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FEDERAL ENERGY REGULATORY COMMISSION

Loup River Public Power District

Project No. 1256-029-Nebraska

Loup River

Hydroelectric Project

(FERC No. 1256-029)

Scoping Meeting

Holiday Inn Express

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P A N E L

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MARK IVY - Outdoor Recreation Planner

NICK JAYJACK - Fisheries Biologist

DAVID TURNER - Wildlife Biologist

P A R T I C I P A N T S

DAVE CARLSON - U.S. Fish & Wildlife Service, Denver.
LISA RICHARDSON - HDR
DENNIS GRENNAN - HDR
RON ZIOLA - Loup River Public Power District
JEFF RUNGE - U.S. Fish & Wildlife Service
JASON ALEXANDER - U.S. Geological Survey
MATT PILLARD - HDR
RANDY THORESON - NPS - Rivers, Trails & Hydro Program
GEORGE WALDOW - HDR
ROBERT HARMS - U.S. Fish & Wildlife Service
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JIM FREAR - Loup River Public Power District
JEFF SCHUCKMAN - NE Game & Parks
DAVE TUNINK - NE Game & Parks
JOHN BENDER - NE Department of Environmental Quality
BOB CLAUSEN - Stakeholder/Loup Board of Directors
NEAL SUESS - Loup River Public Power District
FRANK ALBRECHT - NE Game & Parks
BRIAN BARELS - Nebraska Public Power District
JOHN COCHNAR - U.S. Fish & Wildlife Service

(The following proceedings were had, to-wit:)

MS. NGUYEN: Good morning. Welcome to another day of FERC's meeting. This is the daytime meeting for the scoping of the Loup River Hydroelectric Project. My name is Kim Nguyen. I'm a civil engineer and the project coordinator for the relicensing of the project.

I'd like to take care of some housekeeping items before we get started. I'd like to keep this meeting as informal as we can. That's why we have it set up this way. Most of our presentation is going to be from our scoping document. I have extra copies in the back of the room if you want to grab one of those.

The meeting is being transcribed by a court reporter, and her report will be filed with the Commission and be part -- made part of the record. So to assist her before speaking for the first time, if you could state your name, spell your last name, that would help her a lot.

Next on our agenda is we'll go through some introductions, the purpose of scoping and why we're here, the request for the kind of information we're looking for, and then we'll have a brief

presentation by Loup River Power District to go over the project features, operations, and their proposed environmental measures and studies.

And then we'll discuss the scope of cumulative effects followed by a discussion and comments from all of you on each of the resource areas. And then we'll end up with the schedule of the EA and ILP processing plan and schedule.

With that I'd like to start with the introductions. Like I said, I am Kim Nguyen. I'm a civil engineer and I am the project coordinator for the project. And I'd like my colleagues to introduce themselves and all of you to introduce yourselves too, please.

MR. JAYJACK: I'm Nick Jayjack with FERC, fishery biologist.

MR. TURNER: David Turner, wildlife biologist.

MR. IVY: And I'm Mark Ivy, outdoor recreation planner.

MR. CARLSON: Dave Carlson, biologist with U.S. Fish & Wildlife Service in the Denver Regional Office.

MS. RICHARDSON: Lisa Richardson with HDR, the district's consultant on relicensing.

MR. GRENNAN: Dennis Grennan with HDR also.

MR. ZIOLA: Ron Ziola with Loup Power District.

MR. RUNGE: Jeff Runge with the Fish & Wildlife Service out of Grand Island, Nebraska.

MR. ALEXANDER: Jason Alexander with U.S. Geological Survey out of Lincoln, Nebraska.

MR. PILLARD: I'm Matt Pillard. I'm also with HDR.

MR. THORESON: I'm Randy Thoreson, National Parks Service, Rivers, Trails & Hydro Program, Midwest Region.

MR. WALDOW: George Waldow with HDR.

MR. HARMS: I'm Bob Harms with Fish & Wildlife Service.

MR. ENGELBERT: Pat Engelbert with HDR.

MR. FREAR: Jim Frear with Loup Power.

MR. SCHUCKMAN: Jeff Schuckman with the Game & Parks Commission. I'm a fisheries manager.

MR. TUNINK: David Tunink, Game & Parks Commission, Fishery Division out of Lincoln.

MR. BENDER: John Bender, Nebraska Department of Environmental Quality.

MR. CLAUSEN: Bob Clausen. I'm a

stakeholder, and I'm on the Loup Board of Directors.

MR. SUESS: Neal Suess. I'm president and CEO of Loup Power District.

MR. ALBRECHT: Frank Albrecht, Nebraska Games & Parks Commission, Realty and Environmental Services Division.

MR. BARELS: Brian Barels with Nebraska Public Power District.

MS. NGUYEN: Thank you. The purpose of scoping and why we're here. NEPA and our regulations and other applicable laws requires an evaluation of environmental effects of licensing and relicensing of hydropower projects.

The scoping process is used to identify concerns from federal, state and local resource agencies, Indian tribes, nongovernment organizations -- or NGO's -- and then other interested parties. We also use scoping to determine the resource area, depth of analysis and significance of issues to be addressed in our environmental assessment.

