send them to you tomorrow. We will probably have to talk once I send them because they may not be self-explanatory.

Rich

From: Marinovich, Melissa [mailto:Melissa.Marinovich@hdrinc.com]

**Sent:** Monday, July 06, 2009 9:47 AM

To: Kern, Rich

**Subject:** River Miles for the Loup River

Hi Rich,

Last week I contacted Jeff Runge (USFWS) regarding a river mile file for the Loup River (he has provided us with river mile information for the Platte River in the past). He referred me to you. I am am trying to track down information on river miles for the Loup River. Jeff said you had a hardcopy list of river miles per certain landmarks such as river confluences. Could you please provide any information you might have on the Loup River System (North, Middle, South, Lower Loup Rivers)? If you have any questions please feel free to contact me. Thanks!

#### **Melissa Marinovich**

**Environmental Scientist** 

#### **HDR ONE COMPANY | Many Solutions**

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1317 | Fax: 402.399.1111

Email: melissa.marinovich@hdrinc.com

From: Pillard, Matt

**Sent:** Monday, July 27, 2009 7:39 PM

To: frank.albrecht@nebraska.gov; jalexand@usgs.gov; calms@neb.rr.com; cgenoa@cablene.com; jean.angell@nebraska.gov; abaum@upperloupnrd.org; john.bender@nebraska.gov; al.berndt@nebraska.gov; rbishop@cpnrd.org;

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Pat; Frame, Gail; Grennan, Dennis E.; King, Wendy; Pillard, Matt; Richardson, Lisa (Omaha);

Sigler, Bill; Waldow, George; White, Stephanie

Subject: Loup Power District - FERC Relicensing: Revised Study Plan filed

Loup Power District has electronically filed its Revised Study Plan with FERC. The document is available on FERC's elibrary and on the <u>Loup Hydroelectric Relicensing Project web site</u>.

The Revised Study Plan is the result of many hours of discussion and evaluation. The District would like to thank all those who participated."



## STATE OF NEBRASKA

#### DEPARTMENT OF NATURAL RESOURCES

Director

Brian P. Dunnigan, P.E.

August 7, 2009

IN REPLY TO:

Kimberly D. Bose, Secretary Nathaniel J. Davis, Sr., Deputy Secretary Federal Energy Regulatory Commission 888 First Street, N.E., Room 1A Washington, DC 20426

Dave Heineman

Governor

Re: Relicensing of Loup River Hydroelectric Project FERC project number 1256 Revised Study Plan

Dear Secretary Bose:

The Nebraska Department of Natural Resources (NDNR) hereby submits an alternate Revised Study Plan 12.0 (version 2) for your review and adoption in the relicensing process of the Loup River Public Power District (LRPPD) project. NDNR believes this study plan will address our concerns and the Revised Study Plan submitted by the LRPPD will not.

Since being invited to participate in the Federal Energy Regulatory Commission's Integrated Licensing Process for the benefit of relicensing the LRPPD project, the NDNR has been an active participant, bringing issues to the table and working toward resolution. The issue NDNR believes requires study is whether the operation of the LRPPD contributes to ice jam flooding, a concern first suggested in a report published by the U.S. Army Corps of Engineers (USACE) following a devastating flood in 1993. (Lower Platte River Ice Jam Flooding, Section 22, July 1994, Prepared by: Ice Engineering Research Branch, US Army Cold Regions Research and Engineering Laboratory, Hanover, NH, and Hydrologic Engineering Branch, Engineering Division, US Army Engineer District, Omaha, NE, (USACE Report) submitted to FERC by NDNR with our study request on February 9, 2009).

Despite several meetings, no consensus could be researched for a study plan, so NDNR engaged the assistance of the USACE to develop methodology to determine whether the LRPPD project contributes to ice jam flooding. NDNR advised LRPPD of the methodology the USACE developed and asked if the parties could meet to agree on a revised study plan. No conference followed.

LRPPD engaged the Cold Regions Research and Engineering Lab (CRREL) to develop methodology limited to only a portion of the geographic area that may be impacted by the project's operation. The methodology submitted by LRPPD limits the scope in such a way that Kimberly D. Bose, Secretary Nathaniel J. Davis, Sr., Deputy Secretary August 7, 2009 Page 2

CRREL can conduct a quantitative analysis only after conducting a qualitative analysis limited in such a manner that would, based on our technical opinion, preclude the conductance of a quantitative analysis. Without a quantitative analysis, which would be the result of adoption of the LRPPD revised study plan, all available resources would not be utilized and the question of whether the operation of the LRPPD project contributes to ice jam flooding cannot be answered. Further, LRPPD dismissed USACE-suggested methodologies with the excuse that those USACE-suggested methodologies are suggested in other study plans, although the other plans do not concern ice jam flooding and there is no provision in the revised study plans to employ the methodologies in studying ace jam flooding.

In 1993, millions of dollars worth of damage occurred downstream of the LRPPD project. Businesses were destroyed, the inundation of a housing development was imminent, state highways were under water and portions were washed away, people were rescued from the catastrophe, public facilities were destroyed and the levee protecting the City of Columbus (population 21,000) was threatened and near to overtopping. NDNR cannot ignore the USACE's concern that, "changes in the sediment regime of the river resulting from canal operations may also have impacted ice formation and transport processes." (See page 15 of the USACE Report.) NDNR cannot accept a revised study plan that will not address those concerns.

For the reasons above, NDNR strongly recommends that the Federal Energy Regulatory Commission reject the revised study plan as submitted by LRPPD on July 24, 2009, and issue a Study Plan Determination that would in fact study this important issue using the methodologies developed by the USACE and included in the NDNR Revised Study Plan 12.0 (version 2) under this cover. Your attention to this matter is earnestly appreciated.

Sincerely,

Brian P. Dunnigan, P.E.

Director

Enclosures

cc: Loup River Public Power District

#### Study Plan 12.0 (version 2)

For consideration in the relicensing of Loup River Hydroelectric Project #1256, as prepared by the Nebraska Department of Natural Resources

## Ice Jam Flooding resulting from the operation of the Loup River Public Power District project

The Loup River Public Power District (LRPPD) project (the Project) is located in the Lower Platte River basin in eastern Nebraska. Water is diverted from the Loup River, routed through a 35-mile long manmade canal and discharged into the Platte River near the city of Columbus. The portion of the Loup River from the diversion weir to the confluence with the Platte River is termed the Loup River "bypass reach" by the LRPPD.

At the point of diversion, a low weir across the Loup River creates sufficient head to divert up to 3,500 cubic feet per second. The diverted water flows through adjustable gates and is routed through the Loup Power Canal on which a settling basin, two power houses, and two regulating reservoirs are located. As the water exits the latter power house, it is carried along a tailrace and discharged into the Platte River. According to the LRPPD, an average of only 31 per cent of the total Loup River flow is allowed to remain in the Loup River and in varying amounts; at times the LRPPD project diverts the entire Loup River, leaving in the stream bed only the small amount which leaks through their weir.

Winter Project operations include procedures to deal with cold temperatures and ice conditions. When frazil ice (a slushy ice formed in turbulent supercooled water) occurs, the Project procedures require closure of the intake gates, barring water from the Canal and diverting the water into the "bypass reach" of the Loup River instead.

Ice jam flooding in the Lower Platte River basin, including the Loup River, has been a recurrent problem at a number of sites. Severe flooding occurred within the basin in March 1993, notably near the city of Columbus where the river threatened the levee on the north bank of the Loup River. The event caused widespread damage including road closures and failures, damage to bridge abutments and water supplies; flooding of residential, agricultural, industrial, and commercial areas; and damage to levees, dikes, and other river training structures.

Following the 1993 flood event, a team was formed to review the event and suggest measures which might be implemented to mitigate similar events in the future. A comprehensive investigation by the U.S. Army Corps of Engineers (USACE) was performed at the request of NDNR. A Section 22 study report (1994 USACE Report) was issued, which noted the Project operations and recommended a future study to evaluate the impact, if any, of the Project operations on ice conditions downstream. The USACE Report acknowledged that little data was then available on ice jams which occurred upstream from Columbus, so a comprehensive ice data collection plan was designed by the USACE and implemented with an eye toward the usage of the data in future studies so that ice jam occurrences could be detected and forewarned, including the effect of the Project operations on discharge, ice formation and ice transport in the Loup River below the diversion structure. The USACE 1994 Report suggested that a quantitative analysis using more ice records could be conducted and that a qualitative analysis could address such issues as the potential effects of fluctuating water levels on the

formation of border ice, frazil ice transport, and the effects of sudden decreases in river flow on ice movement. The USACE 1994 Report suggested that changes in the sediment regime of the river resulting from LRPPD Project operations may have impacted ice formation and transport processes. The USACE 1994 Report also addressed implementation of a number of mitigation options including permanent, advance and emergency.

IN 2009 NDNR engaged the Omaha office of the USACE to develop methodologies to study the impact of Project operations on ice jam flooding. After reviewing the version of the Revised Study Plan 12.0 submitted by LRPPD, NDNR believes that that study plan will not answer whether the Project operations impact ice jam flooding. Therefore NDNR incorporated the 2009 Corps proposal into this Revised Study Plan 12.0 (version 2) and hereby submits Revised Study Plan 12.0 (version 2) for review and requests issuance of a Study Plan Determination adopting Revised Study Plan 12.0 (version 2).

#### 1. GOALS AND OBJECTIVES OF STUDY:

The goals of the study of ice jam flooding are to determine the impact of Project operations on ice jam flooding and develop methods to prevent and mitigate any ice jam flooding impacts of Project operations.

The objectives of the study of ice jam flooding are as follows:

- a. Evaluate the impact of Project operations on hydrology, sediment transport, and channel hydraulics in the Lower Platte River basin.
- b. Evaluate the combined impact of Project operations on hydrology, sediment transport, and channel hydraulics on ice processes in the Lower Platte River basin
- c. Develop an ice jam and/or breakup predictive model.
- d. Identify structural and nonstructural methods for the prevention and mitigation of ice jams, should it be demonstrated that Project operations materially impact ice jam formation of the Loup and Platte Rivers.

#### 2. STUDY AREA

The geographic scope of the proposed study is the lower Platte River basin, between Fullerton, NE and the confluence of the Loup and Platte Rivers, including the LRPPD canal, continuing down to the confluence of the Platte and Missouri Rivers.

## 3. RELEVANT RESOURCE MANAGEMENT GOALS OR PUBLIC INTEREST CONSIDERATIONS

The Nebraska Department of Natural Resources (NDNR) is the official state agency for all matters pertaining to floodplain management, the home of the Nebraska Ice Report data base and all known flood data within the state, and has jurisdiction over all matter pertaining to surface water rights. *Nebraska Revised Statutes* §§ 61-206 (Reissue 2003) and 31-1017 (Reissue 2008) (Attachment A).

The public interest consideration of Revised Study Plan 12.0 (version 2) as submitted by NDNR is to prevent or mitigate destruction to roads, structures, residences, commerce and loss of life.

#### 4. EXISTING INFORMATION

The methodologies and data sources for studying whether the operation of the LRPPD project contributes to ice jam flooding are detailed in the document entitled "Methodology to Assess Ice-Affected Impacts Due to Loup Power District Operations, Loup and Platte Rivers, Fullerton, NE

to Plattsmouth, NE" prepared by the Omaha office of the USACE and that is marked Attachment B and made a part of this NDNR version two of the Revised Study Plan 12.0.

Data sources include the USACE 1994 Report, and notably its review of the history of ice jams and flooding downstream of the Project; a comprehensive collection of flow, state, and temperature information; and the completion of a predictive model to indicate when conditions existed to support ice jam formation, and ice jam prevention and mitigation methods. As part of the USACE Study, a comprehensive ice reporting program was implemented to collect detailed information to allow for better future studies. This ice data is housed at NDNR and will be used in this study. The USGS has records of hydrologic data. Details of the existing information and data sources needed for this study are as follows:

- a. Hydrology Study. Two models will be created for comparison to determine the Project operations' impacts to the Loup and Platte River hydrology. Several sources of data will be required for the hydrology analysis including daily stream flow records at ten gage sites within the study area. (See Attachment B, page two for a map and page three for a listing.) Several other discontinued gages may also be required to either extend the period of record at a nearby gage or used as a check on computed flows at various critical locations with the models to be created. Gage heights will also be required to properly calibrate the unsteady routing model to historic flows at each of the gage locations. Because the period of record of gage heights is likely to be much shorter than for the stream flow records, channel crosssection geometry will be required throughout all of the stream reaches with the unsteady routing model to be created. Some geometry is available from an hydraulic model created in the USACE Study, but some new cross-section geometry will need to be collected to ensure model stability and robustness. Overbank channel geometry can be collected from digital terrain models through the use of a GIS preprocessor, such as HEC-GeoRAS. The channel and overbank geometries can be marched with the HES-RAS. Field data will be required to verify various parameters, such as channel and overbank roughness, for the unsteady flow model
- **b. Sediment Transport study.** To assess sediment transport in the Loup and Platte Rivers, data sources required include the aforementioned data and models developed for the study of the hydrology of the basin. The gages used in the study of the hydrology will also be utilized to collect bed load and suspended sediment load (and total sediment load, if not available separately), as available. Bed material gradation data, as available from USGS, will also be utilized. Additional field collection of bed material data may also be required if lacking in various reaches. Suspended load gradations, as available from the USGS, will also be utilized.
- c. Ice Formation study. Flow data developed from the Hydrology section above will be used. All available data will be collected from meteorologic reporting stations within and near the study area from the National Climatic Data Center for those stations with records deemed to be complete or near-compete concurrent with the period of record modeled in the Hydrology section above. All field observation from the Nebraska Ice Report database within the study reach will be collected. All pertinent information from the Cold Regions Research and Engineering Laboratory (such as at CRREL) Ice Jam Data base for the study reach will all be collected.

- d. Ice Transport During Freezeup and Breakup study. In addition to the flow and geometry data and ice information developed in the Hydrology, Sediment Transport and Ice Formation studies above, detailed channel bathymetry in the locations of interest for DynaRICE modeling will be collected to create an appropriate 2-D model geometry. Engineers with DynaRice modeling experience (such as at CRREL) will be needed to model the various reaches.
- e. Ice-Affected Hydraulics study. Data developed as part of all studies referred to above will be needed for the Ice-Affected Hydraulics analysis. Additionally, high water marks during ice jam events will be obtained from the USACE and other agencies' records to use for ice jam model calibration. Additional high water marks, such as tree scars, will be collected in the field throughout the study reach near known ice jam locations for additional model calibration of ice jams.
- <u>f. Ice Jam/Breakup Predictive Model.</u> Data collected in all studies shown above will be utilized to develop the predictive mode. No other data is likely needed.
- g. Identification of Methods for Prevention and Mitigation of Ice Jams. If it is demonstrated with the above studies that operation of the Project increases flood risk in any part of the study reach, it would be prudent to investigate all viable operational measures as well as structural and nonstructural measures that can be taken to prevent and mitigate the flood risk.

## 5. NEXUS BETWEEN PROJECT OPERATIONS AND EFFECTS FOR THE RESOURCE TO BE STUDIED

- **a. Direct effects:** The winter operations of the LRPPD Project may directly affect ice jam flooding through the changes in diversion of the Loup River at the time of frazil ice formation, a study of which was suggested in the USACE Report.
- **b.** Indirect and cumulative effects: The operations of the Project may impact the hydrology, hydraulics and sediment transport of the Loup and Platte Rivers. The combination of these impacts may also impact ice processes on the Loup and Platte rivers, including, but not limited to, the production and formation of an ice cover and the subsequent breakup of the ice cover. The operations may change the river contours, cause channel degradation, allow vegetative encroachment and otherwise impact the river's ability to carry the entire flow during those infrequent frazil ice event when diversion into the canal is interrupted.
- 6. PROPOSED STUDY METHODOLOGY, LEVEL OF EFFORT, AND COST
  - <u>a. Methodology and Level of Effort</u>: The proposed study methodology and level of effort is set forth in "Methodology to Assess Ice-Affected Impacts Due to Loup Power District Operations, Loup and Platte rivers, Fullerton, NE to Plattsmouth, NE" which is Attachment B of this version of the Revised Study Plan. The methodology includes the development of a number of models. The scope of the study set forth in Attachment B, was determined by the Omaha office of the USACE without limitation or designation of geographic area, input or methodology by the requester, NDNR. The specificity of NDNR's request was to develop methodology to study the impact of Project operations on ice jam flooding.

**<u>b. Level of Cost:</u>** The expected level of cost to perform the study of the effects of the operation of the LRPPD project on ice jam flooding, as outlined in this plan, is \$200,000.

## 7. NDNR Response to the Revised Study Plan 12.0 submitted by the Loup River Public Power District

NDNR worked with LRPPD toward the development of a study plan which would determine whether the operation of the Project contributes to ice jam flooding. Because of the failure of the parties to design a satisfactory study, the NDNR engaged the USACE to develop methodologies to study the issue. Specifically, the NDNR requested development of study methodologies from the Omaha office of the USACE because of their expertise relating to the lower Platte River Basin and their personal involvement in the 1994 Corps study.

NDNR put no geographic, data, or methodology restraints on the request, believing that the expertise of the USACE should be used to determine the scope of the study, rather than rely on the lack of ice jam expertise held by NDNR and the LRPPD. It is NDNR's technical opinion that LRPPD's arbitrary limitation of the study area to the power canal (where no flooding has been noted) and the short section of the lower Platte River basin between the LRPPD diversion and tail race would result in little useful information. The goal of this study is to understand the LRPPD project's operational effects in the context of the river system. Those effects cannot be identified by simply studying a small reach of the river. Though this relatively small area might "be more readily analyzed because it experiences the maximum incremental effects of Project operations" and "is subjected to only a limited number of non-Project ice jam influences, such as from tributaries, confluences, bridges, levees, and shore protection measures", as proffered by the LRPPD, NDNR has full confidence in the ability of the USACE to study the area they have designated in their methodology, taking into consideration all possible influences.

The LRPPD's argument that hydrologic and sediment transport analyses not be included in the study of ice jam flooding because similar analyses are proposed in other studies is flawed in that those analyses are not tailored for ice jam flooding and there is no vehicle by which the analyses could be incorporated into this study, regardless of their questionable value if they were incorporated here. The LRPPD's reasoning that analysis of impacts as far back as Project construction in the 1930s should not be considered is also flawed; an analysis of the present impact of the operation cannot be complete without an analysis of the basin without the Project and through the life of the Project.

It is NDNR's technical opinion that conducting the study as contained in Revised Study Plan 12.0 as submitted by the LRPPD would result in a very limited and ineffective qualitative assessment only, ignoring the vast amount of data and methodologies available to determine the important question of whether the operation of the Project impacts ice jam flooding and endangers life and property.

NDNR disagrees with the LRPPD's opinion that their Revised Study Plan 12.0 is technically similar to that devised by the Omaha office of the USACE in 2009 for the reasons enumerated above.

LRPPD maintains in the Revised Study Plan 12.0 they submitted that it is not their responsibility to refine or develop a model to predict ice events in the river basin of their Project. If it is demonstrated that the operation of the LRPPD project contributes to ice jam flooding, LRPPD should possess and use the tools necessary to mitigate the consequences of the project.

In conclusion, the NDNR argues that the study submitted by LRPPD should not be adopted for the following reasons;

- The scope and methodologies were developed by non-experts.
- The scope is flawed because it is too narrow.
- The proposed subset of methodologies is too narrow.
- There is no demonstration of the appropriateness of those sediment transport studies that may be included other study plans.
- There is no proposed mechanism by which those studies can be incorporated in an appropriate manner.
- Limiting the geographic area to the canal and bypass is inappropriate.
- There is no provision for prediction, prevention or mitigation of any ice jam flooding.
- Therefore the question raised by NDNR is not addressed.

The NDNR proposes adoption of the attached version of the study for the following reasons:

- NDNR does not have ice jam flooding expertise; however NDNR engaged the assistance of ice jam flooding experts
- Ice jam flooding experts determined the scope of the study
- Ice jam flooding experts determined the methodology of the study
- The ice jam flooding experts engaged by NDNR to design the study have studied ice jam flooding in the lower Platte River basin.
- The NDNR proposal evaluates the question within an appropriate geographic area
- The NDNR proposal evaluates project operations in the context of hydrology, sediment transport and channel morphology.
- The NDNR proposal provides a predictive model and methods for mitigation and prevention of ice jam flooding.
- Only the NDNR proposal addresses the question raised, "Whether the operation of the Loup River Public Power District project impacts ice jam flooding."

NDNR hereby submits Revised Study Plan 12.0 (version 2) for review and requests issuance of a Study Plan Determination adopting Revised Study Plan 12.0 (version 2).

## **ATTACHMENT A**

#### Nebraska Revised Statute 61-206

Department of Natural Resources; jurisdiction; rules; hearings; orders; powers and duties.

- (1) The Department of Natural Resources is given jurisdiction over all matters pertaining to water rights for irrigation, power, or other useful purposes except as such jurisdiction is specifically limited by statute. Such department shall adopt and promulgate rules and regulations governing matters coming before it. It may refuse to allow any water to be used by claimants until their rights have been determined and made of record. It may request information relative to irrigation and water power works from any county, irrigation, or power officers and from any other persons. It may have hearings on complaints, petitions, or applications in connection with any of such matters. Such hearings shall be had at the time and place designated by the department. The department shall have power to certify official acts, compel attendance of witnesses, take testimony by deposition as in suits at law, and examine books, papers, documents, and records of any county, party, or parties interested in any of the matters mentioned in this section or have such examinations made by its qualified representative and shall make and preserve a true and complete transcript of its proceedings and hearings. If a final decision is made without a hearing, a hearing shall be held at the request of any party to the proceeding if the request is made within thirty days after the decision is rendered. If a hearing is held at the request of one or more parties, the department may require each such requesting party and each person who requests to be made a party to such hearing to pay the proportional share of the cost of such transcript. Upon any hearing, the department shall receive any evidence relevant to the matter under investigation and the burden of proof shall be upon the person making the complaint, petition, and application. After such hearing and investigation, the department shall render a decision in the premises in writing and shall issue such order or orders duly certified as it may deem necessary.
- (2) The department shall serve as the official agency of the state in connection with water resources development, soil and water conservation, flood prevention, watershed protection, and flood control.
- (3) The department shall:
- (a) Offer assistance as appropriate to the supervisors or directors of any subdivision of government with responsibilities in the area of natural resources conservation, development, and use in the carrying out of any of their powers and programs;
- (b) Keep the supervisors or directors of each such subdivision informed of the activities and experience of all other such subdivisions and facilitate cooperation and an interchange of advice and experience between such subdivisions;
- (c) Coordinate the programs of such subdivisions so far as this may be done by advice and consultation;

- (d) Secure the cooperation and assistance of the United States, any of its agencies, and agencies of this state in the work of such subdivisions;
- (e) Disseminate information throughout the state concerning the activities and programs of such subdivisions;
- (f) Plan, develop, and promote the implementation of a comprehensive program of resource development, conservation, and utilization for the soil and water resources of this state in cooperation with other local, state, and federal agencies and organizations;
- (g) When necessary for the proper administration of the functions of the department, rent or lease space outside the State Capitol; and
- (h) Assist such local governmental organizations as villages, cities, counties, and natural resources districts in securing, planning, and developing information on flood plains to be used in developing regulations and ordinances on proper use of these flood plains.

## Nebraska Revised Statute 31-1017

## Department; flood plain management; powers and duties.

The department shall be the official state agency for all matters pertaining to flood plain management. In carrying out that function, the department shall have the power and authority to:

- (1) Coordinate flood plain management activities of local, state, and federal agencies;
- (2) Receive federal funds intended to accomplish flood plain management objectives;
- (3) Prepare and distribute information and conduct educational activities which will aid the public and local units of government in complying with the purposes of sections 31-1001 to 31-1023;
- (4) Provide local governments having jurisdiction over flood-prone lands with technical data and maps adequate to develop or support reasonable flood plain management regulation;
- (5) Adopt and promulgate rules and regulations establishing minimum standards for local flood plain management regulation. In addition to the public notice requirement in the Administrative Procedure Act, the department shall, at least twenty days in advance, notify by mail the clerks of all cities, villages, and counties which might be affected of any hearing to consider the adoption, amendment, or repeal of such minimum standards. Such minimum standards shall be designed to protect human life, health, and property and to preserve the capacity of the flood plain to discharge the waters of the base flood and shall take into consideration (a) the danger to life and property by water which may be backed up or diverted by proposed obstructions and land uses,

- (b) the danger that proposed obstructions or land uses will be swept downstream to the injury of others, (c) the availability of alternate locations for proposed obstructions and land uses, (d) the opportunities for construction or alteration of proposed obstructions in such a manner as to lessen the danger, (e) the permanence of proposed obstructions or land uses, (f) the anticipated development in the foreseeable future of areas which may be affected by proposed obstructions or land uses, (g) hardship factors which may result from approval or denial of proposed obstructions or land uses, and (h) such other factors as are in harmony with the purposes of sections 31-1001 to 31-1023. Such minimum standards may, when required by law, distinguish between farm and nonfarm activities and shall provide for anticipated developments and gradations in flood hazards. If deemed necessary by the department to adequately accomplish the purposes of such sections, such standards may be more restrictive than those contained in the national flood insurance program standards, except that the department shall not adopt standards which conflict with those of the national flood insurance program in such a way that compliance with both sets of standards is not possible;
- (6) Provide local governments and other state and local agencies with technical assistance, engineering assistance, model ordinances, assistance in evaluating permit applications and possible violations of flood plain management regulations, assistance in personnel training, and assistance in monitoring administration and enforcement activities;
- (7) Serve as a repository for all known flood data within the state;
- (8) Assist federal, state, or local agencies in the planning and implementation of flood plain management activities, such as flood warning systems, land acquisition programs, and relocation programs;
- (9) Enter upon any lands and waters in the state for the purpose of making any investigation or survey or as otherwise necessary to carry out the purposes of such sections. Such right of entry shall extend to all employees, surveyors, or other agents of the department in the official performance of their duties, and such persons shall not be liable to prosecution for trespass when performing their official duties;
- (10) Enter into contracts or other arrangements with any state or federal agency or person as defined in section 49-801 as necessary to carry out the purposes of sections 31-1001 to 31-1023; and
- (11) Adopt and enforce such rules and regulations as are necessary to carry out the duties and responsibilities of such sections.

#### ATTACHMENT B

# Methodology to Assess Ice-Affected Impacts Due to Loup Power District Operations Loup and Platte Rivers Fullerton, NE to Plattsmouth, NE

The operation of the Project may impact the hydrology, hydraulics and sediment transport of the lower Loup and Platte Rivers. The combination of these impacts may also impact ice processes on the Loup and Platte Rivers, including, but not limited to, the production and formation of an ice cover and the subsequent breakup of the ice cover. The purpose of these proposed studies would be to evaluate the impact of Project operation on hydrology, sediment transport, and channel hydraulics, and the combined impact on ice processes. The study would also propose to develop an ice jam and/or breakup predictive model, as well as identify structural and nonstructural methods for the prevention and mitigation of ice jams, should it be demonstrated that operation of the Project materially impacts ice jam formation on the Loup and Platte Rivers. The study area would include the Loup River from just above the power canal headworks on the Loup River to the mouth of the Loup River, the Platte River from just upstream of the Loup-Platte confluence to the mouth of the Platte River and the Loup Power Canal from the headworks to the tailrace confluence with the Platte River below the Loup-Platte confluence. Several of the studies listed below require specialized experience and/or knowledge of the river systems and ice processes in question.

**Hydrology.** Historic flows within the study area will be needed to derive what flows would be in the study area if there were no diversions to the power canal. The with and without power canal diversions daily flow sets will be analyzed to determine the differences in flow regime at select locations within the study area. The differences will allow for determining the impacts on the power canal diversion on sediment transport and ice processes throughout the study reach.

Methodology. An unsteady hydraulic routing model (e.g. HEC-RAS) will be developed to determine daily mean flows at various points within the Loup and Platte Rivers. Historic observed flows from several U.S. Geologic Survey (USGS) stream gaging sites (shown in Table 1 and Figure 1 below) will be obtained from the USGS database. All gages except the Loup River Power Canal near Genoa, Loup River near Genoa, Platte River at North Bend, and Platte River at Louisville will be used as flow sources for the unsteady hydraulic routing model. The Loup River Power Canal near Genoa will be used to replicate the flow diversions from the Loup River to the power canal and routed downstream to the tailrace location below the Loup-Platte confluence. The Loup River near Genoa, Platte River at North Bend, and Platte River at Louisville gages will be used to compute ungaged local inflows based on historic flows. Once the historic ungaged local inflows are computed, the historic diversions to the canal will be routed through the Loup River as if the power canal did not exist to produce a daily flow record for that scenario. Results from the two models will then be compared to determine the impacts to the Loup and Platte River hydrology. Statistical analysis of annual and seasonal peak flows at various locations will be computed for both scenarios; volumeduration analysis will also be computed for annual and seasonal flows. Statistical analysis of flow durations for annual, seasonal and monthly flows will also be computed for both scenarios. The flow frequencies and volume-duration analysis will be needed to construct balanced hydrographs for the Ice-Affected Hydraulic analysis, and the flow durations will be needed for ice analysis. The daily flow records for both scenarios will be needed for the Sediment Transport analysis.

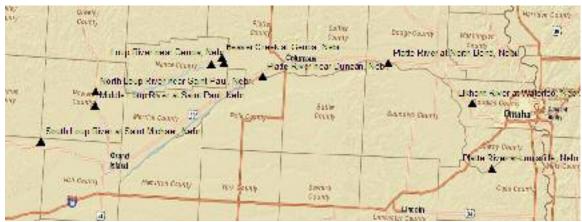


Figure 1. USGS Stream Gage Sites in Study Area.

Data Sources. Several sources of data will be required for the analysis. Daily stream flow records at several gage sites will be required, as shown in Table 1 below. Several other discontinued gages may also be required to either extend the period of record at a nearby gage or used as a check on computed flows at various critical locations within the model (e.g. Loup River at Columbus gage or Platte River at Ashland gage). Gage heights will also be required to properly calibrate the unsteady routing model to historic flows at each of the gage locations, but the period of record of gage heights is likely to be much shorter than for the stream flow records. Channel cross-section geometry will be required throughout all of the stream reaches within the unsteady routing model. Some geometry will be available from existing hydraulic models, but some new cross-section geometry will need to be collected to ensure model stability and robustness. Overbank channel geometry can be collected from digital terrain models through use of a GIS preprocessor, such as HEC-GeoRAS. The channel and overbank geometries can be merged within HEC-RAS. Field data will be required to verify various parameters, such as channel and overbank roughness, for the unsteady flow model.

Table 1. List of USGS Stream Gage Locations within Study Area

USGS Gage Number	Period of Record
06774000	5/3/1895 – Present
06784000	10/1/1943 - Present
06785000	9/1/1928 - Present
06790500	9/1/1928 - Present
06792500	1/1/1937 - Present
06793000	4/1/1929 - Present
06794000	10/1/1940 - Present
06796000	4/1/1949 – Present
06800500	4/28/1899 - Present
06805500	6/1/1953 - Present
	06774000 06784000 06785000 06790500 06792500 06793000 06794000 06796000 06800500

**Sediment Transport (Loup and Platte Rivers).** Sediment transport will be assessed by use of a sediment transport model in HEC-RAS. With and without power canal diversion flow sets will be used to asses the differences in sediment transport capacity and to determine the potential changes in channel geometry for both scenarios. The differing channel geometries will be further used to assess the differences in hydraulic conveyance under ice conditions.

Methodology. A sediment transport model will used in HEC-RAS using the channel geometries utilized for the unsteady flow routing model in the Hydrology section above. Prior to use for sediment transport, the model will be properly calibrated for open water conditions as specified in the Ice-Affected Hydraulics section below. Historic sediment load data from the USGS and other sources will be used as model inputs, as well as historic records of sediment removed from the power canal settling basin. Historic conditions will be simulated to verify the relative stability of the current channel geometries throughout the study reach. Once the sediment transport model is deemed sufficiently calibrated to existing conditions, the model will be modified to preclude power canal diversions and reintroducing the sediment removed in the settling basin to the channel at point of diversion. Changes in ultimate channel geometry will then be assessed. No changes in channel planform will be considered, however. The existing geometry and the without diversion geometry will then be used to assess the differences in ice-affected hydraulics.

<u>Data Sources.</u> Data sources required include the data and models developed in the Hydrology section above, as well as sediment data. The USGS gages shown in Table 1 above will be utilized to collect bed load and suspended sediment load (and total sediment load, if not available separately), as available. Bed material gradation data, as available from the USGS and other sources, will also be collected. Additional field collection of bed material data may be required if information is lacking in various reaches. Suspended load gradations, as available from the USGS, will also be utilized.

**Ice Formation** (**Loup and Platte Rivers**). The mechanics of ice formation on the study area rivers will be examined. Hydrometeorlogic data will be utilized to determine ice production, in conjunction with field observations from the Nebraska Ice Reports (NIR) database. The total volume of ice produced within the study reach will be estimated for the with and without power canal diversion flow and channel regimes for use in the Ice-Affected Hydraulics computations.

Methodology. Hydrometeorologic data, such as air temperature and precipitation, will be collected from the National Climatic Data Center (NCDC) at various stations within and near the study area. Statistical analysis will be performed to determine the correlation between formation of frazil ice and hydrometeorologic conditions and discharge, and correlated with actual field observations as noted in the NIR database and power canal shutdowns during periods of frazil production. The total volume of frazil ice produced can be estimated through a deterministic mathematical model. Ice cover thickness growth will be estimated through use of the modified Stefan equation and corroborated against field measurements of average ice thickness. The values for ice production and thickness will be used as part of the Ice-Affected Hydraulics computations. If a difference in ice production can be attributed to differences in discharge, those differences will be utilized in assessing the Ice-Affected Hydraulics for the with and without diversion conditions (flow and geometry) as appropriate.

<u>Data Sources.</u> Flow data developed from the Hydrology section above will be needed. All available data will be collected from meteorologic reporting stations within and near the study area from the NCDC for those stations with records deemed to be complete or near-complete concurrent with the period of record modeled in the Hydrology section above. All field observations from the Nebraska Ice Report database within the study reach will be collected. All pertinent information from the Cold Regions Research and Engineering Laboratory (CRREL) Ice Jam Database (IJDB) for the study reach will also be collected.

**Ice Transport During Freezeup and Breakup.** The transport of ice floes is beyond the capability of a one-dimensional model such as HEC-RAS. However, a two-dimensional model such as the DynaRICE ice-hydraulic numerical model has been successfully used to model ice transport through various channels and hydraulic structures as well as ice jam initiation. Modeling of select reaches of interest may demonstrate differences in the formation of ice under with and without power canal conditions.

Methodology. A DynaRICE hydraulic model will be constructed in several areas of interest, such as downstream of the power canal headworks on the Loup River, the Loup River at Columbus, the Platte River downstream of the Loup Power Canal tailrace, and the Platte River at North Bend. The Columbus and North Bend sites would be modeled due to historic ice jam occurrences (both freezeup and breakup), while the Loup River downstream of the headworks would be modeled as it would presumably have the greatest difference in flow and geometry regimes. The reach downstream of the tailrace would be modeled to determine if the elevated water temperatures and hydrocycling from the power canal increase areas of open-water downstream, which in turn may lead to

greater formation of frazil ice. If differences in ice cover formation and/or jam formation can be demonstrated with the DynaRICE model, those differences will be utilized in the Ice-Affected Hydraulics analysis as appropriate. An algorithm would need to be developed to convert existing channel bathymetry based on differences in channel geometry developed in the Sediment Transport study above.

<u>Data Sources.</u> The flow and geometry data and ice information developed in the Hydrology, Sediment Transport and Ice Formation studies above would be needed. Detailed channel bathymetry in the locations of interest for DynaRICE modeling would need to be collected to enable creation of an appropriate 2-D model geometry. Engineers with DynaRICE modeling experience (such as at CRREL) would be needed to model the various reaches.

**Ice-Affected Hydraulics.** Differences in flow and channel regimes between the with and without flow diversions may lead to differences in water surface profiles in the study reach. If the flow and channel regime differences lead to differences in ice cover and ice jam formation, these may lead to additional differences in water surface profiles. These differences may lead to an increase (or decrease) in flood risk to floodplain infrastructure.

Methodology. The unsteady routing model developed as part of the Hydrology study would be utilized for computing the ice-affected hydraulics of the study area. The first step would be to develop an open-water model, however, as a stable, robust hydraulic model would be needed for both the Hydrology and Sediment Transport studies. The model geometry predicted from the without diversion Sediment Transport study would also need to be modeled under open-water conditions to verify model robustness. Once the with and without diversion geometries are suitable for modeling, various steady flows would be modeled with a solid ice cover, using ice thicknesses developed in the Ice Formation study as appropriate. Ice jams would be modeled for freezeup and breakup conditions for the existing conditions geometry, utilizing HEC-RAS's capability to predict ice jam formation location, coupled with knowledge of historic jam locations and results from the Ice Transport During Freezeup and Breakup analysis above, to verify model accuracy for jam formation computations. HEC-RAS would then be used to predict where ice jams form in the without flow diversion model, utilizing ice jam parameters similar to the with flow diversion (i.e. existing) conditions model, unless the Ice Formation and Ice Transport During Freezeup and Breakup demonstrate that different parameters should be utilized. Differences in water surface profiles for similar conditions (e.g. use the 2-, 5-, and 10-year flows for with and without diversions, which may be different at certain locations) would then be computed to determine if power canal operations increase or decrease flood risk to overbank infrastructure.

<u>Data Sources.</u> Data developed as part of all studies shown above would be needed for the Ice-Affected Hydraulics analysis. Additionally, high water marks during ice jam events would be obtained from USACE and other agencies' records to use for ice jam model calibration. Additional high water marks, such as tree scars, would be

collected in the field throughout the study reach near known ice jam locations for additional model calibration of ice jams.

**Ice Jam/Breakup Predictive Model.** Empirical models have been previously developed by CRREL and USACE-Omaha for the Platte River at North Bend to predict the formation of ice jams and the date of ice breakup based upon climatic and hydrologic parameters for input. Similar model development could be used to predict formation of ice jams and/or breakup of ice on the Loup River.

Methodology. Climatic and hydrologic data collected as part of other studies listed above would be obtained. The NIR and CRREL IJDB would also be used to retrieve information on dates of jam formation. Multi-regression equations would be used to correlate various climatic and hydrologic data with known ice jams to develop a hindcast model that could be used for future predictive purposes. If ice jam development can be linked to geometry differences, the model could be used to synthesize a record of potential ice jam occurrences under the without diversion condition.

<u>Data Sources.</u> Data collected in all studies shown above will be utilized to develop the predictive model. No other data is likely needed.

**Identification of Methods for Prevention and Mitigation of Ice Jams.** If it is demonstrated that operation of the Loup Power Canal increases flood risk in any part of the study reach, it would be prudent to identify those structural and nonstructural means that may prevent and/or mitigate the impacts of ice jams. Structural means may include structural alterations to the canal headworks to reduce ice volume or construction of a flood control project. Nonstructural means may include alteration of canal operations or relocation of at-risk structures. These options are merely examples, and do not constitute the full range of possible prevention/mitigation options.

Methodology. Based upon the results of the above studies, all viable structural and nonstructural measures for prevention and/or mitigation of ice jams would be investigated. Development of a list of measures to be considered may be garnered through public and power district input and an elicitation of experts in ice jams and flood risk reduction and mitigation. A screening process would be enacted to carry forward those measures deemed most feasible by a panel consisting of individuals representing the power district, and local and state governments. Each measure carried forward would be evaluated as to its technical merit and cost, among other parameters. A scoring matrix could then be created to weigh each alternative as to how well it meets various criteria, and the top scoring alternatives determined for further consideration and/or implementation.

Document Content(s)	
Brians letter.PDF	.1-2
Revised_Study_Plan_by_DNR07312009.DOC	.3-8
Statutes.DOC	.9-11
Loup Power Ice Effects Scope.DOC	.12-17

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#### DEPARTMENT OF NATURAL RESOURCES

Brian P. Dunnigan, P.E. Director

September 1, 2009

IN REPLY TO:

Kimberly D. Bose, Secretary Nathaniel J. Davis, Sr., Deputy Secretary Federal Energy Regulatory Commission 888 First Street, N.E., Room 1A Washington, DC 20426

RE: Relicensing of Loup River Hydroelectric Project (Project)

FERC project number 1256

Final Study Plan Determination, Study Plan Number 12

#### Dear Secretary Bose:

The Nebraska Department of Natural Resources wishes to thank you for your thorough analysis of the Revised Study Plan Number 12. We accept the final study determination with one exception: it appears a scrivenor's error occurred in the second paragraph of the Conclusions section of Final Study Plan Number 12.

Paragraph two of the Conclusions section of Study Plan Number 12 suggests that the Project's effects on stream morphology and hydrology should be studied on a portion of the Platte River basin which includes the Loup River bypass, continuing downstream to a point not influenced by the Elkhorn River. To accomplish this, the Department suggests it was the intent of the Federal Energy Regulatory Commission to modify the methodology developed by the Corps of Engineers so as to study a foreshortened portion of the Platte River: from Fullerton to the USGS North Bend gaging station. Sentence four of paragraph two of Study Plan Number 12 is contrary to this presumed geographic area. The sentence presently reads that the study would "... include the Loup River from Fremont, Nebraska to the Platte River at the USGS North Bend gaging station." Fremont is not located on the Loup River; Fremont is located north of the Platte River, downstream of North Bend. North Bend is located approximately 65.4 river miles downstream of the Project's diversion of the Loup River. A reach from a point near Fremont to the USGS North Bend gaging station would include no portion of the Loup River and, therefore, no portion of the diversion of the Loup, the "bypass" portion of the Loup, or the confluence of the Project tail race with the Platte River. To accomplish the presumed goals set forth by the Commission, the Department proposes that the second paragraph of the Conclusions section of Study Plan Number 12 state as follows:

Kimberly D. Bose, Secretary Nathaniel J. Davis, Sr., Deputy Secretary September 1, 2009 Page 2

Ice formation and flooding are affected by stream morphology and hydrology. As discussed in several studies above, we are approving studies with modifications that would examine the project effects on stream morphology and hydrology. We expect that those effects, if any, would be the greatest in the Loup River bypass and immediately below the tailrace. Therefore, we are modifying the district's icing study to include the Loup River from Fullerton, Nebraska to the Platte River at the USGS North Bend gaging station. This area would cover one of the areas most affected by the March 1993 flood, without confounding the results with inputs of the Elkhorn River, which also experienced severe flooding in the March 1993 flood. If the results of the study indicate that the project may be influencing flooding further downstream, additional analyses would be required in year 2 of the study period.

We respectfully submit this suggested correction of Study Plan Number 12 and thank you for your deliberation in the matter.

Sincerely,

Brian P. Dunnigan, P.E.

Director

cc: Loup River Public Power District

## FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON D.C. 20426 August 26, 2009

OFFICE OF ENERGY PROJECTS

Project No. 1256-029—Nebraska Loup River Hydroelectric Project Loup River Public Power District

Neal D. Suess, President/CEO Loup Power District 2404 15<sup>th</sup> Street P.O. Box 988 Columbus, NE 68602-0988

Reference: Study Plan Determination for the Loup River Hydroelectric Project

Dear Mr. Suess:

Pursuant to 18 CFR §5.13(c) of the Commission's regulations, this letter includes my study plan determination for the Loup River Public Power District's (Loup Power District or District) Loup River Hydroelectric Project (Project). This determination is based on the staff's review of the revised study plan, comments on the proposed and revised study plan, and other elements of the record.

While many issues associated with your proposed and revised study plans have been resolved, some unresolved issues remain. This letter includes modifications to your revised study plan necessary to resolve the outstanding issues, which are discussed in Appendix A.

## Background

On March 27, 2009, the District filed its proposed study plan that included 12 study plans on fish, water quality, cultural, recreation, land use, terrestrial, and developmental resources.

On April 21, 2009, May 5, 2009, May 11, 2009, and May 27 & 28, 2009, the District held study plan meetings with the relicensing participants, some of which included Commission staff, to discuss its proposed study plans. The District filed a revised study plan on July 27, 2009, which included:

• Leaving three study plans unchanged: Fish Passage, Land Use Inventory, and Section 106 Compliance.

- Modifying six study plans: Sedimentation, Hydrocycling, Water Temperature for the Loup River Bypassed Reach, Flow Depletion and Flow Diversion, Recreation Use, and Ice Jam Flooding on the Loup River.
- Deleting two study plans: Water Temperature in the Platte River and Fish Inventory.

Comments on the revised study plan were filed by the Nebraska Department of Natural Resources (Nebraska DNR) on August 7, 2009, and the U.S. Fish and Wildlife Service (FWS) on August 11, 2009. The District filed responses to the Nebraska DNR and FWS letters on August 18, 2009.

## Study Plan Determination

Commission staff reviewed the District's revised study plan, comments on the plan, and other elements of the record. Based on that review, I am: (1) approving the Fish Passage, Land Use Inventory, and Section 106 Compliance study plans as filed; (2) approving the Sedimentation, Hydrocycling, Water Temperature for the Loup River Bypassed Reach, Flow Depletion and Flow Diversion, Recreation Use, and Ice Jam Flooding on the Loup River study plans with further modifications; and (3) approving the removal of the Water Temperature in the Platte River and the Fish Inventory study plans. I am not requiring the District to conduct sediment sampling for polychlorinated biphenyls in the Loup Power Canal as requested by the FWS. My reasons for modifying the District's revised study plan are explained in detail in Appendix A.

If you have any questions, please contact Kim Nguyen at (202) 502-6105 or email at <a href="mailto:kim.nguyen@ferc.gov">kim.nguyen@ferc.gov</a>.

Sincerely,

Jeff C. Wright
Director
Office of Energy Projects

Enclosures: Appendix A – Study Request Issues

cc: Mailing List Public File

## APPENDIX A STUDY REQUEST ISSUES

The following discusses staff's findings on the revised study plan proposed by the District and comments on those plans based on criteria outlined in the Commission's regulations [18 CFR sections 5.9(b)(1)-(7)]. Except as explained below, we concur with the District's conclusions and bases for its proposed study plans and conclude that the revised study plan, as modified below, adequately addresses all study needs at this time. This includes the deletion of the Water Temperature in the Platte River (Study 3.0) and the Fish Inventory (Study 6) study plans; no comments opposing their removal were filed.

## Approved Study Plans As Filed in the Revised Study Plan

Study No. 7 – Fish Passage

Study No. 10 – Land Use Inventory

Study No. 11 – Section 106 Compliance

## **Approved Study Plans with Modifications**

## **General Comments Applicable to Various Studies**

Determination of effects on federally listed species

In the Sedimentation Study (task 5), the District proposes that if it were to determine that the project does not affect stream morphology in the Loup River bypassed reach and the lower Platte River, or that the system is in dynamic equilibrium, it will be inferred that the project does not affect interior least tern and piping plover nesting habitat parameters related to sediment transport and stream morphology and that no further analysis is warranted. Similar determinations of effect are implied in the Flow Depletion and Flow Diversion Study (task 2, 4, and 6). The FWS asserts that such determinations may limit the Commission's sole discretion regarding a determination of project effects on listed species. FWS recommends that this and other study plan deliverables be limited to study methods, results, and raw data.

While the District is free to interpret the study results, nothing in the study plan should be construed to limit the Commission's ability to draw its own conclusions as to adverse effects on listed species or to request additional studies or modifications to studies as provided by our regulations.

Future projections of the lower Platte River hydrology

In its comments on both the proposed study plan and revised study plan, FWS recommended that the District create future, projected hydrographs for use in comparing the benefits and costs among various, unspecified project operational alternatives. The projected hydrographs would be based on future water depletions to the lower Platte River "as demonstrated by Nebraska DNR (2009) and U.S. Department of Interior [Interior] (2006)."

Nebraska DNR (2009) predicts that the cumulative effects on all present and predicted well development in the basin over the next 25 years will result in a depletion of flow on the lower Platte River at North Bend of about 255 cfs, which equates to a total annual volume reduction of about 184,000 acre-feet. The current mean annual flow at the site based on the U.S. Geological Survey's [USGS] 2008 Water-Date Report is 4,506 cfs. The projected reduction in flow over the next 25 years would reduce this mean annual flow by 255 cfs or less than 6 percent.

Whether this reduction will actually occur is debatable. Nebraska DNR (2009) bases this projection, in part, on speculations of future well development and a current well appropriations "lag effect" defined as the "delayed effect that the consumptive use of water associated with well pumping will have on hydrologically connected streamflow and the associated impact on surface water appropriations." The prediction also assumes that precipitation and irrigation patterns will remain constant. Therefore, the result is a very precise estimate (i.e., 255 cfs, not 250 cfs, or 300 cfs) but with a reasonably high degree of uncertainty associated with its underlying assumptions.

Using a hydrograph that may or may not exist 25 years into the future would not be adequate for assessing project effects in the early years of a license when the flows can be predicted with the most certainty.

With regard to Interior (2006), FWS does not provide a methodology or explain what specific information in the report would be used to predict future water depletions in the lower Platte River. We note that Interior (2006) analyzes various flow management alternatives well upstream of the project area in the Central Platte River subbasin for the purpose of benefitting federally listed species; however, Interior (2006) at 3-15 concludes that the various flow management alternatives that were analyzed "would result in only small changes to these flow parameters in the Lower Platte River and, therefore, provide marginal benefits to the pallid sturgeon." It's not clear to us how this information would be translated into a projected hydrograph for the lower Platte River.

Our practice, which is widely accepted and utilized, is to use the current hydrologic record as an approximation of future hydrology. This approach, like that used by Nebraska DNR (2009), has many of the very same limitations in that the predicted hydrology may be affected by changes in land use practices, water uses, precipitation patterns, and other similar factors that affect flows decades in the future. However, the

advantage of our approach is that we can more accurately predict project effects on river hydrology early on when the flows can be predicted with the most certainty.

For the above reasons we will not require the District to synthesize a future hydrograph based on Interior (2006) and Nebraska DNR (2009), and use that record to assess project operational alternatives as recommended by FWS.

## Study No. 1 – Sedimentation

In its revised study plan, the District proposes to conduct a sedimentation study with the following objectives: (1) characterize sediment transport in the Loup River bypassed reach and lower Platte River (i.e., Platte River extending from the Loup River confluence downstream to the Missouri River); (2) characterize stream morphology in the Loup River bypassed reach and in the lower Platte River through a data and literature review; (3) determine if a relationship can be detected between sediment transport and interior least term and piping plover nest counts and fledge success; and (4) determine if sediment transport limits pallid sturgeon habitat in the lower Platte River downstream of the Elkhorn River confluence.

#### Objective 1 – Characterizing sediment transport

## Methodology

Under this objective, the District would conduct two "tasks" called Task 2 and Task 3. Under Task 2, the District would update a sediment budget and sediment yield analysis completed by the Missouri River Basin Commission (MRBC) in September 1975 using information generated by the U.S. Bureau of Reclamation for the Platte River at Duncan (upstream of the Loup River confluence) and the District's dredge records for the project's settling basin. Under Task 3, the District would calculate effective discharge (i.e., the flow or range of flows that transport(s) the most sediment) and total sediment transported at a total of nine USGS gage sites on the Loup River, Platte River, and project's power and tailrace canals and one additional non-USGS gage site on the Loup River upstream of the project's diversion dam.<sup>1</sup>

In calculating effective discharge and total sediment transported at the USGS gage sites, the District would utilize historic USGS gage discharge and river cross-sectional rating curves along with existing sediment information sources. For the one site on the Loup River upstream of the project's diversion dam, the District would synthesize a discharge record for the site presumably utilizing recorded hydrologic data from one or more of the other sites and correcting for the drainage area of the Loup River at the site

<sup>&</sup>lt;sup>1</sup> Effective discharge and total sediment transported are indicators of sediment transport.

upstream of the diversion. The District does not state how it would obtain the geomorphic indices (e.g., channel width, velocity, slope, gradation, etc.) for its calculation of total sediment transported at the upstream site but presumably would obtain them through a combination of field measurements and existing information sources. Effective discharge and total sediment transported would be determined for each study site for existing and alternative project operations using wet and drought year flows.

In its revised study plan, the District notes that there has been limited sedimentation and geomorphology study on the lower Platte and Loup Rivers, inferring that their proposed study is needed to better understand project effects on sedimentation and geomorphology in the project area.

## **Study Issues**

In its July 1, 2009, filing commenting on the proposed study plan, the FWS requested that, as part of the Task 2 sediment budget and sediment yield analysis, the District should directly measure the sediment supply contributions to the lower Platte River from the project's tailrace channel and calibrate sediment supply estimates for the Loup River based on actual sediment dredged from the canal and from the Loup River immediately downstream of certain tributary confluences. The District responded in the revised study plan that direct measurements of sediment supplies requires extensive sampling both spatially and temporally in order to draw meaningful conclusions and that the existing sediment estimates in the literature are sufficient to meet the study objective. In its comments on the revised study plan, the FWS responded that the District should instead adjust sediment yield estimates for tributaries to the Loup River downstream of the diversion based on reductions in sediment documented in the project's settling basin.<sup>2</sup> The FWS notes that the reductions in the Loup River subbasin sediment yield as reflected in the dredge records is likely system-wide.

#### **Conclusions**

The FWS's supposition that a system-wide reduction in sediment yield as evidenced by the reduction in material dredged since 1975 is reasonable. Therefore, as part of Task 2, the District shall adjust the sediment yield calculated for the Loup River and its tributaries downstream of the project's diversion dam as well as the project's

<sup>&</sup>lt;sup>2</sup> In the PAD at 5-24, the District notes that its dredge records show that through 1975, average annual material dredged was 2.2 million tons. Since then, the average has decreased to 1.2 million tons per year.

tailrace<sup>3</sup> based on documented reductions in dredged material from the project's settling basin. This modification would require very little additional effort on the part of the District while improving the quality of the data.

## Objective 2 – Characterizing stream morphology

## Methodology

Under this objective, the District would complete Tasks 2 and 3 as described above for Objective 1. The District would also conduct an additional analysis (Task 4) in which they would review measured and reported USGS stream morphology data, presumably for the nine USGS gage sites identified above, and calculate the effective discharges associated with each site's stream morphology. The District would evaluate the effective discharges for various time periods, and analyze the information for substantive changes or trends over time. Based on this temporal review, the District would make a determination for each site as to whether the Loup and lower Platte River's morphology is in dynamic equilibrium or transitioning to other forms (i.e., states of aggradation or degradation). USGS morphology information would be reviewed to confirm the finding.

## **Study Issues**

In its July 1, 2009, filing commenting on the proposed study plan, the FWS stated that in its view, the USGS' cross-sectional data that would be used for Tasks 3 and 4 would not adequately represent the geomorphic indices of the Loup and Platte Rivers, because the USGS gages are located near bridge crossings which are relatively narrow and constricted as compared to the prevailing river morphology which is wide and unrestricted. The FWS also added that the nearest proposed study site on the lower Platte River (i.e., USGS gage site at North Bend) is too far downstream (about 30 miles) to capture project effects on stream morphology closer to the tailrace canal. The FWS, therefore, recommended that the District obtain additional cross-sectional information and calculate effective discharges and total sediment transported for the following sites:<sup>4</sup> (1) Loup River upstream of the project's diversion; (2) Loup River immediately downstream of the project tailrace canal confluences; (4) lower Platte River immediately downstream of the tailrace canal to river mile 96 (a distance of about 5 miles); and (5) lower Platte River

<sup>&</sup>lt;sup>3</sup> The Missouri River Basin Commission's 1975 sediment budget shows that the cumulative sediment yield from the Loup River and its tributaries downstream of the project's diversion to be 1,860,300 tons per year and from the project's tailrace to be 350,000 tons per year.

<sup>&</sup>lt;sup>4</sup> The FWS did not specify the specific number of cross-sections to study at any of the sites.

near the USGS gage site at North Bend. The FWS added that comparisons in the geomorphic indices should be made between and among the sites.

In its revised study plan, the District responded that a characterization of stream morphology cannot be done with one or several cross-sections measured over a 1- to 2-year period but that multiple cross-sections at the same location taken over many years, like at the USGS gage sites, are needed in order to provide meaningful stream morphology information. The District added that the existing cross-sections for the USGS gage sites have been used multiple times by other unspecified entities for establishing aggradation/degradation trends in the lower Platte River upstream of the Elkhorn River confluence, and therefore, considers the USGS gage sites to be suitable for characterization stream morphology.

In its comments on the revised study plan, FWS reiterated its former concerns and added that field measurements of cross-sections of the aforementioned sites should be done in place of using cross-sectional rating curve data recorded at the USGS gage sites. The FWS also noted that the USGS cross-sectional data were only taken at points along the cross-sections that were inundated at the time of the measurements, and therefore, did not account for the geomorphic characteristics of above-water channel components (i.e., sand bars) important to federally listed interior least terns and plovers.

#### **Conclusions**

As noted above, Objective 2 is simply to characterize stream morphology in the Loup River bypassed reach and in the lower Platte River through a determination on whether the rivers at multiple locations are in a braided condition at dynamic equilibrium or are in varying states of transition to aggrading or degrading, non-braided channel forms. As to the FWS' issue that the USGS cross-sectional data were only taken at points that were inundated, we don't see how this is relevant to the characterization of stream morphology in the manner proposed by the District, which relies on a review of hydraulic data and calculations.

As to the issue of the use of USGS gage sites at or near bridges, in an evaluation of the effects of bridges on water depths, velocities, and fish habitats for median- and low-flow conditions, Ginting and Zelt (2008) concluded that cross-sectional measurements made near bridges can be used as a "primary data set in hydraulic-habitat study, before embarking on a more spatially intensive but costly program of streamflow-depth and –velocity data collection." Our interpretation of the Ginting and Zelt (2008) report, including a review of the aerial photographs of the near-bridge and adjacent beyond-bridge sites provided in the report, is that near-bridge sites provide a reasonable representation of beyond-bridge sites for purposes of evaluating the potential effects of environmental stressors (like project operations or bridge piers) on flow and geomorphic conditions. We, therefore, see no reason to adopt FWS' recommendation for the District

to dispense with the proposed USGS gage sites in favor of beyond-bridge sites where the District would have to synthesize a flow record and obtain on-site field measurements of geomorphic indices.

In regard to FWS' recommendation that the District survey a point on the Loup River upstream of the project's diversion dam as part of the Objective 2 methodology, we note that the District already proposes to do this, and therefore, no action is required on our part (see revised study plan at 1-18).

In regard to the FWS' recommendation that the District survey a point on the Loup River downstream of the diversion dam and the lower Platte River downstream of the project at North Bend in lieu of using information from the USGS gages in these reaches, as noted above, we see no reason to dismiss historic data obtained at the USGS gages in favor of nearby sites where the District would have to synthesize flow information and survey geomorphic conditions.

In regard to the FWS' issue that the North Bend gage site located about 30 miles downstream of the project would not reliably represent the lower Platte River immediately downstream of the project's tailrace for purposes of assessing potential project effects, we agree. Annual sediment yield from the project's tailrace is about 10 percent of that which enters the canal from the Loup River; therefore, flow in the tailrace is relatively depleted of sediment. The sediment-depleted tailrace flow (i.e., the relatively clear flow) has the capacity to mobilize sediment in the lower Platte River, with the most pronounced effect likely occurring immediately downstream of the tailrace canal confluence and a reduction in effect as the flow and its increasing sediment load progresses downstream toward North Bend. This effect could result in the river morphology in proximity to the tailrace being much different from that further downstream at North Bend. We, therefore, find that there is a need to survey at least one cross-section on the lower Platte River within the first 5 miles downstream of the project tailrace canal confluence so that we can adequately assess the effects of project operations, in terms of sediment removal, on the lower Platte River where any effects would likely be most pronounced.

Similarly, we agree with the FWS that a cross-section is needed for the lower Platte River between the Loup River and tailrace canal confluences (a distance of about 2 miles). This reach is part of the project's bypassed reach. Flow and sediment transport to this reach comes from both the Platte and Loup Rivers upstream; therefore, neither the

<sup>&</sup>lt;sup>5</sup> From figure 5-13 of the PAD, 1.9 million tons per year are removed from the settling basin and 0.70 million tons per year continues down the Loup Canal for a total sediment yield of 2.6 million tons per year from the Loup River. This compares to an annual sediment yield from the tailrace canal of 0.35 million tons per year.

Loup nor upstream Platte River USGS gage sites would reasonably represent channel morphology in the Platte River portion of the bypassed reach.

We are unmoved by the District's argument that meaningful information could not be obtained through an analysis of cross-sectional surveys taken on the lower Platte River upstream and downstream of the tailrace canal confluence. Although we agree with the District that channel morphologic characteristics based on comparisons of effective discharges between time periods (i.e., a temporal analysis) can not effectively be done for these additional sites, a spatial analysis at a single point in time can be performed for these and all of the other sites to determine if project operations, relative to sediment removal, affects channel morphology and to what extent based on proximity to the project's diversion and to the project's tailrace canal. We see no reason why such an analysis could not be done meaningfully given that a very similar spatial analysis of cross-sectional data taken at a single point in time at both USGS and non-USGS sites was successfully done by Ginting and Zelt (2008) for representative low flow and median flow conditions. The Ginting and Zelt (2008) study was conducted, in part, to document the effects of a potential stressor (i.e., presence of bridge piers) at successively greater distances away from its source.

Ginting and Zelt (2008) were able to survey bed elevations, water-surface elevations, and streamflow velocities at five cross-sections on the lower Platte River near North Bend over a 3-day period, or an average of about two cross-sections per day. Therefore, the District should be able to survey the additional cross-sections on the lower Platte River at about the same rate, which we find to be a small amount of additional effort relative to the proposed scope of the study.

For the above reasons, we conclude that in addition to synthesizing a flow record and surveying cross-sections on the Loup River upstream of the diversion dam, the District shall also synthesize a flow record for and survey at least one cross-section in the lower Platte River between the Loup River and tailrace canal confluences and at least one for the lower Platte River within 5 miles downstream of the tailrace canal. Because this analysis will be used to assess any project-induced sedimentation effects on interior least tern and piping plover nesting and pallid sturgeon habitat, the District shall, to the extent possible, survey the cross-sections in the late spring to early summer period (i.e., mid-May to mid-June) to coincide with the beginning of the interior least tern and piping plover nesting period. This time period would also coincide with the presumed pallid sturgeon spawning period (NGPC 2008a).

At all sites (USGS gage and non-USGS gage sites), the District shall compare the capacity of the flows for total bed material transport to the sediment budget updated under Task 2 and make a determination as to whether the rivers at the sites are currently in dynamic equilibrium (i.e., the capacity for total bed material transport is equal or about equal to the sediment yield estimate for the site), degrading state (i.e., the capacity for

total bed material transport exceeds the site's sediment yield estimate), or aggraded state (i.e., the sediment yield estimate exceeds capacity for total bed material transport).

Using the findings on the current state of river morphology at each site, the District shall make longitudinal (spatial) comparisons of all sites on the Loup and lower Platte Rivers starting at the most upstream site on each river, and progressing downstream. In performing this spatial analysis, the District shall ensure that it uses cross-sectional geomorphic data from the USGS gage sites that are reasonably comparable to the cross-sectional geomorphic data taken at the non-USGS sites (i.e., the data taken at both USGS gage and non-USGS gage sites shall be obtained as close in time as possible).

We note on page 1-22 of the revised study plan, the District proposes that the analyses in Tasks 3 and 4 will be performed for alternative conditions if it is determined that either the Loup or Platte Rivers are not in dynamic equilibrium, and the results will be compared to the results from the current condition analyses. The District shall perform the same alternatives analyses for the current condition spatial determination required above with the modification that the determination as to river state shall be done for each river reach (as represented by each study site) rather than for the rivers as a whole.

Objective 3 – Determining relationship between sediment transport and interior least Tern and piping plover nest counts and fledge success

## Methodology

Under this objective, the District would conduct a Task 5 in which they would review the results of Tasks 3 and 4 to determine whether the project is affecting the morphology in the lower Platte River. If the analysis shows that the project is affecting the morphology of the lower Platte River, then the District would determine the magnitude of the effect using the information acquired under Task 4. In addition, the District would plot available interior least tern and piping plover annual nesting count and productivity data versus effective discharge and versus total sediment transported for both wet and dry cycles. The District would conduct a regression analysis of the plotted parameters and examine the plots for trends to detect if a relationship can be established between the sediment transport indicators (i.e., effective discharge and total sediment transported) and bird nesting or productivity.

## **Study Issues**

No one commented on the Objective 3 methodology as presented in the revised study plan.

#### **Conclusions**

We have modified Task 4 under Objective 2 to require that the District survey at least two additional cross-sections on the lower Platte River and include these additional sites as part of a spatial analysis of project effects on channel morphology. Accordingly, Task 5 is modified such that in the review of the results of Tasks 3 and 4 in determining whether the project is affecting morphology in the lower Platte River and whether additional analysis on interior least tern and piping plover should be performed, the District shall include the additional cross-sections and associated longitudinal analysis.

## Objective 4 – Determining if sediment transport limits pallid sturgeon habitat

## Methodology

Under this objective, the District would conduct a Task 6 in which they would review the results of Tasks 3 and 4 to determine whether the project is affecting the morphology in the lower Platte River downstream of the Elkhorn River confluence. If the analysis shows that the project is affecting the morphology of the lower Platte River downstream of the Elkhorn River confluence, then the District would determine the magnitude of the effect using the information acquired under Task 4. Additionally, the existing state of the Platte River below the Elkhorn River in terms of sediment transport and braided river morphology would be qualitatively compared to pallid sturgeon habitat characteristics of other rivers as cited in the literature to determine if changes in project operations relative to sediment transport could affect sturgeon use of the lower Platte River. If the differentiating factor is braided river morphology (i.e., if a qualitative review of the literature shows that sturgeon use requires a braided river morphology and the lower Platte River is shown to be transitioning away from that morphology), then the District would analyze alternative project operations to determine whether the project could restore a braided river morphology to the lower Platte River.

## **Study Issues**

In it comments on the proposed study plan, FWS suggested eliminating this objective, because in its view, the District would have difficulty segregating project sediment supply effects from other factors. In it response, the District declined to eliminate the objective from its sediment study plan, because in its view, the objective is a viable means of qualitatively assessing the potential for the project to affect pallid sturgeon habitat. The District adds that this qualitative comparison would only take place if it were shown the project is affecting stream channel morphology of the lower Platte River downstream of the Elkhorn River confluence. In its comments on the revised study plan, FWS did not specifically respond to the District.

#### **Conclusions**

We agree with the District that the study has value in that it would help us to determine whether project operations related to sediment removal (and any associated effects on site morphology such as a degraded condition) would be adversely affecting pallid sturgeon use of the study reaches within the lower Platte River.

We note that pallid sturgeon habitat occurs on the lower Platte River upstream of the Elkhorn River confluence to as far as Columbus, NE, and historically, pallid sturgeon likely used this habitat (NGPC 2008a). Therefore, the District shall expand the geographic scope of Objective 4, including the study methodology, to include all required USGS gage and non-USGS gage study sites on the lower Platte River upstream of the Elkhorn River confluence with the exception of the USGS gage site at Duncan, NE (upstream of Columbus).

As noted above under Objective 3 – Conclusions, we have modified Task 4 under Objective 2 to require that the District survey at least two additional cross-sections on the lower Platte River and include these additional sites as part of a spatial analysis of project effects on channel morphology. Accordingly, Task 6 is modified such that in the review of the results of Tasks 3 and 4 in determining whether the project is affecting morphology in the lower Platte River and whether additional analysis on sturgeon should be performed, the District shall include the additional cross-sections and associated longitudinal analysis.

## Study No. 2 – Hydrocycling

In the revised study plan, the District proposes to evaluate the effects of hydrocycling on interior least terns, piping plovers, and pallid sturgeon by: (1) comparing sub-daily hydrocycling operation values (maximum and minimum flow and stage) to daily values (mean flow and stage), over periods of weeks, months, and specific seasons of interest to protected species; (2) determining potential for nest inundation due to hydrocycling and from any alternative conditions; (3) assessing effects on sediment transport parameters (primarily through Study 1); and (4) identifying material differences in potential effects on habitat of the interior least tern, piping plover, and pallid sturgeon.

## Methodology

Under objective 4, the District would conduct a literature review of hydrocycling/pulsing effects on interior least tern, piping plover, and pallid sturgeon habitat, such as backwaters and side channels, on other river systems and compare the conditions on those systems with that on the lower Platte River as influenced by project operations to determine if project operations contribute to habitat conditions outside the spectrum of habitat used by these species on the other river systems. The comparative

analysis would identify whether there are differences or similarities between project operations and hydrocycling/pulsing operations on these other rivers to see if habitat characteristics or species usage that result from their respective operations are similar or different and if so, why. If differences are noted that would adversely affect interior least tern and piping plover habitat on the lower Platte river below the project tailrace and on the pallid sturgeon on the lower Platte River below Elkhorn, the District would determine whether these limitations are the result of project hydrocycling or other factors. If they are the result of hydrocycling the District would examine alternative conditions to determine if any of these limitations could be reduced.

## **Study Issues**

In its comments on the revised study plan, the FWS recommends that the literature review be supplemented by including the following study sites on the lower Platte River under Objective 4: (1) the 2-mile reach between the Loup River and tailrace canal confluences; (2) immediately downstream of the tailrace canal confluence; (3) near the North Bend USGS gage; (4) near the Leshara USGS gage; and (5) near the Louisville USGS gage. Collected data would include: (1) intra-day project hydrocycling effects on fish habitat (in terms of preferred depths and velocities); (2) longitudinal effects of hydrocycling to fish habitat from upstream to downstream; (3) intra-day project hydrocycling effects on interior least tern and piping plover suitability criteria; and (4) longitudinal effects of project hydrocycling on sandbar erosion as the hydrocycling attenuates downstream. The FWS notes that the specific methods are referenced in their comments on the proposed study plan. In the proposed study plan, the FWS states that the methodology should be "similar to that of the Platte River Recovery Implementation Program's stage change study (HDR 2008)." Specific habitat parameters to be sampled would include: (1) flow quantity; (2) depth; (3) velocity; (4) sandbar elevation; and (5) bed forms.

#### **Conclusions**

We have reviewed the HDR (2008) study and note that the methodology to be utilized involves one- and two-dimensional modeling of depths and velocities, and based on this information, predictions of resulting "bedforms." The modeled depths, velocities, and bedforms would be used to identify and quantify habitat types, presumably at river flows of interest.

A similar, albeit less intensive, flow versus habitat study for shortnose and pallid sturgeon has already been conducted on the lower Platte River (Peters and Parham 2008). In addition, the District notes that the Platte River Recovery Implementation Program (Program) is currently studying the effects of Platte River stage changes on pallid sturgeon habitat downstream of the Elkhorn River confluence and that the Program should complete the study by December 2009. The District proposes to use the results of

the Program's study to assist in their hydrocycling effects analysis. For these reasons, we see no need to require the District to conduct additional field work in order to establish flow versus pallid sturgeon habitat relationships for the lower Platte River either upstream or downstream of the Elkhorn River confluence.

However, pallid sturgeon habitat occurs on the lower Platte River upstream of the Elkhorn River confluence to as far as Columbus, NE, and that historically, pallid sturgeon likely used this habitat (NGPC 2008a). Therefore, the District shall expand the geographic scope of the hydrocycling study for pallid sturgeon, including the associated study methodology, upstream to also include the reach bounded by the Elkhorn River and tailrace canal confluences.

Any effects of hydrocycling on pallid sturgeon habitat would likely be most pronounced immediately downstream of the tailrace canal confluence. As part of the hydrocycling study, the District proposes to develop synthetic hydrographs under existing and alternative operating conditions for the Platte River downstream of the tailrace canal. The District is vague as to the specific locations of the downstream sites. To ensure that hydrocycling effects on Platte River aquatic resources, including pallid sturgeon habitat, are adequately addressed, the District shall include a point on the lower Platte River within 5 miles downstream of the tailrace canal confluence in their preparation of synthetic hydrographs.

The District also proposes to plot synthetic hydrographs for each study site for periods of weeks, months, and specific seasons of interest to the federally listed species. The District proposes to review the results of this analysis "in the context of the life requisites of the pallid sturgeon and its use of the lower Platte River below the confluence of the Elkhorn River."

We have concerns with the scope of the analysis and with the District's vagueness in describing exactly what will be measured or compared in terms of project operational effects on pallid sturgeon habitat or "life requisites." Therefore, as noted above, we're expanding the scope to include as part of the analysis, the lower Platte River reach between the tailrace canal and Elkhorn River confluences. In addition, to ensure that we have the information that we need to assess project hydrocycling effects on pallid sturgeon habitat, the District shall, at a minimum, for one representative low, normal, and high flow year, tabulate and plot: (1) the minimum daily percent suitable pallid sturgeon habitat under existing operations; (2) the maximum daily percent suitable sturgeon habitat that would be observed if the project would continuously pass inflows through the project's canal system with no storage in either of the project reservoirs (run-of-river operations). In quantifying the percent suitable sturgeon habitat, the District shall use the discharge versus percent suitable pallid sturgeon habitat relationship established and presented in Chapter 10 of Peters and Parham (2008). This analysis should be done at the

required site within 5 miles downstream of the tailrace confluence as well as the downstream Platte River USGS gage sites identified in section 3.2 of Study 2.0 – Hydrocycling.

With regard to the interior least tern and piping plover, the FWS recommends supplementing the proposed literature review in objective 4 with additional data to assess the longitudinal effects of hydrocycling on interior least tern and piping plover nesting habitat suitability and sandbar erosion. The FWS recommends that the District quantify habitat changes important to nesting interior least terns and piping plovers—area of bare sand per unit area; size distribution of sandbars; and position of sandbars<sup>6</sup> (i.e., point bars or mid-channel bars)—within the following river reaches with documented interior least tern and piping plover nesting history: (a) the Platte River below the Loup River confluence and above the project tailrace; (b) immediately downstream of the project tailrace; (c) near the USGS North Bend, (d) near the USGS Leshara stream gage; and (e) near the USGS Louisville stream gage. The FWS recommends that the District collect the above information by obtaining stream cross-section data and analyzing the data with methods similar to those described in HDR (2008). The District asserts that the methods would show erosion rates downstream, but they would not assess effects of project hydrocycling or alternative conditions on tern and piping plover sandbar habitat characteristics because the methods could not distinguish between project effects and natural erosive properties of this highly dynamic system.

We disagree with the District. In order to assess the effects of hydrocycling on interior least tern and piping plover nesting habitats, we need a means to compare differences in alternative operations. The District's proposed literature review would not provide an adequate means to achieve this objective. Modeling is the only means of effectively measuring the effects of existing operations and any operational changes on interior least tern and piping plover habitat, short of measuring differences in sandbar habitat characteristics under different actual operational scenarios.

Therefore, the District shall conduct a modeling study of the effects of hydrocycling on interior least tern and piping plover nesting habitat using the HEC-RAS 1D steady state back-water model and associated methodology for model calibration specified in HDR (2008). The District shall select a representative study site, in consultation with the FWS and Nebraska Game and Parks Commission (Nebraska GPC), in the following reaches: (a) in the Plate River below the Loup River confluence and above the project tailrace, (b) within five miles downstream of the project tailrace, and (c)

<sup>&</sup>lt;sup>6</sup> The FWS also identified depth and velocity as important parameters of interior least tern and piping plover nesting suitability. While depth and velocity influence sand bar erosion, these parameters do not represent habitat characteristics used by or selected by these species. We assume that the FWS was also considering habitat characteristics important to pallid sturgeon.

near the USGS North Bend gage station. The selected study site would preferably include areas where interior least terns and piping plovers have historically nested. Data collected shall include flow quantity, depth, velocity, sandbar elevation, and bed form (HDR 2008). Cross-sectional measurements to calibrate the model should be done immediately prior to the nesting season (first week in May) and again at the end of the nesting period (first week in August). The length of each cross-sectional measurement should be of sufficient length to capture the full range of flow (based on historical records for the area) expected at the each study site. The District shall photo document the cross-sections. After calibration, the model shall be run to model existing operations and run-of-river operations and any other operational alternative identified by the District. Each model run should be conducted for a normal, dry and wet year.

We are not requiring the additional sites recommended by the FWS at this time because any project effects would be most pronounced near the project tailrace. In addition, HDR (2008) is conducting similar efforts near Louisville which would help capture any attenuating flow effects. If modeling indicates that project hydrocycling is causing extreme effects further downstream than the North Bend gage site, then additional sampling may be required in year 2.

We estimate that the additional effort would add \$150,000 to the study's cost, but is necessary because the District's proposed methods would not provide sufficient information for the Commission's environmental analysis or section 7 Endangered Species Act consultation with the FWS.

## Study No. 4 – Water Temperature Study for the Loup River Bypassed Reach

## Methodology

The District proposes to coordinate with the USGS and install and operate water temperature sensors and recording devices from May 1 through September 30, 2010, on the Loup River bypassed reach at Genoa and the Loup River immediately upstream of the project diversion. The water temperature data will be analyzed to assess whether and to what extent diversion of water away from the bypassed reach causes any exceedance of Nebraska's 90-degree Fahrenheit water temperature standards.

In order to address some early stakeholder concerns about the effects of Beaver Creek tributary inflow to the bypassed reach downstream of the water temperature sensor, the District proposes to record water temperatures for about 7 to 10 days in the bypassed reach downstream at Columbus, NE, to confirm the underlying study assumption that the bypassed reach at Genoa would likely have the highest water temperatures in the bypassed reach due to limited flows.

## **Study Issues**

In its comments on the proposed study plan, the FWS noted that the lower Platte River downstream of the Loup River confluence to the tailrace canal is also part of the project's total bypassed reach, and therefore, flow diversions could potentially cause violations of the water temperature standard in the lower Platte River reach as well. The FWS, therefore, recommended that additional water temperature sensors be installed in the Loup River downstream of the Beaver Creek confluence and the Platte River between the Loup River confluence and the tailrace canal.

In the revised study plan, the District responded that they modified the study plan to include water temperature monitoring for a 7- to 10-day period in the Loup River downstream of the Beaver Creek confluence to test the underlying assumption of the study that the bypassed reach upstream of Beaver Creek is likely to have the highest water temperatures due to having the lowest flows (i.e., no increases in water temperature would likely be observed downstream of the Beaver Creek confluence). The District also noted that it was not adopting the recommendation to record water temperature in the lower Platte River because:

"...if water temperature in the Loup River bypass reach is consistently below the state standard, then temperatures above the state standard occurring in the Platte River would likely be due to non-Project related effects from other inputs such as the Platte River upstream of the confluence with the Loup River or the Columbus wastewater treatment plant outfall."

In its comments on the revised study plan, FWS notes that "the Loup River at Columbus study site adequately serves to monitor water temperatures below the Beaver Creek confluence." Therefore, we see this particular issue has having been resolved. However, the FWS also notes that they do not agree with the District's reasoning for not monitoring water temperature in the lower Platte River portion of the bypassed reach, because the lower Platte River bypassed reach is a separate, distinct portion of bypassed reach given that it is influenced by flows from the Platte River upstream of the Loup River confluence.

#### **Conclusions**

Although we agree that other inputs could be the cause of any water temperature standard exceedances in the lower Platte River bypassed reach, we can not rule out the project's cumulative contribution to any exceedances. Therefore, we can not agree with the District's unsupported assumption that the project bypassed reach near the diversion dam is likely to have a higher water temperature than the lower Platte River bypassed reach, similar to the assumption described above regarding the Loup River bypassed reach downstream of the Beaver Creek confluence.

For this reason, the District shall also monitor water temperatures in the lower Platte River bypassed reach at Columbus over the same 7- to 10-day period proposed for the Loup River bypassed reach at Columbus. Similar to the District's proposal for the Loup River bypassed reach at Columbus (revised study plan at 4-8), if the monitoring shows that the lower Platte River water temperature at Columbus is substantially higher than in the Loup River bypassed reach at Genoa, then the District shall conduct additional water temperature monitoring in the lower Platte River bypassed reach for use in developing relationships between flow diversions, Platte River bypassed reach water temperatures, and ambient weather conditions at Columbus.

The results of water temperature monitoring in the Loup River bypassed reach and Platte River bypassed reach at Columbus along with all analyses shall be presented in the Initial Study Report.

## Study No. 5 – Flow Depletion and Flow Diversion

The District proposes to conduct a flow depletion and flow diversion study that has the following objectives: (1) determine the net consumptive losses associated with project operations compared to alternative conditions; (2) using current and historic USGS gage rating curves, evaluate stage changes in the Loup River bypassed reach during project operations and compare against alternative hydrographs; (3) evaluate historic flow trends on the Loup and Platte Rivers since project inception; (4) determine the extent of interior least tern and piping plover nesting on the Loup River above and below the diversion weir; (5) determine project effects, if any, of consumptive use on fisheries and habitat on the lower Platte River downstream of the tailrace canal; and (6) determine the relative significance of the Loup River bypassed reach to the overall fishery habitat for the Loup River. The FWS commented on tasks associated with Objectives 1 and 4.

Objective 1 – Determining net consumptive losses associated with project operations

## Methodology

Under this objective, the District would calculate monthly and seasonal net consumptive use for the years 1980 through 2009 for the Loup power canal and the Loup River bypassed reach for current project operations and for alternative conditions. Consumptive use in the power canal and associated regulating reservoirs would be calculated on a monthly and seasonal basis by adding evapotranspiration (ET) losses from agricultural crop irrigation and evaporation losses from surface waters. Evaporative losses would be based on total surface area exposed to the atmosphere and the relationship of the lakes to pan evaporation data collected from the National Weather

Service. Likewise, consumptive uses in the Loup River bypassed reach would be calculated by adding ET losses and evaporation. ET losses would be based on the length of riparian vegetation bordering the Loup River bypass. Evaporation would be estimated by using the surface area and evaporation data from the National Weather Service. The surface area of the bypassed reach would be calculated from the channel cross section top width and distance between USGS gages. Net consumptive use would be estimated by taking the differences between the consumptive use losses in the power canal and regulating reservoirs and the consumptive use losses in the Loup River bypassed reach.

## **Study Issues**

The FWS states that if the Commission considers irrigation diversions from the power canal and diversions into the Lost Creek siphon as discretionary project actions subject to review in the relicensing process, then net consumptive losses of these diversions should be evaluated. The District asserts that irrigation diversions are water rights issued by the Nebraska DNR outside of the project; therefore, they must be maintained. The District also argues that consumptive use from irrigation diversions would be present and identical regardless of modifications to project operations. Therefore, consumptive use from irrigation diversions should not be required as part of the review process. Likewise, diversions into the Lost Creek siphon are required to keep the siphon open for local drainage and would be required under any project operating scenario, and thus would not be discretionary and subject to license review.

#### **Conclusions**

We have determined that project retirement is not a reasonable alternative that would be considered in our environmental analysis (see Scoping Document 2 issued March 27, 2009), thus irrigation diversions from the project canal would continue as they have historically. Nonetheless, understanding the various inputs and depletions to the project system would improve our analysis of how changes in project operations may influence irrigation withdrawals and maintenance of the Lost Creek siphon. Therefore, the District shall provide an accounting of the 78 irrigation water withdrawal points along the length of the power canal, their associated water rights, and mean annual withdrawal (acre-feet) and monthly average withdrawal rate (cfs) based on the District's files of irrigator meter records and shall include these consumptive uses in calculating the net consumptive use at the project. As to flows discharged to maintain the Lost Creek siphon, the District shall provide an estimate of the timing and consumptive losses, if any, associated with these events.

Objective 4 – Determining the extent of interior least tern and piping plover nesting on the Loup River above and below the diversion weir.

## Methodology

Under this objective, the District would compare historical nesting occurrences from above the diversion to nesting occurrences from below the diversion weir to the Loup River confluence. If no significant difference in nesting occurrences exists, the District would conclude that project operations are not affecting stage in the Loup River bypassed reach. The conclusion would assume natural nesting conditions above and below the diversion weir are similar. If significant differences in occurrence are found, then the District would examine aerial images of the riparian corridor five to ten miles upstream and downstream of the diversion weir to identify and compare interior least tern and piping plover nesting parameters (number, position, and average size of bare sand areas within the banks of the river; channel width; percent un-vegetated sandbars; percent vegetated sandbars (isolated and non-isolated); and presence and/or type of vegetation). The District would use the same methods used by Kirsch (1996) to characterize and quantify interior least tern nesting habitat on the lower Platte River. The observed conditions for each year for these nesting parameters would be compared to determine what extent flow diversion and the presence of the weir may result in different river and riparian vegetation conditions. Observed conditions would also be compared to nesting requirements to determine if any changes in the riparian corridor may have had an effect on the occurrence of the species. These habitat parameters would then be compared to the habitat associated with the alternative conditions to determine if any of the alternative conditions would result in improvements to the habitat parameters.

## **Study Issues**

The FWS recommends that the District supplement its study by comparing interior least tern and piping plover suitability nesting criteria and whooping crane roosting criteria (area of bare sand per unit area, size distribution of sandbars, position of sandbars [i.e., point bars or mid-channel bars], depth and velocity; wetted width; and unobstructed width) across different stream flows. To accomplish this, the FWS recommends that the District take cross-sectional measurements at study sites in the following reaches: a) the Loup River upstream of the diversion weir; b) the Loup River downstream of the diversion weir; and the c) the Platte River below the Loup River confluence and above the project tailrace. The FWS supports the use of aerial photo interpretation to document land cover changes over time to show long-term, large-scale changes in active channel area, but asserts that the proposed methods would not allow the development of a direct relationship between flow and nesting and roosting suitability criteria. The FWS recommends that cross-sectional data be gathered when flows exceed the minimum bypass flow of 50 to 75 cfs to test the effects of different project bypass alternatives on species' suitability criteria.

The District opposes including an assessment of flow-related roosting habitat suitability for the whooping crane in the study because the whooping crane is not likely to occur in the project area due to its migration corridor being well removed from the project. The District also asserts that its indirect assessment of project effects on interior least tern and piping plover habitat is sufficient for the Commission's environmental analysis and section ESA consultation.

#### **Conclusions**

Although the primary whooping crane migration corridor is located about 35 miles west of the diversion works, the project is located within a much larger historical migration corridor and historical sightings have been made much closer to the project (3 miles west). Therefore, it is not unreasonable to consider whooping crane roosting habitat needs in the Commission's assessment of environmental effects. Therefore, the District's study plan is modified to include the whooping crane's roosting habitat criteria. The principal difference between the habitat requirements that the FWS is requesting is wetted width and unobstructed width. This should not add considerably to the District's study effort.

As discussed earlier for Hydrocycling (Study 2.0), we are not persuaded by the District's assertion that an indirect measurement of habitat will provide an adequate means to assess project effects on interior least tern, piping plover, and whooping crane habitat and alternatives to project operations. Therefore, the District shall supplement its analysis by conducting a modeling study of the effects of diverted flows on interior least tern and piping plover nesting habitat and whooping crane roosting habitat using the HEC-RAS 1D steady state backwater model and associated methodology for model calibration specified in HDR (2008). The District shall select a representative study site, in consultation with the FWS and Nebraska GPC, in the reaches identified above by the FWS. Data collected shall include flow quantity, depth, velocity, sandbar elevation, and bed form (HDR 2008). Cross-sectional measurements to calibrate the model shall be done during low flow conditions (50 to 75 cfs) and at a higher flow, selected in consultation with the FWS and Nebraska GPC. The length of each cross-sectional measurement should be of sufficient length to capture the full range of flow (based on historical records for the area) expected at the each study site. The District shall photo document the cross-sections. After calibration, the model shall be run to model existing operations and without the project diverting any flow and any other flow diversion alternative identified by the District. Each model run should be conducted for a normal, dry and wet year.

We estimate that the additional effort would increase the cost of the study by \$60,000, but the costs are necessary to ensure we have sufficient information for our environmental analysis and consult with the FWS under the ESA. Some economies of

scale would be attained because cross-sections for the Loup River bypass above the tailrace are also being done for the hydrocycling study.

Objective 6 – Determining the relative significance of the Loup River bypassed reach to the overall Loup River fishery

## Methodology

Under Objective 6 of this study, the District would review NGPC fish sampling results for areas upstream and downstream of the project's diversion dam and evaluate whether significant differences exist between upstream and downstream with regard to species diversity and species richness. Using the flow duration and flood frequency curves developed under Objective 2, Task 3 of this study, the District would calculate the ability of fish to migrate upstream of the project's diversion during high flows when the diversion is submerged and the sluice gates are in the open position.

## **Study Issues**

In its comments on the proposed study plan, FWS recommended generally and without much elaboration that the District should provide a direct comparison between stream flow in the bypassed reach and fish habitat suitability criteria for the current condition and action alternatives.<sup>7</sup> The District responds that a flow versus habitat study for the bypassed reach would have limited value because stream morphology on a braided river is dynamic, and therefore, a flow versus habitat relationship would only be valid for a short time, and possibly only for a few days or a week at most.

We agree with the District that due to the variability of the stream morphology inherent to the sandy, braided nature of the Loup and lower Platte Rivers, a flow versus habitat study with direct measurements of depths and velocities like the Physical Habitat Simulation System (PHABSIM) commonly used for the Instream Flow Incremental Methodology (IFIM) would be of little value. However, we agree with FWS that we need information to allow us to address project flow diversion effects on fish and their habitats in the Loup and lower Platte River bypassed reaches.