Scoping can help us identify how the project would or would not contribute to cumulative impacts in the project area, and identify reasonable alternatives to the proposed action.

Lastly, scoping can help us determine the resource area and potential issues that do not require a detailed analysis.

The type of information that we seek include, but are certainly not limited to, information, qualified data or professional opinions that may help define the geographic scope; identification of information from any other environmental document or similar previous, ongoing, or planned studies relevant to the proposed licensing of the project; any information or data describing past and present conditions in the project area; any resource plans and future proposals in the project areas.

And this information can be given orally today, mailed to the Commission or filed electronically. And all of those directions are in our scoping document.

Now, let's learn a little bit about the project from Neal.

MR. SUESS: Okay. I'm sure most of you have heard a lot of this, but I will go through what I did last night.

First of all, I'm Neal Suess, President and CEO of Loup Power District. And other

individuals on our team who you will see during the course of this from Loup Power District, Ron Ziola who is our vice president of engineering; Jim Frear who is a senior engineering technician and basically is our expert on all canal matters. Also with us today, Pop Clausen who is our board member and like he said before, stakeholder.

And then our consulting engineers who we've brought on board: Lisa Richardson from HDR, George Waldow from HDR, Dennis Grennan from HDR, Matt Pillard from HDR, and Pat Engelbert from HDR. And that's the main HDR team that we have in place at this moment in time.

The slide that you see on the screen right now is an animated overview of the canal system, the bypass reach and the power houses, including our regulating reservoirs Lake Babcock and Lake North. And we're going to show some pictures of each of the separate sections of that as we go on through here.

What you see here -- and some of you guys were out there yesterday on the tour. This is the overhead view looking north of the Genoa headworks area. What you see is the Loup River upstream of the diversion into the canal and sluice gates that allow the bypass into the bypass reach of the Loup

River.

The diversion weir that you see kind of on the bottom left-hand side of the screen, that's used to divert the water from the river to the settling basin -- or into the intake gate structures and to the sluice gate structures.

That diversion weir is built up of wood every year and then sacrificed during the spring ice floes. There's a concrete basin there and then we build it up with wood every year to allow that diversion.

The sluice gate structure that you see, that allows -- the three gates there, that allows water to flow into the bypass reach of the Loup. The intake gate structure allows the water to flow into the settling basin. We'll talk more about each of those a little bit as we get through here.

You see the headworks office and shop and equipment shed. Those are where we store our equipment and where we have our individuals at during the day when they're not out working on the settling basin or on the gate structures.

The gate operator's house is where we house our gate operator. We have a full-time person who lives out at that house, and his job is

basically to monitor the water levels and the gate levels on both the sluice gate structure and the intake gate structure.

We have a boiler house which is used to house our boiler system. That's a propane boiler system that we use to steam the gates open during the winter months when we need to allow additional water to open those gates and/or close the gates to allow the water in the settling basin.

And then the settling basin that you see there, what happens in the settling basin is the water comes in and slows down and allows the sediment that's in the Loup River water to settle into the bottom of the basin. That sediment, which is basically sand, is then dredged out to both the north and south side management areas. And we'll talk about that in a little bit more detail as we go through here.

This you see is the inlet structure. It's a view of the inlet structure from the Loup River side of the formation. There are 11 gates on the structure. Again, it allows the flow from the river into the settling basin, and then during the winter months we use steam from the boiler to keep those gates open and -- and maneuver -- and our ability to

maneuver and open and close those gates as necessary to operate the canal and the settling basin.

These are the sluice gates, and it's a view of the sluice gates from the bypass reach of the Loup River. There are three sluice gate controls which are allowed to control the flow into the bypass reach. They are used when we -- for operational reasons when we can't take any additional water into the settling basin either from maximum -- that are already taking maximum flows or for other operational concerns at that point in time.

Once past the sluice gates the flow goes onward to Columbus and to the Platte River.

This is a picture of our dredge. The dredge is named the Pawnee. The dredge is used to remove sediment and sand from the settling basin and then on to the north and south sand pile areas. It uses electricity to run its pump.

Ron, I believe that's a 2,500-horsepower pump, right?

MR. ZIOLA: 2,500 horsepower motor to operate it.

MR. SUESS: There are 13 discharge stations on the south side of the settling basin and

15 discharge stations on the north side of the settling basin. Dredging occurs during the months of March through May and August through November, weather permitting, basically. Once it gets cold, we do stop dredging and then we take time off during the summer due to bird issues on the north sand management area.

Approximately one and a half million to two million tons of sand are removed from the settling basin each year by the dredge and pumped to both the north and south side areas.

Currently our district board has approved staff looking into the purchase of a new dredge, and we expect to proceed with that over the next couple of years and probably have a new dredge in place. This is an original piece of equipment from the 1930s, and it is getting to the point where it is getting cost prohibitive to repair that particular dredge, so we're looking at a new dredge at that point in time.

And in 2006 we reached an agreement with a company, now called Preferred Rocks, to remove sand from the north sand management area. They are currently in the process -- they are getting their plan up and running. It's been slow to take as far

as what their removal has been, but they have been working on the north sand management area to upgrade their operations.