The Montana Method (Tennant 1976) has been used in Nebraska, including various reaches on the Platte and Loup Rivers, in order to establish minimum instream

<sup>&</sup>lt;sup>7</sup> FWS also recommended that the District make a number of hydraulic measurements across a series of cross-sections in the lower Platte River downstream of the project's bypassed reach. Considering that the study proposal applies to the bypassed reach, it's not clear what relevance the lower Platte River downstream of the project has to the project's bypassed reach. We, therefore, suspect that inclusion of this recommendation in the bypassed reach study was an oversight on the part of FWS.

flows. Under the method, various percentages of mean annual flow are classified as to their value to fish, wildlife, recreation, or related environmental resources. NGPC (2008b) used the following resource benefit characterizations for minimum flow releases at various percentages of mean annual flow:

Flow Description	April to September	October to March
Flushing/maximum flow	200 percent from 48 to 72	
	hours	
Optimum flow range	60-100 percent	60-100 percent
Outstanding habitat	60 percent	40 percent
Excellent habitat	50 percent	30 percent
Good habitat	40 percent	20 percent
Fair or degraded habitat	30 percent	10 percent
Poor or minimum habitat	10 percent	10 percent
Severe degradation	<10 percent	<10 percent

#### **Conclusions**

In order to provide us with information necessary for us to assess the effects of project flow diversions on fisheries resources in the Loup and lower Platte River bypassed reaches, the District shall determine mean annual flows for the Loup River immediately upstream of the project diversion and lower Platte River immediately downstream of the Loup River confluence. Based on the computed mean annual flows, the District shall compute the various percentages of mean annual flow in the table above to describe fish habitat in the Loup and lower Platte River bypassed reaches. The District shall then compare actual mean monthly flows in the Loup and lower Platte River bypassed reaches under existing project operations to the table above to describe the existing state of the fishery resources. The results of this analysis should be provided in the Initial Study Report.

#### Study No. 8 – Recreation Use

#### Methodology

The District proposes to merge the Recreation Use Survey and the Creel Survey into a Recreation Use Study and to reduce the study period from 12 months to 6 months (May 1 through October 31). The District plans to conduct surveys on four weekend days and six weekdays per month over the course of the study period (from May 1 to October 31, 2010), but only plans to include one summer holiday. The District also proposes to expand the survey period, at the discretion of the Commission, if the Telephone Survey or the Recreation Use Study shows that significant recreational use occurs between November 1 and April 31.

## **Study Issues**

The District proposes to exclude the Loup Lands Wildlife Management Area (Loup Lands WMA) from the Recreation Use Study because the area is leased to the NGPC and the District states that the agency is responsible for the management of Loup Lands. The District also proposes to exclude the 35-mile-long bypassed reach (Loup Power Canal) of the Loup River from the Recreation Use Study due to limited public access to the river across adjacent private lands and its ability to implement the study due to the limited access. At the May 11, 2009, recreation resources study plan meeting, the National Park Service (NPS) stated that it supports the inclusion of the Loup River bypassed reach in the Recreation Use Study in order to gain a better understanding of regional recreation use and of potential project impacts on recreation within the bypassed reach.

#### **Conclusions**

## Combining the recreation use and creel survey

We agree that merging the two surveys would yield some economies of scale and still allow the District to collect the data needed for our analysis.

# Recreation use survey effort, study area, and sampling design

We tentatively agree that the District can reduce the length of the study period to May 1 through October 31 because this coincides with the time period when the majority of recreation use is expected at project facilities. However, modifications to the survey effort will depend on the amount of recreation use that is identified as occurring outside of the suggested survey period through the telephone survey and recreation use survey. Thus, in order for the Commission to be able to determine if the survey period should be extended, the District shall provide an Interim General Recreation Use Report on or before September 15, 2010, and an Interim Telephone Survey Report on or before October 15, 2010.

The Loup Lands WMA are located within the project boundary and the current lease agreement includes a provision to provide public access to the land as well as to the Loup River from Tract G (330 acres south of the Loup River bypassed reach) and Tract H (145 acres north of the Loup River bypassed reach). For the third parcel on the Loup Land WMA (Tract D, 10 acres), public access to the river is not specified in the lease. Wildlife viewing and hunting occur on the Loup Lands WMA. Although NGPC is tasked with developing a general management plan for all three tracts as part of the lease agreement, we could not find such a plan. Because no recreation user data is available for the Loup Lands WMA, these lands should be included in the Recreation Use Study so that user data would be available to inform future planning for and management of the

area. Therefore, the District shall include the Loup Lands WMA in the Recreation Use Study.

With regard to studying the Loup River bypassed reach, the District stated at the January 13, 2009, scoping meeting that boating (by canoe and kayak) and fishing occur within the Loup River bypassed reach, but did not provide any recreational use data. The public has access to the Loup River bypassed reach at several locations (Loup Lands WMA, Prairie Wolf WMA, George Syas WMA, Looking Glass Creek WMA, Highway 81 bridge, Highway 39 bridge, Monroe Road bridge, and Pawnee Park in Columbus, Nebraska), most of which have been used previously for creel studies by NGPC.

We need to understand existing use of the Loup River bypass and how project diversions may be affecting recreational use for our environmental analysis. The record does not contain sufficient data to complete our analysis. Further, because there is no Commission-approved recreation plan for the project, the information collected for the Recreation Use Study would be useful in developing such a plan. Therefore, the District shall include the Loup River bypass in the recreation use survey. A survey method shall be developed after consultation with the Nebraska GPC and NPS for the bypassed reach of the Loup River which includes those access points which receive the highest recreational use. A sampling schedule which includes the opportunity to sample selected access points at various times during the day (between dawn and dusk) as well as on weekdays and weekends is needed and shall be included.

In regard to sampling recreation during the holidays, we find the District's effort to be inadequate because the summer holidays are known to be the highest recreational use days. Therefore, the District shall include three summer holiday weekends (Memorial Day, Independence Day, and Labor Day) in the sampling effort. The weekend days associated with these holidays would count toward the four weekend days proposed.

The sampling schedule referenced in the study plan was developed for a creel survey only; thus 2-hour sampling blocks were used to develop the schedule. Because the creel study and the recreation user studies have been combined, survey proctors will need to spend more time in the field. It may take eight hours or longer to traverse the length of the Loup Canal and document recreational use at the five project parks (Headworks, Lake Babcock (or Loup Park), Lake North, Columbus Powerhouse, and Tailrace) as well as at Loup Lands WMA. Thus, multiple crews may be needed to conduct the surveys.

The District states in the revised study plan that "during peak use periods, when it is not practical to interview all recreation users, one proctor will count all users while the other proctor interviews as many users as possible within a reasonable time period." The District shall develop an interview selection protocol (such as every seventh person encountered) to enhance variability in the study population. Additionally, the District

shall define a reasonable interview time period for each developed area, relative to the amount of use each area receives, so that the proctors know how long to spend interviewing at each location. Finally, an estimation protocol shall be created for each developed area to ensure consistency among proctors when it is not possible to count all users in a given location.

Some of the recreation forms in the revised study plan are in need of correction or clarification. Clarify the questions on the In-Person Recreation Use Survey by incorporating the following modifications:

- Alter question 1 to read: "How many *people* are in your party today?"
- Modify question 2 to ask how long it took the respondent to travel from their home to the interview location.
- Include a list of District facilities in question 5 so the survey proctor can check all that apply and indicate the number of visits per facility.
- Add hunting to the list of activities in questions 9 and 10.
- Change the "good" option to "above average" to enhance consistency with the other response options in question 11.
- Reword question 12 to read "Did you or a member of your party experience conflict with any other visitors today? If yes, please describe the nature of the conflict."

The Field Observation Form is confusing in its current format. Some of the choices given the survey proctors do not make sense. For example the activity "fishing" could occur in the following places: parking area; campground; picnic area; or playground. This form shall be redesigned so that it is easy for survey proctors to complete.

Clarify the questions on the Telephone Recreation Use Survey by incorporating the following modifications:

- Use the term sites in questions 1 through 3 to reduce respondent confusion between parks and trails and other types of facilities in question 4.
- Give respondents the opportunity to explain any "poor" ratings given in question 4A similar to question 11 on the In-Person Recreation Use Survey.
- Include hunting in the list of recreational opportunities for question 5A, 4B, 2C, and 5C.
- Expand Question 6A to ask about facilities that the public would be interested in using.
- For question 3B, add to the list the lack of barrier-free accessible facilities.

• It appears that respondents who answer "no" to question 2C will not have their demographic information recorded; therefore, please collect the following: (1) gender, (2) age, and (3) zip code from all respondents.

## Study No. 12 – Ice Jam Flooding on the Loup River

In March 1993, severe flooding in the lower Platte River basin inundated over 74,000 acres of land causing damages exceeding \$25 million. The probable cause of this flooding was a combination of ice jams and rapid snowmelt. Ice jams are caused by frazil ice formed in turbulent supercooled water, such as flows at the diversion weir and intake gates of the project. The U.S. Army Corps of Engineers (Corps) conducted two studies, resulting in two reports (July 1994 and January 1996), on ice jam flooding on the lower Platte River basin.

## Methodology

The District proposes a 2-phase approach to determining if project operations have a material effect on the formation of ice jams or on the severity of flooding caused by ice jams in the Loup River bypassed reach. The first phase would consists of gathering and characterizing all available information, including Nebraska DNR Ice Reports, performing a qualitative analysis of ice and hydro-meteorological data for relationships between project operations and ice jam formation and flooding in the Loup River bypass, and determining if the available information would support a more detailed quantitative analysis of incremental project operation effects to the study reach. If the available data are insufficient, the study would identify additional information needs. In the phase 1 analysis, daily discharge in the power canal and bypassed reach would be plotted from November to April of each year (1994-2009) along with air temperature, precipitation, and accumulated freezing degree day. Instances of observed flooding and historic ice jams would be flagged on the plots. If no definitive correlation between project operations and ice jam formation based on the accumulated ice observation records and ice event data are found, then the District would conclude that project operations do not contribute to ice jam formation and flooding (see Attachment C to Study 12—CRREL [Cold Regions Research and Engineering Laboratory] Ice Jam Flooding Study Proposal (July 2009)).

If a definitive correlation exists and available data are sufficient, the District would contract with the CRREL to perform the quantitative analysis. The quantitative analysis would include estimating the severity and frequency of historic ice events using hind-casting methods; developing a simple ice-hydraulic model of the bypassed reach using available HEC-RAS, HEC-2 geometry or similar method and running a representative range of flows in the model under open water conditions to calculate ice cover profiles for selected design winters for both freeze-up and break-up cases; comparing model-predicted ice covers with ice observation reports and satellite imagery;

and calculating ice cover profiles for the 1993-94 worst case winter based on the historic bypassed reach flows and diversions (current conditions) case and several selected (yet unidentified) diversion cases and comparing any differences.

## **Study Issues**

The Nebraska DNR asserts that the District's proposed methods are too narrowly described and are limited in such a way as to prevent a quantitative analysis, without which the question as to whether project operations are contributing to ice jam flooding cannot be answered. In response to the revised study plan, the Nebraska DNR re-filed an alternative study plan that includes detailed methods that would be implemented immediately to achieve the following objectives: (1) evaluate the effect of project operations on hydrology, sediment transport, and channel hydraulics in the lower Platte River basin; (2) evaluate the combined effects of project operations on hydrology, sediment transport, and channel hydraulics on ice processes in the lower Platte River basin; (3) develop an ice jam and/or break-up predictive model; and (4) identify structural and nonstructural methods for the prevention and mitigation of ice jams, if the project materially contributes to ice jam formation on the Loup and Platte Rivers.

#### Study area

The Nebraska DNR relied on the Corps to define the scope of the methods and study area. The Nebraska DNR study area would extend from the Loup River at Fullerton, Nebraska (about 4 miles upstream of the project diversion weir on the Loup River) to the confluence of the of the Platte and Missouri Rivers. The District limits its proposed study area to the bypass and power canal because (1) the area can be more readily analyzed because it experiences the maximum incremental effects of project operations; (2) this reach is subject to limited non-project influences on ice formation (i.e., tributaries, bridges, confluences, levees, etc.); (3) there is increasing uncertainty about the incremental effects of the project on icing events with increasing distance downstream. The District asserts that if no incremental effects are found near the project, it would not be justified to extend the study further downstream.

#### Methods

The Nebraska DNR included detailed study methods that included collection of generally the same existing data as the District, but expanded on the methods by including (1) a hydrology study that includes the development of an unsteady hydraulic routing model (e.g., HEC-RAS) and modeling flows "with" and "without" project canal flow diversions; (2) a sediment transport assessment using a sediment transport model in HEC-RAS that includes modeling existing operations and operations without the removal of sediment by the project; (3) an ice formation study that estimates the total volume of ice produced within the study reach "with" and "without" power canal diversion of flow

and channel regimes for use in computations of ice-affected hydraulics; (4) an ice transport during freeze-up and break-up study that includes the use of a two-dimensional model, such as DynaRICE ice-hydraulic numerical model, to model ice transport through selected channels and hydraulic structures as well as ice initiation to demonstrate differences in the formation of ice "with" and "without" power canal diversions; (5) an ice-affected hydraulics analysis using HEC-RAS modeling to predict where ice jams form under 2-, 5- and 10-year flows "with" and "without" power canal diversions; (6) the development of ice jam/break-up predictive model, and (7) identification of structural and non-structural means that may prevent and mitigate the impacts of ice jams if the project is shown to increase flood risk in any part of the study reach.

The District does not propose to include the hydrologic and sediment transport analysis proposed by the Nebraska DNR because it exceeds the information needs of the Commission's environmental analysis for assessing project effects. Much of the data proposed to be collected by Nebraska DNR is being collected in other studies (i.e., Sedimentation Study, Hydrocycling Study, and Flow Depletion and Flow Diversion Study). The District also opposes the use of the more refined predictive modeling of ice events than is currently available and the development of a new predictive model for ice events in the Platte River basin because the development of such a model is not the responsibility of the District, but that of the Nebraska DNR. The District asserts that Nebraska DNR's proposed ice formation, ice transport during freeze-up and break-up, and ice affected hydraulics is technically similar to its methods, but far broader in scope than is required for assessing project effects.

# **Conclusions**

#### Study area

Severe flooding due to the combination of ice jams and rapid snowmelt occurred within the Lower Platte River basin in Nebraska during March 1993. The two areas most affected were along the south side of the Loup River at Columbus and just downstream from the confluence of the Elkhorn and Platte Rivers near Ashland (White and Kay 1996). This event prompted the US Army Corp of Engineers ice jam flooding analyses in 2004 and 2006.

Ice formation and flooding are affected by stream morphology and hydrology. As discussed in several studies above, we are approving studies with modifications that would examine the project effects on stream morphology and hydrology. We expect that those effects, if any, would be the greatest in the Loup River bypass and immediately below the tailrace. Therefore, we are modifying the Districts icing study to include the Loup River from Fremont, Nebraska to the Platte River at the USGS North Bend gaging station. This area would cover one of the areas most affected by the March 1993 flood, without confounding the results with inputs of the Elk Horn River, which also

experienced severe flooding in the March 1993 flood. If the results of the study indicate that the project may be influencing flooding further downstream, additional analyses would be required in year 2 of the study period.

## **Methodology**

The premise of the District's phased approach is based on the need to evaluate whether there is sufficient information to proceed with a detailed quantitative analysis. The Nebraska DNR developed a program and began collecting additional icing information based on the Corps' recommendation in 1994. The Corps was able to develop an ice jam predictive model on the existing information and recommend future studies to examine the effects of project operations, if any, on ice formation based on less data than are now available for the project area (White and Kay 1996). As keepers of the icing data, the Nebraska DNR and Corps have a good understanding of what information is available and what still needs to be collected to evaluate the effects of the project on ice jam formation and flooding.

Given the Corp's expertise and experience on this system and generally similar approaches to the quantitative analyses and similar costs, we find that the approach recommended by the Nebraska DNR, based on the Corps' recommendation, will provide the means by which the Commission can evaluate project influences on ice formation and flooding and best achieve the objectives and goals of the icing study. In addition, combining all data sources from the District and Nebraska DNR's revised study plans would ensure a complete record for the quantitative analysis. Therefore, we are requiring that the District implement the Nebraska DNR icing study filed as Attachment B to its August 7, 2009, comments on the revised study plan with the following modifications: (1) the geographic scope of the study will be limited as explained above; (2) the development of the predictive icing model shall be limited to the examination of project effects; (3) the identification of mitigation measures shall also be limited to operational or structural changes to minimize or mitigate project effects on ice jam formation and subsequent flooding; and (4) the data to be gathered shall consist of a combination of both studies to include: (a) all hydraulic data from USGS stream gage sites in Attachment B of the Nebraska DNR's plan; (b) sediment data including bed load and suspended sediment load from the same gages or other sources; (c) hydrometerologic data such as air temperature and precipitation from the National Climatic Data Center and the National Weather Service station at Genoa; (d) all data from the Nebraska NDR Ice Report database; (e) all needed data from the CRREL Ice Jam Database; and (f) high water mark, such as tree scars, data from the Corps' and other agencies' records.

As to the District's concern that it is being held responsible to develop a regional model, we agree with the District that the development of a regional model to predict ice events is not the responsibility of the project. Therefore, we are not requiring the District to develop a regional model.

# **Study Requests Not Approved**

# Sediment Sampling for PCB's in the Loup Power Canal and Lake Babcock

In its comments on the revised study plan, the FWS recommended that the District sample for polychlorinated biphenyls (PCB's) from fish tissue and sediments from Lake Babcock and the Loup Power Canal between Monroe and Columbus powerhouses. The District proposes to conduct fish tissue sampling in 2009 cooperatively with the Nebraska Department of Environmental Quality. One of the sample sites includes Lake Babcock, which is located in the affected reach mentioned by FWS. This information, along with the fish tissue sampling results presented in the PAD for the project area, will be sufficient for our analysis. The District shall report the results of this analysis in their Initial Study Report.

The relevant issue for any licensing decision is whether any PCB mobilization caused by project operations affects fishery resources. To answer that question, it is most appropriate to first sample fish tissue for PCB's in the potentially affected reach (i.e., Lake Babcock) to determine if PCB's are presently affecting fish, regardless of the source (e.g, project-induced mobilization of canal sediments versus upstream Loup River flows carrying PCB's from other sources). Should elevated fish PCB levels be found in the fish tissues, we may consider additional PCB monitoring in year 2.

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Columbus, NE 68602-0988

Phone: 402/564-3171 Fax: 402/564-0970

October 16, 2009

Mr. Robert Puschendorf State Historic Preservation Office 1500 R Street P.O. Box 82554 Lincoln, NE 68501-2554

P.O. Box 988

Re: HP#0804-127-01

Loup River Hydroelectric Project Relicensing

Phase Ia Archaeological Overview

FERC Project No. 1256; Docket No. 1256-029

Dear Mr. Puschendorf:

As we've discussed, Loup Power District (the District) is applying to the Federal Energy Regulatory Commission (FERC) to relicense the Loup River Hydroelectric Project. The existing license was effective on December 1, 1982, for a term ending April 15, 2014. Loup Power District is utilizing the Integrated Licensing Process (ILP) for this relicensing effort.

Relicensing the Project is a Federal undertaking by FERC, and Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), requires Federal agencies to determine whether their undertakings have adverse effects on historic properties (any site, structure, or other property listed on or eligible for listing on the National Register of Historic Places [NRHP]) and allow interested parties the opportunity to comment on decisions and actions that may affect historic properties.

Pursuant to 18 CFR §5.11 and §5.13, the District prepared a study plan to gather the information needed to comply with Section 106 as part of Project Relicensing. In May of this year, the District met with staff from your office to discuss the proposed study plan and on August 26, 2009, FERC approved the District's study (Study 11.0), as submitted in the Revised Study Plan on July 27, 2009. The first component of the District's study related to Section 106 Compliance is completion of a Phase Ia Archaeological Overview report. A copy of the Phase Ia Archaeological Overview accompanies this letter and is being submitted to your office to further a dialogue towards Section 106 compliance. Your comments on the adequacy and conclusions of the overview are requested.

At this time we are seeking concurrence from your office regarding the areas within the Project Boundary that are recommended for archaeological inventory. As outlined in the Phase Ia Archaeological Overview, your office would be contacted for additional comment in the event that additional areas should be identified for archaeological inventory.

Please do not hesitate to contact Michael Madson (HDR) at (763) 278-5921 or me at (402) 564-3171 if you have any questions about the Phase Ia Archaeological Overview. We look forward to working with your office throughout the relicensing effort and beyond.

Sincerely,

Neal Suess President/CEO Loup Power District

cc: Kim Nguyen, Federal Energy Regulatory Commission Patricia Leppert, Federal Energy Regulatory Commission Ron Ziola, Loup Power District Lisa Richardson, HDR George Waldow, HDR Michael Madson, HDR

#### Attachments:

(1) Phase Ia Archaeological Overview



Phone: 402/564-3171 Fax: 402/564-0970

October 16, 2009

Julia Sage Ponca Tribe of Nebraska PO Box 288 Niobrara, NE 68760

Reference:

Loup River Hydroelectric Project

Platte and Nance counties, Nebraska

FERC Project No. 1256 Docket No. P-1256-029

Dear Ms. Sage:

Loup Power District is applying to the Federal Energy Regulatory Commission (FERC) to relicense the Loup River Hydroelectric Project. The existing license was effective on December 1, 1982, for a term ending April 15, 2014. Loup Power District is utilizing the Integrated Licensing Process (ILP) for this relicensing effort.

Relicensing the Project is a Federal undertaking by FERC, and Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), requires Federal agencies to determine whether their undertakings have adverse effects on historic properties (any site, structure, or other property listed on or eligible for listing on the National Register of Historic Places [NRHP]) and allow interested parties the opportunity to comment on decisions and actions that may affect historic properties.



402/564-3171 Fax: 402/564-0970

If you would like to receive a copy of the overview, please contact:

Michael Madson HDR Engineering, Inc. 701 Xenia Ave S., Suite 600 Minneapolis, MN 55416 763-278-5921 Michael.madson@hdrinc.com

Your comments on the adequacy and conclusions of the overview are welcome.

Please do not hesitate to contact Michael Madson at HDR or me at (402) 564-3171 if you have any questions about the Phase Ia Archaeological Overview.

Sincerely,

Neal Suess President/CEO

Loup Power District

cc:

Kim Nguyen, Federal Energy Regulatory Commission Patricia Leppert, Federal Energy Regulatory Commission

Ron Ziola, Loup Power District

Lisa Richardson, HDR George Waldow, HDR Michael Madson, HDR



Phone: 402/564-3171 Fax: 402/564-0970

October 16, 2009

Trey Howe Ponca Tribe of Oklahoma 20 White Eagle Drive Ponca City, OK 74601

Reference:

Loup River Hydroelectric Project

Platte and Nance counties, Nebraska

FERC Project No. 1256 Docket No. P-1256-029

Dear Mr. Howe:

Loup Power District is applying to the Federal Energy Regulatory Commission (FERC) to relicense the Loup River Hydroelectric Project. The existing license was effective on December 1, 1982, for a term ending April 15, 2014. Loup Power District is utilizing the Integrated Licensing Process (ILP) for this relicensing effort.

Relicensing the Project is a Federal undertaking by FERC, and Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), requires Federal agencies to determine whether their undertakings have adverse effects on historic properties (any site, structure, or other property listed on or eligible for listing on the National Register of Historic Places [NRHP]) and allow interested parties the opportunity to comment on decisions and actions that may affect historic properties.



402/564-3171 Fax: 402/564-0970

If you would like to receive a copy of the overview, please contact:

Michael Madson HDR Engineering, Inc. 701 Xenia Ave S., Suite 600 Minneapolis, MN 55416 763-278-5921 Michael.madson@hdrinc.com

Your comments on the adequacy and conclusions of the overview are welcome.

Please do not hesitate to contact Michael Madson at HDR or me at (402) 564-3171 if you have any questions about the Phase Ia Archaeological Overview.

Sincerely,

**Neal Suess** President/CEO

Loup Power District

cc:

Kim Nguyen, Federal Energy Regulatory Commission Patricia Leppert, Federal Energy Regulatory Commission

Ron Ziola, Loup Power District

Lisa Richardson, HDR George Waldow, HDR Michael Madson, HDR

Phone: 402/564-3171 Fax: 402/564-0970

October 16, 2009

Larry Wright Ponca Tribe of Nebraska 607 Georgia Ave Norfolk, NE 68701

Reference:

Loup River Hydroelectric Project

Platte and Nance counties, Nebraska

FERC Project No. 1256 Docket No. P-1256-029

Dear Mr. Wright:

Loup Power District is applying to the Federal Energy Regulatory Commission (FERC) to relicense the Loup River Hydroelectric Project. The existing license was effective on December 1, 1982, for a term ending April 15, 2014. Loup Power District is utilizing the Integrated Licensing Process (ILP) for this relicensing effort.

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Sincerely,

Neal Suess President/CEO

Loup Power District

cc: Kim Nguyen, Federal Energy Regulatory Commission

Patricia Leppert, Federal Energy Regulatory Commission

Ron Ziola, Loup Power District

Lisa Richardson, HDR

George Waldow, HDR

Michael Madson, HDR

Phone: 402/564-3171 Fax: 402/564-0970

October 16, 2009

Amen Sheridan Omaha Tribe of Nebraska PO Box 368 Macy, NE 68039

Reference:

Loup River Hydroelectric Project

Platte and Nance counties, Nebraska

FERC Project No. 1256 Docket No. P-1256-029

Dear Mr. Sheridan:

Loup Power District is applying to the Federal Energy Regulatory Commission (FERC) to relicense the Loup River Hydroelectric Project. The existing license was effective on December 1, 1982, for a term ending April 15, 2014. Loup Power District is utilizing the Integrated Licensing Process (ILP) for this relicensing effort.

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Sincerely,

Neal Suess President/CEO

Loup Power District

cc: Kim Nguyen, Federal Energy Regulatory Commission

Patricia Leppert, Federal Energy Regulatory Commission

Ron Ziola, Loup Power District

Lisa Richardson, HDR

George Waldow, HDR

Michael Madson, HDR

Phone: 402/564-3171 Fax: 402/564-0970

October 16, 2009

Douglas Rhodd Ponca Tribe of Oklahoma 20 White Eagle Drive Ponca City, OK 74601

Reference:

Loup River Hydroelectric Project

Platte and Nance counties, Nebraska

FERC Project No. 1256 Docket No. P-1256-029

Dear Mr. Rhodd:

Loup Power District is applying to the Federal Energy Regulatory Commission (FERC) to relicense the Loup River Hydroelectric Project. The existing license was effective on December 1, 1982, for a term ending April 15, 2014. Loup Power District is utilizing the Integrated Licensing Process (ILP) for this relicensing effort.

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Sincerely,

Neal Suess President/CEO

Loup Power District

cc: Kim Nguyen, Federal Energy Regulatory Commission

Patricia Leppert, Federal Energy Regulatory Commission

Ron Ziola, Loup Power District

Lisa Richardson, HDR

George Waldow, HDR

Michael Madson, HDR

GENERAL OFFICE 2404 15th Street P.O. Box 988 Columbus, NE 68602-0988 Phone: 402/564-3171 Fax: 402/564-0970

October 16, 2009

George Howell Pawnee Nation of Oklahoma PO Box 470 Pawnee, OK 74058

Reference:

Loup River Hydroelectric Project

Platte and Nance counties, Nebraska

FERC Project No. 1256 Docket No. P-1256-029

Dear Mr. Howell:

Loup Power District is applying to the Federal Energy Regulatory Commission (FERC) to relicense the Loup River Hydroelectric Project. The existing license was effective on December 1, 1982, for a term ending April 15, 2014. Loup Power District is utilizing the Integrated Licensing Process (ILP) for this relicensing effort.

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Loup Power District

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Patricia Leppert, Federal Energy Regulatory Commission

Ron Ziola, Loup Power District

Lisa Richardson, HDR

George Waldow, HDR

Michael Madson, HDR

Phone: 402/564-3171 Fax: 402/564-0970

October 16, 2009

John Blackhawk Winnebago Tribe of Nebraska 100 Bluff Street Winnebago, NE 68071

Reference:

Loup River Hydroelectric Project

Platte and Nance counties, Nebraska

FERC Project No. 1256 Docket No. P-1256-029

Dear Mr. Blackhawk:

Loup Power District is applying to the Federal Energy Regulatory Commission (FERC) to relicense the Loup River Hydroelectric Project. The existing license was effective on December 1, 1982, for a term ending April 15, 2014. Loup Power District is utilizing the Integrated Licensing Process (ILP) for this relicensing effort.

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Sincerely,

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Loup Power District

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Kim Nguyen, Federal Energy Regulatory Commission

Patricia Leppert, Federal Energy Regulatory Commission

Ron Ziola, Loup Power District

Lisa Richardson, HDR George Waldow, HDR

Michael Madson, HDR

Phone: 402/564-3171 Fax: 402/564-0970

October 16, 2009

Roger Trudell Santee Sioux Tribe of Nebraska 425 Frazier Ave N Niobrara, NE 68760

Reference:

Loup River Hydroelectric Project

Platte and Nance counties, Nebraska

FERC Project No. 1256 Docket No. P-1256-029

Dear Mr. Trudell:

Loup Power District is applying to the Federal Energy Regulatory Commission (FERC) to relicense the Loup River Hydroelectric Project. The existing license was effective on December 1, 1982, for a term ending April 15, 2014. Loup Power District is utilizing the Integrated Licensing Process (ILP) for this relicensing effort.

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Loup Power District

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Patricia Leppert, Federal Energy Regulatory Commission

Ron Ziola, Loup Power District

Lisa Richardson, HDR

George Waldow, HDR

Michael Madson, HDR



GENERAL OFFICE 2404 15th Street P.O. Box 988 Columbus, NE 68602-0988 Phone: 402/564-3171 Fax: 402/564-0970

October 16, 2009

Ansley Griffin, Chairman Omaha Tribal Council Omaha Tribe of Nebraska P.O. Box 368 Macy, NE 68039

Reference:

Loup River Hydroelectric Project

Platte and Nance counties, Nebraska

FERC Project No. 1256 Docket No. P-1256-029

Dear Mr. Griffin:

Loup Power District is applying to the Federal Energy Regulatory Commission (FERC) to relicense the Loup River Hydroelectric Project. The existing license was effective on December 1, 1982, for a term ending April 15, 2014. Loup Power District is utilizing the Integrated Licensing Process (ILP) for this relicensing effort.

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Loup Power District

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Patricia Leppert, Federal Energy Regulatory Commission

Ron Ziola, Loup Power District

Lisa Richardson, HDR

George Waldow, HDR

Michael Madson, HDR



**GENERAL OFFICE**2404 15th Street
P.O. Box 988
Columbus, NE 68602-0988

Phone: 402/564-3171 Fax: 402/564-0970

October 21, 2009

Ansley Griffin, Chairman Omaha Tribal Council Omaha Tribe of Nebraska P.O. Box 368 Macy, NE 68039

Reference: Loup River Hydroelectric Project

Platte and Nance counties, Nebraska

FERC Project No. 1256 Docket No. P-1256-029

Dear Mr. Griffin:

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Loup Power District

cc: Kim Nguyen, Federal Energy Regulatory Commission

Patricia Leppert, Federal Energy Regulatory Commission

Ron Ziola, Loup Power District

Lisa Richardson, HDR George Waldow, HDR Michael Madson, HDR



"SERVING YOU ELECTRICALLY"

2404 15th Street P.O. Box 988 Columbus, NE 68602-0988 402/564-3171 Fax: 402/564-0970

RECEIVED

October 16, 2009

Mr. Robert Puschendorf
State Historic Preservation Office
1500 R Street
P.O. Box 82554
Lincoln, NE 68501-2554

STATE HISTORIC PRESERVATION OFFICE NEBRASKA STATE HISTORICAL SOCIETY

OCT 19 2009

Re: HP#0804-127-01

Loup River Hydroelectric Project Relicensing

Phase Ia Archaeological Overview

FERC Project No. 1256; Docket No. 1256-029

Dear Mr. Puschendorf:

HP#0804-127-01

County

STR. X ARCHEO. Y

Resp. Mar Date 20091027

As we've discussed, Loup Power District (the District) is applying to the Federal Energy Regulatory Commission (FERC) to relicense the Loup River Hydroelectric Project. The existing license was effective on December 1, 1982, for a term ending April 15, 2014. Loup Power District is utilizing the Integrated Licensing Process (ILP) for this relicensing effort.

Relicensing the Project is a Federal undertaking by FERC, and Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), requires Federal agencies to determine whether their undertakings have adverse effects on historic properties (any site, structure, or other property listed on or eligible for listing on the National Register of Historic Places [NRHP]) and allow interested parties the opportunity to comment on decisions and actions that may affect historic properties.

Pursuant to 18 CFR §5.11 and §5.13, the District prepared a study plan to gather the information needed to comply with Section 106 as part of Project Relicensing. In May of this year, the District met with staff from your office to discuss the proposed study plan and on August 26, 2009, FERC approved the District's study (Study 11.0), as submitted in the Revised Study Plan on July 27, 2009. The first component of the District's study related to Section 106 Compliance is completion of a Phase Ia Archaeological Overview report. A copy of the Phase Ia Archaeological Overview accompanies this letter and is being submitted to your office to further a dialogue towards Section 106 compliance. Your comments on the adequacy and conclusions of the overview are requested.

At this time we are seeking concurrence from your office regarding the areas within the Project Boundary that are recommended for archaeological inventory. As outlined in the Phase Ia Archaeological Overview, your office would be contacted for additional comment in the event that additional areas should be identified for archaeological inventory.

Please do not hesitate to contact Michael Madson (HDR) at (763) 278-5921 or me at (402) 564-3171 if you have any questions about the Phase Ia Archaeological Overview. We look forward to working with your office throughout the relicensing effort and beyond.

Sincerely,

Neal Suess President/CEO

Loup Power District

cc: Kim Nguyen, Federal Energy Regulatory Commission

Patricia Leppert, Federal Energy Regulatory Commission

Ron Ziola, Loup Power District

Lisa Richardson, HDR

George Waldow, HDR

Michael Madson, HDR

# Attachments:

(1) Phase Ia Archaeological Overview

DEPUTY STATE HISTORIC PRESERVATION OFFICER

DATE

# Santee Sioux Nation

## COUNCIL HEADQUARTERS / MUSEUM

Chairman: Roger Trudell Vice Chairman: David Henry Treasurer: Robert Campbell Secretary: Cora Jones



108 Spirit Lake Avenue West Niobrara, NE 68760-7219 Phone: (402) 857-2772 FAX: (402) 857-2779

Subject; Santee Sioux Nation's response to your respective request that is governed under Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations (36 CFR Part 800).

To Whom it may concern:

RIVER Hydroelectric project

Platter nance countries, nebrusien

Project: Ferc. Prycto No. 1256

The purpose of this letter is to inform you that the Santee Sioux Nation has no objection to your proposed project unless any cultural, natural resources and/or places with traditional cultural significance within the project are found. Then we want to be notified immediately.

We, also, want to be consulted in the event of any NEPA or Section 106 reviews which reflect any cultural significance that are specific to our Dakota culture.

Sincerely,

Santee Sioux Nation

. november and



402/564-3171 Fax: 402/564-0970

November 2, 2009

Public Comments Processing Attn: FWS-R6-ES-2009-0027 Division of Policy and Directives Management U.S. Fish and Wildlife Service 4401 N. Fairfax Drive, Suite 222 Arlington, VA 22203

#### Dear Sir or Madam:

The Loup River Public Power District (the District) has reviewed the proposed rulemaking (50 CFR Part 17) to list the shovelnose sturgeon (*Scaphirhynchus platorynchus*) as a threatened species due to similarity of appearance (SOA) with the endangered pallid sturgeon (*Scaphirhynchus albus*). The District operates a hydroelectric project (project) on the Loup River, in Platte and Nance counties, Nebraska. This project diverts water from the Loup River for power generation and returns the water to the Platte River, just downstream of the confluence of the Loup and Platte rivers, near Columbus, Nebraska. The District is currently in the process of relicensing our hydroelectric project with the Federal Energy Regulatory Commission. This relicensing process is a federal action and requires Section 7 consultation.

As stated in the proposed rule, "take would only be prohibited where shovelnose and pallid sturgeons' range commonly overlap....Specifically this includes....the Platte River in Nebraska downstream of Elkhorn River confluence." It is our understanding that this proposed rule would only extend protections to shovelnose sturgeon and shovelnose-pallid sturgeon hybrids regarding take of this species when associated with or related to commercial fishing operations. All other legal activities involving these species in accordance with applicable State, Federal, Tribal, and local laws and regulations would not be considered take under this proposed regulation. Additionally, it is our understanding that the proposed rule would not require Federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) on activities authorized, funded, or carried out that may affect shovelnose sturgeon and shovelnose-pallid hybrids. As understood, this proposed rule would have no effect on our Section 7 consultation for the relicensing of our hydroelectric project.

We request further clarification on this proposed rule, as it relates to Federally regulated activities, and concurrence that our understanding of this proposed rule is accurate.

Thank you for the opportunity to comment on this decision.

Sincerely,

Neal D. Suess

President/CEO

Loup Public Power District

cc: Matt Pillard, HDR

Kim Nguyen, FERC June DeWeese, USFWS 2404 15th Street
P.O. Box 988
Columbus, NE 68602-0988

402/564-3171 Fax: 402/564-0970

November 24, 2009

Joel Jorgensen Nongame Bird Program Manager Wildlife Division Nebraska Game and Parks Commission 2200 N. 33<sup>rd</sup> Street Lincoln, NE 68503-0931

RE: Information request for 2009 piping plover and least tern census and location data

Dear Mr. Jorgensen:

As you are aware, Loup Power District (the District) is currently seeking a new operating license with the Federal Energy Regulatory Commission (FERC) for its hydroelectric facilities located on the Loup River near Genoa and Columbus, Nebraska. I would like to take this opportunity to thank you for your response to our prior requests for information received in 2008 and early 2009. We realize compiling that data took staff time and effort and it is greatly appreciated.

FERC has approved several studies related to species and habitat that the District must complete in the next several months. At this time, I would like to request the 2009 interior least tern and piping plover population, nesting, and productivity counts and locations for the Loup River and lower Platte River. Additionally I would like to request any tern and plover habitat information collected during the 2009 season. This information is critical to completion of the studies requested by the U.S. Fish and Wildlife Service and the Nebraska Game and Parks Commission and approved by FERC.

I appreciate your assistance in providing information to assist with the relicensing effort as quickly as possible; time is of the essence for these studies. The information requested will be used for analytical purposes and the only information that will be published is information related to general trends and observations. Location specific information will not be made available to the general public without the consent of the NGPC. All stipulations on the use of this data, as per the NGPC/HDR data use agreement (executed on June 24, 2009), will be followed.

Please submit the information to HDR Engineering, the District's consultant completing the studies:

Matt Pillard HDR Engineering 8404 Indian Hills Drive Omaha, NE 68114 Please feel free to contact Melissa Marinovich (402-399-1317) or Matt Pillard (402-399-1186) of HDR if you have any questions regarding this request. As the relicensing process continues, we anticipate that we may have additional information requests. Thank you for your assistance.

Sincerely,

Neal D. Suess President/CEO

Loup Public Power District

cc: Matt Pillard, HDR

Kim Nguyen, FERC Frank Albrecht, NGPC June DeWeese, USFWS

From: Jeff\_Runge@fws.gov

Sent: Wednesday, November 25, 2009 1:39 PM

To: Pillard, Matt

Cc: Robert\_Harms@fws.gov; Frank.Albrecht@nebraska.gov

Subject: LPD Study Plan - information needs
Attachments: LPD Study Determination Tasks.doc

Matt,

Earlier this fall, the Nebraska Game and Parks Commission, the Tern and Plover Conservation Partnership, and our office met to discuss data needs requested by FERC in their Final Study Determination. The attached document summarizes discussions from that day.

Let me know if you have any questions and feel free to forward this on to the larger group.

Jeff

(See attached file: LPD Study Determination Tasks.doc)

\*\*\*\*\*\*\*\*\*\*

Jeff Runge Fish and Wildlife Biologist U.S. Fish and Wildlife Service 203 W. Second Street Grand Island, NE 68801 (308) 382-6468, Ext. 22 (308) 379-8553 Cell (308) 384-8835 Fax

\*\*\*\*\*\*\*\*\*\*

# Loup Power District Meeting – Final Study Determination Tasks September 24, 2009 Library Conference Room, NGPC, Lincoln

Mary Bomberger Brown - Tern and Plover Conservation Partnership Bob Harms - USFWS Rick Holland - NGPC Joel Jorgensen - NGPC Jeff Runge – USFWS Dave Tunink - NGPC

### Purpose

On August 26, 2009, the Federal Energy Regulatory Commission issued their Final Study Determination (FSD) for Loup River Hydroelectric Project (Project Number 1256). The FSD identify modifications to the Loup River Public Power District's (District) revised study plan under the following sections: Sedimentation, Hydrocycling, Water Temperature for the Loup River Bypassed Reach, Flow Depletion and Flow Diversion, Recreation Use, and Ice Jam Flooding on the Loup River. The FSD identified certain tasks that shall be performed by the District in consultation with the U.S. Fish and Wildlife Service and Nebraska Game and Parks Commission. The two tasks are identified in the below text. The purpose of the meeting was to formalize agency positions for these tasks. Meeting summaries for the two respective tasks are detailed in the below text.

### Task 1

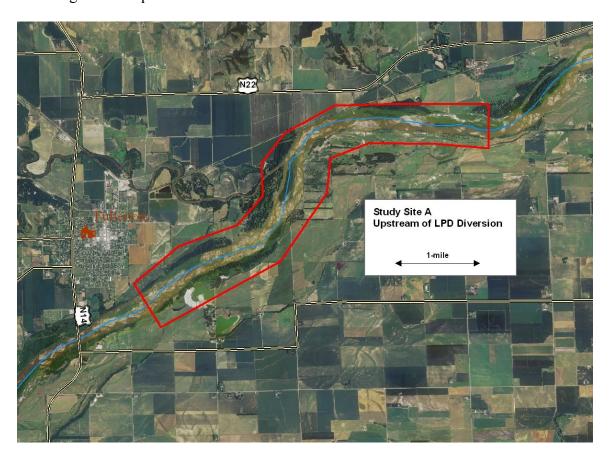
As directed by the FSD, the District shall conduct a modeling study of the effects of hydrocycling and flow bypass on interior least tern and piping plover nesting habitat using the HEC-RAS 1D steady state back-water model and associated methodology for model calibration specified in HDR (2008). The District shall select a representative study site, in consultation with the resource agencies, for the following river segments: (A) the Loup River upstream of the diversion weir; (B) the Loup River downstream of the diversion weir; (C) the Platte River below the Loup River confluence and above the project tailrace, (D) the Platte River within five miles downstream of the project tailrace, and (E) near the USGS North Bend gage station. The selected study sites would preferably include areas where interior least terns and piping plovers have historically nested. Data collected shall include flow quantity, depth, velocity, sandbar elevation, and bed form as described in the Lower Platte River Stage Change Study developed by HDR Inc.

#### Task 2

Cross-sectional measurements to calibrate the model in the Loup River shall be done during low flow conditions (50 to 75 cfs) and at a higher flow, selected in consultation with the resource agencies.

# **Task 1 Summary**

**Study Site A** represents a five-mile long segment of the Loup River whose midpoint is the confluence of the Cedar River. This segment was selected because of recent nesting activity has been documented in the segment [i.e., 2006]. More frequent nesting activity was documented in the segment upstream of the Fullerton Bridge. However, it was not known to what extent the Cedar River hydrology and sediment inputs influenced Loup River channel morphology. The proposed study site addresses this ambiguity by including reaches upstream and downstream of the Cedar River.



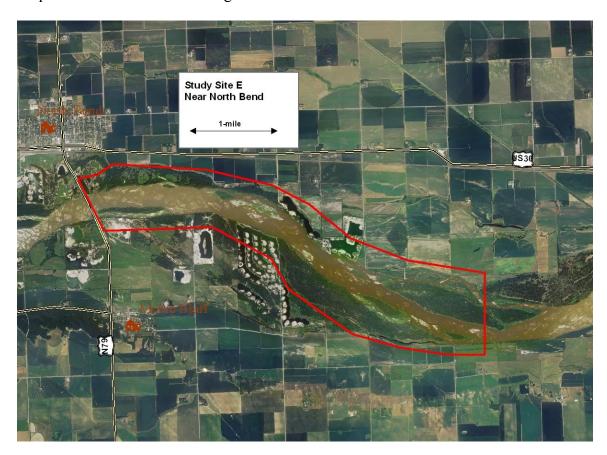
**Study Site B** represents a five-mile segment on the Loup River whose downstream boundary is approximately one-mile above the US Highway 81 Bridge near Columbus. This river segment was selected because of the frequent and most current nesting records within the bypass reach of the Loup River.