What you see here is the Monroe power house and the substation looking to the southwest. The power is transmitted out of the substation at 34.5 kilovolts. There are three turbines at the Monroe power house, each capable of generating about 2 1/2 megawatts. Each turbine can pass 1,000 cubic feet per second of water flow, and then there's an additional radial bypass gate that can pass water through this section of the canal from the headworks through the Monroe power house and on to the regulating reservoirs at Lake Babcock and Lake North.

The canal can take approximately 3,500 cubic feet per second of water. That's basically the design limit of the canal and also our water limitation under our water right with the Department of Natural Resources.

So if we have 3,500 cubic feet per second in the canal, a thousand from each of the turbines at Monroe power house, and then the additional radial gate can pass additional water. The additional radial gate can pass most all of the

3,500 cubic feet per second if we have that running at the time. So we would not necessarily need to generate the power and we could still pass 3,500 cubic feet per second through this particular location.

This is a picture of the Columbus power house looking to the north. There are three turbines, each capable of generating approximately 15 megawatts from them. Each turbine can pass 2,060 cubic feet per second of water through them. There is a limit due to the intake canal capacity. That's the capacity coming from Lake North and Lake Babcock into the Columbus power house. That canal capacity is 4,800 cubic feet per second. Columbus has no bypass capability other than through the turbines. Generation at the Columbus power house is done on what I would call hydrocycling or peaking basis based upon input from NPPD.

NPPD schedules the amount of power that they need from the power houses, and we generate it to meet their schedule. With the exception of if we have operational concerns that we need to generate differently, we generally follow NPPD's schedule at that point in time.

Going back just for a second to Monroe.

Monroe is basically a run of the river. Whatever comes in either gets generated or bypassed at Monroe. We do have the ability, again, at Lake North and Lake Babcock to pond for a short period of time -- no more than 24 hours total that the water can stay there -- and then it comes through the Columbus power house.

If we go back to Columbus, then, we generally -- there are generally two times during the day that we use for peaking purposes on that; in the morning to the meet morning peak when people are waking up and then the afternoon peak to meet the night peak at night hours, and then late at night when NPPD might need that during the summer for irrigation purposes.

This is a view of the outlet weir looking east. This is down at the confluence of the tailrace canal and the Platte River. It is approximately one mile downstream with the confluence of the Loup River and the Platte River and there's parks on both sides of that outlet weir.

Finally, we have the studies that we have proposed in our preliminary application document.

The sedimentation study to determine if the project affects sediment transport within the

bypass reach and the Platte River downstream of the canal.

Hydrocycling study to determine the effect of the project on the hydrograph and the stage of the Platte downstream of the canal.

Water temperature in the Platte River -- to determine if the project affects temperature in the lower Platte River; water temperature in the Loup River bypass reach to determine if the project affects temperature in the Loup River bypass reach.

Flow depletion in the Loup River bypass reach -- to determine the magnitude of the flow reduction in the Loup River bypass reach due to project operation.

Fish sampling -- to determine the species abundance, composition and distribution of sports fisheries in the canal.

Fish passage study -- study of the flow at the diversion weir and the sluice gate structure to analyze if a reasonable pathway exists for fish movement upstream from the point of diversion.

The recreation users survey -- to determine the public awareness, usage and demand of existing recreation facilities.

Creel survey -- to determine the status of

project fisheries and how they're used by anglers.

The land use inventory -- to determine land use of properties abutting the project to identify potential conflicts and opportunities.

And then Section 106 compliance. The project is considered to be an historic district, and we're developing a plan to develop a relationship between the state historical preservation office and the district to protect the historic resource.

That's all of my presentation at this moment in time.

MS. NGUYEN: Thank you, Neal. Next item on our agenda is called the scope of our cumulative effects. After our review of the PAD, we have identified three threatened endangered species that may be cumulatively affected by the project: The piping plover, the interior least tern and the pallid sturgeon.

Our geographic scope of analysis for these three species is defined by the physical limits or boundaries of: The proposed action's effects on the species, and contributing effects from other hydro and non-hydro activities within the area. We have tentatively identified the Loup River basin and the

lower Platte River to its confluence with the Missouri River as our geographic scope.

The temporal scope of our cumulative effect analysis includes an analysis of the past, present and reasonably foreseeable future actions based on a potential term of license of 30 to 50 years. So that's our temporal scope, 30 to 50 years.

Now we'd like to talk about resource issues and why we're here. And as I go through each of these resource areas, I'll open it up for comments or questions any of you might have.

I'll do the first three, which is geology and soils, cultural and developmental, and then my colleagues will take the rest of the resources.

So for geology and soils we have tentatively identified the effects of continued operation and maintenance of the project and recreational boating on shoreline erosion of the canal and the bypass reach.

Our cultural resource includes any effects of continued project operations and maintenance on cultural, historic, archeological and traditional resources in the project area potential effects, and their eligibility to be included in National

Register of Historic Places.

Developmental resources. What we look for there is any effects the project might have on the power economics of the project, and this includes any recommended alternatives, environmental alternatives and the like.

So these are tentatively what we have identified as issues for these three resource areas.

Does anybody have any questions or comments about these three resources? No. Let's go on to the aquatics.

MR. JAYJACK: This is Nick Jayjack from FERC. If you have your scoping document in front of you, it probably is easiest for you to follow along with me. It starts on page 13, Section 4.2.2 Aquatic Resources. And what I'll do is I'll go and I'll read each of the issues that we've identified based on a review of the PAD and the meeting minutes from previous minutes that you all have had here regarding seeking information for the project and identifying issues.

The first bullet on page 13 under aquatic resources is -- identifies the issue of the effects of project diversions on water temperatures in the Loup River bypass reach below Genoa.

The next one -- effects of the project diversions on bacteria levels in public water wells adjacent to the bypass reach.

Effects of project operations on water quality, including the following parameters we've listed there: Dissolved oxygen, E. coli, pH, and temperature. And we're going to look in the power canal and the regulating reservoirs in particular.

Effects of the project diversions and flow fluctuations on aquatic habitat, including concept of aquatic habitat connectivity and distribution of species, and of habitat and aquatic species in the Loup River below the project diversion structure and in the lower Platte.

The little asterisk there we have at the end of the bullet designates this particular issue as being one we'll look at the cumulative effects, meaning we'll look at the effects of the project in conjunction with other factors and other effects that are taking place on these species in this geographic area.

The next issue is effects of peaking or hydrocycling, as is commonly termed here, on aquatic habitat and aquatic species below the Columbus tailrace section and in the lower Platte River. And

then again, this is an issue for cumulative effects analysis.

The next one -- effects of intermittent flow releases from the Columbus tailrace canal into Lost Creek on aquatic resources and aquatic habitat in Lost Creek.

Effects of the diversion weir on fish passage and aquatic species distribution and life histories in the Loup River.

And finally effects of peaking operations on fish stranding and mortality in the tailrace canal and the lower Platte River.

So at this point I'd like to have a little discussion -- I have a few questions on a couple of these issues. What I want to do here today with regard to these issues is perhaps refine them somewhat, and I have some questions as to how broad do you want to look at these.

And if you have any questions for us, I would appreciate those as well, including if we've missed any issues that should be included in this list or your opinions as to whether or not these issues really need to be looked at in our environmental assessment or whether these issues have been addressed through other conversations

we've all had and should be removed from the list.

So I'll start out and see if you have any questions or comments first, and then I'll ask my questions that I have.

MR. HARMS: Bob Harms, Fish & Wildlife Service. I know that you folks have probably seen our letters that we sent. We filed those with FERC. Have you seen them, the two? There's a letter dated July 21, and then there's a supplementary letter dated September 18. Have you seen those?

MS. NGUYEN: Was that filed as part of the PAD or comments to the PAD?

MR. HARMS: Yeah. They're not in response to the PAD. They're in response to some of the scoping meetings. There wasn't really a document, but they're filed with FERC. There's two letters.

But anyway, my point is this. On our second supplementary letter we identified issues with PCBs -- PCB contamination in the canal. There's been some discussion about that. I know there was some discussion yesterday, how could have -- is this something that's a real issue? Where did that originate from?

I think for us, we would like to see an evaluation included here in addition to E. coli, pH.

We would want to see maybe further sediment testing, PCB's as well as -- atrazine is a big deal, too. It's an agricultural chemical. We would like to see that be included in this list.

We -- I'm kind of -- I'm not really doing our letter justice here. We provided a lot more detail in our letter, and if you haven't seen it, we'd -- I could provide that to you separately here.

MS. NGUYEN: I'm sure if you filed it we have it.

MS. RICHARDSON: It was in the appendix of the PAD, both of those letters.

MR. HARMS: Jeff or John or Dave, any other items that we need to provide some input here for Nick that you can think of? What am I missing?

MR. RUNGE: This is Jeff Runge, R-U-N-G-E, and I guess I will hold my comments until after we get the full list of issues identified by FERC or studies identified by FERC, and then we will capture what we felt has been left out and provide those at the end.

MS. NGUYEN: Are they aquatic in nature?

MR. RUNGE: Yes, they are.

MS. NGUYEN: Because this is the time we would like to talk about those issues.

MR. WALDOW: Can I address the point on the table? George Waldow with HDR.

One of the Fish & Wildlife people yesterday asked me about the PCB issue and why -- why we didn't have a study proposal on that, and I had to open the PAD to refresh my memory, but the information we had is that there had been reports of PCBs in the fish tissue in the tailrace segment of the project only downstream of the Columbus power house between the power house and the Platte River. And that was, I believe, dated from the late '90s.

And there was subsequent testing done in 2003, I believe, and there was no PCB contamination identified. And there, to my knowledge, has been no sediment sampling either above or below Columbus power house. So the only evidence of this contamination was one sampling where they found some fish with PCBs in them.

It's entirely possible that those fish came from the Platte River which is also contaminated by PCBs in that particular reach where the tailrace enters it, according to the records we found.