**Study Site C** represents two-mile long segment of the Platte River between the Loup River confluence and the District tailrace. Therefore, there was no need to select a study site within this segment.

**Study Site D** represents a study segment located within 5-miles of the District tailrace. Because of the requirement to locate the study site near the tailrace, identification of a study site is not required.

**Study Site E** represents a five-mile segment immediately downstream of the NE Highway 79 Bridge near North Bend. This river segment was selected because of the frequent and most current nesting records in the Platte River near North Bend.



### Task 2 Summary

Average monthly flows from in the nesting time period for the bypass reach of the Loup River (measured at Genoa) ranges from 249 in August to 729 cfs in June. Average flow diverted in the LPD canal ranges from 1,300 to 1,900 cfs for that same time period. The group determined that model calibration should be collected at a flow within the 750-800 cfs range. This range was selected because it represents flow conditions that could be reasonably collected across a range of dry to wet years.

Pillard, Matt From:

Sent: Thursday, December 03, 2009 7:57 AM

To: Anna Baum; Barb Friskopp; Bobbie Kriz-Wickham; Butch Koehlmoos; Curt Alms; Dan Nitzel;

Dave Tunink; David Jundt; Frank Albrecht; Henry Santin; Jason Alexander; Jean Angell; Jeff Schuckman; Jerry Kenny; Joe Cothern; John Bender; John Shadle; Joseph Mangiamelli; Justin Lavene; Lacie Andreason; Mark Czaplewski; Mary Bomberger-Brown; Randy Thoreson; Richard Hadenfeldt; Robert Harms; Robert Mohler; Robert Puschendorf; Rodney Verhoeff;

Stacy Stupka-Burda; Steve Chick

Damgaard, Quinn V.; Dierking, Paul; Engel, John; Engelbert, Pat; Fitzsimmons, Ellen; Frame, Cc:

> Gail; Gorton, Dick; Grennan, Dennis E.; Gust, Kimberly; Hunt, George; Kulik, Ann; Madson, Michael J.; Marinovich, Melissa; McConville, Matt; Mertz, John; Pillard, Matt; Sigler, Bill;

Stanfill, Alan: Talbitzer, Travis; Thompson, Wendy; Waldow, George; White, Stephanie; Angel

Robak; Jim Frear; Neil Suess; Ron Ziola; Teresa Petr; Richardson, Lisa (Omaha)

Loup Power District - FERC Relicensing: Study Progress Report Available Subject:

For your information, Loup Power District has submitted the first quarterly study progress report to FERC and it has been posted to the project website:

http://www.loup.com/relicense/html/documents.html

Thank you.

#### Matt Pillard, AICP

Senior Environmental Planner

#### HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive I Omaha. NE I 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111

Email: Matt.Pillard@hdrinc.com

From: Jorgensen, Joel [Joel.Jorgensen@nebraska.gov]

Sent: Monday, January 04, 2010 8:02 AM To: Marinovich, Melissa; Pillard, Matt

Subject: RE: 2009 LPR nest data

#### Melissa:

These files only contain from on-river. I interpreted the request to be river only (P2, "...for the Loup and Lower Platte River."), please let me know if this is incorrect. I have no data for the Loup River (on-river) for 2009. I will probably be sending another file or two today.

- Joel

Joel Jorgensen
Nongame Bird Program Manager
Wildlife Division
Nebraska Game and Parks Commission
Lincoln, NE 68503
402-471-5440
joel.jorgensen@nebraska.gov

From: Marinovich, Melissa [mailto:Melissa.Marinovich@hdrinc.com]

Sent: Wednesday, December 30, 2009 8:59 AM

**To:** Jorgensen, Joel; Pillard, Matt **Subject:** RE: 2009 LPR nest data

Thanks, Joel! Just a clarification, these are only "on-river" lower Platte locations, correct? This data does not include "off-river" nesting locations? Also, nesting/chick/adult count location information for on/off river sites on the Loup River, will these be included in a later email? Thanks again for your help and see you next week!

### Melissa

From: Jorgensen, Joel [mailto:Joel.Jorgensen@nebraska.gov]

Sent: Wednesday, December 30, 2009 10:34 AM

To: Pillard, Matt; Marinovich, Melissa

Cc: Jorgensen, Joel

Subject: 2009 LPR nest data

Matt, Melissa:

Attached is the 2009 lower Platte River nest data and metadata.

- Joel

\_\_\_\_\_

# Joel Jorgensen

Nongame Bird Program Manager Wildlife Division

**Nebraska Game and Parks Commission** 

From: Jorgensen, Joel [Joel.Jorgensen@nebraska.gov]

**Sent:** Tuesday, January 05, 2010 4:13 PM **To:** Marinovich, Melissa; Pillard, Matt

Cc: Albrecht, Frank; Bob Harms; jeff\_runge@fws.gov; Koch, Michelle; Holland, Richard

Subject: Loup River On-Rive Data: Diversion to Mouth

#### Matt, Melissa:

In the meeting today there was some question whether any nesting records exist between the diversion and the Loup-Platte confluence. I was concerned by this apparent discrepancy. I did a check and there does appear to be several records for this stretch. All data that I am aware of were provided to HDR in June 2009 via letter (with enclosures) addressed to Lisa Richardson of your firm and sent from this office. As noted in the letter addressed to Ms. Richardson, the data, including the data that are now in question, were included in the MS Excel file entitled "Loup River 1982-2005.xls". An accompanying PDF file entitled "Loup\_Colony\_Location\_Key.pdf" provided supplemental location information. As also noted in the letter, Loup River data from 2006 were provided in a separate file.

If you identify a problem with the data or file(s), an error on my part, or if for some reason you are not in possession of these files, please let me know so that we can quickly rectify this situation.

Please do not hesitate contacting me if you have any questions.

- Joel

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# Nebraska Game and Parks Commission

2200 N. 33rd St. / P.O. Box 30370 / Lincoln, NE 68503-0370 Phone: 402-471-0641/ Fax: 402-471-5528 / www.OutdoorNebraska.org

6 January 2010

Neal D. Suess, President/CEO Loup Public Power District 2404 15<sup>th</sup> Street. PO Box 988 Columbus, NE 68602

Dear Mr. Suess:

Please make reference to your letter dated 24 November 2009, in which you requested 2009 Interior Least Tern (*Sternula antillarum athalassos*) and Piping Plover (*Charadrius melodus*) data from the Nebraska Game and Parks Commission Nongame Bird Program (NBP). As per the request, the data was sent to Mr. Matt Pillard of HDR Engineering, in a series of emails dated between 22 December 2009 and 5 January 2010. Data and metadata from four principal data sets, all collected on the Lower Platte River in 2009, were provided to HDR. These data sets include 1) Interior Least Tern and Piping Plover nest data with various associated attributes, 2) Interior Least Tern chick capture, banding and recapture data, 3) sandbar location and surface area data, and 4) sandbar elevation data. Providing you with these data collected in 2009 required that preparation, summary, and extensive reviews take place over a relatively short time period; I appreciate your patience in waiting while my office assembled these data.

I also provided HDR with a copy of the report prepared jointly by the Tern and Plover Conservation Partnership and the NBP entitled 2009 Interior Least Tern and Piping Plover Monitoring, Research, Management, and Outreach Report for the Lower Platte River, Nebraska, herein referred to as the 2009 Report. This report presents extensive additional information and provides a valuable context in which to understand the Interior Least Tern and Piping Plover data that was provided to HDR.

As I noted in previous communications with HDR, it is critically important that data be interpreted and used with caution and an explicit understanding of the limitations and assumptions underlying the protocols. Data collection protocols implemented in 2009 were developed to achieve specific research objectives identified jointly by the NBP and the Tern and Plover Conservation Partnership. Certain data collection and analysis protocols are still in developmental stages and we expect to refine them in the future. Data collection protocols were not employed to specifically address research objectives tasked to HDR and the Loup Public Power District-FERC relicensing process, which are outlined in the revised study plan (http://www.loup.com/relicense/html/documentsRSP.html). Anyone or any entity that uses these data is responsible for using these data in a manner consistent with the limitations and underlying assumptions. The NBP is not to be faulted if any analyses are limited by the protocols we used to collect the data. Extensive information regarding data collection protocols were provided in both the metadata files and the 2009 Report referenced above.

Unfortunately, I am unable to fulfill certain data requests made by your office, specifically requests for 1) Loup River data and 2) a general request for "productivity counts". The NBP did

not collect any data from the Loup River in 2009. Observational or visual counts of hatching-year birds (i.e., chicks) were not undertaken on the Lower Platte River in 2009. As you know, the utility of observational counts of hatching-year birds is problematic and fraught with numerous limitations. In lieu of counts, we used a rigorous mark-recapture framework to estimate Interior Least Tern and Piping Plover fecundity. Our approach allows us to make more reliable inferences regarding productivity than other methods. Preliminary analyses are available in the 2009 Report. Please be sure to note all caveats when interpreting results from this report.

Enclosed is an invoice for data preparation specific to this request. Please feel free to contact me if you have additional questions or data requests. Again, I appreciate your patience while we assembled these data for you. Thank you.

Sincerely,

Joel Jorgensen

Nongame Bird Program Manager

cc: Matt Pillard, HDR
Kim Nguyen, FERC
Frank Albrecht, NGPC
Michelle Koch, NGPC
Robert Harms, USFWS
Mary Bomberger Brown, TPCP

enclosure

From: Pillard, Matt

Sent: Thursday, January 07, 2010 3:25 PM

To: Jorgensen, Joel Cc: Marinovich, Melissa

**Subject:** RE: Loup River On-Rive Data: Diversion to Mouth

Joel,

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Thanks.

Matt

From: Jorgensen, Joel [mailto:Joel.Jorgensen@nebraska.gov]

**Sent:** Tuesday, January 05, 2010 4:13 PM **To:** Marinovich, Melissa; Pillard, Matt

Cc: Albrecht, Frank; Bob Harms; jeff runge@fws.gov; Koch, Michelle; Holland, Richard

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If you identify a problem with the data or file(s), an error on my part, or if for some reason you are not in possession of these files, please let me know so that we can quickly rectify this situation.

Please do not hesitate contacting me if you have any questions.

- Joel

Joel Jorgensen
Nongame Bird Program Manager
Wildlife Division

From: Jorgensen, Joel [Joel.Jorgensen@nebraska.gov]

**Sent:** Friday, January 08, 2010 11:45 AM

To: Pillard, Matt Cc: Marinovich, Melissa

Subject: RE: Loup River On-Rive Data: Diversion to Mouth

#### Matt:

I'm looking into this to see whether there is any information that might provide more specific location information. The spreadsheet that I provided is the raw data. Other data sets may exist, but all would have been derived from this original data set. If one data file provides more precise locations, the pertinent question in my mind is whether it is the result of some arbitrary *post hoc* decision process that only gives the impression of a greater precision, or whether additional information exists where the precision is also accurate and reliable.

I agree with your comment that isolating these instances. I will try to get back to you early next week as I recognize the time sensitivity of this matter.

Thanks and please feel free to contact me further regarding any questions with the data. There is a great deal of information to work through..

Joel

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Joel Jorgensen
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joel.jorgensen@nebraska.gov

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Thanks.

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#### DEPARTMENT OF THE ARMY

CORPS OF ENGINEERS, OMAHA DISTRICT NEBRASKA REGULATORÝ OFFICE – KEARNEY 2214 2<sup>ND</sup> AVENUE KEARNEY, NEBRASKA 68847

https://www.nwo.usace.army.mil/html/od-rne/nehome.html

January 8, 2010

Jan 1/2
Par

Mr. Ron Ziola Loup Power District PO Box 988 Columbus, Nebraska 68602-0988

RE: 2007-3190-KEA

Dear Mr. Ziola:

We have reviewed the request for Department of the Army authorization for the Loup Power Canal settling basin dredging project. The work will be carried out in accordance with plans received on January 7, 2010. The basin will be hydraulically dredged; the material will be siphoned to the north disposal area or the south disposal area. The project is located in the NE1/4 of Section 32, Township 17 North, Range 4 West, Nance County, Nebraska.

Based on the information you provided, this office has determined that sediment disposal in the north area will not require a Department of the Army permit. Disposal in the south area is authorized by the Department of the Army Nationwide Permit No. 16, found in the March 12, 2007 Federal Register (72 FR 11092), Reissuance of Nationwide Permits. Enclosed is a fact sheet that fully describes this Nationwide Permit and lists the General Conditions that must be adhered to for this authorization to remain valid.

# This authorization is subject to the following Regional Condition(s):

- 1. All areas disturbed by construction shall be revegetated with appropriate perennial, native grasses and forbs and maintained in this condition. Phalaris arundinacea (Reed Canary Grass), Lythrum salicaria (Purple Loosestrife), Bromus inermus (Smooth Brome), Phragmites, sp. (Common Reed, River Reed) and Tamarix, sp. (Salt Cedar), are NOT appropriate choices of vegetation. The disturbed areas shall be reseeded concurrent with the project or immediately upon completion. Revegetation shall be acceptable when ground cover of desirable species reaches 75%. If this seeding cannot be accomplished by September 15 the year of project completion, then an erosion blanket shall be placed on the disturbed areas. The erosion blanket shall remain in place until ground cover of desirable species reaches 75%. If the seeding can be accomplished by September 15, all seeded areas shall be properly mulched to prevent additional erosion.
- 2. The permittee and/or the permittee's contractor or any of the employees, subcontractors or other persons working in the performance of a contract or contracts to complete the

work authorized herein, shall cease work and report the discovery of any previously unknown historic or archeological remains to the Nebraska Regulatory Office. Notification shall be by telephone or FAX within 24 hours of the discovery and in writing within 48 hours. Work shall not resume until the permittee is notified by the Nebraska Regulatory Office.

Although an individual Department of the Army permit will not be required for the project, this does not eliminate the requirement that you obtain any other applicable Federal, state, tribal or local permits as required. Please note that deviations from the original plans and specifications of your project could require additional authorization from this office.

You are responsible for all work accomplished in accordance with the terms and conditions of the Nationwide Permit. If a contractor or other authorized representative will be accomplishing the work authorized by the Nationwide Permit in your behalf, it is strongly recommended that they be provided a copy of this letter and the attached conditions so that they are aware of the limitations of the applicable Nationwide Permit. Any activity that fails to comply with all of the terms and conditions of the Nationwide Permit will be considered unauthorized and subject to appropriate enforcement action.

In compliance with General Condition 26, the attached Compliance Certification form must be signed and returned to the address listed upon completion of the authorized work and any required mitigation.

This verification will be valid until January 8, 2012.

Should you at any time become aware that either an endangered and/or threatened species or its critical habitat exists within the project area, you must immediately notify this office.

If you have any questions concerning this determination or jurisdiction, please feel free to contact Mrs. Barb Friskopp at the above address or call (308) 234-1403 or e-mail barbara.j.friskopp@usace.army.mil and refer to permit number 2007-3190-KEA.

Sincerely

Jøhn L. Moeschen

Nebraska State Program Manager

Enclosure

Copy Furnished:

DEQ (Hickman)

# COMPLIANCE CERTIFICATION KEARNEY REGULATORY OFFICE

Permit Number: 1

2007-3190-KEA

Name of Permittee:

Loup Power District Ron Ziola

Nance County

Date of Issuance:

January 8, 2010

Upon completion of the activity authorized by this permit (and any required mitigation), sign this certification and return it to the following address:

> Kearney Regulatory Field Office 2214 2<sup>nd</sup> Avenue Kearney, Nebraska 68847-5315

Please note that the permitted activity is subject to a compliance inspection by a US Army Corps of Engineers representative. If you fail to comply with permit conditions the permit may be subject to suspension, modification or revocation.

# CERTIFICATION:

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of said permit, and required mitigation (if any) was completed in accordance with permit conditions.

Signature of Permittee	

From: Jorgensen, Joel [Joel.Jorgensen@nebraska.gov]

Sent: Tuesday, January 12, 2010 3:55 PM

To: Pillard, Matt

Cc: Marinovich, Melissa

Subject: RE: Loup River On-Rive Data: Diversion to Mouth

#### Matt:

After reviewing and looking for additional information, more precise and accurate location information does not appear to be available for Loup River data prior to 2006. Heritage data gives the appearance of greater accuracy, but this is because of the process and decisions made to conform to biotics national standards. The information provided appears to be the most usable.

Please do not hesitate contacting me if you have questions.

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Nongame Bird Program Manager
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joel.jorgensen@nebraska.gov

**From:** Pillard, Matt [mailto:Matt.Pillard@hdrinc.com]

**Sent:** Friday, January 08, 2010 9:46 AM

**To:** Jorgensen, Joel **Cc:** Marinovich, Melissa

Subject: RE: Loup River On-Rive Data: Diversion to Mouth

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Joel Jorgensen
Nongame Bird Program Manager
Wildlife Division
Nebraska Game and Parks Commission
Lincoln, NE 68503
402-471-5440
joel.jorgensen@nebraska.gov

From: Damgaard, Quinn V.

Sent: Tuesday, January 19, 2010 9:22 AM

To: 'randy\_thoreson@nps.gov'; Mark Ivy; 'Schuckman, Jeff';

'richard.holland@nebraska.gov'; 'dave.tunink@nebraska.gov'; Ron Ziola; Jim

Frear

**Cc:** Fitzsimmons, Ellen; Richardson, Lisa (Omaha); Thompson, Wendy

Subject: LPD Recreation Call Notes Jan 14 2010
Attachments: LPD\_Recreation\_Call\_Notes\_100114.pdf

All:

Notes from our January 14, 2010 Loup Power District recreation conference call are respectfully provided for your reference. Please notify me of any concerns that you may have with the notes by close of business on January 26.

Thanks and Regards, Quinn Damgaard Environmental Scientist HDR Engineering, Inc. 8404 Indian Hills Drive Omaha, NE 68114-4049 Phone: 402.399.1041

Fax: 402.399.1111

From: Mark Ivy [Mark.Ivy@ferc.gov]

**Sent:** Tuesday, January 19, 2010 11:47 AM

**To:** Damgaard, Quinn V.; randy thoreson@nps.gov; Schuckman, Jeff;

richard.holland@nebraska.gov; dave.tunink@nebraska.gov; Ron Ziola; Jim Frear

Fitzsimmons, Ellen; Richardson, Lisa (Omaha); Thompson, Wendy

Subject: RE: LPD Recreation Call Notes Jan 14 2010

#### Quinn,

Cc:

Per our telephone conservation, I am sending you a list of equipment needs should you decide to use the Trailmaster technology for trail counts. At a minimum you will need three TM1550 active infrared trail monitors (one per trail). While you can download data manually in the field, I have found that it is more reliable to use a data logger. This equipment also eliminates the need for data entry into a stat package or excel. I have also used their Stat Package and have found it useful in the generation of reports, but you can create tables and spreadsheets in SPSS or Excel using the raw data. You will have to determine whether or not the software is cheaper than staff time.

I want to reiterate that I am not advocating that you purchase this technology, but I wanted to make you aware of other options. Regardless of the technology you intend to use, it is critical to field test it before the data collection period begins so that it can be properly calibrated.

Let me know if you have any other questions,

Mark

Mark Ivy, PhD
Outdoor Recreation Planner
Division of Hydropower Licensing
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426
202.502.6156
202.219.2152 (fax)

From: Damgaard, Quinn V. [mailto:Quinn.Damgaard@hdrinc.com]

**Sent:** Tuesday, January 19, 2010 10:22 AM

To: 'randy\_thoreson@nps.gov'; Mark Ivy; 'Schuckman, Jeff'; 'richard.holland@nebraska.gov';

'dave.tunink@nebraska.gov'; Ron Ziola; Jim Frear

Cc: Fitzsimmons, Ellen; Richardson, Lisa (Omaha); Thompson, Wendy

Subject: LPD Recreation Call Notes Jan 14 2010

All:

Notes from our January 14, 2010 Loup Power District recreation conference call are respectfully provided for your reference. Please notify me of any concerns that you may have with the notes by close of business on January 26.

Thanks and Regards, Quinn Damgaard Environmental Scientist HDR Engineering, Inc. 8404 Indian Hills Drive Omaha, NE 68114-4049 Phone: 402.399.1041

Fax: 402.399.1111

From: Robert\_Harms@fws.gov

**Sent:** Friday, January 22, 2010 2:55 PM

To: Pillard, Matt

Cc: Jeff\_Runge@fws.gov; joel.jorgensen@nebraska.gov; Michelle.Koch@nebraska.gov;

frank.albrecht@nebraska.gov; richard.holland@nebraska.gov; dave.tunink@nebraska.gov

Subject: Study Plan Input Loup Power District

Importance: High

Matt:

Please make reference to our January 5, 2010, meeting in Lincoln about details on the study plan. At that meeting, there were several items that needed further consideration and response from NGPC and FWS. We completed our discussions and offer the following input below as a means of assisting HDR with study design. Bold items are our responses to questions posed at the January 5 meeting by HDR.

a) Hydrocycling: HDR is developing a 1-dimensional HEC-RAS steady-state model to study the effects of hydrocycling on the least tern and piping plover nesting habitat.

HDR inquired as to what kinds of information does FWS and NGPC want to obtain from this model?

We need to understand the relationship among various daily flow discharge alternatives under non-hydropeaking and hydropeaking regimes and how each alternative affects the probability of sandbar erosion and nest/chick inundation among a range of discharges.

b) Flow Depletion and Diversion: HDR is developing a 1-dimensional HEC-RAS steady-state model to study the effects of hydrocycling on the least tern and piping plover nesting habitat and whooping crane roosting habitat on the Loup River bypass reach.

HDR inquired as to what kinds of information does FWS and NGPC want to obtain from this model?

Terns and plovers: We need to understand the relationship among various discharge alternatives and the number, size, bar height, bar position (mid-channel or point) and channel depths which isolate such bars.

Whoopers: We need to understand the relationship among various discharge alternatives and unobstructed channel width, total wetted width, distance to visual obstructions, and cumulative depth.

- c) We discussed the location for survey work at several locations along the Platte and Loup rivers to identify a representative location for such surveys. We need to discuss and make a recommendation on locations to HDR. These segments include:
- 1) Tailrace downstream for a distance of 5 miles.

We are OK with 1-D survey work in this segment at the large bar downstream of Bellwood. However, geomorphology cross section for the sediment transport study should not occur here but at the segment of river between the tailrace and the railroad bridge. The geomorphology cross section can also serve as the input cross section for 1-D modeling.

2) Loup Power District Diversion downstream to the Loup and Platte rivers confluence.

We are OK with going with HDRs recommendation on this.

#### ADDITIONAL ITEMS

- a) HDR will need to coordinate with the NGPC And FWS to avoid any potential take of least terns and piping plovers that could occur during the course of survey activities.
- b) We request that HDR provide the NGPC and FWS a copy of a detailed study plan for review and comment.
- c) For the aerial photography work in the flow bypass section, LPD/HDR should compare Geomorphic Measurements as described by Elliott and Jacobsen (2006). We recommend channel attributes from the geomorphic measurement section (page 16) include valley width, channel width, sinuosity, bare sand bars, and vegetated bars. Study sites should be located in areas that are not affected by bank stabilization. Channel attributes should be compared to: a) mean flow at the photography date, and b) antecedent peak flow occurring within the calendar year. Photography should try to capture variability in a) and b).

Thank you for the opportunity to provide input. If you have any questions, please contact me by E-mail or telephone if you have any questions.

Bob

Robert R. Harms Fish and Wildlife Biologist U.S. Fish and Wildlife Service 203 West Second Street Grand Island, Nebraska 68801 Phone: 308-382-6468, Extension 17

Fax: 308-384-8835 robert harms@fws.gov

From: Pillard, Matt

Sent: Thursday, February 25, 2010 7:49 AM

To: abaum@upperloupnrd.org; adubas@leg.ne.gov; al.berndt@nebraska.gov;

asheridan@omahatribe.com; astuthman@leg.ne.gov; barbara.j.friskopp@usace.army.mil; bob.puschendorf@nebraska.gov; bobbie.wickham@nebraska.gov; butchk@nctc.net;

calms@neb.rr.com; cgenoa@cablene.com; chairmanrhodd@ponca.com; cityadmin@cablene.com; clangemeier@leg.ne.gov; CoraJones@bia.gov;

cothern.joe@epa.gov; danno@nohva.com; david.jundt@dhhs.ne.gov; david.turner@ferc.gov;

deb.vanmatre@mail.house.gov; djjarecke@clarkswb.net; don simpson@blm.gov;

emily\_brummund@johanns.senate.gov; frank.albrecht@nebraska.gov; frank.winchell@ferc.gov; jalexand@usgs.gov; jblackhawk@aol.com; jean.angell@nebraska.gov; jeddins@achp.gov; jeff runge@fws.gov;

jill.dolberg@nebraska.gov; jjshadl@nppd.com; jmangi@columbusne.us; jmiyoshi@lpnnrd.org;

jmsunne@nppd.com; john.bender@nebraska.gov; julias@poncatribe-ne.org; justin.lavene@nebraska.gov; jwinkler@papionrd.org; kenneth.sessa@dhs.gov; kennyj@headwaterscorp.com; Kim.Nguyen@ferc.gov; ksullivan@leg.ne.gov;

lewrightjr@gmail.com; Louis\_pofahl@mail.house.gov; lpsnrd@lpsnrd.org; mark.ivy@ferc.gov; marvp@megavision.com; mbrown9@unl.edu; mferguson@gp.usbr.gov; mkuzila1@unl.edu;

monroe@megavision.com; msittler@lpsnrd.org; ncpza@hamilton.net;

nicholas.jayjack@ferc.gov; patricia.leppert@ferc.gov; pcclerk@megavision.com; peggy.harding@ferc.gov; prescott.brownell@noaa.gov; randy\_thoreson@nps.gov; rbishop@cpnrd.org; Robert\_F\_Stewart@ios.doi.gov; robert\_harms@fws.gov; robertm@llnrd.org; rtrudell@santeedakota.org; steve.chick@ne.usda.gov; thoty@panea.gov; 
thowe@ponca.com; todd.crawford@mail.house.gov; tpetr@loup.com;

vwills@pawneenation.org; Willie\_Taylor@ios.doi.gov; zach\_nelson@bennelson.senate.gov Angel Robak; Jim Frear; Neil Suess; Ron Ziola; Damgaard, Quinn V.; Engelbert, Pat; Frame, Gail; Grennan, Dennis E.; Hunt, George; Madson, Michael J.; Pillard, Matt; Richardson, Lisa

(Omaha); Sigler, Bill; Thompson, Wendy; Waldow, George; White, Stephanie

Subject: Loup Power District - FERC Relicensing: Study Progress Report Available

For your information, Loup Power District has submitted the second quarterly study progress report to FERC and it has been posted to the project website:

http://www.loup.com/relicense/html/documents.html

Thank you.

Cc:

Matt Pillard, AICP Senior Environmental Planner

### HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Cell: 402.689.5187 | Fax: 402.399.1111

Email: Matt.Pillard@hdrinc.com

From: Richardson, Lisa (Omaha)

Sent: Saturday, March 13, 2010 1:16 PM

**To:** Frame, Gail; Damgaard, Quinn V.; Fitzsimmons, Ellen; Thompson, Wendy

**Subject:** FW: Angling Access

Follow Up Flag: Follow up Flag Status: Flagged

Gail – please add to the DB Wendy – please file on PW

Quinn & Ellen – FYI for the recreation study.

From: Neal Suess <a href="mailto:nsuess@loup.com">[mailto:nsuess@loup.com</a>]
Sent: Saturday, March 13, 2010 9:55 AM

To: m kush

Subject: RE: Angling Access

#### Mitch:

As you may know, Loup Power District is currently in the process of relicensing its entire hydroelectric project, including both powerhouses and the canal. As part of that process, the District is studying recreation use along the canal and the extent that use is meeting the demand of the area. The study will be conducted during 2010 and we will then be sitting down with the Federal Energy Regulatory Commission, the governing agency who oversees the powerhouses and canal, the Nebraska Game and Park Commission, the United States Fish and Wildlife Service and the National Park Service to determine what further steps may need to be taken as a result of the studies conducted. You can keep abreast of the updates by reviewing our relicensing website at <a href="http://www.loup.com/relicense/index.html">http://www.loup.com/relicense/index.html</a>. This website is update frequently with information about the process. You can also submit comments and contact us via this website. We will take your thoughts into account as we perform our studies and move forward with our relicensing efforts.

Thank you for your concerns.

#### Neal Suess, P.E.

Loup Power District P.O. Box 988 (2404 15th Street) Columbus, NE 68602-0988

Phone: 402-564-3171
Fax: 402-564-0970
Cell: 402-910-8979
E-Mail: nsuess@loup.com

From: m kush [mailto:mkush@neb.rr.com]
Sent: Wednesday, March 10, 2010 10:07 PM

To: Neal Suess

Subject: Angling Access

Neal,

I would like to know if you would ever entertain the idea of enhancing angler access and habitat at Lake North, Babcock Lake, and/or portions of the canal? Part of this could include rock jetties, fishing piers, underwater habitat such as sunken trees, and possibly some dredging along the camping areas at Babcock Lake, etc...

If so, I would like to contact the Nebraska Game and Parks Commission (NGPC) to discuss possible funding options that could be presented to you for further consideration.

Aside from my own selfish angling motives, I believe it would be a well used resource, especially during trying economic times such as we are experiencing now. I also believe that a wide variety of amenities only enhances a community's image and comfort. Loup Power District has been very generous with their recreational areas, and I would like to help improve upon what is already available.

Best Regards,

Mitch Kush

From: Mark Ivy [Mark.Ivy@ferc.gov]
Sent: Monday, April 05, 2010 3:21 PM

**To:** Richardson, Lisa (Omaha); Kim Nguyen **Cc:** Neal Suess; Ziola; frear; Damgaard, Quinn V.

Subject: RE: Loup River Hydroelectric Project No. 1256 - Bypass Reach Survey Notes

Lisa,

Thank you for providing me with the opportunity to review your summary of our recent conference call. Kim is out of the office for a week and thus will not be able to provide comments until she returns.

I would like to make the following clarifications:

#### 1) Loup Lands WMA

The species listed for wildlife watching were meant as examples only, not to imply that they are found at the site. Since the occurrence of watchable wildlife species within the WMA has not documented, it may be helpful to contact local bird watching or nature study groups.

#### 2) Bypass Reach Survey Methods

At Looking Glass Creek WMA it appears from Google Earth that the access road is adjacent to the Loup River. If field work proves this to be accurate, it seems to be a logical place for the public to access the river.

Another protocol question that was posed was: What would happen if the survey team ran out of time before sampling all of the access points on a given survey day (Thinking about the days when surveying does not begin until 3:30 pm)

The question was also raised as to whether the data gathered would be extrapolated to cover the months not sampled.

Best,

Mark

Mark Ivy, PhD
Outdoor Recreation Planner
Division of Hydropower Licensing
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426
202.502.6156
202.219.2152 (fax)

From: Richardson, Lisa (Omaha) [mailto:Lisa.Richardson@hdrinc.com]

Sent: Monday, April 05, 2010 3:49 PM

To: Kim Nguyen; Mark Ivy

Cc: Neal Suess; Ziola; frear; Damgaard, Quinn V.

Subject: Loup River Hydroelectric Project No. 1256 - Bypass Reach Survey Notes

Kim and Mark,

Attached are notes from our conference call on April 1, 2010 to discuss the Bypass Reach Survey. Please let me know if you have any questions or comments.

Lisa

From: Pillard, Matt

**Sent:** Monday, May 24, 2010 4:45 PM

To: frank.albrecht@nebraska.gov; john.bender@nebraska.gov; jeff\_runge@fws.gov; robert\_harms@fws.gov; barbara.i.friskopp@usace.armv.mil; abaum@upperloupnrd.org

robert\_harms@fws.gov; barbara.j.friskopp@usace.army.mil; abaum@upperloupnrd.org; randy\_thoreson@nps.gov; bob.puschendorf@nebraska.gov; jean.angell@nebraska.gov;

mkuzila1@unl.edu; david.jundt@dhhs.ne.gov; jmiyoshi@lpnnrd.org;

steve.chick@ne.usda.gov; pcclerk@megavision.com; cityadmin@cablene.com; ncpza@hamilton.net; rbishop@cpnrd.org; jwinkler@papionrd.org; lpsnrd@lpsnrd.org;

jmangi@columbusne.us; cgenoa@cablene.com; monroe@megavision.com;

calms@neb.rr.com; danno@nohva.com; mbrown9@unl.edu; rtrudell@santeedakota.org;

jblackhawk@aol.com; vwills@pawneenation.org; jill.dolberg@nebraska.gov;

prescott.brownell@noaa.gov; msittler@lpsnrd.org; butchk@nctc.net; robertm@llnrd.org; jmsunne@nppd.com; jalexand@usgs.gov; jjshadl@nppd.com; cothern.joe@epa.gov; justin.lavene@nebraska.gov; bobbie.wickham@nebraska.gov; mferguson@gp.usbr.gov;

kennyj@headwaterscorp.com; jeddins@achp.gov; kenneth.sessa@dhs.gov;

peggy.harding@ferc.gov; Willie\_Taylor@ios.doi.gov; Robert\_F\_Stewart@ios.doi.gov;

djjarecke@clarkswb.net; al.berndt@nebraska.gov; astuthman@leg.ne.gov; ksullivan@leg.ne.gov; clangemeier@leg.ne.gov; adubas@leg.ne.gov;

chairmanrhodd@ponca.com; asheridan@omahatribe.com; don simpson@blm.gov;

mark.ivy@ferc.gov; nicholas.jayjack@ferc.gov; david.turner@ferc.gov; marvp@megavision.com; lewrightjr@gmail.com; thowe@ponca.com; zach\_nelson@bennelson.senate.gov; julias@poncatribe-ne.org; todd.crawford@mail.house.gov; louis-pofahl@mail.house.gov;

emily\_brummund@johanns.senate.gov; deb.vanmatre@mail.house.gov;

patricia.leppert@ferc.gov; frank.winchell@ferc.gov; tpetr@loup.com; mike.black@bia.gov;

janet.hutzel@ferc.gov

**Cc:** Angel Robak; Jim Frear; Neil Suess; Ron Ziola; Damgaard, Quinn V.; Engelbert, Pat; Frame,

Gail; Grennan, Dennis E.; Hunt, George; Madson, Michael J.; Pillard, Matt; Richardson, Lisa

(Omaha); Sigler, Bill; Thompson, Wendy; Waldow, George; White, Stephanie

Subject: Loup Power District - FERC Relicensing: Study Progress Report Available

For your information, Loup Power District has submitted the third quarterly study progress report to FERC and it has been posted to the project website:

http://www.loup.com/relicense/html/documents.html

Thank you.

Matt Pillard, AICP Senior Environmental Planner

### HDR | ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Fax: 402.399.1111

Email: Matt.Pillard@hdrinc.com



From: Pillard, Matt

**Sent:** Friday, August 06, 2010 3:12 PM

**To:** frank.albrecht@nebraska.gov; john.bender@nebraska.gov; jeff\_runge@fws.gov; robert\_harms@fws.gov; barbara.j.friskopp@usace.army.mil; abaum@upperloupnrd.org;

randy\_thoreson@nps.gov; bob.puschendorf@nebraska.gov; mkuzila1@unl.edu; david.jundt@dhhs.ne.gov; jmiyoshi@lpnnrd.org; steve.chick@ne.usda.gov; pcclerk@megavision.com; citvadmin@cablene.com; ncpza@hamilton.net;

rbishop@cpnrd.org; jwinkler@papionrd.org; lpsnrd@lpsnrd.org; jmangi@columbusne.us; cgenoa@cablene.com; monroe@megavision.com; calms@neb.rr.com; danno@nohva.com;

mbrown9@unl.edu; rtrudell@santeedakota.org; jblackhawk@aol.com;

vwills@pawneenation.org; bdunnigan@dnr.ne.gov; msittler@lpsnrd.org; butchk@nctc.net;

robertm@llnrd.org; jmsunne@nppd.com; jalexand@usgs.gov; jjshadl@nppd.com; cothern.joe@epa.gov; justin.lavene@nebraska.gov; bobbie.wickham@nebraska.gov; kennyj@headwaterscorp.com; mferguson@gp.usbr.gov; Willie\_Taylor@ios.doi.gov; Robert\_F\_Stewart@ios.doi.gov; jeddins@achp.gov; kenneth.sessa@dhs.gov; peggy.harding@ferc.gov; djjarecke@clarkswb.net; al.berndt@nebraska.gov;

astuthman@leg.ne.gov; ksullivan@leg.ne.gov; clangemeier@leg.ne.gov; adubas@leg.ne.gov;

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marvp@megavision.com; lewrightjr@gmail.com; thowe@ponca.com; zach\_nelson@bennelson.senate.gov; julias@poncatribe-ne.org; todd.crawford@mail.house.gov; louis-pofahl@mail.house.gov;

emily\_brummund@johanns.senate.gov; deb.vanmatre@mail.house.gov; tpetr@loup.com; mike.black@bia.gov; janet.hutzel@ferc.gov; isis.johnson@ferc.gov; lee.emery@ferc.gov;

paul.makowski@ferc.gov

**Cc:** Angel Robak; Jim Frear; Neil Suess; Ron Ziola; Damgaard, Quinn V.; Engelbert, Pat; Frame,

Gail; Grennan, Dennis E.; Hunt, George; Madson, Michael J.; Pillard, Matt; Richardson, Lisa

(Omaha); Sigler, Bill; Thompson, Wendy; Waldow, George; White, Stephanie

Subject: Loup Power District - FERC Relicensing: Study Report and Study Results Meeting

#### **Relicensing Participants:**

This e-mail is to remind you of the Initial Study Results meeting scheduled for September 9<sup>th</sup> at the New World Inn, 265 33<sup>rd</sup> Ave, Columbus, Nebraska. Please RSVP to Angell Robak at arobak@loup.com or (402) 564-3171, ext. 275.

For those not able to attend in person, but wishing to do so via conference call, meeting materials will be posted to: <a href="http://www.loup.com/relicense/html/agencymeetingsresources.html">http://www.loup.com/relicense/html/agencymeetingsresources.html</a> in advance of the meeting (by end of day 9/8/10). Dial-in information is as follows:

1-866-994-6437

Passcode: 4023994909

On August 26, 2010, the District will be submitting the Initial Study Report (ISR) to FERC, it will also be posted on the website at <a href="http://www.loup.com/relicense">http://www.loup.com/relicense</a> (link). This report will include study reports for the following completed studies:

1 – Sedimentation

7 – Fish Passage

10 - Land Use Inventory

Additionally, the ISR will provide a progress summary for the other reports.

Please come ready to discuss; we have a lot of material to cover and will start promptly at 8:30 AM.

Please bring your own copy of the Initial Study Report. It can be found online after 8/26/10.

We look forward to seeing you on September 9<sup>th</sup>.

#### Matt Pillard, AICP

Senior Environmental Planner

# HDR | ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Fax: 402.399.1111 Email: Matt.Pillard@hdrinc.com



From: Richardson, Lisa (Omaha)

**Sent:** Wednesday, August 11, 2010 12:08 PM **To:** Jeff\_Runge@fws.gov; Pillard, Matt

**Cc:** abaum@upperloupnrd.org; adubas@leg.ne.gov; al.berndt@nebraska.gov; Angel Robak; asheridan@omahatribe.com; astuthman@leg.ne.gov; barbara.j.friskopp@usace.army.mil;

bdunnigan@dnr.ne.gov; Sigler, Bill; bobbie.wickham@nebraska.gov; bob.puschendorf@nebraska.gov; butchk@nctc.net; calms@neb.rr.com;

cgenoa@cablene.com; chairmanrhodd@ponca.com; cityadmin@cablene.com; clangemeier@leg.ne.gov; cothern.joe@epa.gov; danno@nohva.com;

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djjarecke@clarkswb.net; don\_simpson@blm.gov; emily\_brummund@johanns.senate.gov;

frank.albrecht@nebraska.gov; Frame, Gail; Hunt, George; Waldow, George;

isis.johnson@ferc.gov; jalexand@usgs.gov; janet.hutzel@ferc.gov; jblackhawk@aol.com;

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pofahl@mail.house.gov; lpsnrd@lpsnrd.org; marvp@megavision.com; Pillard, Matt; mbrown9

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@unl.edu; monroe@megavision.com; msittler@lpsnrd.org; ncpza@hamilton.net; nicholas.jayjack@ferc.gov; Neil Suess; Engelbert, Pat; paul.makowski@ferc.gov;

pcclerk@megavision.com; peggy.harding@ferc.gov; prescott.brownell@noaa.gov; Damgaard,

Quinn V.; randy\_thoreson@nps.gov; rbishop@cpnrd.org; robertm@llnrd.org;

Robert\_F\_Stewart@ios.doi.gov; robert\_harms@fws.gov; rtrudell@santeedakota.org; Ron

Ziola; White, Stephanie; steve.chick@ne.usda.gov; thowe@ponca.com;

todd.crawford@mail.house.gov; tpetr@loup.com; vwills@pawneenation.org; Thompson,

Wendy; Willie\_Taylor@ios.doi.gov; zach\_nelson@bennelson.senate.gov

Subject: RE: Loup Power District - FERC Relicensing: Study Report and Study Results Meeting

Jeff.

The fish tissue sampling results will be included in our August 26<sup>th</sup> Initial Study Report and will be presented and discussed at the meeting scheduled for September 9<sup>th</sup>.

If you have any additional questions, please feel free to give me a call.

Lisa

# Lisa M. Richardson, P.E.

**Professional Associate** 

# **HDR** One Company | Many Solutions

8404 Indian Hills Drive Omaha, NE 68114-4049 Phone: 402.926.7026 Cell: 402.618.9865

Fax: 402.399.1111

**From:** Jeff Runge@fws.gov [mailto:Jeff Runge@fws.gov]

Sent: Wednesday, August 11, 2010 10:30 AM

To: Pillard, Matt

**Cc:** abaum@upperloupnrd.org; adubas@leg.ne.gov; al.berndt@nebraska.gov; Angel Robak; asheridan@omahatribe.com; astuthman@leg.ne.gov; barbara.j.friskopp@usace.army.mil; bdunnigan@dnr.ne.gov; Sigler, Bill; bobbie.wickham@nebraska.gov; bob.puschendorf@nebraska.gov; butchk@nctc.net; calms@neb.rr.com; cgenoa@cablene.com; chairmanrhodd@ponca.com; citvadmin@cablene.com; clangemeier@leg.ne.gov;

cothern.joe@epa.gov; danno@nohva.com; david.jundt@dhhs.ne.gov; deb.vanmatre@mail.house.gov; Grennan, Dennis E.; djjarecke@clarkswb.net; don\_simpson@blm.gov; emily\_brummund@johanns.senate.gov; frank.albrecht@nebraska.gov; Frame, Gail; Hunt, George; Waldow, George; isis.johnson@ferc.gov; jalexand@usgs.gov; janet.hutzel@ferc.gov; jblackhawk@aol.com; jeddins@achp.gov; Jim Frear; jill.dolberg@nebraska.gov; jjshadl@nppd.com; jmangi@columbusne.us; jmiyoshi@lpnnrd.org; jmsunne@nppd.com; john.bender@nebraska.gov; julias@poncatribe-ne.org; justin.lavene@nebraska.gov; jwinkler@papionrd.org; kenneth.sessa@dhs.gov; kennyj@headwaterscorp.com; ksullivan@leg.ne.gov; lee.emery@ferc.gov; lewrightjr@gmail.com; Richardson, Lisa (Omaha); louis-pofahl@mail.house.gov; lpsnrd@lpsnrd.org; marvp@megavision.com; Pillard, Matt; mbrown9@unl.edu; mferguson@gp.usbr.gov; Madson, Michael J.; mike.black@bia.gov; mkuzila1@unl.edu; monroe@megavision.com; msittler@lpsnrd.org; ncpza@hamilton.net; nicholas.jayjack@ferc.gov; Neil Suess; Engelbert, Pat; paul.makowski@ferc.gov; pcclerk@megavision.com; peggy.harding@ferc.gov; prescott.brownell@noaa.gov; Damgaard, Quinn V.; randy\_thoreson@nps.gov; rbishop@cpnrd.org; robertm@llnrd.org; Robert\_F\_Stewart@ios.doi.gov; robert\_harms@fws.gov; rtrudell@santeedakota.org; Ron Ziola; White, Stephanie; steve.chick@ne.usda.gov; thowe@ponca.com; todd.crawford@mail.house.gov; tpetr@loup.com; vwills@pawneenation.org; Thompson, Wendy; Willie Taylor@ios.doi.gov; zach nelson@bennelson.senate.gov

Subject: Re: Loup Power District - FERC Relicensing: Study Report and Study Results Meeting

Matt,

I have read the Loup Power District May 24, 2010, progress report where initial study results will be separated into two meetings. PCBs were not identified as a discussion topic for either of the two meetings. I have included PCB section from FERC's Study Plan Determination where fish tissue results would be a part of the Initial Study Report. Any insight as to time frames for fish tissue results and discussion would be greatly appreciated.