So lacking any evidence from the district of any PCB spills or known contamination in the area

of the project, we said that there really is nothing to study because the only contamination was found in fish which are mobile and had the access to come from the Platte River into the tailrace canal, and so we were not able to identify a reasonable study.

And we considered whether sediment sampling of Lake Babcock, which has the most sediment, would be an appropriate check, but since there was no reported contaminated fish in Lake Babcock or Lake North, we didn't see the need to do a study, frankly.

So, it's mentioned in the PAD. It's discussed as to why we didn't include a study for that, and so I would just draw your attention to those issues.

MR. HARMS: Bob Harms, Fish & Wildlife Service. It might be useful for you just to take a look at our letter. The four water bodies were identified in Section 303(D) of the Clean Water Act. One of those is upstream of the Loup River -- the most upstream segment of the Loup River canal as having the PCB issues, and that's because we had identified that. That's why we include that part in our letter. And you folks may not have that information.

MR. RUNGE: The furthest upstream location that these fish with PCB in the tissues -- the furthest upstream was documented at the Monroe power house, and so you've all been to the site. You've seen the two-foot weir that the fish would have to jump to get into that system, and then they would have to go all the way upstream through the Columbus power house, up the pen stocks to get to that Monroe power area.

For that to occur, to me that's quite an obstacle for these fish to move upstream and to move all the way to the Monroe power house if those fish were actually contaminated in the lower Platte system. And there isn't a documentation of these contaminated fish upstream of the Monroe power house, and so that seems to be the stopping point -- at the power house. And then downstream they've identified these fish captures.

MR. JAYJACK: Meaning you suspect they're coming out of Lake North and Lake Babcock and migrating up the power canal? I'm not sure what you're trying to say here.

MR. RUNGE: For this fish to be contaminated in the lower Platte and to move all the way upstream, all the way up to the Monroe power

house where they've documented PCBs in the tissue, they would have to go upstream of that tailrace, that two-foot tall concrete barrier tailrace, and then move all the way through the Columbus power house which would mean they would have to move through the turbines and upstream through those pen stocks in order to get to that furthest upstream point which is the Monroe power house.

MR. WALDOW: I would agree with Jeff that -- the fact is that they found the fish upstream at Columbus power house. They did not move upstream. That's not a point we would dispute. It would be unheard of for fish to go through turbines upstream 112 feet and then over the weirs and on up to Monroe.

But looking at the letter it needs to be reviewed to see if, indeed, there was -- it talks about contamination, but I'm not sure -- it's unclear to me whether it was PCBs. It just needs to be explored further.

MR. TURNER: Is there any data on contaminants in the upper loop that would have been passing through this?

MR. RUNGE: No. That's the furthest upstream location of it, the PCB contamination. The

rest is downstream of the Loup.

MR. PILLARD: This is Matt Pillard. This is all fish tissue, right? Any noted contamination is noted in fish tissue; is that correct? So when we say contamination it's fish tissue?

MR. RUNGE: Yes, it is.

MR. PILLARD: Okay. I just wanted to make sure that's what we're talking about is fish tissue not sediment.

MR. RUNGE: But I guess they acknowledge that there hasn't been extensive or any sediment sampling, so it's difficult to say whether it's present or not present. It's just something that we would like to investigate as part of the study.

And who knows what the remediation may be? Knowing FERC and their experiences nationwide, that remediation may be that it's best to just leave it alone or there may be some type of active way of addressing this, but first it's just looking to see -- actually sample to see whether or not there is that level of presence in that system.

MR. HARMS: Our contaminants biologist Matt Schwartz was with us yesterday. He couldn't make it today. Otherwise, he could speak in a lot more detailed way to some of these things than we're

able to today.

MR. TUNINK: Dave Tunink, Games & Parks Commission. I know the DEQ has done some sampling and they target species such as carp and channel catfish for their analysis for contaminants, and those fish are very migratory. So they could come out of the Missouri River, which has PCB levels, and migrate up the Platte, up the Loup and back down the canal. Fish are very mobile. So I don't know, John's probably got the list of what's been sampled over the many years.

MR. BENDER: No, I don't.

MR. TUNINK: Not with him today.

MR. BENDER: John Bender, Department of Environmental Quality, and I'm not one to speak about our fish monitoring network because I don't have a whole lot of knowledge about it.

What I do know is that we have identified PCBs in the canal where that PCB entered the fish. Where those fish originated from we don't know. We will be back in the basin doing sampling in the summer of 2009. We'll be back then and I think George said that -- we've supplied all of this information up front for the PAD.

The first identification of an impairment

was back in the late '90s. The last revisit, I believe, did come up clean.

Now, I don't know if this -- certainly we'd like to know, but is it worth spending a lot of resources on finding out the answer? Because in my mind the levels that we're finding are decreasing. We expect if we had a null hypothesis that it would be that we wouldn't find them this summer, and then we could remove that impairment from our 303(D) list.

But we don't know yet. I guess even if we did find low levels of PCB's that triggered continued listing, what we know about this compound is that it's probably better to leave it in place rather than going to digging up the countryside and remobilizing it. So the end result in my mind, at least from the environmental agency, would be to leave it in place and accept the low level of leaching because we are not using it. It's been banned. We don't have it in use anymore, and the only projection is that in the future it will degrade. And it's better to accept that low level of it rather than mobilize it and getting an extreme amount over a short period of time.

MR. HARMS: Bob Harms, Fish & Wildlife

Service. I would like to speak to is it worth it that John had made.

In our letter, again September 18, we -- the Fish & Wildlife Service did a study on shovelnose shelf sturgeon and pallid surgeon on the lower Platte, and we found PCB contaminated fish. It was built up in their tissues. And shovelnose sturgeon are not the same. They're closely related -- they're not listed -- not yet -- but when we find them in shovelnose, that leads us to think there could be issues with endangered pallid sturgeon, too.

In addition to that, a least tern exclusively feeds on minnows, small fishes, and there may be a pathway to at least terns as well. So that's why -- why we think it's an issue. There's a listed species concern there.

MR. JAYJACK: Just thinking hypothetically, if we were to list this as an issue and we were to fill in some information gaps by doing a study, what generally speaking do you have in mind? Were you all thinking of sediment sampling in the lakes or in the canal?

MR. HARMS: Well, you know, we prepared this letter. I wanted to send something that was

more than just here, we have this problem. We wanted to provide kind of the next step answering the very questions you're asking, and we recommended some -- I think some small scale sampling of sediment in the canal just to see what we have. It may be right. It may be a false alarm. But we have enough information to think well, there could be a red flag. And whether to do something about it or leave it alone in place as the best thing, I don't think we're really there yet. At the very least some sediment samplings.

MR. BENDER: John Bender. PCBs, mercury, dieldrin are the three contaminants that we find statewide as giving us a problem with fish tissue. Not necessarily in this locale but throughout the state. PCBs are in any part of the state. It's not just restricted to the Columbus area. We've got it in the lower Platte region, as Bob said. We've got it in the Elkhorn. We've got it in the Missouri River. We've even got it out near North Platte.

So it was a product that was in widespread use back in the '60s. We all know that if you're in the electric business. And we've eliminated its use now. I don't know what the appropriate response is other than saying you can't use this stuff anymore.

MR. JAYJACK: I guess the next question for me would be if it is there -- again just running through the thought process -- if it's there, then we would have to analyze well, how is the project affecting the -- assuming they're contaminated, assuming it's there, how is the project affecting that? I'd be curious to see. I mean, is it a concern that the project will somehow through operations disrupt these sediments and they're reintroduced into the water column and fish are exposed to that, or is it a concern that they're just simply there?

I guess that's -- in order for me to generate an issue, these are the types of things I need to understand where the concern is.

MR. HARMS: I don't know if we know some of that but -- Bob Harms. That really gets to something that I hope we can talk to a little bit later, and that's the environmental baseline.

You know, you had mentioned, Kim, past, present and 30 to 50 years in the future. We have to think of -- figure out how far in the past and decide whether or not it's an issue that is worth looking at and then trying to figure out -- to answer the question, is the movement of water in the

canal disrupting the sediments? Some of the stuff we just don't know.

MR. ALBRECHT: Frank Albrecht, Nebraska Games & Parks Commission. Question for John. You mentioned 2009 sampling. Was that just fish tissue or is that sediment at all?

MR. BENDER: No. We don't do sediment sampling.

MR. ALBRECHT: Just fish?

MR. BENDER: We do fish tissue. Shock the fish and select representative species of the appropriate size.

MR. ALBRECHT: Is that part of your normal sampling plan?

MR. BENDER: Yes. That's part of our routine operation.

MR. ALBRECHT: So you haven't slated that sample for -- pursuant to these studies or as anything out of your normal?

MR. BENDER: No. No. It's not out of our normal stuff, and certainly if FERC wants to identify this as an issue for further study, I can give you the name of the gentleman that coordinates that network within our agency, and you can team up with him. Maybe we could modify what we do and how

we do it to give you more information.

MR. JAYJACK: Any other questions on that issue?

Are there any other issues that we missed that we might want to consider adding or that we should consider adding to this list?

MR. HARMS: Possibly. I'm not sure if this is the right spot, but the issue involving depletions from the Platte River system. It means it's an aquatic issue.

Originally when we think of depletions, we think of pallid sturgeons and terns and plovers. But there are other fish and wildlife resources, too. But we can take care of that now or wait. I'm assuming there will be a section about --

MR. TURNER: It gets covered in both terrestrial and the aquatic and the DNE because you're talking about the geomorphological processes in the bypass region, I'm assuming is where you're going with that, right? That concern?

MR. RUNGE: Not exactly. One portion of that is the bypass reach, but also any flow going through the project. There's deliveries to irrigation that the project facilitates. That irrigation would lead to a consumptive use that

needs to be evaluated.

There's also the different conditions associated with the project there that may lead to increased evapotranspiration or evaporation through the project system and that would be different as if -- compared to if it traveled through a river in system. It may improve conditions. It may worsen conditions. But that water loss would result in a loss in water flow in the Platte -- in the lower Platte River where the three species are at, and that's their habitat.