Jeff Runge

\*\*\*\*\*\*\*\*\*\*

### Sediment Sampling for PCB's in the Loup Power Canal and Lake Babcock

In its comments on the revised study plan, the FWS recommended that the District sample for polychlorinated biphenyls (PCB's) from fish tissue and sediments from Lake Babcock and the Loup Power Canal between Monroe and Columbus powerhouses. The District proposes to conduct fish tissue sampling in 2009 cooperatively with the Nebraska Department of Environmental Quality. One of the sample sites includes Lake Babcock, which is located in the affected reach mentioned by FWS. This information, along with the fish tissue sampling results presented in the PAD for the project area, will be sufficient for our analysis. The District shall report the results of this analysis in their Initial Study Report.

The relevant issue for any licensing decision is whether any PCB mobilization caused by project operations affects fishery resources. To answer that question, it is most appropriate to first sample fish tissue for PCB's in

the potentially affected reach (i.e., Lake Babcock) to determine if PCB's are presently affecting fish, regardless of the source (e.g, project-induced mobilization of canal sediments versus upstream Loup River flows carrying PCB's from other sources). Should elevated fish PCB levels be found in the fish tissues, we may consider additional PCB monitoring in year 2.

# http://www.loup.com/relicense/html/documents/license/LFERC.090826.Study Plan Determination.pdf

"Pillard, Matt" < Matt. Pillard@hdrinc.com>

"Pillard, Matt" <Matt.Pillard@hdrinc.com>

08/06/10 03:12 PM

To"frank.albrecht@nebraska.gov" <frank.albrecht@nebraska.gov>, "john.bender@nebraska.gov" <john.bender@nebraska.gov>, "jeff runge@fws.gov" <jeff runge@fws.gov>, "robert harms@fws.gov" <robert harms@fws.gov>, "barbara.j.friskopp@usace.army.mil" <barbara.j.friskopp@usace.army.mil>, "abaum@upperloupnrd.org" <abaum@upperloupnrd.org>, "randy\_thoreson@nps.gov" <randy\_thoreson@nps.gov>, "bob.puschendorf@nebraska.gov" <bob.puschendorf@nebraska.gov>, "mkuzila1@unl.edu" <mkuzila1@unl.edu>, "david.jundt@dhhs.ne.gov" <david.jundt@dhhs.ne.gov>, "jmiyoshi@lpnnrd.org" <jmiyoshi@lpnnrd.org>, "steve.chick@ne.usda.gov" <steve.chick@ne.usda.gov>, "pcclerk@megavision.com" <pcclerk@megavision.com>, "cityadmin@cablene.com" <cityadmin@cablene.com>, "ncpza@hamilton.net" <ncpza@hamilton.net>, "rbishop@cpnrd.org" <rbishop@cpnrd.org>, "jwinkler@papionrd.org" <jwinkler@papionrd.org>, "lpsnrd@lpsnrd.org" <lpsnrd@lpsnrd.org>, "jmangi@columbusne.us" <jmangi@columbusne.us>, "cgenoa@cablene.com" <cgenoa@cablene.com>, "monroe@megavision.com" <monroe@megavision.com>, "calms@neb.rr.com" <calms@neb.rr.com>, "danno@nohva.com" <danno@nohva.com>, "mbrown9@unl.edu" <mbr/>brown9@unl.edu>, "rtrudell@santeedakota.org" <rtrudell@santeedakota.org>, "jblackhawk@aol.com" <jblackhawk@aol.com>, "vwills@pawneenation.org" <vwills@pawneenation.org>, "bdunnigan@dnr.ne.gov" <bdunnigan@dnr.ne.gov>, "msittler@lpsnrd.org" <msittler@lpsnrd.org>, "butchk@nctc.net" <butchk@nctc.net>, "robertm@llnrd.org" <robertm@llnrd.org>, "jmsunne@nppd.com" <jmsunne@nppd.com>, "jalexand@usgs.gov" <jalexand@usgs.gov>, "jjshadl@nppd.com" <jjshadl@nppd.com>, "cothern.joe@epa.gov" <cothern.joe@epa.gov>, "justin.lavene@nebraska.gov" <justin.lavene@nebraska.gov>, "bobbie.wickham@nebraska.gov" <br/>
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 <George.Waldow@hdrinc.com>, "White, Stephanie"
 <Stephanie.White@hdrinc.com>
```

<Willie Taylor@ios.doi.gov>,

### **Relicensing Participants:**

This e-mail is to remind you of the Initial Study Results meeting scheduled for September 9<sup>th</sup> at the New World Inn, 265 33<sup>rd</sup> Ave, Columbus, Nebraska. Please RSVP to Angell Robak at <u>arobak@loup.com</u> or (402) 564-3171, ext. 275.

For those not able to attend in person, but wishing to do so via conference call, meeting materials will be posted to: <a href="http://www.loup.com/relicense/html/agencymeetingsresources.html">http://www.loup.com/relicense/html/agencymeetingsresources.html</a> in advance of the meeting (by end of day 9/8/10). Dial-in information is as follows:

1-866-994-6437

Passcode: 4023994909

On August 26, 2010, the District will be submitting the Initial Study Report (ISR) to FERC, it will also be posted on the website at <a href="http://www.loup.com/relicense">http://www.loup.com/relicense</a> (link). This report will include study reports for the following completed studies:

1 – Sedimentation

7 - Fish Passage

10 - Land Use Inventory

Additionally, the ISR will provide a progress summary for the other reports.

Please come ready to discuss; we have a lot of material to cover and will start promptly at 8:30 AM.

Please bring your own copy of the Initial Study Report. It can be found online after 8/26/10.

We look forward to seeing you on September 9<sup>th</sup>.

#### Matt Pillard, AICP

Senior Environmental Planner **HDR | ONE COMPANY | Many Solutions Sol**8404 Indian Hills Drive | Omaha, NE | 68114-4098

Phone: 402.399.1186 | Fax: 402.399.1111

Email: Matt.Pillard@hdrinc.com

Please Think Before Printing



**GENERAL OFFICE**2404 15th Street
P.O. Box 988
Columbus, NE 68602-0988

Phone: 402/564-3171 Fax: 402/564-0970

August 26, 2010

George Howell, President Pawnee Nation of Oklahoma P.O. Box 470 Pawnee, OK 74058

RE: Loup River Hydroelectric Project Platte and Nance counties, Nebraska FERC Project No. 1256 Docket No. P-1256-029

Dear Mr. Howell:

Loup River Public Power District (the District) is applying to the Federal Energy Regulatory Commission (FERC) to relicense the Loup River Hydroelectric Project. The existing license was effective on December 1, 1982, for a term ending April 15, 2014. Loup Power District is utilizing the Integrated Licensing Process (ILP) for this relicensing effort.

Relicensing the Project is a Federal undertaking by FERC, and Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), requires Federal agencies to determine whether their undertakings have adverse effects on historic properties (any site, structure, or other property listed on or eligible for listing on the National Register of Historic Places [NRHP]) and allow interested parties the opportunity to comment on decisions and actions that may affect historic properties.

Pursuant to 18 CFR §5.11 and §5.13, the District prepared a study plan to gather the information needed to comply with Section 106 as part of Project Relicensing. On August 26, 2009, FERC approved the District's study (Study 11.0), as submitted in the Revised Study Plan on July 27, 2009. The District has completed the Phase I/II Archaeological Inventory and Evaluation of the Project. A copy of the report accompanies this letter.

Please do not hesitate to contact Michael Madson at HDR or me at (402) 564-3171 if you have any questions about the Phase I/II Archaeological Inventory and Evaluation.

Sincerely,

Neal Suess President/CEO Loup Power District

cc (without attachments):

Alice Alexander, Pawnee Nation of Oklahoma Lee Emery, Federal Energy Regulatory Commission Janet Hutzel, Federal Energy Regulatory Commission Ron Ziola, Loup Power District Lisa Richardson, HDR George Waldow, HDR Michael Madson, HDR

# Attachments:



2404 15th Street
P.O. Box 988
Columbus, NE 68602-0988

Phone: 402/564-3171 Fax: 402/564-0970

August 26, 2010

Larry Wright, Chairman Ponca Tribe of Nebraska P.O. Box 288 Niobrara, NE 68760

RE: Loup River Hydroelectric Project Platte and Nance counties, Nebraska FERC Project No. 1256 Docket No. P-1256-029

Dear Mr. Wright:

Loup River Public Power District (the District) is applying to the Federal Energy Regulatory Commission (FERC) to relicense the Loup River Hydroelectric Project. The existing license was effective on December 1, 1982, for a term ending April 15, 2014. Loup Power District is utilizing the Integrated Licensing Process (ILP) for this relicensing effort.

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Please do not hesitate to contact Michael Madson at HDR or me at (402) 564-3171 if you have any questions about the Phase I/II Archaeological Inventory and Evaluation.

Sincerely,

Neal Suess President/CEO Loup Power District

cc (without attachments):

Gary Robinette, Ponca Tribe of Nebraska Lee Emery, Federal Energy Regulatory Commission Janet Hutzel, Federal Energy Regulatory Commission Ron Ziola, Loup Power District Lisa Richardson, HDR George Waldow, HDR Michael Madson, HDR

# Attachments:

2404 15th Street
P.O. Box 988
Columbus, NE 68602-0988

Phone: 402/564-3171 Fax: 402/564-0970

August 26, 2010

Douglas Rhodd, Chairman Ponca Tribe of Oklahoma 20 White Eagle Drive Ponca City, OK 74601

RE: Loup River Hydroelectric Project Platte and Nance counties, Nebraska FERC Project No. 1256 Docket No. P-1256-029

Dear Mr. Rhodd:

Loup River Public Power District (the District) is applying to the Federal Energy Regulatory Commission (FERC) to relicense the Loup River Hydroelectric Project. The existing license was effective on December 1, 1982, for a term ending April 15, 2014. Loup Power District is utilizing the Integrated Licensing Process (ILP) for this relicensing effort.

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Please do not hesitate to contact Michael Madson at HDR or me at (402) 564-3171 if you have any questions about the Phase I/II Archaeological Inventory and Evaluation.

Sincerely,

Neal Suess President/CEO Loup Power District

cc (without attachments):

Trey Howe, Ponca Tribe of Oklahoma Lee Emery, Federal Energy Regulatory Commission Janet Hutzel, Federal Energy Regulatory Commission Ron Ziola, Loup Power District Lisa Richardson, HDR George Waldow, HDR Michael Madson, HDR

# Attachments:



2404 15th Street
P.O. Box 988
Columbus, NE 68602-0988

402/564-3171 Fax: 402/564-0970

August 26, 2010

Roger Trudell, Chairman Santee Sioux Tribe of Nebraska 108 Spirit Lake Ave W Niobrara, NE 68760

RE: Loup River Hydroelectric Project Platte and Nance counties, Nebraska FERC Project No. 1256 Docket No. P-1256-029

Dear Mr. Trudell:

Loup River Public Power District (the District) is applying to the Federal Energy Regulatory Commission (FERC) to relicense the Loup River Hydroelectric Project. The existing license was effective on December 1, 1982, for a term ending April 15, 2014. Loup Power District is utilizing the Integrated Licensing Process (ILP) for this relicensing effort.

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Please do not hesitate to contact Michael Madson at HDR or me at (402) 564-3171 if you have any questions about the Phase I/II Archaeological Inventory and Evaluation.

Sincerely,

Neal Suess President/CEO Loup Power District

cc (without attachments):

Thelma Thomas, Santee Sioux Tribe of Nebraska Lee Emery, Federal Energy Regulatory Commission Janet Hutzel, Federal Energy Regulatory Commission Ron Ziola, Loup Power District Lisa Richardson, HDR George Waldow, HDR Michael Madson, HDR

# Attachments:



**GENERAL OFFICE**2404 15th Street
P.O. Box 988
Columbus, NE 68602-0988

Phone: 402/564-3171 Fax: 402/564-0970

August 26, 2010

Amen Sheridan, Chairman Omaha Tribe of Nebraska P.O. Box 368 Macy, NE 68039

RE: Loup River Hydroelectric Project Platte and Nance counties, Nebraska FERC Project No. 1256 Docket No. P-1256-029

Dear Mr. Sheridan:

Loup River Public Power District (the District) is applying to the Federal Energy Regulatory Commission (FERC) to relicense the Loup River Hydroelectric Project. The existing license was effective on December 1, 1982, for a term ending April 15, 2014. Loup Power District is utilizing the Integrated Licensing Process (ILP) for this relicensing effort.

Relicensing the Project is a Federal undertaking by FERC, and Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), requires Federal agencies to determine whether their undertakings have adverse effects on historic properties (any site, structure, or other property listed on or eligible for listing on the National Register of Historic Places [NRHP]) and allow interested parties the opportunity to comment on decisions and actions that may affect historic properties.

Pursuant to 18 CFR §5.11 and §5.13, the District prepared a study plan to gather the information needed to comply with Section 106 as part of Project Relicensing. On August 26, 2009, FERC approved the District's study (Study 11.0), as submitted in the Revised Study Plan on July 27, 2009. The District has completed the Phase I/II Archaeological Inventory and Evaluation of the Project. A copy of the report accompanies this letter.

Please do not hesitate to contact Michael Madson at HDR or me at (402) 564-3171 if you have any questions about the Phase I/II Archaeological Inventory and Evaluation.

Sincerely,

Neal Suess President/CEO Loup Power District

cc (without attachments):

Antoine A. Provost, Omaha Tribe of Nebraska Lee Emery, Federal Energy Regulatory Commission Janet Hutzel, Federal Energy Regulatory Commission Ron Ziola, Loup Power District Lisa Richardson, HDR George Waldow, HDR Michael Madson, HDR

# Attachments:



2404 15th Street 402/564-3171
P.O. Box 988
Columbus, NE 68602-0988
402/564-0970

August 26, 2010

Mr. Robert Puschendorf State Historic Preservation Office 1500 R Street P.O. Box 82554 Lincoln, NE 68501-2554

Re: HP#0804-127-01

Loup River Hydroelectric Project Relicensing Historic Building Inventory and Evaluation Phase I/II Archaeological Inventory and Evaluation FERC Project No. 1256; Docket No. 1256-029

Dear Mr. Puschendorf:

Loup River Public Power District (the District) is applying to the Federal Energy Regulatory Commission (FERC) to relicense the Loup River Hydroelectric Project. The existing license was effective on December 1, 1982, for a term ending April 15, 2014. The District is utilizing the Integrated Licensing Process (ILP) for this relicensing effort.

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Pursuant to 18 CFR §5.11 and §5.13 the District prepared the Revised Study Plan (RSP) identifying studies needed for relicensing. The RSP included Study 11.0 – Section 106 Compliance. This plan was coordinated with your office and approved by FERC on August 26, 2009. Study 11.0 – Section 106 Compliance, includes the following six elements:

- Phase IA Archaeological Overview
- Phase I Archaeological Inventory and Evaluation
- Ethnographic Documentation
- Historic District Inventory and Evaluation
- Historic Properties Management Plan
- Executed Programmatic Agreement

The Phase IA Archaeological Overview was submitted to your office in October 2009 and your office concurred with the findings.

The District has now completed the Phase I/II Archaeological Inventory and Evaluation and the Historic Buildings Inventory and Evaluation. Copies of these reports accompany this letter.

At this time we are seeking concurrence from your office regarding the findings of the Phase I/II Archaeological Inventory and Evaluation and the Historic Buildings Inventory and Evaluation and would like to further our dialogue towards development of the Historic Properties Management Plan and Programmatic Agreement to achieve Section 106 compliance.

Please do not hesitate to contact Mike Madson (HDR) at (763) 278-5921 or me at (402) 564-3171 if you have any questions about these reports. We look forward to working with your office throughout the relicensing effort and beyond.

Sincerely,

Neal Suess President/CEO Loup Power District

cc (without attachments):

Lee Emery, Federal Energy Regulatory Commission Janet Hutzel, Federal Energy Regulatory Commission Ron Ziola, Loup Power District Lisa Richardson, HDR George Waldow, HDR Joe Trnka, HDR Michael Madson, HDR

### Attachments:

- (1) Phase I/II Archaeological Inventory and Evaluation
- (2) Historic Buildings Inventory and Evaluation



**GENERAL OFFICE**2404 15th Street
P.O. Box 988
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Phone: 402/564-3171 Fax: 402/564-0970

August 26, 2010

Ansley Griffin, Chairman Omaha Tribal Council Omaha Tribe of Nebraska P.O. Box 368 Macy, NE 68039

RE: Loup River Hydroelectric Project
Platte and Nance counties, Nebraska
FERC Project No. 1256
Docket No. P-1256-029

Dear Mr. Griffin:

Loup River Public Power District (the District) is applying to the Federal Energy Regulatory Commission (FERC) to relicense the Loup River Hydroelectric Project. The existing license was effective on December 1, 1982, for a term ending April 15, 2014. Loup Power District is utilizing the Integrated Licensing Process (ILP) for this relicensing effort.

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Please do not hesitate to contact Michael Madson at HDR or me at (402) 564-3171 if you have any questions about the Phase I/II Archaeological Inventory and Evaluation.

Sincerely,

Neal Suess President/CEO

Loup Power District

cc: Lee Emery, Federal Energy Regulatory Commission

Janet Hutzel, Federal Energy Regulatory Commission

Ron Ziola, Loup Power District

Lisa Richardson, HDR George Waldow, HDR

Michael Madson, HDR

#### Attachments:

Pillard, Matt From:

Sent: Friday, August 27, 2010 8:03 AM

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rbishop@cpnrd.org; jwinkler@papionrd.org; lpsnrd@lpsnrd.org; jmangi@columbusne.us; cgenoa@cablene.com; monroe@megavision.com; calms@neb.rr.com; danno@nohva.com;

mbrown9@unl.edu; rtrudell@santeedakota.org; jblackhawk@aol.com;

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jjshadl@nppd.com; cothern.joe@epa.gov; justin.lavene@nebraska.gov;

bobbie.wickham@nebraska.gov; kennyj@headwaterscorp.com; mferguson@gp.usbr.gov;

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paul.makowski@ferc.gov

Angel Robak; Jim Frear; Neil Suess; Ron Ziola; Damgaard, Quinn V.; Engelbert, Pat; Frame, Cc:

Gail; Grennan, Dennis E.; Hunt, George; Madson, Michael J.; Pillard, Matt; Richardson, Lisa

mike.black@bia.gov; janet.hutzel@ferc.gov; isis.johnson@ferc.gov; lee.emery@ferc.gov;

(Omaha); Sigler, Bill; Thompson, Wendy; Waldow, George; White, Stephanie

Loup Power District - FERC Relicensing: Initial Study Report Filing and Study Results Meeting Subject:

#### Relicensing Participants:

Loup Power District has electronically filed its Initial Study Report (ISR) with FERC. The report is available on FERC's elibrary and on the District's relicensing website: http://www.loup.com/relicense/.

The ISR includes study reports for the following completed studies:

1 – Sedimentation

7 - Fish Passage

8 – Interim Recreation Telephone Survey

10 - Land Use Inventory

Additionally, the ISR provides a progress summary for the other studies.

The District will hold the Initial Study Results meeting on September 9<sup>th</sup> at the New World Inn, 265 33<sup>rd</sup> Ave, Columbus, Nebraska. Please RSVP to Angell Robak at arobak@loup.com or (402) 564-3171, ext. 275.

For those not able to attend in person, but wishing to do so via conference call, meeting materials will be posted to: http://www.loup.com/relicense/html/agencymeetingsresources.html in advance of the meeting (by end of day 9/8/10). Dialin information is as follows:

1-866-994-6437

Passcode: 4023994909

Please bring your own copy of the Initial Study Report and come ready to discuss; we have a lot of material to cover and will start promptly at 8:30 AM.

We look forward to seeing you on September 9<sup>th</sup>.

From: Pillard, Matt

Sent: Wednesday, September 08, 2010 2:19 PM

**To:** frank.albrecht@nebraska.gov; john.bender@nebraska.gov; jeff\_runge@fws.gov; robert\_harms@fws.gov; barbara.j.friskopp@usace.army.mil; abaum@upperloupnrd.org;

randy\_thoreson@nps.gov; bob.puschendorf@nebraska.gov; mkuzila1@unl.edu; david.jundt@dhhs.ne.gov; jmiyoshi@lpnnrd.org; steve.chick@ne.usda.gov; pcclerk@megavision.com; cityadmin@cablene.com; ncpza@hamilton.net;

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astuthman@leg.ne.gov; ksullivan@leg.ne.gov; clangemeier@leg.ne.gov; adubas@leg.ne.gov;

chairmanrhodd@ponca.com; asheridan@omahatribe.com; don\_simpson@blm.gov; nicholas.jayjack@ferc.gov; jill.dolberg@nebraska.gov; prescott.brownell@noaa.gov;

marvp@megavision.com; lewrightjr@gmail.com; thowe@ponca.com; zach\_nelson@bennelson.senate.gov; julias@poncatribe-ne.org; todd.crawford@mail.house.gov; louis-pofahl@mail.house.gov;

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paul.makowski@ferc.gov

**Cc:** Angel Robak; Jim Frear; Neil Suess; Ron Ziola; Damgaard, Quinn V.; Engelbert, Pat; Frame,

Gail; Grennan, Dennis E.; Hunt, George; Madson, Michael J.; Richardson, Lisa (Omaha);

Sigler, Bill; Thompson, Wendy; Waldow, George; White, Stephanie

Subject: RE: Loup Power District - FERC Relicensing: Study Report and Study Results Meeting

### Relicensing Participants:

The presentation for tomorrow's Initial Study Report meeting is now available on www.loup.com\relicense. Call in instructions can also be found there (and below).

Thank you.

Matt Pillard, AICP Senior Environmental Planner

### HDR | ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Fax: 402.399.1111 Email: Matt.Pillard@hdrinc.com



From: Pillard, Matt

**Sent:** Friday, August 06, 2010 3:12 PM

To: frank.albrecht@nebraska.gov; john.bender@nebraska.gov; jeff\_runge@fws.gov; robert\_harms@fws.gov;

barbara.j.friskopp@usace.army.mil; abaum@upperloupnrd.org; randy thoreson@nps.gov; bob.puschendorf@nebraska.gov; mkuzila1@unl.edu; david.jundt@dhhs.ne.gov; jmiyoshi@lpnnrd.org; steve.chick@ne.usda.gov; pcclerk@megavision.com; cityadmin@cablene.com; ncpza@hamilton.net; rbishop@cpnrd.org; iwinkler@papionrd.org; lpsnrd@lpsnrd.org; imangi@columbusne.us; cgenoa@cablene.com; monroe@megavision.com; calms@neb.rr.com; danno@nohva.com; mbrown9@unl.edu; rtrudell@santeedakota.org; jblackhawk@aol.com; vwills@pawneenation.org; bdunnigan@dnr.ne.gov; msittler@lpsnrd.org; butchk@nctc.net; robertm@llnrd.org; imsunne@nppd.com; jalexand@usqs.qov; jjshadl@nppd.com; cothern.joe@epa.gov; justin.lavene@nebraska.gov; bobbie.wickham@nebraska.qov; kennyj@headwaterscorp.com; mferguson@gp.usbr.gov; Willie Taylor@ios.doi.gov; Robert F Stewart@ios.doi.gov; jeddins@achp.gov; kenneth.sessa@dhs.gov; peggy.harding@ferc.gov; djjarecke@clarkswb.net; al.berndt@nebraska.gov; astuthman@leq.ne.gov; ksullivan@leq.ne.gov; clangemeier@leg.ne.gov; adubas@leg.ne.gov; chairmanrhodd@ponca.com; asheridan@omahatribe.com; don\_simpson@blm.gov; nicholas.jayjack@ferc.gov; jill.dolberg@nebraska.gov; prescott.brownell@noaa.gov; marvp@megavision.com; lewrightjr@gmail.com; thowe@ponca.com; zach\_nelson@bennelson.senate.gov; julias@poncatribe-ne.org; todd.crawford@mail.house.gov; louis-pofahl@mail.house.gov; emily brummund@johanns.senate.gov; deb.vanmatre@mail.house.gov; tpetr@loup.com; mike.black@bia.gov; janet.hutzel@ferc.gov; isis.johnson@ferc.gov; lee.emery@ferc.gov; paul.makowski@ferc.gov

**Cc:** Angel Robak; Jim Frear; Neil Suess; Ron Ziola; Damgaard, Quinn V.; Engelbert, Pat; Frame, Gail; Grennan, Dennis E.; Hunt, George; Madson, Michael J.; Pillard, Matt; Richardson, Lisa (Omaha); Sigler, Bill; Thompson, Wendy; Waldow, George; White, Stephanie

Subject: Loup Power District - FERC Relicensing: Study Report and Study Results Meeting

Relicensing Participants:

This e-mail is to remind you of the Initial Study Results meeting scheduled for September 9<sup>th</sup> at the New World Inn, 265 33<sup>rd</sup> Ave, Columbus, Nebraska. Please RSVP to Angell Robak at <u>arobak@loup.com</u> or (402) 564-3171, ext. 275.

For those not able to attend in person, but wishing to do so via conference call, meeting materials will be posted to: <a href="http://www.loup.com/relicense/html/agencymeetingsresources.html">http://www.loup.com/relicense/html/agencymeetingsresources.html</a> in advance of the meeting (by end of day 9/8/10). Dial-in information is as follows:

1-866-994-6437

Passcode: 4023994909

On August 26, 2010, the District will be submitting the Initial Study Report (ISR) to FERC, it will also be posted on the website at <a href="http://www.loup.com/relicense">http://www.loup.com/relicense</a> (link). This report will include study reports for the following completed studies:

1 – Sedimentation

7 - Fish Passage

10 – Land Use Inventory

Additionally, the ISR will provide a progress summary for the other reports.

Please come ready to discuss; we have a lot of material to cover and will start promptly at 8:30 AM.

Please bring your own copy of the Initial Study Report. It can be found online after 8/26/10.

We look forward to seeing you on September 9<sup>th</sup>.

Matt Pillard, AICP Senior Environmental Planner

HDR | ONE COMPANY | Many Solutions



September 15, 2010

Mr. Neal Suess President/CEO Loup Public Power District 2404 15<sup>th</sup> Street Columbus, NE 68602-0988

RE:

HP# 0804-127-01 - FERC Relicensing of Loup Power District

Phase I/II Archaeological Inventory and Evaluation Historic Buildings Inventory and Evaluation

Dear Mr. Suess:

Thank you for submitting the referenced reports for our review and comment. Our comment on this relicensing project and its potential to affect historic properties is required by Section 106 of the National Historic Preservation Act of 1966, as amended, and implementing regulations 36 CFR Part 800.

The Nebraska SHPO concurs with the findings of the Phase I/II Archaeological Inventory and Evaluation and the Historic Buildings Inventory and Evaluation.

We will look forward to working with you as your relicensing efforts progress, including the development of the Historic Properties Management Plan and a Programmatic Agreement.

If you have any questions, please do not hesitate to call Jill Dolberg at 402-471-4773.

Sincerely,

L. Robert Puschendorf

Deputy State Historic Preservation Officer Nebraska State Historic Preservation Office

Cc:

Lee Emery, Federal Energy Regulatory Commission Janet Hutzel, Federal Energy Regulatory Commission

Ron Ziola, Loup Power District

Lisa Richardson, HDR George Waldow, HDR Michael Madson, HDR Joe Trnka, HDR

> 1500 R Street PO Box 82554 Lincoln, NE 68501-2554

p: (800) 833-6747 (402) 471-3270 f: (402) 471-3100

From: Pillard, Matt

Sent: Thursday, September 16, 2010 6:42 AM

**To:** frank.albrecht@nebraska.gov; john.bender@nebraska.gov; jeff\_runge@fws.gov; robert\_harms@fws.gov; barbara.j.friskopp@usace.army.mil; abaum@upperloupnrd.org;

randy\_thoreson@nps.gov; bob.puschendorf@nebraska.gov; mkuzila1@unl.edu; david.jundt@dhhs.ne.gov; jmiyoshi@lpnnrd.org; steve.chick@ne.usda.gov; pcclerk@megavision.com; cityadmin@cablene.com; ncpza@hamilton.net;

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**Cc:** Angel Robak; Jim Frear; Neil Suess; Ron Ziola; tpetr@loup.com; Damgaard, Quinn V.;

Engelbert, Pat; Frame, Gail; Grennan, Dennis E.; Hunt, George; Thompson, Wendy; Madson,

Michael J.; Pillard, Matt; Richardson, Lisa (Omaha); Sigler, Bill; Waldow, George; White,

mike.black@bia.gov; janet.hutzel@ferc.gov; isis.johnson@ferc.gov; lee.emery@ferc.gov;

Stephanie

Subject: Loup Power District - FERC Relicensing: Interim General Recreation Use Report Filed with

**FERC** 

Relicensing Participants:

For your information -

Loup Power District has electronically filed the Interim General Recreation Use Report with FERC. The report is available on FERC's e-library and on the District's relicensing website: http://www.loup.com/relicense/html/documents.html.

Thank you.

#### Matt Pillard, AICP

Senior Environmental Planner

Professional Associate

HDR ONE COMPANY | Many Solutions 8404 Indian Hills Drive | Omaha, NE | 68114-4098

Phone: 402.399.1186 | Fax: 402.399.1111



From: Pillard, Matt

Sent: Sunday, September 26, 2010 10:41 PM

To: 'frank.albrecht@nebraska.gov'; 'john.bender@nebraska.gov'; 'jeff\_runge@fws.gov';

'robert harms@fws.gov'; 'barbara.j.friskopp@usace.army.mil'; 'abaum@upperloupnrd.org';

'randy thoreson@nps.gov'; 'bob.puschendorf@nebraska.gov'; 'mkuzila1@unl.edu'; 'david.jundt@dhhs.ne.gov'; 'jmiyoshi@lpnnrd.org'; 'steve.chick@ne.usda.gov';

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'paul.makowski@ferc.gov'

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Gail; Grennan, Dennis E.; Hunt, George; Madson, Michael J.; Pillard, Matt; Richardson, Lisa

(Omaha); Sigler, Bill; Thompson, Wendy; Waldow, George; White, Stephanie

Loup Power District - FERC Relicensing: Meeting Summary Filed with FERC Subject:

#### Relicensing Participants:

Loup Power District has electronically filed the Meeting Summary from the Initial Study Results Meeting held on September 9, 2020. The report is available on FERC's e-library and on the District's relicensing website: http://www.loup.com/relicense/html/documents.html.

Thank you.

#### Matt Pillard, AICP

Senior Environmental Planner Professional Associate

#### HDR ONE COMPANY Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Fax: 402.399.1111

Email: Matt.Pillard@hdrinc.com



From: Pillard, Matt

Sent: Tuesday, October 19, 2010 7:48 AM

To: 'frank.albrecht@nebraska.gov'; 'john.bender@nebraska.gov'; 'jeff\_runge@fws.gov';

'robert harms@fws.gov'; 'barbara.j.friskopp@usace.army.mil'; 'abaum@upperloupnrd.org';

'randy thoreson@nps.gov'; 'bob.puschendorf@nebraska.gov'; 'mkuzila1@unl.edu'; 'david.jundt@dhhs.ne.gov'; 'jmiyoshi@lpnnrd.org'; 'steve.chick@ne.usda.gov';

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'paul.makowski@ferc.gov'

Angel Robak; Jim Frear; Neil Suess; Ron Ziola; Damgaard, Quinn V.; Engelbert, Pat; Frame, Cc:

Gail; Grennan, Dennis E.; Hunt, George; Madson, Michael J.; Pillard, Matt; Richardson, Lisa

(Omaha); Sigler, Bill; Thompson, Wendy; Waldow, George; White, Stephanie Loup Power District - FERC Relicensing: Initial Study Report Submittal to FERC

#### **Relicensing Participants:**

Subject:

This e-mail is to inform you of the timing for the updated Initial Study Report and Study Results Meeting for the Loup River Hydroelectric Relicensing.

On January 6, 2011, the District will be submitting the Updated Initial Study Report (ISR) to FERC, it will also be posted on the website at http://www.loup.com/relicense. This report will include study reports for the following completed studies:

- 1 Sedimentation (update on ungaged analysis)
- 2 Hydrocyling
- 4 Water Temperature in the Loup River Bypass Reach
- 5 Flow Depletion/Flow Diversion
- 8 Recreation Use
- 11 Section 106 Compliance (update)
- 12 Ice Jam Flooding on the Loup River Bypass Reach

The Study Results meeting is scheduled for January 20<sup>th</sup> and 21<sup>st</sup>. Due to the number of studies included in the Initial Study Results report, the District will hold a two day meeting:

Date and Time	Topic	Location
Thursday, Jan 20	Study Results for Hydrocyling, Flow	New World Inn
10:00 AM – 5:00 PM	Depletion/Flow Diversion,	265 33 <sup>rd</sup> Ave

Friday, Jan 21	Temperature, Recreation Use, and Ice	Columbus, NE
8:00 AM – 12:00 PM		

For those not able to attend in person, conference call capabilities will be available.

We appreciate your time and input on this relicensing effort. If you have any questions regarding the upcoming reports or meetings, please call me at (402) 399-1186.

#### Matt Pillard, AICP Senior Environmental Planner Professional Associate

#### HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Fax: 402.399.1111 Email: Matt.Pillard@hdrinc.com



From: Pillard, Matt

Sent: Wednesday, October 20, 2010 6:54 AM

To: 'frank.albrecht@nebraska.gov'; 'john.bender@nebraska.gov'; 'jeff\_runge@fws.gov';

'robert harms@fws.gov'; 'barbara.j.friskopp@usace.army.mil'; 'abaum@upperloupnrd.org';

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'justin.lavene@nebraska.gov'; 'bobbie.wickham@nebraska.gov';

'kennyj@headwaterscorp.com'; 'mferguson@gp.usbr.gov'; 'Willie Taylor@ios.doi.gov'; 'Robert\_F\_Stewart@ios.doi.gov'; 'jeddins@achp.gov'; 'kenneth.sessa@dhs.gov'; 'peggy.harding@ferc.gov'; 'djjarecke@clarkswb.net'; 'al.berndt@nebraska.gov'; 'astuthman@leg.ne.gov'; 'ksullivan@leg.ne.gov'; 'clangemeier@leg.ne.gov';

'adubas@leg.ne.gov'; 'chairmanrhodd@ponca.com'; 'asheridan@omahatribe.com'; 'don\_simpson@blm.gov'; 'nicholas.jayjack@ferc.gov'; 'jill.dolberg@nebraska.gov'; 'prescott.brownell@noaa.gov'; 'marvp@megavision.com'; 'lewrightjr@gmail.com'; 'thowe@ponca.com'; 'zach nelson@bennelson.senate.gov'; 'julias@poncatribe-ne.org';

'todd.crawford@mail.house.gov'; 'louis-pofahl@mail.house.gov';

'emily\_brummund@johanns.senate.gov'; 'deb.vanmatre@mail.house.gov'; 'tpetr@loup.com'; 'mike.black@bia.gov'; 'janet.hutzel@ferc.gov'; 'isis.johnson@ferc.gov'; 'lee.emery@ferc.gov';

'paul.makowski@ferc.gov'

Angel Robak; Jim Frear; Neil Suess; Ron Ziola; Damgaard, Quinn V.; Engelbert, Pat; Frame, Cc:

Gail; Grennan, Dennis E.; Hunt, George; Madson, Michael J.; Pillard, Matt; Richardson, Lisa

(Omaha); Sigler, Bill; Thompson, Wendy; Waldow, George; White, Stephanie

Loup Power District - FERC Relicensing: Initial Study Report Comments Subject:

#### Relicensing Participants -

This is a reminder that comments on the Initial Study Report submitted on August 26<sup>th</sup> and presented at the Initial Study Results meeting on September 9<sup>th</sup> are due on **Monday**, **October 25<sup>th</sup>**. The studies that were presented include:

- 1 Sedimentation
- 7 Fish Passage
- 8 Recreation Phone Survey Results (Interim General Recreation Report submitted on September 15<sup>th</sup>)
- 10 Land Use Inventory
- 11 Section 106 Historic Buildings Inventory and Evaluation and Phase I/II Archaeological Inventory and Evaluation

#### Comments are due to FERC on these studies on October 25, 2010.

Thanks!

#### Matt Pillard, AICP

Senior Environmental Planner Professional Associate

#### HDR ONE COMPANY | Many Solutions

8404 Indian Hills Drive I Omaha, NE I 68114-4098 Phone: 402.399.1186 | Fax: 402.399.1111 Email: Matt.Pillard@hdrinc.com



From: Richardson, Lisa (Omaha)

**Sent:** Sunday, October 24, 2010 12:12 PM

To: Frame, Gail

**Subject:** FW: HP#0804-127-01 - Loup Power District LSHPO.101022.Puschendorf\_Transmission.pdf

**From:** Richardson, Lisa (Omaha)

**Sent:** Friday, October 22, 2010 10:28 AM

To: Puschendorf, Bob

Cc: Dolberg, Jill; 'Neal Suess'; 'Ron Ziola'; Madson, Michael J.

Subject: HP#0804-127-01 - Loup Power District

Mr. Puschendorf,

Loup Power District has been consulting with your office regarding their relicensing of the Loup River Hydroelectric Project under the Federal Energy Regulatory Commission. Although a Historic Properties Management Plan has not yet been developed, the District understands the importance of coordinating with SHPO regarding potential impacts to historic properties resulting from District activities.

On behalf of Loup Power District I am providing information relative to a maintenance activity the District is undertaking. The District has prepared a letter that will be sent to your office today, but in the interest of time, I am communicating electronically and have attached a copy of the letter.

The District is proposing reconstruction of an existing transmission line near a known archaeological site eligible for the NRHP. The District has performed pre-construction subsurface testing and determined that the soil profile at most pole locations has been previously disturbed by cultivation and erosion, or obscured by fill. In addition, the District will have an archaeologist on site to monitor excavation activities. Upon completion of excavation activities, the District will provide a report summarizing the results of the archaeological monitoring.

If you have any questions about this activity or the attached letter, please feel free to contact me at (402-926-7026) or Mr. Neal Suess, CEO Loup Power District at (402) 564-3171 x268.

Regards,

Lisa

# Lisa M. Richardson, P.E.

Professional Associate

**HDR** One Company | Many Solutions

8404 Indian Hills Drive Omaha, NE 68114-4049 Phone: 402.926.7026 Cell: 402.618.9865

Fax: 402.399.1111



Columbus, NE 68602-0988

October 22, 2010

Mr. Robert Puschendorf State Historic Preservation Office 1500 R Street P.O. Box 82554 Lincoln, NE 68501-2554

Re: HP#0804-127-01

Loup River Hydroelectric Project Relicensing FERC Project No. 1256; Docket No. 1256-029

Addendum to Phase I/II Archaeological Inventory and Evaluation

402/564-0970

Dear Mr. Puschendorf:

Loup Power District (the District) proposes to reconstruct a single pole transmission line in the vicinity of site 25PT115, a property recommended eligible for listing on the National Register of Historic Places under criterion "d." Currently, several transmission poles for the existing line are within the boundaries of site 25PT115. Because replacement of this line would represent an action within the Project APE, the District contracted with Nancy Carlson to perform subsurface testing efforts to assess whether the proposed locations of the eleven replacement transmission poles within the boundaries of the site will affect the integrity of archaeological materials, the quality of significance that contributes most directly to the site's eligibility.

The results of this effort suggest that the soil profile at most pole locations has been disturbed by cultivation and erosion, or obscured by fill. Two small lithic artifact fragments were found within the initial 10 cm of the surface and plow zone at the test site for Pole #17. No other archaeological remains or indications of buried archaeological deposits were encountered during this investigation. Ms. Carlson's report is pending.

Based on these results, the District proposes that the pole placement proceed under a "no historic properties affected" finding; that is, an historic property is present, but the proposed action will not diminish the qualities that contribute to its significance. The District seeks your concurrence with this finding contingent on archaeological monitoring of the auguring for each of the eleven poles within the boundaries of site 25PT115. All field investigations for this effort will be documented in a single report and provided to your office once the project is complete. In the unlikely event that a discovery occurs during monitoring, the augering activities will cease in the vicinity of the discovery and the District will notify all appropriate parties so that consultation may proceed in accordance with Section 800.13 of the regulations, 36 CFR Part 800.

Please do not hesitate to contact Michael Madson (HDR) at (763) 278-5921 or me at (402) 564-3171 if you have any questions about our proposed findings.

Sincerely,

Neal Suess President/CEO Loup Power District

cc:

Jill Dolberg, SHPO Lee Emery, Federal Energy Regulatory Commission Janet Hutzel, Federal Energy Regulatory Commission Ron Ziola, Loup Power District Lisa Richardson, HDR Michael Madson, HDR

From: Richardson, Lisa (Omaha)

**Sent:** Monday, November 01, 2010 7:09 AM **To:** Frame, Gail; Thompson, Wendy

**Subject:** FW: HP#0804-127-01 - Loup Power District

**From:** Puschendorf, Bob [mailto:bob.puschendorf@nebraska.gov]

**Sent:** Friday, October 22, 2010 10:34 AM

**To:** Richardson, Lisa (Omaha)

Cc: Dolberg, Jill; Neal Suess; Ron Ziola; Madson, Michael J.; Steinacher, Terry

Subject: RE: HP#0804-127-01 - Loup Power District

Lisa: Our archeologist, Dr. Terry Steinacher is out this week, but upon receipt of your letter we will process. However, we will also need to review Nancy Carlson's report concerning the findings of her survey. We regret that we cannot accept email reviews.

From: Richardson, Lisa (Omaha) [mailto:Lisa.Richardson@hdrinc.com]

**Sent:** Friday, October 22, 2010 10:28 AM

To: Puschendorf, Bob

Cc: Dolberg, Jill; Neal Suess; Ron Ziola; Madson, Michael J.

Subject: HP#0804-127-01 - Loup Power District

Mr. Puschendorf,

Loup Power District has been consulting with your office regarding their relicensing of the Loup River Hydroelectric Project under the Federal Energy Regulatory Commission. Although a Historic Properties Management Plan has not yet been developed, the District understands the importance of coordinating with SHPO regarding potential impacts to historic properties resulting from District activities.

On behalf of Loup Power District I am providing information relative to a maintenance activity the District is undertaking. The District has prepared a letter that will be sent to your office today, but in the interest of time, I am communicating electronically and have attached a copy of the letter.

The District is proposing reconstruction of an existing transmission line near a known archaeological site eligible for the NRHP. The District has performed pre-construction subsurface testing and determined that the soil profile at most pole locations has been previously disturbed by cultivation and erosion, or obscured by fill. In addition, the District will have an archaeologist on site to monitor excavation activities. Upon completion of excavation activities, the District will provide a report summarizing the results of the archaeological monitoring.

If you have any questions about this activity or the attached letter, please feel free to contact me at (402-926-7026) or Mr. Neal Suess, CEO Loup Power District at (402) 564-3171 x268.

Regards,

Lisa

**Lisa M. Richardson, P.E.** Professional Associate

**HDR One Company** | *Many Solutions* 8404 Indian Hills Drive Omaha, NE 68114-4049

Phone: 402.926.7026



**GENERAL OFFICE**2404 15th Street
P.O. Box 988
Columbus, NE 68602-0988

Phone: 402/564-3171 Fax: 402/564-0970

November 1, 2010

Gary Robinette Ponca Tribe of Nebraska P.O. Box 288 Niobrara, NE 68760

RE: Loup River Hydroelectric Project
Platte and Nance counties, Nebraska
FERC Project No. 1256
Docket No. P-1256-029

Dear Mr. Robinette:

Per your discussion with Alan Stanfill of HDR, enclosed please find a copy of the Phase I/II Archaeological Inventory and Evaluation that was completed for the Loup River Hydroelectric Project which is owned and operated by Loup River Public Power District (the District). The District is applying to the Federal Energy Regulatory Commission (FERC) to relicense the Loup River Hydroelectric Project. The existing license was effective on December 1, 1982, for a term ending April 15, 2014. Loup Power District is utilizing the Integrated Licensing Process (ILP) for this relicensing effort.

Relicensing the Project is a Federal undertaking by FERC, and Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), requires Federal agencies to determine whether their undertakings have adverse effects on historic properties (any site, structure, or other property listed on or eligible for listing on the National Register of Historic Places [NRHP]) and allow interested parties the opportunity to comment on decisions and actions that may affect historic properties.

Pursuant to 18 CFR §5.11 and §5.13, the District prepared a study plan to gather the information needed to comply with Section 106 as part of Project Relicensing. On August 26, 2009, FERC approved the District's study (Study 11.0), as submitted in the Revised Study Plan on July 27, 2009. The District has completed the Phase I/II Archaeological Inventory and Evaluation of the Project and the Nebraska State Historic Preservation Office has approved the report.

Please do not hesitate to contact Michael Madson at HDR (763) 278-5921 or me at (402) 564-3171 if you have any questions about the Phase I/II Archaeological Inventory and Evaluation.

Sincerely,

Neal Suess President/CEO

Loup Power District

cc (without attachments):

Lisa Richardson, HDR Michael Madson, HDR

### Attachments:



3 November 2010

Neal Suess Loup Power District P.O. Box 988 Columbus, NE 68602-0988

Re:

Transmission Line

FERC 1256; Docket 1256-029

Platte Co.

H.P. #0804-127-01

Dear Mr. Suess:

In order for our office to make a determination of eligibility and affect we are requesting some additional information: A completed Nebraska State Historical Society Site form and a short statement by Ms. Carlson on her findings of eligibility and potential effect of the proposed project on the site. Thank you.

Sincerely,

Terry Steinacher

H.P. Archaeologist

Concurrence:

L. Robert Puschendorf

Deputy NeSHPO

The following the accompanies with the second standard and the second standard and the second

dopy to Mike

1500 R Street PO Box 82554 Lincoln, NE 68501-2554 p: (800) 833-6747

p: (800) 833-6747 (402) 471-3270 f: (402) 471-3100

www.nebraskahistory.org



2404 15th Street
P.O. Box 988
Columbus, NE 68602-0988

Phone: 402/564-3171 Fax: 402/564-0970

November 3, 2010

Emily Smith Winnebago Tribe of Nebraska P.O. Box 687 Winnebago, NE 68701

RE: Loup River Hydroelectric Project Platte and Nance counties, Nebraska FERC Project No. 1256

Docket No. P-1256-029

Dear Ms. Smith:

Per your discussion with Alan Stanfill of HDR, enclosed please find a copy of the Phase I/II Archaeological Inventory and Evaluation that was completed for the Loup River Hydroelectric Project which is owned and operated by Loup River Public Power District (the District). The District is applying to the Federal Energy Regulatory Commission (FERC) to relicense the Loup River Hydroelectric Project. The existing license was effective on December 1, 1982, for a term ending April 15, 2014. Loup Power District is utilizing the Integrated Licensing Process (ILP) for this relicensing effort.

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Please do not hesitate to contact Michael Madson at HDR (763) 278-5921 or me at (402) 564-3171 if you have any questions about the Phase I/II Archaeological Inventory and Evaluation.

Sincerely,

Neal Suess President/CEO

Loup Power District

cc (without attachments):

Lisa Richardson, HDR Michael Madson, HDR

### Attachments:

From: Pillard, Matt

Sent: Monday, November 22, 2010 12:05 PM

To: 'frank.albrecht@nebraska.gov'; 'john.bender@nebraska.gov'; 'jeff\_runge@fws.gov';

'robert harms@fws.gov'; 'barbara.j.friskopp@usace.army.mil'; 'abaum@upperloupnrd.org';

'randy thoreson@nps.gov'; 'bob.puschendorf@nebraska.gov'; 'mkuzila1@unl.edu'; 'david.jundt@dhhs.ne.gov'; 'jmiyoshi@lpnnrd.org'; 'steve.chick@ne.usda.gov';

'pcclerk@megavision.com': 'citvadmin@cablene.com': 'ncpza@hamilton.net':

'rbishop@cpnrd.org'; 'jwinkler@papionrd.org'; 'lpsnrd@lpsnrd.org'; 'jmangi@columbusne.us';

'cgenoa@cablene.com'; 'monroe@megavision.com'; 'calms@neb.rr.com'; 'danno@nohva.com'; 'mbrown9@unl.edu'; 'rtrudell@santeedakota.org';

'jblackhawk@aol.com'; 'vwills@pawneenation.org'; 'Brian.Dunnigan@nebraska.gov'; 'msittler@lpsnrd.org'; 'butchk@nctc.net'; 'robertm@llnrd.org'; 'jmsunne@nppd.com'; 'jalexand@usgs.gov'; 'jjshadl@nppd.com'; 'cothern.joe@epa.gov';

'justin.lavene@nebraska.gov'; 'bobbie.wickham@nebraska.gov';

kennyj@headwaterscorp.com'; 'mferguson@gp.usbr.gov'; 'Willie Taylor@ios.doi.gov'; 'Robert\_F\_Stewart@ios.doi.gov'; 'jeddins@achp.gov'; 'kenneth.sessa@dhs.gov'; 'peggy.harding@ferc.gov'; 'djjarecke@clarkswb.net'; 'al.berndt@nebraska.gov'; 'astuthman@leg.ne.gov'; 'ksullivan@leg.ne.gov'; 'clangemeier@leg.ne.gov'; 'adubas@leg.ne.gov'; 'chairmanrhodd@ponca.com'; 'asheridan@omahatribe.com';

'don\_simpson@blm.gov'; 'nicholas.jayjack@ferc.gov'; 'jill.dolberg@nebraska.gov'; 'prescott.brownell@noaa.gov'; 'marvp@megavision.com'; 'lewrightjr@gmail.com'; 'thowe@ponca.com'; 'zach nelson@bennelson.senate.gov'; 'julias@poncatribe-ne.org';

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'emily\_brummund@johanns.senate.gov'; 'deb.vanmatre@mail.house.gov'; 'tpetr@loup.com'; 'mike.black@bia.gov'; 'janet.hutzel@ferc.gov'; 'isis.johnson@ferc.gov'; 'lee.emery@ferc.gov';

'paul.makowski@ferc.gov'

Angel Robak; Jim Frear; Neil Suess; Ron Ziola; Damgaard, Quinn V.; Engelbert, Pat; Frame, Cc:

Gail; Grennan, Dennis E.; Hunt, George; Madson, Michael J.; Pillard, Matt; Richardson, Lisa

(Omaha); Sigler, Bill; Thompson, Wendy; Waldow, George; White, Stephanie

Loup Power District - FERC Relicensing: UPDATED STUDY REPORT SCHEDULE Subject:

Relicensing Participants -

Please find attached a link

(http://www.loup.com/relicense/html/documents/license/LFERC.101119.UpdatedISR Delay.pdf) to a letter from the District notifying FERC of a delay in completing the following studies due to higher than normal flows on the Loup and Platte rivers:

2 – Hydrocyclina

5 – Flow Depletion and Flow Diversion

12 - Ice Jam Flooding on the Loup River

Because of the delay to these studies the District is delaying submittal of the Updated Initial Study Report (originally scheduled for January 6, 2011) approximately one month. As a result, the Updated Study Results Meeting will also be delayed. The new dates for these items are:

# Updated Initial Study Results Report – February 11, 2011 Updated Initial Study Results Meeting - February 23 & 24, 2011

The following studies will be presented in the updated report and at the meeting:

- 1 Sedimentation (ungaged site analysis)
- 2 Hydrocycling
- 4 Water Temperature in the Loup River Bypass
- 5 Flow Depletion and Flow Diversion
- 8 Recreation Use
- 12 Ice Jam Flooding on the Loup and

If you have any questions, please feel free to give me a call.

## Thanks!

## Matt Pillard, AICP

Senior Environmental Planner Professional Associate

# **HDR** | One Company | *Many Solutions*

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Fax: 402.399.1111 Email: Matt.Pillard@hdrinc.com



Please consider the environment before printing.

From: Robert Mohler [robertm@llnrd.org]
Sent: Tuesday, November 23, 2010 8:38 AM

To: Thompson, Wendy

Subject: RE: Loup - Initial Study Report - Sedimentation Attachments

Thanks, Wendy. The hydrology information is really valuable to me.

Robert T. Mohler, P.E. District Engineer Lower Loup Natural Resources District Ord, NE 68862 308-728-3221

**From:** Thompson, Wendy [mailto:Wendy.Thompson@hdrinc.com]

Sent: Tuesday, November 23, 2010 7:35 AM

To: <a href="mailto:robertm@llnrd.org">robertm@llnrd.org</a>

Cc: Richardson, Lisa (Omaha)

**Subject:** Loup - Initial Study Report - Sedimentation Attachments

## **HDR Employees:**

Use the "Download Attachments" button after opening this message in Outlook to download attached files.

## **Non-HDR Recipients:**

If you are not an HDR employee and this is your first time using Slingshot click <u>here</u> and follow the prompts to set your password.

Returning users click here to <u>Download</u> (files: Attachment\_B.pdf; Attachment\_A.pdf; Attachment\_D.pdf; Attachment\_C.pdf;)

Notice: The link in this email will only work for up to 30 days (as set by the sender). If you need access to these files for longer, please download and save a copy locally. Recipients of forwarded emails WILL NOT have access to the files using this link.

Please see attached for the requested documents from the Loup River Hydrocycling Project Initial Study Report. Please let us know if you need anything else.

## **Wendy Thompson**

Public Involvement Specialist

## **HDR ONE COMPANY | Many Solutions**

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone:402.399.1341| Fax: 402.399.1111 Email:wendy.thompson@hdrinc.com

From: Pillard, Matt

Sent: Monday, November 29, 2010 3:30 PM

To: 'frank.albrecht@nebraska.gov'; 'john.bender@nebraska.gov'; 'jeff\_runge@fws.gov';

'robert harms@fws.gov'; 'barbara.j.friskopp@usace.army.mil'; 'abaum@upperloupnrd.org';

'randy thoreson@nps.gov'; 'bob.puschendorf@nebraska.gov'; 'mkuzila1@unl.edu'; 'david.jundt@dhhs.ne.gov'; 'jmiyoshi@lpnnrd.org'; 'steve.chick@ne.usda.gov'; 'pcclerk@megavision.com': 'citvadmin@cablene.com': 'ncpza@hamilton.net':

'rbishop@cpnrd.org'; 'jwinkler@papionrd.org'; 'lpsnrd@lpsnrd.org'; 'jmangi@columbusne.us';

'cgenoa@cablene.com'; 'monroe@megavision.com'; 'calms@neb.rr.com'; 'danno@nohva.com'; 'mbrown9@unl.edu'; 'rtrudell@santeedakota.org';

'jblackhawk@aol.com'; 'vwills@pawneenation.org'; 'Brian.Dunnigan@nebraska.gov'; 'msittler@lpsnrd.org'; 'butchk@nctc.net'; 'robertm@llnrd.org'; 'jmsunne@nppd.com'; 'jalexand@usgs.gov'; 'jjshadl@nppd.com'; 'cothern.joe@epa.gov';

'justin.lavene@nebraska.gov'; 'bobbie.wickham@nebraska.gov';

kennyj@headwaterscorp.com'; 'mferguson@gp.usbr.gov'; 'Willie Taylor@ios.doi.gov'; 'Robert\_F\_Stewart@ios.doi.gov'; 'jeddins@achp.gov'; 'kenneth.sessa@dhs.gov'; 'peggy.harding@ferc.gov'; 'djjarecke@clarkswb.net'; 'al.berndt@nebraska.gov'; 'astuthman@leg.ne.gov'; 'ksullivan@leg.ne.gov'; 'clangemeier@leg.ne.gov';

'adubas@leg.ne.gov'; 'chairmanrhodd@ponca.com'; 'asheridan@omahatribe.com'; 'don\_simpson@blm.gov'; 'nicholas.jayjack@ferc.gov'; 'jill.dolberg@nebraska.gov'; 'prescott.brownell@noaa.gov'; 'marvp@megavision.com'; 'lewrightjr@gmail.com'; 'thowe@ponca.com'; 'zach nelson@bennelson.senate.gov'; 'julias@poncatribe-ne.org';

'todd.crawford@mail.house.gov'; 'louis-pofahl@mail.house.gov';