I guess to provide some meaning of the significance of these depletions to the Platte River system is that the Department of Natural Resources has declared the lower Platte River system as fully appropriated, and with that, that fully appropriated is based on water supply or water right holders, but it's also an indication of the declining trends in the hydrograph.

And that's sort of a secondary effect. We see the direct effect to species but that is also a secondary effect to existing water right holders, too, to help validate what we were saying about the species.

And for our standard, too, we've always

looked at projects and have consistently in the past used a tenth of an acre foot as our diminimus threshold between projects that are not having an effect to federally listed species or Platte species versus those that are having a quantified and concrete effect to the species. Because that tenth of an acre foot, and knowing the projects and -- especially, I think, a lot of the delivery water system deliveries, either directly from the canal or indirectly through Lost Creek, that those projects would far exceed that tenth of an acre foot.

So we consider that -- in effect that should be evaluated through the system. Not only the direct effect but also the indirect effect knowing that we are having a declining hydrograph because of the increase surface in the groundwater diversions, that that would affect the baseline of the FERC evaluation as well; that there's going to be less water coming into the system, less water for the Loup to divert, less monies associated with hydropower and less water for the fish as well. And so all the effects as far as sediment, the effects of hydrocycling are all tied into this future water budget that needs to be analyzed.

MR. WALDOW: George Waldow, HDR. I don't

take issue with Mr. Runge's comment that the basin has recently been fully appropriated by DNR, but I think we need to look at the laws and the regulations that are in place with the operation of the project with respect to consumptive water uses, which are basically irrigators. And as I explained to some of you yesterday on the tour, the project provides access to this water in the canal to a number of irrigation interests along the long canal who have their own water rights to the water for consumptive uses which, in fact, is a use that trumps industrial and power production. So their water rights are effective at the point of diversion of the power canal.

Loup facilitates, as Mr. Runge said, their access to that water, and if they take water, they pay for it to compensate Loup for the value of the lost energy. And this is all established with a long history in the state regulations. So, in fact, the Loup hydroelectric project is still, notwithstanding the irrigation, is a nonconsumptive user of the water in the Loup River. They divert it. They return it into the Platte basin.

And the numbers that we have evaluated to date indicate that -- and I'm going to turn this

over to Mr. Engelbert in a second who did the analysis -- they indicate that in essence there is no net loss of water. The water that comes in at the diversion works is essentially the same volume of water that exits at the tailrace canal, and there's a lot that goes on in between groundwater inflows and canal water outflows with the -- we talked about the Corp of Engineers flood control project, and you saw the spillway where that water enters in immediately below Columbus power house. And when we've taken all of these water records, the indication is that on an average annual basis the differences are probably finer than the ability of the gauging system that measures them.

Now, we don't get down to a tenth of an acre foot, but I don't think in this case of the consideration of the groundwater issues, the evapotranspiration losses in the system justify concern about consumptive losses due to the hydroelectric project.

And I don't know, Pat, if you want to reflect on those numbers or not or if anybody is interested in hearing those today.

MR. ENGELBERT: Pat Engelbert with HDR. As is written up in Section 5 of the PAD, we were

able to analyze four or five years of gauge data as exists both upstream and downstream of the canal system, and we did an annual water budget, and there's about a million acre feet of water that go through the system, and I believe out of that roughly 2,000 cubic feet are used for irrigation which is a relatively minor amount. But as is indicated by the gauge data that is out, there's actually a slightly gaining reach through that system. So based on the analysis that we did, we didn't feel that the slow depletion to the lower Platte was going to be an issue.

Similarly with it being designated a fully appropriated basin, the DNR will take steps to ensure that no new consumptive uses would be allowed in the basin that would reduce the size of -- the amount of water that is available to those current permanent deals. That's all that I have.

MR. HARMS: Bob Harms. The analysis that Pat did was a good, good, good effort, but I think the difference here is it comes down to this environmental baseline issue again, with the project versus without. And that's really -- I think the sticking point for us is -- I know you showed 2,000 acre feet and it all kind of balances out, but

that's to us like comparing current and kind of what is expected into the future, and we know that operations aren't really anticipated to change that much in 30 to 50 years. At least that's what we've been told.

We're looking at it from the time before the Loup canal was there and comparing that to now, and that's why we identified the depletion issue -- depletion concern as an issue. And that's also why we recommend that that continue to be a study, a comparison of before versus now, and maybe into the future.

Anything to add, Jeff?

MR. RUNGE: Well, you know, I think that that 2,000 acre foot is well above that tenth of an acre threshold, and that is calculated -- I mean, you can have an irrigation supply number just fixed to crop water use demand, and if they supply a certain amount of acres, which is -- I'd have to find the numbers here, but they supply a certain number of acres, and of that a certain portion of that is going to be consumed. And regardless of the variability of these gauge measurements, I mean, that's a realized loss of water that is being withdrawn from the system that Loup is providing

access onto FERC properties to withdraw that water, and that is an impact on the species.

MR. HARMS: Bob Harms. We would consider that that would fall in the category of an interrelated, interdependent component of the federal action -- facilitates the irrigation under Section 7. I'm sure you're familiar with that.