'emily\_brummund@johanns.senate.gov'; 'deb.vanmatre@mail.house.gov'; 'tpetr@loup.com'; 'mike.black@bia.gov'; 'janet.hutzel@ferc.gov'; 'isis.johnson@ferc.gov'; 'lee.emery@ferc.gov';

'paul.makowski@ferc.gov'

Angel Robak; Jim Frear; Neil Suess; Ron Ziola; Damgaard, Quinn V.; Engelbert, Pat; Frame, Cc:

Gail; Grennan, Dennis E.; Hunt, George; Madson, Michael J.; Pillard, Matt; Richardson, Lisa

(Omaha); Sigler, Bill; Thompson, Wendy; Waldow, George; White, Stephanie

Loup Power District - FERC Relicensing: Web Posting Subject:

### Relicensing Participants:

On November 24<sup>th</sup> the District filed responses to all comments received on the Initial Study Report (ISR) and ISR meeting notes with FERC. These responses are available on the District's Relicensing website as well as on the FERC e-Library (Docket No. P-1256-029).

Also – just a reminder of the date change for submittal of the Updated Initial Study Report and follow-up meeting.

# Updated Initial Study Results Report – February 11, 2011 Updated Initial Study Results Meeting - February 23 & 24, 2011

The following studies will be presented in the updated report and at the meeting:

- 1 Sedimentation (ungaged site analysis)
- 2 Hydrocycling
- 4 Water Temperature in the Loup River Bypass
- 5 Flow Depletion and Flow Diversion
- 8 Recreation Use
- 12 Ice Jam Flooding on the Loup River

Thank you and please let me know if you have any guestions.

Matt Pillard, AICP

Senior Environmental Planner Professional Associate

Columbus, NE 68602-0988

December 16, 2010

P.O. Box 988

Mr. Robert Puschendorf State Historic Preservation Office 1500 R Street P.O. Box 82554 Lincoln, NE 68501-2554

Re: HP#0804-127-01

Loup River Hydroelectric Project Relicensing FERC Project No. 1256; Docket No. 1256-029

402/564-0970

Addendum to Phase I/II Archaeological Inventory and Evaluation

Dear Mr. Puschendorf:

Per my letter to you on October 22, 2010, Loup Power District (the District) has reconstructed a single pole transmission line in the vicinity of site 25PT115, a property recommended eligible for listing on the National Register of Historic Places under criterion "d." Because replacement of this line represents an action within the Project APE, prior to initiating construction activities, the District contracted with Nancy Carlson to perform subsurface testing efforts to assess whether the proposed locations of the eleven replacement transmission poles within the boundaries of the site will affect the integrity of archaeological materials.

The results of that effort suggested that the soil profile at most pole locations has been disturbed by cultivation and erosion, or obscured by fill. Two small lithic artifact fragments were found within the initial 10 cm of the surface and plow zone at the test site for Pole #17. No other archaeological remains or indications of buried archaeological deposits were encountered during this investigation. Based on these results, the District also contracted with Ms. Carlson to monitor construction activities. Monitoring of the pole placement produced no cultural material or features. Enclosed please find a copy of Ms. Carlson's report documenting her investigations both prior to and during construction.

Please do not hesitate to contact Michael Madson (HDR) at (763) 278-5921 or me at (402) 564-3171 if you have any questions about this report.

Sincerely,

Neal Suess President/CEO Loup Power District

cc:

Jill Dolberg, SHPO Lee Emery, Federal Energy Regulatory Commission Janet Hutzel, Federal Energy Regulatory Commission Ron Ziola, Loup Power District Lisa Richardson, HDR Michael Madson, HDR



3 January 2011

Neal Suess Loup Power District P.O. Box 988 Columbus, NE 68602-0988

Re:

Loup River Hydroelectric Project Relicensing

FERC No. 1256, Docket No. 1256-029

Platte Co.

H.P. #0804-127-01

Dear Mr Suess:

Our office has reviewed the report (Carlson 2010) on the above referenced project. We concur with the findings of the report that no adverse effect has occurred to site 25PT115 and the project will have no effect on historic resources

This review does not constitute the opinions of any Native American Tribes that may have an interest in Traditional Cultural Properties potentially affected by this project.

There is, however, always the possibility that previously unsuspected archaeological remains may be uncovered during the process of project construction. We therefore request that this office be notified immediately under such circumstances so that an evaluation of the remains may be made, along with recommendations for future action.

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Sincerely,

Terry Steinacher

H.P. Archaeologist

Concurrence:

L. Robert Puschendorf

94 (34)

Deputy NeSHPO

www.nebraskahistory.org

Pillard, Matt From:

Sent: Wednesday, January 19, 2011 2:40 PM

'frank.albrecht@nebraska.gov'; 'john.bender@nebraska.gov'; 'jeff\_runge@fws.gov'; To:

'robert harms@fws.gov'; 'barbara.j.friskopp@usace.army.mil'; 'abaum@upperloupnrd.org';

'randy thoreson@nps.gov'; 'bob.puschendorf@nebraska.gov'; 'mkuzila1@unl.edu'; 'david.jundt@dhhs.ne.gov'; 'jmiyoshi@lpnnrd.org'; 'steve.chick@ne.usda.gov';

'pcclerk@megavision.com': 'citvadmin@cablene.com': 'ncpza@hamilton.net':

'rbishop@cpnrd.org'; 'jwinkler@papionrd.org'; 'lpsnrd@lpsnrd.org'; 'jmangi@columbusne.us';

'cgenoa@cablene.com'; 'monroe@megavision.com'; 'calms@neb.rr.com'; 'danno@nohva.com'; 'mbrown9@unl.edu'; 'rtrudell@santeedakota.org';

'jblackhawk@aol.com'; 'vwills@pawneenation.org'; 'Brian.Dunnigan@nebraska.gov'; 'msittler@lpsnrd.org'; 'butchk@nctc.net'; 'robertm@llnrd.org'; 'jmsunne@nppd.com'; 'jalexand@usgs.gov'; 'jjshadl@nppd.com'; 'cothern.joe@epa.gov';

'justin.lavene@nebraska.gov'; 'bobbie.wickham@nebraska.gov';

kennyj@headwaterscorp.com'; 'mferguson@gp.usbr.gov'; 'Willie Taylor@ios.doi.gov'; 'Robert\_F\_Stewart@ios.doi.gov'; 'jeddins@achp.gov'; 'kenneth.sessa@dhs.gov'; 'peggy.harding@ferc.gov'; 'djjarecke@clarkswb.net'; 'al.berndt@nebraska.gov'; 'astuthman@leg.ne.gov'; 'ksullivan@leg.ne.gov'; 'clangemeier@leg.ne.gov';

'adubas@leg.ne.gov'; 'chairmanrhodd@ponca.com'; 'asheridan@omahatribe.com'; 'don simpson@blm.gov'; 'nicholas.jayjack@ferc.gov'; 'jill.dolberg@nebraska.gov'; 'prescott.brownell@noaa.gov'; 'marvp@megavision.com'; 'lewrightjr@gmail.com'; 'thowe@ponca.com'; 'zach nelson@bennelson.senate.gov'; 'julias@poncatribe-ne.org';

'todd.crawford@mail.house.gov'; 'louis-pofahl@mail.house.gov';

'emily\_brummund@johanns.senate.gov'; 'deb.vanmatre@mail.house.gov'; 'tpetr@loup.com'; 'mike.black@bia.gov'; 'janet.hutzel@ferc.gov'; 'isis.johnson@ferc.gov'; 'lee.emery@ferc.gov';

'paul.makowski@ferc.gov'

Angel Robak; Jim Frear; Neil Suess; Ron Ziola; Damgaard, Quinn V.; Engelbert, Pat; Frame, Cc:

Gail; Grennan, Dennis E.; Hunt, George; Madson, Michael J.; Pillard, Matt; Richardson, Lisa

(Omaha); Sigler, Bill; Thompson, Wendy; Waldow, George; White, Stephanie

Loup Power District - Study Results Meeting Subject:

### Relicensing Participants:

This e-mail is to remind you of the Second Initial Study Results meeting scheduled for February 23<sup>rd</sup> and 24<sup>th</sup> at the New World Inn, 265 33<sup>rd</sup> Ave, Columbus, Nebraska. Please RSVP by February 21<sup>st</sup> to Angell Robak at arobak@loup.com or (402) 564-3171, ext. 275.

For those not able to attend in person, but wishing to do so via conference call, meeting materials will be posted to: http://www.loup.com/relicense/html/agencymeetingsresources.html in advance of the meeting (by end of day 2/22/10). Dial-in information is as follows:

1-866-994-6437

Passcode: 4023994909

On February 11th, the District will be submitting the Updated Initial Study Report to FERC, it will also be posted on the website at http://www.loup.com/relicense. The following studies will be presented in the updated report and at the meeting:

- 1 Sedimentation (ungaged site analysis)
- 2 Hydrocycling
- 4 Water Temperature in the Loup River Bypass
- 5 Flow Depletion and Flow Diversion
- 8 Recreation Use
- 12 Ice Jam Flooding on the Loup River

Please come ready to discuss; we have a lot of material to cover and will start promptly at 9:30 AM on the 23<sup>rd</sup> and at 8:00 AM on the 24<sup>th</sup>.

Please bring your own copy of the Updated Initial Study Report. It can be found online after 2/11/11.

We look forward to seeing you on February 23<sup>rd</sup>.

## Matt Pillard, AICP

Senior Environmental Planner **Professional Associate** 

# **HDR** | One Company | *Many Solutions*

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Fax: 402.399.1111 Email: Matt.Pillard@hdrinc.com



Please consider the environment before printing.

From: Mary B Brown [mbrown9@unlnotes.unl.edu]

**Sent:** Friday, January 21, 2011 3:22 PM

To: Marinovich, Melissa Subject: tern and plover data

Attachments: Interior Least Terns and Piping Plovers on the Loup Public Power North Sand Management

Zone.docx

Hi Melissa,

Here is the data for the terns and plovers nesting on the Loup Public Power North Sand Management Zone (the sand pile). Hope this what you were looking for.

Thanks, Mary

Mary Bomberger Brown Tern and Plover Conservation Partnership 153C Hardin Hall University of Nebraska 3310 Holdrege Street Lincoln, NE 68583-0931 USA telephone: (402) 472-8878

fax: (402) 472-2946 email: mbrown9@unl.edu http://ternandplover.unl.edu

# Interior Least Terns and Piping Plovers on the Loup Public Power North Sand Management Zone 2008-2009-2010

In 2008, the first Piping Plover was seen on the Loup Public Power North Sand Management Zone (sand pile) on 28 April; the last plover was seen on 22 July. There were 8 plover nests on the sand pile in 2008; 6 were located inside the bermed area constructed by Preferred Rocks of Genoa and 2 were outside. There were 29 eggs laid in the 8 nests; 27 eggs hatched and the chicks all survived to fledging. One of the adult plovers on the sand pile was wearing a green leg flag indicating that it originated along the Missouri River near Ponca, NE.

In 2008, the first Least Tern was seen on the Loup Public Power North Sand Management Zone (sand pile) on 5 May; the last tern was seen on 13 August. There were 17 tern nests on the sand pile in 2008; 12 were located inside the bermed area constructed by Preferred Rocks of Genoa and 5 were outside. There were 40 eggs laid in the 17 nests; 13 eggs hatched and the chicks all survived to fledging.

In 2009, the first Piping Plover was seen on the Loup Public Power North Sand Management Zone (sand pile) on 15 May; the last plover was seen on 10 July. There were 5 plover nests on the sand pile in 2009; all were located inside the bermed area constructed by Preferred Rocks of Genoa. There were 20 eggs laid in the 5 nests; 20 eggs hatched and the chicks all survived to fledging. One of the adult plovers on the sand pile was wearing a green leg flag indicating that it originated along the Missouri River near Ponca, NE. Another of the adult plovers on the sand pile was wearing a yellow leg flag indicating that it originated along the Missouri River in North Dakota.

In 2009, the first Least Tern was seen on the Loup Public Power North Sand Management Zone (sand pile) on 22 May; the last tern was seen on 27 July. There were 14 tern nests on the sand pile in 2009; all were located inside the bermed area constructed by Preferred Rocks of Genoa. There were 28 eggs laid in the 14 nests; 19 eggs hatched and the chicks all survived to fledging.

In 2010, the first Piping Plover was seen on the Loup Public Power North Sand Management Zone (sand pile) on 11 May; the last plover was seen on 14 July. There were 7 plover nests on the sand pile in 2010. There were 27 eggs laid in the 7 nests; 20 eggs hatched and 11 chicks survived to fledging. Six of the adult plovers on the sand pile were wearing green leg flags indicating that they originated along the Missouri River near Ponca, NE.

In 2010, the first Least Tern was seen on the Loup Public Power North Sand Management Zone (sand pile) on 28 May; the last tern was seen on 14 July. There were 22 tern nests on the sand pile in 2010. There were 60 eggs laid in the 22 nests; 38 eggs hatched and 9 chicks survived to fledging.

Pillard, Matt From:

Sent: Monday, February 14, 2011 9:26 PM

To: 'frank.albrecht@nebraska.gov'; 'john.bender@nebraska.gov'; 'jeff\_runge@fws.gov';

'robert harms@fws.gov'; 'barbara.j.friskopp@usace.army.mil'; 'abaum@upperloupnrd.org';

'randy thoreson@nps.gov'; 'bob.puschendorf@nebraska.gov'; 'mkuzila1@unl.edu'; 'david.jundt@dhhs.ne.gov'; 'jmiyoshi@lpnnrd.org'; 'steve.chick@ne.usda.gov';

'pcclerk@megavision.com': 'citvadmin@cablene.com': 'ncpza@hamilton.net':

'rbishop@cpnrd.org'; 'jwinkler@papionrd.org'; 'lpsnrd@lpsnrd.org'; 'jmangi@columbusne.us';

'cgenoa@cablene.com'; 'monroe@megavision.com'; 'calms@neb.rr.com'; 'danno@nohva.com'; 'mbrown9@unl.edu'; 'rtrudell@santeedakota.org';

'jblackhawk@aol.com'; 'vwills@pawneenation.org'; 'Brian.Dunnigan@nebraska.gov'; 'msittler@lpsnrd.org'; 'butchk@nctc.net'; 'robertm@llnrd.org'; 'jmsunne@nppd.com'; 'jalexand@usgs.gov'; 'jjshadl@nppd.com'; 'cothern.joe@epa.gov';

'justin.lavene@nebraska.gov'; 'bobbie.wickham@nebraska.gov';

kennyj@headwaterscorp.com'; 'mferguson@gp.usbr.gov'; 'Willie Taylor@ios.doi.gov'; 'Robert\_F\_Stewart@ios.doi.gov'; 'jeddins@achp.gov'; 'kenneth.sessa@dhs.gov'; 'peggy.harding@ferc.gov'; 'djjarecke@clarkswb.net'; 'al.berndt@nebraska.gov'; 'astuthman@leg.ne.gov'; 'ksullivan@leg.ne.gov'; 'clangemeier@leg.ne.gov';

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'emily\_brummund@johanns.senate.gov'; 'deb.vanmatre@mail.house.gov'; 'tpetr@loup.com'; 'mike.black@bia.gov'; 'janet.hutzel@ferc.gov'; 'isis.johnson@ferc.gov'; 'lee.emery@ferc.gov';

'paul.makowski@ferc.gov'

Angel Robak; Jim Frear; Neil Suess; Ron Ziola; Teresa Petr; Damgaard, Quinn V.; Engelbert, Cc:

> Pat; Frame, Gail; Grennan, Dennis E.; Hunt, George; Madson, Michael J.; Pillard, Matt; Richardson, Lisa (Omaha); Sigler, Bill; Thompson, Wendy; Waldow, George; White,

Loup Power District - Second Initial Study Report Filed Subject:

## Relicensing Participants:

Loup Power District has electronically filed its Second Initial Study Report (SISR) with FERC. The report is available on FERC's e-library and on the District's relicensing website: http://www.loup.com/relicense/.

The SISR includes study reports for the following completed studies:

- 1 Sedimentation Addendum (ungaged sites)
- 2 Hydrocycling
- 4 Water Temperature in the Project Bypass Reach
- 5 Flow Depletion and Flow Diversion
- 8 General Recreation Use and Creel Survey
- 11 Ice Jam Flooding on the Loup River

The District will hold the Second Initial Study Results meeting on February 23<sup>rd</sup> & 24<sup>th</sup> at the New World Inn, 265 33<sup>rd</sup> Ave, Columbus, Nebraska. Please RSVP by February 21st to Angell Robak at arobak@loup.com or (402) 564-3171, ext. 275.

For those not able to attend in person, but wishing to do so via conference call, meeting materials will be posted to: http://www.loup.com/relicense/html/agencymeetingsresources.html in advance of the meeting (by end of day 2/21/11). Dial-in information is as follows:

1-866-994-6437

Passcode: 4023994909

Please bring your own copy of the Initial Study Report and come ready to discuss; we have a lot of material to cover and will start promptly at 9:30 AM on the 23rd.

We look forward to seeing you on February 23<sup>rd</sup>.

## Matt Pillard, AICP

Senior Environmental Planner Professional Associate

# **HDR** | One Company | *Many Solutions*

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Fax: 402.399.1111 Email: Matt.Pillard@hdrinc.com



Please consider the environment before printing.

From: Pillard, Matt

**Sent:** Tuesday, February 22, 2011 10:13 AM

To: 'frank.albrecht@nebraska.gov'; 'john.bender@nebraska.gov'; 'jeff\_runge@fws.gov'; 'robort\_barms@fws.gov'; 'harbara\_i\_frickopp@usass\_armv\_mill'; 'labaum@uspasslaupnerd.grg'

'robert\_harms@fws.gov'; 'barbara.j.friskopp@usace.army.mil'; 'abaum@upperloupnrd.org';

'randy\_thoreson@nps.gov'; 'bob.puschendorf@nebraska.gov'; 'mkuzila1@unl.edu'; 'david.jundt@dhhs.ne.gov'; 'jmiyoshi@lpnnrd.org'; 'steve.chick@ne.usda.gov'

Cc: Angel Robak; Jim Frear; Neil Suess; Ron Ziola; Teresa Petr; Damgaard, Quinn V.; Engelbert,

Pat; Frame, Gail; Grennan, Dennis E.; Hunt, George; Madson, Michael J.; Pillard, Matt; Richardson, Lisa (Omaha); Sigler, Bill; Thompson, Wendy; Waldow, George; White,

Stephanie

Subject: Loup Power District - Second Initial Study Report Presentation

Follow Up Flag: Follow up Completed

## **Relicensing Participants:**

The presentation for tomorrow's and Thursday's Second Initial Study Report meeting is now available on <a href="mailto:the-website">the website</a>. The meeting will be held in the Cartier and Magellan rooms at New World Inn in Columbus, NE. Call in instructions can also be found on the web. If you call in, we would request you send an alternate phone number to Wendy Thompson (<a href="mailto:wendy.thompson@hdrinc.com">wendy.thompson@hdrinc.com</a>) in case of technical difficulties.

Thank you. Look forward to seeing you/hearing from you tomorrow.

#### Matt Pillard, AICP

Senior Environmental Planner Professional Associate

## HDR | One Company | Many Solutions

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Fax: 402.399.1111

Email: Matt.Pillard@hdrinc.com



Please consider the environment before printing.

From: Pillard, Matt

Sent: Thursday, March 10, 2011 9:24 AM

'frank.albrecht@nebraska.gov'; 'john.bender@nebraska.gov'; 'jeff\_runge@fws.gov'; To:

'robert harms@fws.gov'; 'barbara.j.friskopp@usace.army.mil'; 'abaum@upperloupnrd.org';

'randy thoreson@nps.gov'; 'bob.puschendorf@nebraska.gov'; 'mkuzila1@unl.edu'; 'david.jundt@dhhs.ne.gov'; 'jmiyoshi@lpnnrd.org'; 'steve.chick@ne.usda.gov'; 'pcclerk@megavision.com': 'citvadmin@cablene.com': 'ncpza@hamilton.net':

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'jblackhawk@aol.com'; 'vwills@pawneenation.org'; 'Brian.Dunnigan@nebraska.gov'; 'msittler@lpsnrd.org'; 'butchk@nctc.net'; 'robertm@llnrd.org'; 'jmsunne@nppd.com'; 'jalexand@usgs.gov'; 'jjshadl@nppd.com'; 'cothern.joe@epa.gov';

'justin.lavene@nebraska.gov'; 'bobbie.wickham@nebraska.gov';

kennyj@headwaterscorp.com'; 'mferguson@gp.usbr.gov'; 'Willie Taylor@ios.doi.gov'; 'Robert\_F\_Stewart@ios.doi.gov'; 'jeddins@achp.gov'; 'kenneth.sessa@dhs.gov'; 'peggy.harding@ferc.gov'; 'djjarecke@clarkswb.net'; 'al.berndt@nebraska.gov'; 'astuthman@leg.ne.gov'; 'ksullivan@leg.ne.gov'; 'clangemeier@leg.ne.gov';

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'todd.crawford@mail.house.gov'; 'louis-pofahl@mail.house.gov';

'emily\_brummund@johanns.senate.gov'; 'deb.vanmatre@mail.house.gov'; 'tpetr@loup.com'; 'mike.black@bia.gov'; 'janet.hutzel@ferc.gov'; 'isis.johnson@ferc.gov'; 'lee.emery@ferc.gov';

'paul.makowski@ferc.gov'

Angel Robak; Jim Frear; Neil Suess; Ron Ziola; Teresa Petr; Damgaard, Quinn V.; Engelbert, Cc:

> Pat; Frame, Gail; Grennan, Dennis E.; Hunt, George; Madson, Michael J.; Pillard, Matt; Richardson, Lisa (Omaha); Sigler, Bill; Thompson, Wendy; Waldow, George; White,

Loup Power District - Second Initial Study Report Revision Filed Subject:

Follow Up Flag: Follow up Flag Status: Completed

## Relicensing Participants,

On Thursday, March 10, 2011, the District filed a revision to the Second Initial Study Report with FERC. The revisions consisted of minor changes to the text, tables, or appendices of the following studies:

- Study 1.0 Sedimentation page 19
- Study 2.0 Hydrocycling pages 45 & 46
- Study 5.0 Flow Depletion and Flow Diversion Attachment H, page 111 has been added and Table of Contents updated
- Study 8.0 Recreation Use pages ii, 14, 15, 16 & 28
- Study 12.0 Ice Jam Flooding on the Loup River 21, 22, 28, 29 & 32

The changes to the text of these pages are highlighted and underlined and noted with a revision date of March 8, 2011. The revised pages have been inserted into the electronic version of the appropriate studies on the District's relicensing website: www.loup.com/relicense and notes have been added to the site indicating the revision dates for studies 1.0, 2.0, 8.0 and 12.0.

Thanks!

## Matt Pillard, AICP

Senior Environmental Planner Professional Associate

# **HDR** | One Company | *Many Solutions*

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Fax: 402.399.1111 Email: Matt.Pillard@hdrinc.com



Please consider the environment before printing.

Columbus, NE 68602-0988

April 28, 2011

P.O. Box 988

Mr. Robert Harms U.S. Fish and Wildlife Service Nebraska Field Office 203 West Second Street Federal Building, Second Floor Grand Island, Nebraska 68801

RE: 2009 and 2010 Loup River Tern and Plover Information Request

402/564-0970

Dear Mr. Harms:

As you are aware, Loup Power District (the District) is currently seeking a new operating license with the Federal Energy Regulatory Commission (FERC) for its hydroelectric facilities located on the Loup River near Genoa and Columbus, Nebraska. I would like to take this opportunity to thank you for your responses to our prior requests for information and for your involvement thus far in the re-licensing process.

The District has completed one year of studies as they relate to the re-licensing effort and have presented these study results. To date, the District has obtained tern and plover survey data from Nebraska Game and Parks Commission (NGPC), as the agency tasked with updating and managing the Nebraska Least Tern and Piping Plover Database. Per a request from FERC at the second Initial Study Results meeting, we have received the updated database from NGPC through the 2010 nesting season. It has been brought to our attention through discussions with Joel Jorgensen, Nongame Bird Program Manager at NGPC, that the USFWS conducted interior least tern and piping plovers surveys on the Loup River in 2009 and 2010 and that data for these surveys has not yet been provided to NGPC for input into the database.

At this time, I would like to request any and all 2009 and 2010 interior least tern and piping plover population, nesting, chick counts, fledge counts, productivity information, nest and adult locations, trend information, and any habitat information collected by the USFWS during the 2009 and 2010 breeding seasons for the Loup River (both on- and off-river data). This information would be used to update existing studies and is critical to completion of the biological assessment and continuation of the environmental review of the Project. Please provide this data electronically (excel, database, shapefiles, etc) to expedite our review of the data.

I appreciate your assistance in providing information for the relicensing effort as quickly as possible. The information requested will be used for analytical purposes and the only information that will be published is information related to general trends and observations. Location specific information will not be made available to the general public without the consent of the USFWS and NGPC.

Please submit the requested information electronically as soon as possible to HDR Engineering, the District's relicensing consultant:

Matt Pillard **HDR** Engineering 8404 Indian Hills Drive Omaha, NE 68114 Matt.pillard@hdrinc.com

Please feel free to contact Matt Pillard (402-399-1186) or Melissa Marinovich (402-399-1317) of HDR if you have any questions or clarifications regarding this information request. Thank you for your assistance.

Sincerely,

Neal D. Suess President/CEO

Loup Public Power District

Lee Emery, FERC cc:

Joel Jorgensen, NGPC

Matt Pillard, HDR

From: Richardson, Lisa (Omaha)
Sent: Tuesday, May 10, 2011 7:21 PM

To: Thompson, Wendy

Subject: FW: Loup Power District - Data Request

Follow Up Flag: Follow up Flag Status: Flagged

For PW & the DB. Thx!

From: Robert Harms@fws.gov [mailto:Robert Harms@fws.gov]

**Sent:** Tuesday, May 03, 2011 10:51 AM

To: Pillard, Matt

Cc: Richardson, Lisa (Omaha); Neil Suess

Subject: Re: Loup Power District - Data Request

Thanks--yes, we did the survey work, but only in 2010; I will provide the survey information to you as requested. The survey data is still in rough format and needs to be compiled and summarized--that will take approximately 2-4 weeks. I'll be in touch.

Bob

Robert R. Harms
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
203 West Second Street
Grand Island, Nebraska 68801
Phone: 308-382-6468, Extension 17

Fax: 308-384-8835 robert harms@fws.gov

"Pillard, Matt" < <u>Matt.Pillard@hdrinc.com</u>>

"Pillard, Matt"

<<u>Matt.Pillard@hdrinc.com</u>>

To"'robert harms@fws.gov"' < robert harms@fws.gov >

04/29/2011 12:58 PM

ccNeil Suess < nsuess@loup.com>, "Richardson, Lisa (Omaha)" < Lisa.Richardson@hdrinc.com>

SubjectLoup Power District - Data Request

Hi Bob.

Please see attached letter. Let me know if you have any questions. Have a great weekend.

Matt Pillard, AICP

Senior Environmental Planner Professional Associate

**HDR** | One Company | *Many Solutions* 

From: Richardson, Lisa (Omaha)
Sent: Tuesday, May 10, 2011 6:50 PM

To: Thompson, Wendy

Subject: FW: Loup Power District - Data Request

Follow Up Flag: Follow up Flag Status: Flagged

Please put on PW and in the DB. Thanks!

From: Robert Harms@fws.gov [mailto:Robert Harms@fws.gov]

**Sent:** Tuesday, May 10, 2011 12:35 PM

To: Pillard, Matt

Cc: Richardson, Lisa (Omaha); Neil Suess

Subject: Re: Loup Power District - Data Request

## Matt:

A staff member has recently been assigned to compile and summarize the requested tern and plover survey information. I will have a copy of the information to you by May 27, 2011.

#### Bob

Robert R. Harms
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
203 West Second Street
Grand Island, Nebraska 68801
Phone: 308-382-6468, Extension 17

Fax: 308-384-8835 robert\_harms@fws.gov

"Pillard, Matt" < Matt. Pillard@hdrinc.com>

"Pillard, Matt"

<Matt.Pillard@hdrinc.com>

To"'robert harms@fws.gov"' < robert harms@fws.gov >

04/29/2011 12:58 PM

ccNeil Suess <<u>nsuess@loup.com</u>>, "Richardson, Lisa (Omaha)" <<u>Lisa.Richardson@hdrinc.com</u>>

SubjectLoup Power District - Data Request

Hi Bob.

Please see attached letter. Let me know if you have any questions. Have a great weekend.

Matt Pillard, AICP

Senior Environmental Planner Professional Associate



# LOUP POWER DISTRICT

"Serving You Electrically"

GENERAL OFFICE 2404 15th Street P.O. Box 988 Columbus, NE 68602-0988

Phone: 402/564-3171 Fax: 402/564-0970

May 20, 2011

Mark Ivy, PhD.
Outdoor Recreation Planner
Division of Hydropower Administration & Compliance
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Dear Mr. Ivy:

Subject: 2010 Annual Conveyance Report

Enclosed are copies of the easements which the District conveyed to Platte County, NE for an approved road project which parallels the District's project. Highlighted is the language the District deemed necessary to protect the project's recreational use and safety.

It is the District's practice to review the easement and, if there are concerns that could impact the project's safety or recreational use, to address these issues with specific language, as was done with the attached easement.

Sincerely,

Ronald J. Ziola, P.E.

V.P. of Engineering

RZ:ar Enc.

C: N. Suess J. Frear

bc: L. Richardson

From: Pillard, Matt

**Sent:** Wednesday, July 13, 2011 2:45 PM

To: shuhai.zheng@nebraska.gov; frank.albrecht@nebraska.gov; jalexand@usgs.gov;

calms@neb.rr.com; cgenoa@cablene.com; abaum@upperloupnrd.org; john.bender@nebraska.gov; al.berndt@nebraska.gov; rbishop@cpnrd.org;

mike.black@bia.gov; jblackhawk@aol.com; mbrown9@unl.edu; prescott.brownell@noaa.gov;

emily\_brummund@johanns.senate.gov; cothern.joe@epa.gov;

todd.crawford@mail.house.gov; jill.dolberg@nebraska.gov; adubas@leg.ne.gov; Brian.Dunnigan@nebraska.gov; lee.emery@ferc.gov; mferguson@gp.usbr.gov; barbara.j.friskopp@usace.army.mil; peggy.harding@ferc.gov; robert harms@fws.gov;

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isis.johnson@ferc.gov; david.jundt@dhhs.ne.gov; kennyj@headwaterscorp.com;

butchk@llnrd.org; cityadmin@cablene.com; monroe@megavision.com; bobbie.wickham@nebraska.gov; mkuzila1@unl.edu; clangemeier@leg.ne.gov; justin.lavene@nebraska.gov; pcclerk@megavision.com; ncpza@hamilton.net;

paul.makowski@ferc.gov; jmangi@columbusne.us; jmiyoshi@lpnnrd.org; robertm@llnrd.org;

jeddins@achp.gov; danno@nohva.com; marvp@megavision.com; tpetr@loup.com; bob.puschendorf@nebraska.gov; chairmanrhodd@ponca.com; jeff\_runge@fws.gov; julias@poncatribe-ne.org; kenneth.sessa@dhs.gov; jjshadl@nppd.com;

julias@poncatribe-ne.org; kenneth.sessa@dhs.gov; jjshadl@nppd.com; asheridan@omahatribe.com; don\_simpson@blm.gov; msittler@lpsnrd.org; Robert\_F\_Stewart@ios.doi.gov; ksullivan@leg.ne.gov; jmsunne@nppd.com; Willie\_Taylor@ios.doi.gov; randy\_thoreson@nps.gov; rtrudell@santeedakota.org; deb.vanmatre@mail.house.gov; jwinkler@papionrd.org; lewrightjr@gmail.com

Angel Robak; Jim Frear; Neil Suess; Ron Ziola; Damgaard, Quinn V.; Engelbert, Pat; Frame,

Gail; Grennan, Dennis E.; Hunt, George; Madson, Michael J.; Pillard, Matt; Richardson, Lisa

(Omaha); Sigler, Bill; Thompson, Wendy; Waldow, George; White, Stephanie

**Subject:** Loup Power District – FERC Relicensing Updated Study Report and Meeting – Save the Date

## Relicensing Participants:

Cc:

This e-mail is to inform you of the timing for the Updated Study Report and Updated Study Results Meeting for the Loup River Hydroelectric Relicensing.

Work on the study phase of the Loup River Hydroelectric Relicensing is nearly complete. The District will file the Updated Study Report on August 26, 2011 and will hold a meeting to discuss remaining study results in September. Here are some key dates to remember:

- August 26, 2011 District will file the Updated Study Report (USR) with FERC and post on the relicensing
  website at <a href="http://www.loup.com/relicense">http://www.loup.com/relicense</a>. The report will include results of study modifications requested by
  FERC in their Study Determination Letters dated 12/20/10 and 06/11/11
- Updated Study Results Meeting
  - o September 8, 2011
  - o ~8:30 AM to 4:30 PM
  - o New World Inn
  - o 265 33rd Ave, Columbus, NE
  - RSVP to Angell Robak at <u>arobak@loup.com</u> or (402) 564-3171, ext. 275 by Sept 2<sup>nd</sup>.
  - o For those not able to attend in person, conference call capabilities will be available.

We appreciate your time and input on this relicensing effort. If you have any questions regarding the upcoming reports or meetings, please call me at (402) 399-1186.

# **HDR** | One Company | *Many Solutions*

8404 Indian Hills Drive | Omaha, NE | 68114-4098 Phone: 402.399.1186 | Fax: 402.399.1111 Email: Matt.Pillard@hdrinc.com



Please consider the environment before printing.

From: Pillard, Matt

Sent: Wednesday, August 17, 2011 11:33 AM

To: shuhai.zheng@nebraska.gov; frank.albrecht@nebraska.gov; jalexand@usgs.gov;

calms@neb.rr.com; cgenoa@cablene.com; abaum@upperloupnrd.org; john.bender@nebraska.gov; al.berndt@nebraska.gov; rbishop@cpnrd.org;

mike.black@bia.gov; jblackhawk@aol.com; mbrown9@unl.edu; prescott.brownell@noaa.gov;

emily\_brummund@johanns.senate.gov; cothern.joe@epa.gov;

todd.crawford@mail.house.gov; jill.dolberg@nebraska.gov; adubas@leg.ne.gov; Brian.Dunnigan@nebraska.gov; lee.emery@ferc.gov; mferguson@gp.usbr.gov; barbara.j.friskopp@usace.army.mil; peggy.harding@ferc.gov; robert harms@fws.gov;

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butchk@llnrd.org; cityadmin@cablene.com; monroe@megavision.com; bobbie.wickham@nebraska.gov; mkuzila1@unl.edu; clangemeier@leg.ne.gov; justin.lavene@nebraska.gov; pcclerk@megavision.com; ncpza@hamilton.net;

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Angel Robak; Jim Frear; Neil Suess; Ron Ziola; Damgaard, Quinn V.; Engelbert, Pat; Frame,

Gail; Grennan, Dennis E.; Hunt, George; Madson, Michael J.; Pillard, Matt; Richardson, Lisa

(Omaha); Sigler, Bill; Thompson, Wendy; Waldow, George; White, Stephanie

**Subject:** Loup Power District – FERC Relicensing Updated Study Report and Meeting – Save the Date

Categories: Green Category

## Relicensing Participants:

Cc:

This e-mail is to remind you of the Updated Study Results meeting scheduled for September 8<sup>th</sup> at the New World Inn, 265 33<sup>rd</sup> Ave, Columbus, Nebraska. Please RSVP to Angell Robak at <u>arobak@loup.com</u> or (402) 564-3171, ext. 275 by September 2<sup>nd</sup>, 2011. The meeting agenda is available on the Project website: http://www.loup.com/relicense/html/agencymeetingsresources.html

For those not able to attend in person, but wishing to do so via conference call, meeting materials will be posted to the above noted Project website in advance of the meeting (by end of day 9/7/11). Dial-in information is as follows:

1-866-994-6437

Passcode: 4023994909

On August 26, 2011, the District will submit the Updated Study Report (USR) to FERC, it will also be posted on the website at <a href="http://www.loup.com/relicense">http://www.loup.com/relicense</a>. This report will include the updated Sedimentation and Hydrocycling studies.

Please come ready to discuss; we will start promptly at 8:30 AM.

Please bring your own copy of the Updated Study Report. It can be found online after 8/26/11.

We look forward to seeing you on September 8<sup>th</sup>.

Thanks.

## MATT PILLARD

HDR Engineering, Inc

AICP

Sr. Environmental Planner

8404 Indian Hills Drive | Omaha, NE 68114 402.399.1186 | c: 402.660-7998 matt.pillard@hdrinc.com | hdrinc.com

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From: Pillard, Matt

**Sent:** Friday, August 26, 2011 4:16 PM

To: shuhai.zheng@nebraska.gov; frank.albrecht@nebraska.gov; jalexand@usgs.gov;

calms@neb.rr.com; cgenoa@cablene.com; abaum@upperloupnrd.org; john.bender@nebraska.gov; al.berndt@nebraska.gov; rbishop@cpnrd.org;

mike.black@bia.gov; jblackhawk@aol.com; mbrown9@unl.edu; prescott.brownell@noaa.gov;

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mark@cpnrd.org

**Cc:** Angel Robak; Jim Frear; Neil Suess; Ron Ziola; Damgaard, Quinn V.; Engelbert, Pat;

Grennan, Dennis E.; Hunt, George; Pillard, Matt; Richardson, Lisa (Omaha); Thompson,

Wendy; Waldow, George; White, Stephanie

Subject: Loup Power District – FERC Relicensing Updated Study Report and Meeting

## Relicensing Participants:

Loup Power District has electronically filed its Updated Study Report (USR) with FERC. The report is available on FERC's e-library and on the District's relicensing website: <a href="http://www.loup.com/relicense/">http://www.loup.com/relicense/</a>.

The USR includes updated study reports for Sedimentation and Hydrocycling.

The District will hold the Updated Study Results meeting on September 8<sup>th</sup> at the New World Inn, 265 33<sup>rd</sup> Ave, Columbus, Nebraska. Please RSVP by Sept. 2<sup>nd</sup> to Angell Robak at arobak@loup.com or (402) 564-3171, ext. 275.

For those not able to attend in person, but wishing to do so via conference call, meeting materials will be posted to: <a href="http://www.loup.com/relicense/html/agencymeetingsresources.html">http://www.loup.com/relicense/html/agencymeetingsresources.html</a> in advance of the meeting (by end of day 9/7/11). Dial-in information is as follows:

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Passcode: 4023994909

Please bring your own copy of the Updated Study Report and come ready to discuss; we have a lot of material to cover and will start promptly at 8:30 AM on the 8<sup>th</sup>.

We look forward to seeing you on September 8<sup>th</sup>.

MATT PILLARD

HDR Engineering, Inc

AICP

Sr. Environmental Planner

8404 Indian Hills Drive | Omaha, NE 68114 402.399.1186 | c: 402.660-7998

From: Richardson, Lisa (Omaha)

**Sent:** Monday, August 29, 2011 3:03 PM

To: Jeff\_Runge@fws.gov

Cc: Thompson, Wendy; Pillard, Matt

Subject: FW: Loup Power District – FERC Relicensing Updated Study Report and Meeting

Attachments: Slingshot.txt

## **HDR Employees:**

Use the "Download Attachments" button after opening this message in Outlook to download attached files.

## **Non-HDR Recipients:**

If you are not an HDR employee and this is your first time using Slingshot click <u>here</u> and follow the prompts to set your password.

Returning users click here to <a href="Download">Download</a> (files: USR\_Sed\_A.pdf; USR\_Hydro\_GthruK.pdf; USR\_Hydro\_A&B.pdf; USR\_Sed\_D.pdf; USR\_Sed\_G.pdf; USR\_Sed\_B&C.pdf; USR\_Sed\_F.pdf; USR\_Sed\_E.pdf; USR\_Hydro\_E&F.pdf; USR\_Hydro\_C&D.pdf;)

Notice: The link in this email will only work for up to 30 days (as set by the sender). If you need access to these files for longer, please download and save a copy locally. Recipients of forwarded emails WILL NOT have access to the files using this link.

Jeff,

There were three studies that we resubmitted reports and associated attachments to FERC:

- Sedimentation
- Hydrocycling
- Section 106 (no attachments)

All other reports and attachments are unchanged.

With Respect to Sedimentation, these are the changes that were made to the report attachments:

- Attachment A Cross-Section Surveys Ungaged Sites (previously submitted as SISR Attachment A no change)
- Attachment B Sediment Transport Tables (Previously submitted as ISR Attachment B no change)
- Attachment C Sediment Transport Graphs (Previously submitted as ISR Attachment A no change)
- Attachment D Sediment Discharge Rating Curve and Sediment Transport Results (Previously submitted as SISR Attachment B – no change)
- Attachment E Confidence Limits Graphs (New attachment in the USR)
- Attachment F Interior Least Tern Nests Compared to Sediment Transport Parameters (Previously submitted ISR Attachment C – no change)
- Attachment G Piping Plover Nests Compared to Sediment Transport Parameters (Previously submitted ISR Attachment D – no change)

With Respect to Hydrocycling, none of the actual attachments changed; however, we did insert some revised fly-sheets that have maps of the various gages so you have a reference when reviewing the attachment information. Here is the list of Hydrocycling attachments:

- Attachment A Cross-Section Surveys Ungaged Sites
- Attachment B Synthetic Hydrographs Current Operations and Run-of-River Operations
- Attachment C Flow Classification
- Attachment D Hydrologic Statistics

- Attachment E Synthetic Hydrographs Current Operations vs. Run-of-River Operations, 2006, 2008, 2009
- Attachment F Hydraulic Geometry Relationships
- Attachment G Sediment Discharge Rating Curves and Sediment Transport Results
- Attachment H HEC-RAS Water Surface Profiles
- Attachment I Benchmark Flow and Exceedance Analysis Bar Charts
- Attachment J Daily Evaluation of Percent Suitable Pallid Sturgeon Habitat
- Attachment K Habitat Analysis Using HEC-RAS Model Results

I have attached all of the attachments for Sedimentation and Hydrocycling to this e-mail via slingshot – please let me know if you have any trouble accessing the files.

Regards,

Lisa

From: Jeff Runge@fws.gov [mailto:Jeff Runge@fws.gov]

Sent: Monday, August 29, 2011 12:25 PM

To: Pillard, Matt

Cc: Robert Harms@fws.gov

Subject: Re: Loup Power District – FERC Relicensing Updated Study Report and Meeting

Matt,

Are there additional appendices to supplement the USR (or modification to existing appendices)? Would it be possible to combine the FISR, SISR, and USR appendices into one package under the USR? This way we have the complete, updated package for evaluation.

Your assistance is greatly appreciated.

Jeff

\*\*\*\*\*\*\*\*

Jeff Runge
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
203 W. Second Street
Grand Island, NE 68801
(308) 382-6468, Ext. 22
(308) 379-8553 Cell

"Pillard, Matt" < Matt.Pillard@hdrinc.com>

08/26/2011 04:16 PM

<jill.dolberg@nebraska.gov>, "adubas@leg.ne.gov" <adubas@leg.ne.gov>, "Brian.Dunnigan@nebraska.gov" < Brian.Dunnigan@nebraska.gov >, "lee.emery@ferc.gov" <lee.emery@ferc.gov>, "mferguson@gp.usbr.gov" <mferguson@gp.usbr.gov>, "barbara.j.friskopp@usace.army.mil" <br/>
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"djjarecke@clarkswb.net" <djjarecke@clarkswb.net>, "nicholas.jayjack@ferc.gov" <nicholas.jayjack@ferc.gov>, "lpsnrd@lpsnrd.org" <lpsnrd@lpsnrd.org>,
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<rtrudell@santeedakota.org>, "deb.vanmatre@mail.house.gov" <deb.vanmatre@mail.house.gov>, "jwinkler@papionrd.org" <jwinkler@papionrd.org>, "lewrightjr@gmail.com" <lewrightjr@gmail.com>, "mark@cpnrd.org" <mark@cpnrd.org>

cc Angel Robak <arobak@loup.com>, Jim Frear <jfrear@loup.com>, Neil Suess <nsuess@loup.com>, Ron Ziola <rziola@loup.com>, "Damgaard, Quinn V." <Quinn.Damgaard@hdrinc.com>, "Engelbert, Pat" <Pat.Engelbert@hdrinc.com>, "Grennan, Dennis E." <Dennis.Grennan@hdrinc.com>, "Hunt, George" <George.Hunt@hdrinc.com>, "Pillard, Matt" <Matt.Pillard@hdrinc.com>, "Richardson, Lisa (Omaha)" <Lisa.Richardson@hdrinc.com>, "Thompson, Wendy" <Wendy.Thompson@hdrinc.com>, "Waldow, George" <George.Waldow@hdrinc.com>, "White, Stephanie" <Stephanie.White@hdrinc.com>

Subject Loup Power District - FERC Relicensing Updated Study Report and Meeting

## Relicensing Participants:

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Passcode: 4023994909

Please bring your own copy of the Updated Study Report and come ready to discuss; we have a lot of material to cover and will start promptly at 8:30 AM on the 8<sup>th</sup>.

# We look forward to seeing you on September $8^{\rm th}$ .

HDR Engineering, Inc Sr. Environmental Planner
8404 Indian Hills Drive   Omaha, NE 68114 402.399.1186   c: 402.660-7998
matt.pillard@hdrinc.com   hdrinc.com Follow Us – Facebook   Twitter   YouTube

From: Jeff\_Runge@fws.gov

Sent: Monday, August 29, 2011 5:23 PM
To: Richardson, Lisa (Omaha)
Cc: Pillard, Matt; Thompson, Wendy

Subject: Re: FW: Loup Power District – FERC Relicensing Updated Study Report and Meeting

Attachments: Slingshot.txt

Lisa,

I was able to download all of the files. The below documentation is helpful when trying to keep track of multiple files. Thanks for your help.

Jeff

"Richardson, Lisa (Omaha)" <Lisa.Richardson@hdrinc.com>

08/29/2011 03:03 PM

To "Jeff\_Runge@fws.gov" <Jeff\_Runge@fws.gov>
cc "Thompson, Wendy" <Wendy.Thompson@hdrinc.com>, "Pillard, Matt"
<Matt.Pillard@hdrinc.com>

Subject FW: Loup Power District – FERC Relicensing Updated Study Report and Meeting

## **HDR Employees:**

Use the "Download Attachments" button after opening this message in Outlook to download attached files.

#### **Non-HDR Recipients:**

If you are not an HDR employee and this is your first time using Slingshot click <u>here</u> and follow the prompts to set your password.

Returning users click here to <a href="Download">Download</a> (files: USR\_Sed\_A.pdf; USR\_Hydro\_GthruK.pdf; USR\_Hydro\_A&B.pdf; USR\_Sed\_D.pdf; USR\_Sed\_G.pdf; USR\_Sed\_B&C.pdf; USR\_Sed\_F.pdf; USR\_Sed\_E.pdf; USR\_Hydro\_E&F.pdf; USR\_Hydro\_C&D.pdf;)

Notice: The link in this email will only work for up to 30 days (as set by the sender). If you need access to these files for longer, please download and save a copy locally. Recipients of forwarded emails WILL NOT have access to the files using this link.

Jeff,

There were three studies that we resubmitted reports and associated attachments to FERC:

- Sedimentation
- Hydrocycling
- Section 106 (no attachments)

All other reports and attachments are unchanged.

With Respect to Sedimentation, these are the changes that were made to the report attachments:

- Attachment A Cross-Section Surveys Ungaged Sites (previously submitted as SISR Attachment A no change)
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- Attachment G Piping Plover Nests Compared to Sediment Transport Parameters (Previously submitted ISR Attachment D no change)

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- Attachment H HEC-RAS Water Surface Profiles
- Attachment I Benchmark Flow and Exceedance Analysis Bar Charts
- Attachment J Daily Evaluation of Percent Suitable Pallid Sturgeon Habitat
- Attachment K Habitat Analysis Using HEC-RAS Model Results

I have attached all of the attachments for Sedimentation and Hydrocycling to this e-mail via slingshot – please let me know if you have any trouble accessing the files.

Regards,

Lisa

**From:** Jeff\_Runge@fws.gov [mailto:Jeff\_Runge@fws.gov]

Sent: Monday, August 29, 2011 12:25 PM

To: Pillard, Matt

Cc: Robert\_Harms@fws.gov

Subject: Re: Loup Power District – FERC Relicensing Updated Study Report and Meeting

Matt.

Jeff

Are there additional appendices to supplement the USR (or modification to existing appendices)? Would it be possible to combine the FISR, SISR, and USR appendices into one package under the USR? This way we have the complete, updated package for evaluation.

Your assistance is greatly appreciated.

\*\*\*\*\*\*\*\*

Jeff Runge Fish and Wildlife Biologist U.S. Fish and Wildlife Service 203 W. Second Street Grand Island, NE 68801 (308) 382-6468, Ext. 22 (308) 379-8553 Cell

#### "Pillard, Matt" <Matt.Pillard@hdrinc.com>

08/26/2011 04:16 PM

- To "shuhai.zheng@nebraska.gov" <shuhai.zheng@nebraska.gov>, "frank.albrecht@nebraska.gov" <frank.albrecht@nebraska.gov>, "jalexand@usgs.gov" <jalexand@usgs.gov>, "calms@neb.rr.com" <calms@neb.rr.com>,
  "cgenoa@cablene.com" <cgenoa@cablene.com>, "abaum@upperloupnrd.org" <abaum@upperloupnrd.org>,
  "john.bender@nebraska.gov" <john.bender@nebraska.gov>, "al.berndt@nebraska.gov" <al.berndt@nebraska.gov>, "rbishop@cpnrd.org" <rbishop@cpnrd.org>, "mike.black@bia.gov" <mike.black@bia.gov>, "jblackhawk@aol.com" <jblackhawk@aol.com>, "mbrown9@unl.edu" <mbrown9@unl.edu>, "prescott.brownell@noaa.gov" "cothern.joe@epa.gov" <cothern.joe@epa.gov>, "todd.crawford@mail.house.gov" <todd.crawford@mail.house.gov>, "jill.dolberg@nebraska.gov" <jill.dolberg@nebraska.gov" <jill.dolberg@nebraska.gov" <jill.dolberg@nebraska.gov" <jill.dolberg@nebraska.gov>, "adubas@leg.ne.gov" <adubas@leg.ne.gov>, "Brian.Dunnigan@nebraska.gov" <Brian.Dunnigan@nebraska.gov>, "lee.emery@ferc.gov" <lee.emery@ferc.gov>, <vwills@pawneenation.org>, "janet.hutzel@ferc.gov" <janet.hutzel@ferc.gov>, "djjarecke@clarkswb.net"
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  <mkuzila1@unl.edu>, "clangemeier@leg.ne.gov" <clangemeier@leg.ne.gov>, "justin.lavene@nebraska.gov"
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  <ksullivan@leg.ne.gov>, "jmsunne@nppd.com" <jmsunne@nppd.com>, "Willie\_Taylor@ios.doi.gov" <Notativan@leg.fie.gov>, jirisdiine@inppd.com

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- cc Angel Robak <arobak@loup.com>, Jim Frear <jfrear@loup.com>, Neil Suess <nsuess@loup.com>, Ron Ziola <rziola@loup.com>, "Damgaard, Quinn V." <Quinn.Damgaard@hdrinc.com>, "Engelbert, Pat" <Pat.Engelbert@hdrinc.com>, "Grennan, Dennis E." <Dennis.Grennan@hdrinc.com>, "Hunt, George" <George.Hunt@hdrinc.com>, "Pillard, Matt" <Matt.Pillard@hdrinc.com>, "Richardson, Lisa (Omaha)" <Lisa.Richardson@hdrinc.com>, "Thompson, Wendy" <Wendy.Thompson@hdrinc.com>, "Waldow, George" <George.Waldow@hdrinc.com>, "White, Stephanie" <Stephanie.White@hdrinc.com>

Subject Loup Power District - FERC Relicensing Updated Study Report and Meeting

#### Relicensing Participants:

Loup Power District has electronically filed its Updated Study Report (USR) with FERC. The report is available on FERC's e-library and on the District's relicensing website: <a href="http://www.loup.com/relicense/">http://www.loup.com/relicense/</a>.

The USR includes updated study reports for Sedimentation and Hydrocycling.

The District will hold the Updated Study Results meeting on September 8<sup>th</sup> at the New World Inn, 265 33<sup>rd</sup> Ave, Columbus, Nebraska. Please RSVP by Sept. 2<sup>nd</sup> to Angell Robak at <u>arobak@loup.com</u> or (402) 564-3171, ext. 275.

For those not able to attend in person, but wishing to do so via conference call, meeting materials will be posted to: <a href="http://www.loup.com/relicense/html/agencymeetingsresources.html">http://www.loup.com/relicense/html/agencymeetingsresources.html</a> in advance of the meeting (by end of day 9/7/11). Dialin information is as follows:

1-866-994-6437

Passcode: 4023994909

Please bring your own copy of the Updated Study Report and come ready to discuss; we have a lot of material to cover and will start promptly at 8:30 AM on the 8<sup>th</sup>.

We look forward to seeing you on September 8<sup>th</sup>.

Matt Pillard
AICP
Sr. Environmental Planner

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402.399.1186 | c: 402.660-7998
matt.pillard@hdrinc.com | hdrinc.com
Follow Us – Facebook | Twitter | YouTube

From: Richardson, Lisa (Omaha)

Sent: Wednesday, September 07, 2011 4:06 PM
To: Richardson, Lisa (Omaha); Jeff Runge@fws.gov

Cc: Thompson, Wendy; Pillard, Matt

Subject: RE: Loup Power District – FERC Relicensing Updated Study Report and Meeting

Attachments: USR\_Sed\_H.pdf

Jeff.

I had previously sent you all of the attachments for the various studies for the Loup Power Relicensing. Yesterday the District submitted an additional attachment for the Study 1.0 – Sedimentation, Attachment H – SPSS Output for Statistical Analysis by River Mile. You should have received an e-mail from Matt Pillard about this submittal. So that your set of attachments is complete, I am sending this new attachment to you.

If you need anything else, don't hesitate to give me a call.

Regards,

Lisa

From: Richardson, Lisa (Omaha)

**Sent:** Monday, August 29, 2011 3:03 PM

To: 'Jeff\_Runge@fws.gov'

Cc: Thompson, Wendy; Pillard, Matt

Subject: FW: Loup Power District – FERC Relicensing Updated Study Report and Meeting

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**Sent:** Monday, August 29, 2011 12:25 PM

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Subject: Re: Loup Power District – FERC Relicensing Updated Study Report and Meeting

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"Pillard, Matt" < Matt.Pillard@hdrinc.com>

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           <todd.crawford@mail.house.gov>, "jill.dolberg@nebraska.gov"
         *Ioud.orawiou@filai.niouse.gov", jiii.doiberg@nebraska.gov", jiii.doiberg@nebraska.gov", "adubas@leg.ne.gov" <adubas@leg.ne.gov" <adubas@leg.ne.gov" <adubas@leg.ne.gov" <adubas@leg.ne.gov >, "Brian.Dunnigan@nebraska.gov", "lee.emery@ferc.gov" <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: gov">teleproblem: gov</a> <a href="teleproblem: go
           <mferguson@gp.usbr.gov>, "barbara.j.friskopp@usace.army.mil"
          <hinorgason@gp.toor.gov*, barbara.j.mstopp@adacc.army.miii
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          cdavid.jundt@dhhs.ne.gov>, "kennyj@headwaterscorp.com"

<kennyj@headwaterscorp.com>, "butchk@llnrd.org" <butchk@llnrd.org>,
"cityadmin@cablene.com" <cityadmin@cablene.com>, "monroe@megavision.com"
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           <br/><bobbie.wickham@nebraska.gov>, "mkuzila1@unl.edu" <mkuzila1@unl.edu>,
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           <justin.lavene@nebraska.gov>, "pcclerk@megavision.com"
           <pcclerk@megavision.com>, "ncpza@hamilton.net" <ncpza@hamilton.net>,
          "paul.makowski@ferc.gov" <paul.makowski@ferc.gov>, "jmangi@columbusne.us" <jmangi@columbusne.us>, "jmiyoshi@lpnnrd.org" <jmiyoshi@lpnnrd.org>, "robertm@llnrd.org" <jeddins@achp.gov" <jeddins@achp.gov" <jeddins@achp.gov>,
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           frunge@fws.gov>, "julias@poncatribe-ne.org" <julias@poncatribe-ne.org>,
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           "don simpson@blm.gov" <don simpson@blm.gov>, "msittler@lpsnrd.org"
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<msittler@lpsnrd.org>, "Robert_F_Stewart@ios.doi.gov"
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"jmsunne@nppd.com" <jmsunne@nppd.com>, "Willie_Taylor@ios.doi.gov"
          <Willie Taylor@ios.doi.gov>, "randy_thoreson@nps.gov" 
<randy_thoreson@nps.gov>, "rtrudell@santeedakota.org"
           <rtrudell@santeedakota.org>, "deb.vanmatre@mail.house.gov"
          <deb.vanmatre@mail.house.gov>, "jwinkler@papionrd.org" <jwinkler@papionrd.org>,
"lewrightjr@gmail.com" <lewrightjr@gmail.com>, "mark@cpnrd.org"
           <mark@cpnrd.org>
cc Angel Robak <arobak@loup.com>, Jim Frear <jfrear@loup.com>, Neil Suess
           <nsuess@loup.com>, Ron Ziola <rziola@loup.com>, "Damgaard, Quinn V."<Quinn.Damgaard@hdrinc.com>, "Engelbert, Pat" <Pat.Engelbert@hdrinc.com>,
           "Grennan, Dennis E." <Dennis.Grennan@hdrinc.com>, "Hunt, George"
```

<George.Hunt@hdrinc.com>, "Pillard, Matt" <Matt.Pillard@hdrinc.com>, "Richardson, Lisa (Omaha)" <Lisa.Richardson@hdrinc.com>, "Thompson, Wendy" <Wendy.Thompson@hdrinc.com>, "Waldow, George"
<George.Waldow@hdrinc.com>, "White, Stephanie" <Stephanie.White@hdrinc.com>

Subject Loup Power District - FERC Relicensing Updated Study Report and Meeting

#### Relicensing Participants:

Loup Power District has electronically filed its Updated Study Report (USR) with FERC. The report is available on FERC's e-library and on the District's relicensing website: <a href="http://www.loup.com/relicense/">http://www.loup.com/relicense/</a>.

The USR includes updated study reports for Sedimentation and Hydrocycling.

The District will hold the Updated Study Results meeting on September 8<sup>th</sup> at the New World Inn, 265 33<sup>rd</sup> Ave, Columbus, Nebraska, Please RSVP by Sept. 2<sup>nd</sup> to Angell Robak at arobak@loup.com or (402) 564-3171, ext. 275.

For those not able to attend in person, but wishing to do so via conference call, meeting materials will be posted to: http://www.loup.com/relicense/html/agencymeetingsresources.html in advance of the meeting (by end of day 9/7/11). Dialin information is as follows:

1-866-994-6437

Passcode: 4023994909

Please bring your own copy of the Updated Study Report and come ready to discuss; we have a lot of material to cover and will start promptly at 8:30 AM on the  $8^{th}$ .

We look forward to seeing you on September 8<sup>th</sup>.

Matt Pillard	HDR Engineering, Inc
AICP	Sr. Environmental Planner
	8404 Indian Hills Drive   Omaha, NE 68114 402.399.1186   c: 402.660-7998 matt.pillard@hdrinc.com   hdrinc.com Follow Us – <u>Facebook</u>   <u>Twitter</u>   <u>YouTube</u>

From: Pillard, Matt

Sent: Wednesday, September 07, 2011 1:06 PM

To: shuhai.zheng@nebraska.gov; frank.albrecht@nebraska.gov; jalexand@usgs.gov;

calms@neb.rr.com; cgenoa@cablene.com; abaum@upperloupnrd.org; john.bender@nebraska.gov; al.berndt@nebraska.gov; rbishop@cpnrd.org;

mike.black@bia.gov; jblackhawk@aol.com; mbrown9@unl.edu; prescott.brownell@noaa.gov;

emily\_brummund@johanns.senate.gov; cothern.joe@epa.gov;

todd.crawford@mail.house.gov; jill.dolberg@nebraska.gov; adubas@leg.ne.gov; Brian.Dunnigan@nebraska.gov; lee.emery@ferc.gov; mferguson@gp.usbr.gov; barbara.j.friskopp@usace.army.mil; peggy.harding@ferc.gov; robert harms@fws.gov;

thowe@ponca.com; vwills@pawneenation.org; janet.hutzel@ferc.gov; dijarecke@clarkswb.net; nicholas.jayjack@ferc.gov; lpsnrd@lpsnrd.org;

isis.johnson@ferc.gov; david.jundt@dhhs.ne.gov; kennyj@headwaterscorp.com;

butchk@llnrd.org; cityadmin@cablene.com; monroe@megavision.com; bobbie.wickham@nebraska.gov; mkuzila1@unl.edu; clangemeier@leg.ne.gov; justin.lavene@nebraska.gov; pcclerk@megavision.com; ncpza@hamilton.net;

paul.makowski@ferc.gov; jmangi@columbusne.us; jmiyoshi@lpnnrd.org; robertm@llnrd.org;

jeddins@achp.gov; danno@nohva.com; marvp@megavision.com; tpetr@loup.com; bob.puschendorf@nebraska.gov; chairmanrhodd@ponca.com; jeff\_runge@fws.gov;

julias@poncatribe-ne.org; kenneth.sessa@dhs.gov; jjshadl@nppd.com; asheridan@omahatribe.com; don\_simpson@blm.gov; msittler@lpsnrd.org; Robert\_F\_Stewart@ios.doi.gov; ksullivan@leg.ne.gov; jmsunne@nppd.com; Willie\_Taylor@ios.doi.gov; randy\_thoreson@nps.gov; rtrudell@santeedakota.org; deb.vanmatre@mail.house.gov; jwinkler@papionrd.org; lewrightjr@gmail.com;

mark@cpnrd.org

**Cc:** Angel Robak; Jim Frear; Neil Suess; Ron Ziola; Damgaard, Quinn V.; Engelbert, Pat;

Grennan, Dennis E.; Hunt, George; Pillard, Matt; Richardson, Lisa (Omaha); Thompson,

Wendy; Waldow, George; White, Stephanie

Subject: Loup Power District – FERC Relicensing Updated Study Report Addendum and Meeting

Materials

#### **Relicensing Participants:**

Loup Power District has electronically filed an addendum to the Updated Study Report (USR) with FERC. It is available on FERC's e-library and on the District's relicensing <u>website</u>. The addendum includes the results of the statistical analysis of interior least tern nesting and Appendix J, Summary of Results Related to the Interior Least Tern and Piping Plover

The presentation for tomorrow's Updated Study Report meeting is now available on <a href="mailto:the-website">the website</a>. The meeting will be held at the New World Inn in Columbus, NE. Call in instructions can also be found on the web. If you call in, we request that you send an alternate phone number to Wendy Thompson (<a href="mailto:wendy.thompson@hdrinc.com">wendy.thompson@hdrinc.com</a>) in case of technical difficulties.

Thank you. Look forward to seeing you/hearing from you tomorrow.

MATT PILLARD

HDR Engineering, Inc

AICP

Sr. Environmental Planner

8404 Indian Hills Drive | Omaha, NE 68114 402.399.1186 | c: 402.660-7998 matt.pillard@hdrinc.com | hdrinc.com

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From: Richardson, Lisa (Omaha)

Sent:Tuesday, September 13, 2011 7:56 AMTo:Jorgensen, Joel; mbrown9@unl.eduCc:Thompson, Wendy; Pillard, Matt

Subject: Loup Hydro Relicensing

Attachments: USR\_Sed\_H.pdf

Joel & Mary,

Attached is the Sedimentation Study attachment (H) that includes all the SPSS output from the statistical analysis that was performed related to the bird nesting data.

Feel free to give me a call if you have any questions.

Regards,

Lisa

LISA M. RICHARDSON, P.E.

HDR Engineering, Inc

Associate Vice President

8404 indian Hills Drive | Omaha, NE 68114 o: 402.926.7026 | c: 402.618.9865

f: 402.399.1111

<u>lisa.richardson@hdrinc.com</u> | <u>hdrinc.com</u>

From: Pillard, Matt

Sent: Tuesday, September 27, 2011 8:00 AM

To: shuhai.zheng@nebraska.gov; frank.albrecht@nebraska.gov; jalexand@usgs.gov;

calms@neb.rr.com; cgenoa@cablene.com; abaum@upperloupnrd.org; john.bender@nebraska.gov; al.berndt@nebraska.gov; rbishop@cpnrd.org;

mike.black@bia.gov; jblackhawk@aol.com; mbrown9@unl.edu; prescott.brownell@noaa.gov;

emily\_brummund@johanns.senate.gov; cothern.joe@epa.gov;

todd.crawford@mail.house.gov; jill.dolberg@nebraska.gov; adubas@leg.ne.gov; Brian.Dunnigan@nebraska.gov; lee.emery@ferc.gov; mferguson@gp.usbr.gov; barbara.j.friskopp@usace.army.mil; peggy.harding@ferc.gov; robert harms@fws.gov;

thowe@ponca.com; vwills@pawneenation.org; janet.hutzel@ferc.gov; djjarecke@clarkswb.net; nicholas.jayjack@ferc.gov; lpsnrd@lpsnrd.org;

isis.johnson@ferc.gov; david.jundt@dhhs.ne.gov; kennyj@headwaterscorp.com;

butchk@llnrd.org; cityadmin@cablene.com; monroe@megavision.com; bobbie.wickham@nebraska.gov; mkuzila1@unl.edu; clangemeier@leg.ne.gov; justin.lavene@nebraska.gov; pcclerk@megavision.com; ncpza@hamilton.net;

paul.makowski@ferc.gov; jmangi@columbusne.us; jmiyoshi@lpnnrd.org; robertm@llnrd.org;

jeddins@achp.gov; danno@nohva.com; marvp@megavision.com; tpetr@loup.com; bob.puschendorf@nebraska.gov; chairmanrhodd@ponca.com; jeff\_runge@fws.gov; iviiaa@nanatriba.gov; danno@nohva.com@dha.gov; iiiaa@nanatriba.gov; danno@nohva.com; jeff\_runge@fws.gov; iviiaa@nanatriba.gov; danno@nohva.com; jeff\_runge@fws.gov; danno@nohva.com; jeff\_runge@fws.gov; iviiaa@nanatriba.gov; danno@nohva.com; jeff\_runge@fws.gov; danno@nohva.com; jeff\_runge@fws.gov; danno@nohva.com; jeff\_runge@fws.gov; dannowardiba.gov; dannoward

julias@poncatribe-ne.org; kenneth.sessa@dhs.gov; jjshadl@nppd.com; asheridan@omahatribe.com; don\_simpson@blm.gov; msittler@lpsnrd.org; Robert\_F\_Stewart@ios.doi.gov; ksullivan@leg.ne.gov; jmsunne@nppd.com; Willie\_Taylor@ios.doi.gov; randy\_thoreson@nps.gov; rtrudell@santeedakota.org;

deb.vanmatre@mail.house.gov; jwinkler@papionrd.org; mark@cpnrd.org

**Cc:** Angel Robak; Jim Frear; Neil Suess; Ron Ziola; Damgaard, Quinn V.; Engelbert, Pat;

Grennan, Dennis E.; Hunt, George; Pillard, Matt; Richardson, Lisa (Omaha); Thompson,

Wendy; Waldow, George; White, Stephanie

Subject: Loup Power District – FERC Relicensing Updated Study Report Meeting Summary

#### Relicensing Participants:

Loup Power District has electronically filed the Meeting Summary from the Updated Study Results Meeting held on September 8, 2011. The report is available on FERC's e-library and on the District's relicensing website: <a href="http://www.loup.com/relicense/html/documents.html">http://www.loup.com/relicense/html/documents.html</a>.

Thank you.

MATT PILLARD

HDR Engineering, Inc

AICP Sr. Environmental Planner

8404 Indian Hills Drive | Omaha, NE 68114 402.399.1186 | c: 402.660-7998 matt.pillard@hdrinc.com | hdrinc.com

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From: Richardson, Lisa (Omaha)

Sent: Monday, October 03, 2011 6:02 PM

To: Thompson, Wendy

Subject: FW: ESA and FPA discussions Loup Power District

Attachments: Draft Meeting Agenda 10032011.doc

Follow Up Flag: Follow up Flag Status: Flagged

For the DB and PW.

From: Robert Harms@fws.gov [mailto:Robert Harms@fws.gov]

Sent: Monday, September 26, 2011 11:16 AM

To: frank.albrecht@nebraska.gov; jeff runge@fws.gov; Richardson, Lisa (Omaha); Pillard, Matt; nsuess@loup.com;

joel.jorgensen@nebraska.gov; richard.holland@nebraska.gov; Michelle.Koch@nebraska.gov

Cc: John Cochnar@fws.gov

Subject: Re: ESA and FPA discussions Loup Power District

#### All:

I have scheduled the Endangered Species Act and Federal Power Act discussions for October 3, 2011, from 1-3:00 pm--a date and time that works for the majority of people who completed the doodle poll. Our meeting location is at the Loup Power District office in Columbus. Neal--please advise me if this date and time will not work for you. A draft agenda is attached for your consideration--please take the time to review it and provide any suggestions to the agenda to me. Thanks.

(See attached file: Draft Meeting Agenda 10032011.doc)

#### Bob

Robert R. Harms
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
203 West Second Street
Grand Island, Nebraska 68801
Phone: 308-382-6468, Extension 17

Fax: 308-384-8835 robert harms@fws.gov

Robert

Harms/R6/FWS/DOI

ToNeil Suess, Matt Pillard, Frank Albrecht, Lisa Richardson, Jeff Runge

09/20/2011 09:28 AM

ccJohn Cochnar/R6/FWS/DOI@FWS

SubjectESA and FPA discussions Loup Power District

Robert Harms/R6/FWS/DOI

#### All:

This is to schedule a meeting to begin section 7 consultation pursuant to the Endangered Species Act and section 10j of the Federal Power Act processes for the proposed FERC relicensing of Loup Power District operations. Please complete the doodle poll link that I have attached by Thursday September 22 and I'll select a meeting date that works. Tentative agenda topics include the processes and purposes for section 7 consultation and section 10 j; species affects; protection, avoidance, and mitigation measures, monitoring; and next steps. I'll prepare a draft agenda prior to our meeting and circulate that for feedback. Plan for a 2-3 hour meeting; once a date is selected I'll be in touch with further logistical information including a meeting location and time--I am leaning toward a meeting at LPD offices in Columbus--Neil is that possible pending the selection of a meeting date?

Please call or E-mail me if you have any questions. Thanks much.

#### http://www.doodle.com/x5yv58gzvccnsyue

Bob

Robert R. Harms
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
203 West Second Street
Grand Island, Nebraska 68801
Phone: 308-382-6468, Extension 17

Fax: 308-384-8835 robert harms@fws.gov

## **Draft Agenda**

# Loup Power District FERC Relicensing Section 7 Endangered Species Act Section 10J of the Federal Power Act October 3, 2011 1:00 pm – 3:00 pm

- a) Introductions
- **b)** Processes
  - Section 7 of the Endangered Species Act
  - Section 10J of the Federal Power Act
- c) Environmental baseline
- d) Species effects
- e) Avoidance, minimization, and mitigation
- f) Next steps
- g) Adjourn



2404 15th Street
P.O. Box 988
Columbus, NE 68602-0988

Phone: 402/564-3171 Fax: 402/564-0970

September 26, 2011

Mr. Robert Harms U.S. Fish and Wildlife Service Nebraska Field Office 203 West Second Street Federal Building, Second Floor Grand Island, Nebraska 68801

RE: 2011 Loup River Tern and Plover Information Request

Dear Mr. Harms:

As you are aware, Loup Power District (the District) is currently seeking a new operating license with the Federal Energy Regulatory Commission (FERC) for its hydroelectric facilities located on the Loup River near Genoa and Columbus, Nebraska. I would like to take this opportunity to thank you for your responses to our prior requests for information and for your involvement thus far in the re-licensing process.

The District has completed one year of studies as they relate to the re-licensing effort and have presented these study results. To date, the District has obtained tern and plover survey data from Nebraska Game and Parks Commission (NGPC), as the agency tasked with updating and managing the Nebraska Least Tern and Piping Plover Database, and also from the USFWS as the agency responsible for collection of 2009 and 2010 tern and plover data on the Loup River.

At this time, I would like to request any and all 2011 interior least tern and piping plover population, nesting, chick counts, fledge counts, productivity information, nest and adult locations, trend information, and any habitat information collected by the USFWS during the 2011 breeding season for the Loup River (both on- and off-river data). This information would be used to update existing studies and is critical to completion of the biological assessment and continuation of the environmental review of the Project. Please provide this data electronically (excel, database, shapefiles, etc) to expedite our review of the data.

I appreciate your assistance in providing information for the relicensing effort as quickly as possible. The information requested will be used for analytical purposes and the only information that will be published is information related to general trends and observations. Location specific information will not be made available to the general public without the consent of the USFWS and NGPC.

Please submit the requested information electronically as soon as possible to HDR Engineering, the District's relicensing consultant:

Matt Pillard HDR Engineering 8404 Indian Hills Drive Omaha, NE 68114 Matt.pillard@hdrinc.com

Please feel free to contact Matt Pillard (402-399-1186) or Melissa Marinovich (402-399-1317) of HDR if you have any questions or clarifications regarding this information request. Thank you for your assistance.

Sincerely,

Neal D. Suess President/CEO

Loup Public Power District

cc: Lee Emery, FERC

Joel Jorgensen, NGPC Matt Pillard, HDR 2404 15th Street
P.O. Box 988
Columbus, NE 68602-0988

402/564-3171 Fax: 402/564-0970

September 26, 2011

Mr. Robert Harms U.S. Fish and Wildlife Service Nebraska Field Office 203 West Second Street Federal Building, Second Floor Grand Island, Nebraska 68801

Re: Loup River Hydroelectric Project FERC Project Number 1256

Request for an Updated Species List

Dear Mr. Harms:

As you are aware, Loup Power District (the District) filed a Notice of Intent (NOI) and a Pre-Application Document (PAD) in October 2008 to begin the Federal Energy Regulatory Commission (FERC) relicensing process for its hydroelectric facilities located on the Loup River near Columbus, Nebraska (Project). In FERC's Notice of Commencement on December 16, 2008, FERC initiated informal consultation with the U.S. Fish and Wildlife Service (USFWS) and designated Loup Power District (the District) as the non-federal representative to conduct ESA section 7 consultation.

The District is currently preparing a draft Biological Assessment. In letters dated July 21, 2008 and September 18, 2008, the USFWS provided technical assistance to the District in determining the potential issues related to threatened or endangered species. In accordance with section 7 of the Endangered Species Act (ESA), USFWS developed a list of federally listed species that may occur in the Project area or may be affected by the proposed relicensing of the Project. These species were:

- Interior Least Tern
- Pallid Sturgeon
- Piping Plover
- Western Prairie Fringed Orchid
- Whooping Crane

I would like to request confirmation of the species listed in the aforementioned letter as the federally listed threatened and endangered species which may be applicable to the Project.

Please submit your concurrence by October 10, 2011, to HDR Engineering, the District's relicensing consultant:

Matt Pillard HDR Engineering 8404 Indian Hills Drive Omaha, NE 68114 Matt.pillard@hdrinc.com Please feel free to contact Matt Pillard (402-399-1186) of HDR if you have any questions or clarifications regarding the updated species list request. Thank you for your assistance.

Sincerely,

Neal D. Suess President/CEO

Loup Public Power District

Kim Nguyen, FERC Matt Pillard, HDR cc:

From: Engelbert, Pat

Sent: Thursday, October 13, 2011 2:31 PM

To:Richardson, Lisa (Omaha)Cc:Thompson, WendySubject:FW: Sediment Delivery

Attachments: LoupSediment.pdf; Paul Makowski 2011 10 12 e-mail Response.docx; 2010 Dredging

Information.xls

Follow Up Flag: Follow up Flag Status: Flagged

Lisa,

Below is the e-mail and associated attachment (LoupSediment.pdf) I received from Paul Makowski regarding the District's dredge operations and the associated sediment calculations. Attached is the response to comments document as well as the spreadsheet with dredge amounts referenced in the response to comments. Please review and provide comment.

Pat

#### **PATRICK J. ENGELBERT**

#### HDR Engineering, Inc.

P.E.

Water Resources Section Manager

8404 Indian Hills Drive | Omaha, NE 68114 402.399.4917 | c: 402.679.4221 Pat.Engelbert@hdrinc.com | hdrinc.com

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**From:** Paul Makowski [mailto:Paul.Makowski@ferc.gov]

Sent: Wednesday, October 12, 2011 2:58 PM

**To:** Engelbert, Pat

**Subject:** Sediment Delivery

Pat,

For me to understand table 5-1 of Study 1.0, Sedimentation, dated August 26, 2011, I have several questions. Note that there is overlap between some of the questions. To facilitate discussion I have attached a schematic showing the study area of the Loup River, Power Canal and Platte River. The attachment also includes sediment yield estimates for various points in the Study area. These estimates were developed by the Missouri River Basin Commission (MRBC) (September 1975) and Loup Power District (LPD) (August 26, 2011).

1. MRBC's 1975 sediment yield estimates were updated based on LPD's dredging records for the periods 1940-1974 and 1975-2009. The average annual sediment dredged from 1940-1974 was estimated at 3.75 million tons and at 2.00 millions tons for the period 1975-2009. The ratio of reduction was calculated as 0.534 and this ratio was applied to the Loup River watershed input. The updating of all the MRBC yields was made by "parlaying" the 0.534 adjustment downstream. Please describe this "parlaying" process (supporting calculations would be helpful).

- 2. It appears that the average annual sediment dredged from 1940-1974 was used to represent the MRBC's study timeframe. However, the MRBC study used a value of 1.9 million tons of sediment removed from the Settling Basin (table 4-4). It appears that the value of sediment removal used in the MRBC study is virtually identical to the value used in the LPD study (1.9 versus 2.0 million tons). The MRBC study does not mention or quantify dredged material directed to the South Sand Management Area. What are your thoughts concerning the application of the 0.534 reduction ratio to update MRBC yields?
- 3. LPD states that the cause of the reduction in sediment yield from the Loup River watershed is not known. However, if the cause is related to improved land conservation and management practices (as described in the MRBC study), shouldn't a similar reduction be applied to the other watersheds? MRBC recognized a phased implementation of land conservation and management practices and developed revised sediment yields for various watersheds for the years 1985, 2000 and 2020 (tables 4-7, 4-8, and 4-9, respectively). These watersheds include the Loup River, Elkhorn River, upper Platte River and lower Platte River. These revised sediment yields could be used with the recent dredging records to update MRBC yields. What are your thoughts?
- 4. Although the MRBC study provided continuity, it does not appear that continuity is provided in the new study total column of table 5-1. For example, referring to the schematic, the yield from the Loup River (LR1), upstream of the diversion, is divided between the Power Canal and the Loup River bypass. The new study total column of table 5-1 shows that the yield in the Loup River bypass (LR2), downstream of the diversion, as 2,030,000 tons. Therefore, 2,150,000 tons (4,180,000 2,030,000) would join the Power Canal (PC1). The new study total column of table 5-1 shows that 2,004,800 tons (PC2) are removed from the Settling Basin and that 700,000 tons (PC3) continues downstream. Therefore, 2,704,880 tons (2,004,800 + 700,000) must enter the Power Canal (PC1). The difference between the two estimates for PC1 is 554,800 tons or 27% of the value provided on line 5, table 5-1. Is continuity provided in the new study total column of table 5-1?

When we last spoke on September 14<sup>th</sup>, LPD was going to send dredging records that shows the amount of sediment directed to the North and South Sand Management Areas. Section 4.2.7 of the PAD states that from 1937 to 1960, all dredged material was direct to the South Sand Management Area. The PAD goes on to say that beginning in 1961, dredged material was also directed to the North Sand Management Area and beginning in 1975 the majority of dredged material was directed to the North Sand Management Area. What caused the need for the North Sand Management Area?

Thank you for your insights.

Paul Makowski

Federal Energy Regulatory Commission

Division of Hydropower Licensing

888 First Street, N.E.

Washington, D.C. 20426

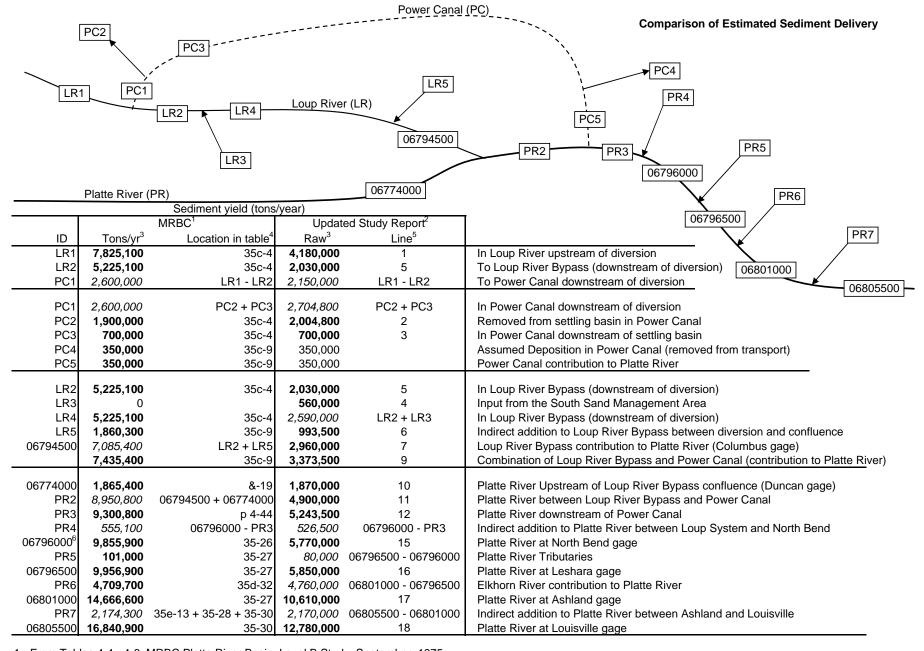
(202) 502-6836 - telephone

(202) 219-0205 -fax

<<LoupSediment.pdf>>

	DREDGE HISTORY				
	Material	Material	Total	Б	Dredging
V	Pumped to	Pumped to	Material	Dredging	Yards per
Year	South Side	North Side	Pumped	Hours	Hour
2010	433,522	682,564	1,116,086	2638	423
2009	603,781	750,123	1,353,904	2898	467
2008	466,155	844,157	1,310,312	3007	436
2007	496,670	673,900	1,170,570	3440	340
2006	391,743	634,002	1,025,745	3232	317
2005	327,226	774,813	1,102,039	3,424	322
2004	264,488	625,965	890,453	2,920	305
2003	235,004	827,073	1,062,077	3,272	325
2002	403,004	674,071	1,077,075	3,480	310
2001	169,371	939,665	1,109,036	3,228	344
2000	284,814	866,633	1,151,447	3,265	353
1999	565,924	1,065,627	1,631,551	3,854	423
1998	671,265	783,238	1,454,503	3,835	379
1997	381,595	1,091,218	1,472,813	3,687	399
1996	407,002	828,888	1,235,890	3,213	385
1995	311,963	897,997	1,209,960	3,178	381
1994	309,778	902,074	1,211,852	2,905	417
1993	345,913	986,687	1,332,600	2,937	454
1992	466,047	1,076,827	1,542,874	3,623	426
1991	224,313	1,136,398	1,360,711	3,071	443
1990	189,551	1,177,446	1,366,997	3,124	438
1989	200,835	976,037	1,176,872	3,141	375
1988	223,869	942,468	1,166,337	2,950	395
1987	541,471	755,800	1,297,271	3,678	353
1986	323,157	987,572	1,310,729	3,334	393
1985	372,859	920,279	1,293,138	3,549	364
1984	379,166	776,408	1,155,574	3,206	360
1983	470,470	1,125,526	1,595,996	5,221	306
1982	278,088	910,488	1,188,576	3,753	317
1981	202,728	976,288	1,179,016	3,601	327
1980	193,242	738,399	931,641	3,217	290
1979	86,141	850,972	937,113	2,974	315
1978	310,680	816,537	1,127,217	3,142	359
1977	266,998	1,197,860	1,464,858	3,640	402
1976	306,720	941,639	1,248,359	3,220	388
1975	431,737	737,672	1,169,409	3,068	381
1974	746,050	733,038	1,479,088	3,405	434
1973	878,563	801,729	1,680,292	3,547	474
1972	1,120,194	356,493	1,476,687	3,551	416
1971	957,501	433,309	1,390,810	3,100	449
1970	1,252,055	242,729	1,494,784	3,262	458
1969	1,109,118	296,877	1,405,995	2,863	491
1968	1,175,096	333,168	1,508,264	3,375	447
1967	1,025,852	692,196	1,718,048	3,548	484
1966	1,283,181	277,932	1,561,113	3,481	448
1965	1,484,449	268,239	1,752,688	3,534	496
1964	1,298,392	512,893	1,811,285	3,698	490

1963	1,195,471	243,595	1,439,066	3,524	408
1962	1,428,476	523,980	1,952,456	4,060	481
1961	1,174,312	558,982	1,733,294	3,357	516
1960	1,836,727	0	1,836,727	3,925	468
1959	2,016,229	0	2,016,229	4,241	475
1958	2,827,443	0	2,827,443	4,899	577
1957	3,173,330	0	3,173,330	3,704	857
1956	2,504,070	0	2,504,070	2,679	935
1955	2,419,914	0	2,419,914	2,561	945
1954	3,608,443	0	3,608,443	3,821	944
1953	3,258,338	0	3,258,338	3,308	985
1952	3,396,650	0	3,396,650	3,424	992
1951	4,373,774	0	4,373,774	4,405	993
1950	3,193,537	0	3,193,537	3,303	967
1949	3,210,191	0	3,210,191	3,419	939
1948	3,588,265	0	3,588,265	3,811	942
1947	4,140,312	0	4,140,312	4,330	956
1946	4,351,249	0	4,351,249	4,385	992
1945	2,073,500	0	2,073,500	3,625	572
1944	2,035,748	0	2,035,748	3,559	572
1943	1,739,452	0	1,739,452	3,041	572
1942	2,382,952	0	2,382,952	4,166	572
1941	1,824,680	0	1,824,680	3,190	572
1940	1,438,008	0	1,438,008	2,514	572
1939	1,767,480	0	1,767,480	3,090	572
1938	1,627,349	0	1,627,349	2,845	572
1937	363,220	0	363,220	635	572
Minimum	86,141	0	363,220	635	290
Maximum	4,373,774	1,197,860	4,373,774	5,221	993
Average	1,240,768	515,790	1,756,559	3,393	514



- 1 From Tables 4-4 4-6, MRBC Platte River Basin, Level B Study, September, 1975.
- 2 From Table 5-1, Study 1.0, Sedimentation, August 26, 2011.
- 3 Values presented in bold were obtained directly from the tables. Values in italics were calculated.
- 4 Corresponding line number in tables 4-3 4-6. The yields in italics were calculated using the identified ID values.
- 5 Corresponding line in Table 5-1. The yields in italics were calculated using the identified ID values.
- 6 Table 4-6 has a typographical error in the Yield to Platte (reported as 9,885,900).

For me to understand table 5-1 of Study 1.0, Sedimentation, dated August 26, 2011, I have several questions. Note that there is overlap between some of the questions. To facilitate discussion I have attached a schematic showing the study area of the Loup River, Power Canal and Platte River. The attachment also includes sediment yield estimates for various points in the Study area. These estimates were developed by the Missouri River Basin Commission (MRBC) (September 1975) and Loup Power District (LPD) (August 26, 2011).

1. MRBC's 1975 sediment yield estimates were updated based on LPD's dredging records for the periods 1940-1974 and 1975-2009. The average annual sediment dredged from 1940-1974 was estimated at 3.75 million tons and at 2.00 millions tons for the period 1975-2009. The ratio of reduction was calculated as 0.534 and this ratio was applied to the Loup River watershed input. The updating of all the MRBC yields was made by "parlaying" the 0.534 adjustment downstream. Please describe this "parlaying" process (supporting calculations would be helpful).

#### Response:

In the August 26, 2009 Study Plan Determination from FERC, the District was directed to "adjust the sediment yield calculated for the Loup River and its tributaries downstream of the project's diversion dam as well as the project's tailrace based on documented reduction in dredged material from the project's settling basin". From Table 4-4 in the MRBC study, the amount of sediment yield upstream of the diversion is 7,825,100 tons/year. Based on the reduction in dredged material, the ratio of 0.534 (2.00/3.75) was applied to the yield listed in the MRBC study, resulting in an updated yield upstream of the diversion of 4,180,000 tons (7,825,100 \* 0.534). By parlaying, it was meant to describe that the cumulative downstream sediment yields were adjusted based on the updated or changed Loup Basin sediment yield. This was done by adding the downstream basin sediment yields listed in Table 4-4 of the MRBC Study to the updated Loup Basin yield value. It is noted that FERC did not direct the District to adjust the basin yields downstream of the diversion. This is reasonable since there is no data to develop an adjustment factor for the downstream basins.

2. It appears that the average annual sediment dredged from 1940-1974 was used to represent the MRBC's study timeframe. However, the MRBC study used a value of 1.9 million tons of sediment removed from the Settling Basin (table 4-4). It appears that the value of sediment removal used in the MRBC study is virtually identical to the value used in the LPD study (1.9 versus 2.0 million tons). The MRBC study does not mention or quantify dredged material directed to the South Sand Management Area. What are your thoughts concerning the application of the 0.534 reduction ratio to update MRBC yields?

#### Response:

The MRBC report does not state how the dredged value of 1.9 million tons/year listed in Table 4-4 was developed. The MRBC report was published in September,1975, and a review of the District's records shows that the amount dredged in 1975 was approximately 1.9 million tons per year (see Figure 5-1 in the Updated Study Report). Based on District records between 1940-1974, the average dredged amount was 3.75 million tons per year, and between 1975 and 2009, the average dredged amount was 2.00 million tons per year. It appears coincidental that the 1.9 million tons of dredged material listed in the MRBC report is similar to the average dredge value from 1975 to 2009. Application of the reduction ratio to sediment yield upstream of the diversion structure appears reasonable given the wide range of dredge amount variability pre-1974 and the relative stability of the dredge amount post-1975.

3. LPD states that the cause of the reduction in sediment yield from the Loup River watershed is not known. However, if the cause is related to improved land conservation and management practices (as described in the MRBC study), shouldn't a similar reduction be applied to the other watersheds? MRBC

recognized a phased implementation of land conservation and management practices and developed revised sediment yields for various watersheds for the years 1985, 2000 and 2020 (tables 4-7, 4-8, and 4-9, respectively). These watersheds include the Loup River, Elkhorn River, upper Platte River and lower Platte River. These revised sediment yields could be used with the recent dredging records to update MRBC yields. What are your thoughts?

Response:

FERC did not direct the District to adjust the basin yields downstream of the diversion. This is reasonable since there is no data to develop an adjustment factor for the downstream basins.

4. Although the MRBC study provided continuity, it does not appear that continuity is provided in the new study total column of table 5-1. For example, referring to the schematic, the yield from the Loup River (LR1), upstream of the diversion, is divided between the Power Canal and the Loup River bypass. The new study total column of table 5-1 shows that the yield in the Loup River bypass (LR2), downstream of the diversion, as 2,030,000 tons. Therefore, 2,150,000 tons (4,180,000 – 2,030,000) would join the Power Canal (PC1). The new study total column of table 5-1 shows that 2,004,800 tons (PC2) are removed from the Settling Basin and that 700,000 tons (PC3) continues downstream. Therefore, 2,704,880 tons (2,004,800 + 700,000) must enter the Power Canal (PC1). The difference between the two estimates for PC1 is 554,800 tons or 27% of the value provided on line 5, table 5-1. Is continuity provided in the new study total column of table 5-1?

Response:

Cumulative sediment yield is being maintained. The difference noted in comment 4 between the two estimates for PC1 is the amount of sediment that is dredged to the South Sand Management Area. Recall that dredged sediment to the South Sand Management Area (South SMA) is re-introduced to the Loup River Bypass Reach. As detailed in the PAD "After dredge material is deposited at the South SMA, the sand and water are conveyed adjacent to the settling basin in a northeasterly direction; a majority of the sand and water eventually flows back into the Loup River, as evidenced by establishment of large trees and only small changes in the elevation of the South SMA." This information, although presented in the PAD, was not re-iterated in the ISR or USR, which was an oversight. The 554,800 ton difference noted in Comment 4 is actually accounted for in the Loup Bypass Reach.

When we last spoke on September 14<sup>th</sup>, LPD was going to send dredging records that shows the amount of sediment directed to the North and South Sand Management Areas. Section 4.2.7 of the PAD states that from 1937 to 1960, all dredged material was direct to the South Sand Management Area. The PAD goes on to say that beginning in 1961, dredged material was also directed to the North Sand Management Area and beginning in 1975 the majority of dredged material was directed to the North Sand Management Area. What caused the need for the North Sand Management Area?

Response:

According to the District, local property owners expressed concern in the late 1950's that the Loup River Bypass Reach was being pushed to the south due to the dredging operation (see spreadsheet 2010 Dredging Information.xls). Therefore, beginning in 1961, the District began dredging to both the South SMA as well as the North Sand Management Area (North SMA). According to District records, since 1975 approximately 70% of the material is dredged to the North SMA and approximately 30% of the material is dredged to the South SMA.

Thank you for your insights.

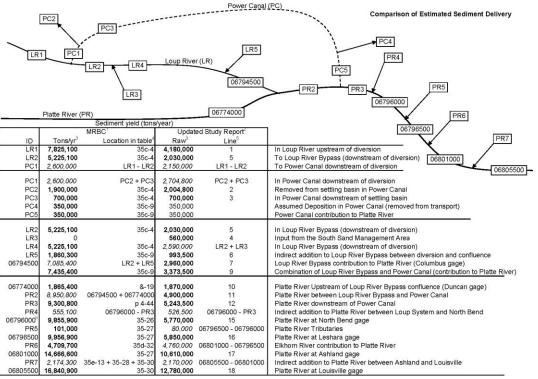
Paul Makowski

#### Subsequent e-mail question:

While we are talking about sediment, what is the relationship between the values in Table 4-4 and Table 5-1?

Response:

Table 5-1 details the basin yield estimates provided by the MRBC Report, and the updated yield values based on the ratio of reduction upstream of the diversion structure. Table 4-4 details an analysis to confirm our capacity calculations at the Genoa gage using dredge and flow records. We assumed that the amount of sediment transport was proportional to the flow split. The results are detailed on page 46 of the USR.



- 1 From Tables 4-4 4-6, MRBC Platte River Basin, Level B Study, September, 1975.
- 2 From Table 5-1, Study 1.0, Sedimentation, August 26, 2011.
- 3 Values presented in bold were obtained directly from the tables. Values in italics were calculated.
- 4 Corresponding line number in tables 4-3 4-6. The yields in italics were calculated using the identified ID values.
- 5 Corresponding line in Table 5-1. The yields in italics were calculated using the identified ID values.
- 6 Table 4-6 has a typographical error in the Yield to Platte (reported as 9,885,900).

# Nebraska Off Highway Vehicle Association **NOHVA**

### TBQ Sport Club, Incorporated

A Non-Profit Association For All Terrain Vehicle, UTV and Off Road Motorcycle Users - Established 1987
Business Office: 2231 West 10<sup>th</sup> Street, Grand Island, Nebraska 68803
Web site: www.nohva.com Telephone: 308-381-2143 Email: danno@nohva.com

October 16, 2011

Lisa M. Richardson Relicensing Project Manager HDR Engineering, Inc 8404 Indian Hills Drive Omaha, NE 68114

Dear Lisa,

Thank you for asking us to comment on the Draft Recreation Management Plan and allowing us to participate on the FERC relicensing project.

We find that the document as written does a good job of describing recreation opportunities and contains interesting data and observations. We have no objections to any of its contents. After review by our Board of Directors, we would like to offer these comments concerning the Draft Recreation Management Plan.

The members of our organization are honored to be part of the cooperative effort to provide ATV, dirtbike and UTV trails at the Headworks OHV Park.

While we truly enjoy the OHV trail system, the existing camping and park facilities at the Headworks recreation area are extremely important to our members. We thank Loup Power for considering to provide upgraded camper electrical outlets. Camping is a very popular family oriented activity among our members. No other governmental subdivision in Nebraska provides as fine of facilities with this much diversification to the public at no charge as Loup Power does.

Our members support improvements to restroom facilities in the OHV parking area. We understand the situation concerning showers, potable water and flush toilets. It would be very cost prohibitive to provide these amenities, let alone meeting minimum state and local standards involving the operation of the amenities. The Loup Power staff does an outstanding job of maintaining above average sanitary considerations of the existing vault toilets at Headworks Park.

About 70% of our members are family members. Many of our family members have children who already enjoy the playground facilities at Headworks Park. Additional improvements to playground equipment and areas would be greatly appreciated.

Our members welcome improvements to OHV area parking. Drainage can be a problem at times and the dispersed nature of the parking area for OHV users is not an efficient use of the land available. A good example of parking management at an OHV park would be the Little Sahara State Park near Waynoka Oklahoma where the parking areas are divided into separate parking spots. Many of us are very familiar with this operation. If further assistance is desired, NOHVA members would be happy to help provide input.

In closing, it is impossible to for us to adequately thank the Loup Power District and their staff for all that they have done to provide a badly needed recreation facility for ATVs, dirtbike and UTV enthusiasts in Nebraska. Please keep up the great work!

Sincerely,

まずろげし

Dan Nitzel, NOHVA Business Manager and President

From: Richardson, Lisa (Omaha)

Sent: Wednesday, October 19, 2011 6:57 PM

To: Thompson, Wendy

Subject: FW: Platte River Channel Document

Attachments: Slingshot.txt

Follow Up Flag: Follow up Flag Status: Flagged

For the DB and PW – don't worry about the attachment, but please include the name of the attachment in the info in the DB. Thanks

From: Engelbert, Pat

Sent: Tuesday, October 18, 2011 9:35 AM

To: Paul Makowski

**Cc:** Richardson, Lisa (Omaha); Hunt, George **Subject:** Platte River Channel Document

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Paul,

Attached is the document you requested. It is quite large, so if it gets stripped, let me know and we will post the document on the project ftp site.

#### Pat

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#### FEDERAL ENERGY REGULATORY COMMISSION

WASHINGTON, D.C. 20426 October 21, 2011

OFFICE OF ENERGY PROJECTS

Project No. 1256-029 – Nebraska Loup River Hydroelectric Project Loup Power District

Neal D. Suess, President/CEO Loup Power District 2404 15<sup>th</sup> Street P.O. Box 988 Columbus, NE 68602-0988

Reference: Commission Staff Comments on the Updated Study Report

Dear Mr. Suess:

Commission staff has reviewed the updated initial study report and meeting summary for the Loup Project No. 1256, filed on August 29, 2011 (supplemented on September 7, 2011) and September 23, 2011, respectively. We do not have any comments on the meeting summary. Our comments and recommendations with respect to the updated study report are provided in Appendix A.

If you have any questions, please contact Lee Emery at (202) 502-8379 or lee.emery@ferc.gov.

Sincerely,

Nicholas Jayjack, Chief Midwest Branch Division of Hydropower Licensing

Enclosure: Schedule A

cc: Mailing List Public Files

#### APPENDIX A

Commission staff has reviewed the updated study report (USR) pursuant to 18 CFR § 5.15(f), and has the following comments and recommendations pursuant to 18 CFR § 5.15(e).

The USR included the results of each study as required by the Commission's Study Plan Determination, issued on August 26, 2009, including the integration and modification of results that had previously been reported separately in the initial and second initial study reports. Based on staff's review of the USR, we find that although the USR illustrates that the Platte River is in dynamic equilibrium, the USR also shows that project operations result in a large reduction in sediment yield in the Loup River system. This reduction will likely impact sediment transport further downstream in the Platte River, which may affect channel dimensions and sandbar habitat for interior least tern (*Sterna antillarum*) and piping plover (*Charadrius melodus*) nesting. Therefore, we recommend the additional study described below.

#### **Operational Alternatives Study**

#### Goals and Objectives

 $\S5.9$  (b)(1) — Describe the goals and objectives of each study proposal and the information to be obtained.

The goal of this study is to analyze potential changes in sediment transport based on alternative project operations designed to mitigate project-related sediment depletion in the lower Platte River and/or enhance nesting habitat for interior least terms and piping plovers.

Specifically, the objectives of the study include:

- Analyze four alternatives to existing project operation.
- Determine the effects of the alternative operations on dominant and effective discharges in the Loup River bypassed reach and the lower Platte River.
- Explain all input parameters, assumptions, and computations used in analyzing the four alternatives.

 $\S5.9(b)(2)$  — If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied.

Not applicable.

§5.9(b)(3) — If the requester is not a resource agency, explain any relevant public interest considerations in regard to the proposed study.

The Commission must decide whether to issue a license to the Loup Power District for the Loup River Hydroelectric Project (project). Sections 4(e) and 10(a) of the Federal Power Act (FPA) require the Commission to give equal consideration to all uses of the waterway on which a project is located, and what conditions should be placed on any license that may be issued. In making its license decision, the Commission must equally consider the environmental, recreational, fish and wildlife, and other non-developmental values of the project, as well as power and developmental values. Any license issued shall be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses.

Reduction in the sediment yield caused by project operations could adversely affect the formation of sandbar habitat necessary for interior least tern and piping plover nesting in the Loup and lower Platte Rivers. Properly analyzing operational alternatives will ensure that the necessary protection, mitigation and/or enhancement measures are considered to fulfill the Commission's responsibilities under sections 4(e) and 10(a) of the FPA, the National Environmental Policy Act, and Endangered Species Act.

### Background/Existing Information and Project Nexus

 $\S5.9(b)(4)$  – Describe existing information concerning the subject of the study proposal, and the need for additional information.

The USR analyzes operational effects on sediment yield caused by the current operations of the project; however, there is no information on the potential beneficial effects of alternative operations on nesting habitat for interior least terns and piping plovers.

 $\S5.9(b)(5)$  – Explain any nexus between project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements.

Existing project operation entails the removal of sediment from the Settling Basin located at the upstream end of the Loup Power Canal. According to table 5-1 of Study 1.0, *Sedimentation*, the sediment removed from the Settling Basin and deposited within the Loup Power Canal and Babcock and North lakes represents 53 percent of the annual sediment yield from the Loup River system to the Platte River via the Loup River bypassed reach and the Loup Power Canal.

Further downstream in the Platte River, this removal of sediment from the Loup River system corresponds to 31 percent of the sediment yield of the Platte River at North Bend and 14 percent of the sediment yield at Louisville. Table 5-1 also shows that the sediment yield of the Loup Power Canal to the Platte River is about 13 percent of the adjusted sediment yield of the Loup River upstream of the project's diversion weir. 1

This reduction of the sediment yield of the Loup Power Canal is analogous to flow released from a dam where sediment is trapped in the reservoir. The clear water from the Loup Power Canal can adversely affect channel stability as the downstream erosive power is increased because the flows released from the project are no longer using energy to transport sediment removed from the system.<sup>2</sup> Further, the USR provides sedimentation data based on narrow operating constraints, without considering how alternative operation regimes might improve sediment yield, and thus improve tern and plover nesting habitat formation in the Loup River Basin and Platte River downstream of the project.

#### Proposed Methodology

§5.8(b)(6) – Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field season(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge.

Our proposed study methodology is for you to apply the dominant and effective discharge methodology used in Study 2.0., *Hydrocycling*, to analyze the effects of the following alternative operations in the Loup River bypassed reach and the lower Platte River. You would document all input parameters, assumptions, and computations.

**Alternative 1**. Release all dredged material to the Platte River at its confluence with the Loup Power Canal.

This alternative would include construction and operation of a pipeline to convey dredged material from the Settling Basin to the confluence of the

<sup>&</sup>lt;sup>1</sup> The sediment yield of the Loup River upstream of the diversion weir is adjusted based on the Loup Power Canal conveying 67 percent of the annual flow.

<sup>&</sup>lt;sup>2</sup> Chen, Abraham H., David L. Rus, and C.P. Stanton. 1999. Trends in Channel Gradation in Nebraska Streams, 1913-95. USGS Water-Resources Investigations Report 99-4103. Lincoln, Nebraska.

Loup Power Canal with the Platte River. Neither the existing North nor South Sand Management Areas would be used.

**Alternative 2.** Release all dredged material to the South Sand Management Area.

Under this alternative, all dredged material from the Settling Basin would be directed to the South Sand Management Area. The North Sand Management Area would not be used.

**Alternative 3.** Release all dredged material to the South Sand Management Area and modify project operation to allow additional flow in the Loup River bypassed reach during high flow events.

This alternative would be identical to Alternative 2 except that project operations would be curtailed during the tern and plover nesting season to allow high-flow events to transport sediment to the Loup River bypassed reach.

**Alternative 4.** Release all dredged material to the South Sand Management Area, modify project operations to allow additional flow in the Loup River bypassed reach during high flow events, and modify project operation to maintain a minimum water level in the Loup River bypassed reach.

This alternative would be identical to Alternative 3 except that project operations would be modified during the tern and plover nesting season to provide a minimum flow in the Loup River bypassed reach to allow development and maintenance of tern and plover nesting habitat.

#### Level of Effort and Cost

 $\S5.9(b)(7)$  – Describe considerations of level of effort and cost, as applicable, and why any proposed alternative studies would not be sufficient to meet the stated information needs.

The estimated cost of this work is approximately \$25,000. This desktop analysis may be completed for incorporation into the applicant's preliminary licensing proposal, if possible, or if time does not permit, the results should be included in the license application filed with the Commission.

From: Albrecht, Frank [frank.albrecht@nebraska.gov]

Sent: Monday, October 24, 2011 9:37 AM

**To:** Richardson, Lisa (Omaha); Damgaard, Quinn V.

Subject: FW: Loup Hydroelectric Project - Recreation Management Plan

Lisa and Quinn,

Dave Tunink, Fisheries Division, was part of the committee for the Recreation Management Plan (as a part of the LPD Relicensing). Below are his comments that we are submitting for your consideration.

Please call or email if you have questions.

Thank you,

Frank Albrecht
Assistant Division Administrator
Environmental Services Division
Nebraska Game and Parks Commission
2200 N. 33rd St.
Lincoln, NE 68503
402-471-5422
Visit us at http://www.ngpc.state.ne.us

From: Tunink, Dave

Sent: Thursday, October 13, 2011 2:23 PM

**To:** Albrecht, Frank

Cc: Richardson, Lisa (Omaha); Holland, Rick; Schuckman, Jeff

Subject: RE: Loup Hydroelectric Project - Recreation Management Plan

#### Frank,

I completed my review and thought that it was a good plan. Being a Fisheries Biologist I tend to look at the fishing opportunity side. There was no mention concerning the sedimentation issues in both Lake North and Lake Babcock which creates problems for water clarity, boating and fish production. I would think that in time that the Loup Power District would have to deal with the loss of water storage capacity as these lake become filled with sediment. Being an open system, where riverine fish species can enter the lake system, it limits management options for sport fish species on the lakes. One area that I feel needs to be addressed better concerns angler access along the canal especially along that section near the Columbus Powerhouse Park. Just creating some rocked hard points along selected locations along the canal would improve access along the steep banks.

Dave Tunink Assist. Admin. Fisheries Management Section

#### Thompson, Wendy

From: Randy\_Thoreson@nps.gov
Sent: Friday, October 28, 2011 3:52 PM

To: lisa.richards@hdrinc.com
Cc: Damgaard, Quinn V.

Subject: preliminary draft Rec Management Plan - Loup Hydro Project 1256

Follow Up Flag: Follow up Flag Status: Flagged

Randy Thoreson National Park Service Rivers, Trails, and Conservation Assistance Program MN Office / Randy T. phone (651) 293-8450

#### Hi Lisa,

Here are my unofficial comments (ie not on NPS letterhead) regarding the preliminary draft Recreation Management Plan for the Loup Power District Project (FERC 1256). As we discussed, it is my understanding that these comments will be considered and incorporated in the draft Recreation Management Plan with a formal submittal to FERC in relation to the draft License Application. At that time, as I mentioned to you, a formal letter from NPS in accordance to the review period will be given.

Preliminary Draft Recreation Management Plan - Loup Hydro Project (FERC 1256)

#### Comments:

#### Section 1. Introduction

A number of comments were made both prior to and relating to Study 8.0 General Recreation Use Report. about the Loup River Bypass Reach. The NPS has been consistent in stating the need for recreation study for this area as it relates to the Loup Power District Project. . Although it is understood that much of the Bypass reach is not owned or managed by the District, a discussion of the area is felt warranted as part of the Recreation Management Plan. Reference is given to Section 5.7 and 5.8 of the Recreation Use Report that talks about the Loup River Bypass Reach Recreation Facility Inventory and Survey. A discussion of the Inventory and Survey is suggested as a new Section 11.4 Loup River Bypass Reach of the Recreation Management Plan. It is recommended that paragraph four (4) of the Introduction be moved to the new Section 11.4 with added discussion relating to findings and conclusions.

#### Section 2 Summary of Recreation Use Survey Results

2.1 Loup Canal Survey Responses. The fourth bullet (Do not stay overnight). The Loup Power District does offer many opportunities for camping at the various recreation facilities sites. It is presumed these sites are used during a regular basis within the summer months and other prime times. Is it concluded that the statement "Do not stay overnight" refers to other areas along the Loup Power Canal ? This is confusing when reviewing information within the Recreation Management Plan discussing survey results for the District's five developed recreation areas.

Section 3. Loup Power Canal Use, Capacity, and Demand

3.3 Demand for District Recreation Sites. It is understood that when calculating specific demand for acres of park and/or miles of trail it is difficult to arrive at any quantifiable measurements. Using guidelines as reflected in the National Recreation and Park Association (NRPA) and referring to Nebraska's Statewide Comprehensive Outdoor Recreation Plan (SCORP) for 2011-2015 seems logical. The difficulty in arriving at a consensus on measuring current and future demand is very difficult (as quoted by the Nebraska Game and Parks Commission - NGPC 2010). As such, and noting the application of guidelines and math for park acres/trail miles, the NPS has no disagreement on conclusions within Subsection 3.3 concluding that District Facilities meet NRPA guidelines. Also, the discussion of recreation demand, in the broad sense, is logical in terms of noting that projected recreation demand is not anticipated to increase ( "During the entire applied-for-license period" is a bold statement since projections do not go out that far in the future).

#### Section 4 Headworks Park

- 4.41 Upgrade Camper Outlets. Although existing outlets will be upgraded to 50amps, a rationale for additional camper outlets is not given (Note Table 4-2 Requested Improvements Headworks Park).
- 4.4.2 The NPS commends the District for plans to construct a new permanent restroom facility at Headworks OHV Park.
- 4.4.3 Stated throughout the Rec. Management Plan in relation to District Recreation Facilities, a budget of \$20,000 annually is referred to for playground maintenance and upgrades. What will the determining factors be in undertaking these actions? Please explain.
- 4.4.4 The NPS commends the District for plans to install a sand volleyball court.
- 4.5 Requested Improvements Not Planned. Install Shower Facilities, Provide Potable Water. Improve Restrooms. The lack of installation and/or improvements of these facilities due to infrastructure challenges and proximity to the Loup River and Power Canal seems reasonable. Restroom doors. The request for installation of doors on restroom stalls seems warranted and appears that they should be included in improvements by the District.

#### Section 5 Lake Babcock Park (Loup Park)

- 5.4 Planned Improvements. See third bullet under Headworks Park.
- 5.5 Requested Improvements not planned. With the exception of potable water, see fifth bullet under Headworks Park.

#### Section 6 Lake North Park

- 6.4.1 The NPS commends the District on plans to construct a wheelchair accessible fishing pier, which would meet ADA guidelines, along the north shore of Lake North.
- 6.4.2 Lake North No-Wake Zone. The NPS commends the District on plans to designate a no-wake zone in the southeast corner of Lake North to enhance the recognized fishing opportunities that exist in this portion of the lake.
- 6.4.3 Upgrade Camper Outlets. Although existing outlets will be upgraded to 50amps, a rationale for additional camper outlets is not given (Note Table 6-2 Requested Improvements Lake North Park). 6.4.4 Improve Playground Equipment. See third bullet under Headworks Park.

6.4.5 Zebra Mussel Outreach. The identification and spread of Zebra Mussels is an important issue. The NPS commends the District on education and signage relating to the problem.
6.5 Requested Improvements Not Planned. The NPS has no disagreement with stated reasons for not providing fish cleaning station, restock of fish, additional fish structure, improvement of restrooms, and installation of shower facilities. The request for more sand on the beach may be addressed by some best management practices for sand stabilization techniques. The District may want to investigate such methods. Does the sand (dredged) from the north and south sand management areas meet specifications/needs.? The District may have already researched these possibilities. The NPS has no difference of opinion on installing additional camper capacity and outlets. The District rationale seems appropriate.

Section 7. Columbus Powerhouse Park
The NPS has no comments on this Section.

#### Section 8. Tailrace Park.

8.4 Planned Improvements toTailrace Park 8.5 Requested Improvements Not Planned. It is understood that Tailrace Park has recreational opportunities (fishing below the tailrace weir, playground area, etc..) and challenges (vandalism, public safety, etc..). The NPS has viewed this area many times on both sides of the Loup Power Canal.and been consistent in seeing Tailrace Park as an area in need of improvement(s). Although no capital improvements are planned, a creative approach to the Park may be a possibility. One such measure, as highlighted in the Rec. Management Plan, would be to restrict vehicular access to the park while maintaining pedestrian access. The placement of parking is pointed out as a possibility north of the barriers. The question arises, what more can be done with upgrading Tailrace Park and at the same time recognizing the great deal of existing vandalism, public safety, etc. ? A thought would be the development of a Master Tail Race Park Plan by a representative work group (ie. Loup Power Dist. Rep, City Rep, Law Enforcement Rep) showing needed improvements, timelines and costs. Creative approaches brought up during work group discussions may work toward a Plan that both upgrades the Park and also relates to the reduction of crime/vandalism. Park hours, added vandalism fines, park improvement elements with particularly sturdy material types, etc could be possibilities.

#### Section 9 Trails

improvement(s) .

The NPS commends the District on plans to construct a new 2,000 foot trail segment, consistent with CART's Master Plan, along the southeast shore of Lake Babcock.

Table 10-1 Planned Recreation Improvements
Please explain the reasoning behind the budgeted year and

new Section 11.4 Loup River Bypass Reach.

This is recommended as a new section discussing the Loup Bypass Reach. Conclusions drawn from Study 8. Recreation Use General Recreation Use Report (February 11. 2011) would be included. Specifically these would be 5.7 Loup Bypass Reach Recreation Facility Inventory and 5.8 Loup River Bypass Reach Survey Responses. As noted earlier, in this email,

paragraph four, of Section 1 Introduction could be moved to this Section 11.4.

#### Map(s)

The map shown in Attachment A - Recreation Facility Location Sheets is good.

It is recommended that a companion map (or integrated within the Location Map) be developed showing the various planned Recreation Facilities Improvements and Locations.

Please feel to call me at 651-293-8450 or email me (randy\_thoreson@nps.gov) if you have any questions on these comments.

thanks

Randy Thoreson



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Administration Office (402) 562-4232

Fax (402) 563-1380

November 9, 2011

Mr. Neal Suess, President Loup Power District 2404 15<sup>th</sup> Street Columbus, NE 68601

Dear Mr. Suess:

The city of Columbus received a copy of the proposed recreation planning document prepared as part of the Loup recertification review. We appreciate being invited to look at the plan and are pleased with the information provided. The city will retain this information as a referral resource for future park development considerations as our city expands to the north.

Thank you for the opportunity to review the plan and for the care and concern for local resident services as the recertification process moves toward completion.

Sincerely,

Joseph A. Mangiamelli

City Administrator

Copy: Quinn V. Damgaard, HDR, Inc.



# Loup Power District - Preliminary Draft Recreation Management Plan Comment/Response Matrix November 13, 2011

Commenter*	Comment Summary	District Response
City of Columbus	The recreation management plan provides valuable information that the City will consider during future planning exercises.	City support is appreciated.
NOHVA	NOHVA supports the planned improvements to restroom facilities in the OHV parking area and playground equipment at Headworks Park.	NOHVA support is appreciated.
NOHVA	Our members welcome improvements to OHV area parking and the potential opportunity to provide input. Drainage can be a problem and the dispersed parking area is not an efficient use of the land available.	The District appreciates NOHVA's invitation for parking improvement coordination; however, the District is not proposing improvements to the OHV parking area at this time due to the limited occurrences when parking inefficiencies present a problem.
NGPC	Request some discussion of if/how the District plans to address sedimentation in the reservoirs, and associated affects to fisheries.	The District is continually evaluating methods of maintaining reservoir storage capacity for both recreational and operational benefit. At the present time, the District has no definitive plans that would be appropriate for incorporation into this document; however, the District welcomes cost-effective recommendations that would benefit both recreation and operations.
NGPC	Angler access along the canal, especially near the Columbus Powerhouse, could be improved via the creation of rocked hard points.	The District appreciates the need for angler access; however, the installation of rocked hard points in the canal is not considered feasible due to the amount of flow and the potential for bank sloughing, which could result. The District would consider alternate angler access recommendations that do not involve improvements within the canal.
NPS	NPS commends the District for the following planned improvements: 1) construction of a new permanent restroom facility and sand volleyball court at Headworks Park, 2) construction of a wheelchair accessible fishing pier along the north shore of Lake North, 3) designation of a no-wake zone in the southeast corner of Lake North, 4) education and signage relating to invasive species, 5) construction of a new 2,000 foot trail segment along the southeast shore of Lake Babcock.	NPS support is appreciated.
NPS	A discussion of the Loup River Bypass Reach, including the results of the District-performed facility inventory and user survey, is felt warranted as part of the Recreation Management Plan.	As noted by NPS, the District performed a recreation survey along the Loup River Bypass Reach. The findings and conclusions, including that of little recreational use, are documented in the District's Second Initial Study Report. As these study findings have been previously and formally filed in the FERC record, the District respectfully declines the request to repeat study findings and conclusions, related to the Loup River bypass reach, in the pertinent planning document.  Because the District has no legal means to manage recreation along the Loup River Bypass reach, the District is not proposing
		recreation improvements in the Loup River bypass reach.
NPS	Plan content on survey results which indicate that respondents to not stay overnight is misleading. The District offers many fine opportunities for camping. It is presumed these sites are regularly used.	The District appreciates NPS's recognition of the many opportunities it provides for overnight camping. The noted plan content was provided as a broad summary and denotes that most commonly, persons surveyed in 2010 were partaking in day trips and were not camping at District facilities. That is not to say that the District's camping opportunities are not widely used (as accurately noted by NPS). The District has added a footnote to clarify this item.
NPS	NPS has no disagreement to the conclusion that District facilities meet NRPA recreation capacity guidelines. Also, statement that projected recreation demand is not anticipated to increase is logical; however, making this statement for the entire license period may not be accurate because population projections are not available beyond 2030.	The District appreciates NPS's concurrence with capacity and demand conclusions. The District will modify the plan to state that projected recreation demand is not anticipated to increase for at least the first 15 years of the license period (instead of the entire 30-year license period).
NPS	Rationale for not accommodating the public request for additional camper outlets at Tailrace Park is not provided.	Rationale has been added to plan: Outside of NOHVA jamboree weekends, camping demand does not warrant additional capacity/outlets.

Commenter*	Comment Summary	District Response
NPS	What factors will be evaluated during the determination of what playground equipment requires improvement or replacement?	The District has historically improved or replaced outdated playground equipment, as necessary. Plan content regarding playground equipment will be slightly revised although no formal "improvement determination procedure" is necessary.
NPS	The lack of installation showers and potable water at Headworks Park and Lake Babcock Park, due to infrastructure challenges and proximity to the Loup River and Power Canal, is understood. The request for installation of doors on restroom stalls seems to be a reasonable and warranted improvement.	The District appreciates NPS's understanding that additional infrastructure is not feasible at Headworks Park. Regarding restroom doors, the District intentionally omits them from their facilities. The District is of the opinion that restroom doors (in District convenience facilities) promote a sense of security for persons engaging in undesirable or illegal activity. For this reason, the District does not plan to install restroom doors.
NPS	Although existing outlets will be upgraded to 50 amps, a rationale for not providing additional camper outlets at Lake North Park, as requested by the survey respondents, is not given.	The District notes that this explanation is provided in the last bullet of Section 6.5. No additional plan content is necessary.
NPS	NPS has no disagreement with the District not implementing the following, requested improvements at Lake North Park: increase camper capacity, install fish cleaning station, restock fish, provide additional fish structure, improve restrooms, and install showers. The request for more sand on the beach may be addressed by some best management practices for sand stabilization techniques.	NPS's concurrence with District rationale is appreciated. The District also appreciates NPS input on sand stabilization; however, the District has exhausted these efforts and does not intend further attempts to provide more desirable material.
NPS	It is understood that Tailrace Park provides recreational opportunities and challenges (vandalism, public safety, etc.). One such measure to address the challenges, as highlighted in the Rec Management Plan, would be to restrict vehicular access to the park while maintaining pedestrian access. An additional recommendation would be the development of a Master Tail Race Park Plan by a representative work group (i.e Loup Power Dist. Rep, City Rep, Law Enforcement Rep). Park hours, added vandalism fines, park improvement elements with particularly sturdy material types, etc could be components of the plan.	The District appreciates NPS's understanding of the magnitude of vandalism at Tailrace Park and the difficulties it presents when considering recreation management. As indicated in the Draft Recreation Management Plan, the District is still evaluating whether or not it will end vehicular access. Should the District implement this measure and should the vandalism continue following implementation, the District would then evaluate further options.
NPS	Explain the reasoning behind the schedule/budgeted year for the proposed improvements.	The years for which these improvements are budgeted result from District planning/budgeting analysis and are generally scheduled for the near term in order to accelerate public access to improved amenities. No change to the plan document is necessary to explain this reasoning.
NPS	It is recommended that a map(s) be developed to show the planned improvements and locations.	The District respectfully declines this recommendation in order to maintain flexibility in ultimate improvement locations. The existing figures, in combination with the accompany text, are adequate in providing proximity of proposed improvements.

<sup>\*</sup>NOHVA = Nebraska Off-Highway Vehicle Association; NGPC = Nebraska Game and Parks Commission; NPS = U.S. National Parks Service