MR. JAYJACK: Just to comment on what you had said previously about what the past system looked like before the project. I'm thinking maybe a better way to think of it would be, just for practical purposes, and prior to the private people -- particularly the irrigators, probably weren't there, and I don't know -- I mean, I don't know what the irrigation system looked like back then, but I'm positive that they probably -- the folks that are pulling water from there now probably didn't have a means of pulling the water from the Loup River where it originally was to farm the fields.

So I don't know that that type of analysis or logic would work for us, but maybe a better way to think of it would be if we were to not divert any water into the canal what would the system look like, you know, in terms of not -- I'm not going to

come out and suggest that we go that route.

MR. HARMS: It's good discussion premises.

MR. JAYJACK: Sure. So if we do -- if we were to go that route, what kind of study -- what exactly would we be studying? Would you be looking at evaporative rates in the bypass reach of the Loup River assuming we allow all the water to go into the Loup River, what that would be and compare it against the 2,000 per acre feet depletion or whatever the number was that occurs with the system as configured today, and then do a -- see how different, if it's less or more?

MR. HARMS: I'm going to rely on Jeff and maybe Dave to speak to that, those two folks that have quite a bit of experience on depletion on the Platte River and have what sort of a framework of what the study might be.

MR. RUNGE: It would be similar to an enhanced water budget. It'd be similar to what has been done here. Except for there's --

MR. JAYJACK: I guess the question is, what's missing? What don't we know yet?

MR. RUNGE: For example here, they show on Table 5.9 they show a loss from the Loup power canal near Genoa to the Columbus power house. They see a

net loss of 52,000 net acre feet in that reach. And I don't know exactly how they come up with those numbers, whether they see this net 52,000 acre foot loss, and they have some certainties around certain losses. But other losses they did some quick subtraction and said, well, this leftover has to be attributable to seepage. And that may not be the case. You may have additional losses that are associated with -- maybe greater loss associated with a certain variable that wasn't really quantified to -- wasn't really measured on the ground. It wasn't quantified.

MR. ENGELBERT: Pat Engelbert again. Just to note, Jeff brings up the 52,000 acre feet loss. Relative to a million acre feet, that's within about a 5 percent range, and the gauges themselves aren't within 10 percent if they're considered good.

So, again, we posited based on the information we had and the calculations from standardized graphs of evaporation and evapotranspiration, et cetera, that likely that was a result of seepage.

I think if we look throughout the state of Nebraska if all the irrigation canals -- and this is not an irrigation canal -- but if the irrigation

canals in western Nebraska operated with only 5 percent loss, I think those suppliers would be extremely excited that they were only losing 5 percent of their water. So having a system that only uses 5 percent is extremely tight. It's an extremely tight system. So I just wanted to bring that up.

MR. JAYJACK: Does Nebraska state law require you to allow the irrigators to pull water from your canal or could you tell them, no, we're going -- you tell us the amount that you want and that's the amount we won't divert from the Loup River at our diversion?

MR. SUESS: No. The state law basically -- Neal Suess from Loup Power District. The state law basically is if somebody wants to pull water out of the canal or someplace else, they are allowed to do that. They go to the DNR for a permit, and they get a permit from the DNR, and we don't have any say in that whatsoever.

What we do have a say in is if our water right is senior to that water right, we can call on that water unless they have some kind of agreement with us to not allow that water to be drawn from the river to protect our water right at that point in

time.

MR. ZIOLA: But there's a payment system.

MR. SUESS: But there's a payment system. They basically pay us for their pulling the water either out of our canal or upstream of the diversion point.

MR. WALDOW: George Waldow, HDR. There's no obligation for the district to provide water to any one of those irrigators. It's a convenience that if the water is there, they can trump the power use and take the water for irrigation use. But it doesn't change the amount of water that the district diverts. They divert according to their hydropower needs and all the limitations of sediment and water levels and so on.

They divert the same way in November as they do in July when the irrigators -- August when the irrigators want the water. They can do it without any consideration for the irrigators at all other than they send Jim Frear out to read the meters on the pumps, but they operate strictly for hydro generation. And as a little ancillary consumptive use, the irrigators take water out and pay for what they use to compensate for the lost energy. So it's not operated as an irrigation

system whatsoever.

MR. SUESS: And, you know, we are only looking at a July and August time frame for this. For ten months out of the year, there is no irrigation. The system operates as it does.

MR. ALBRECHT: Just a quick clarification. Frank Albrecht, Games & Parks. On the water budget, I just want to make sure I understand it right. The total is from the top to bottom 12,000 acre foot gain. Is that -- am I reading that right?

MR. ENGELBERT: Yes.

MR. ALBRECHT: And that 1.59 that shows the 52,000 and then a net gain of 64?

MR. ENGELBERT: Yes. And just a little bit of background for you, Frank. The Lost Creek flood control project comes in downstream of the power house but before the confluence with the Platte. And the feeling is that anything lost to seepage is likely to get picked up by that Lost Creek flood control project and transported directly -- (inaudible).

MR. HARMS: Bob Harms. Neal, I'd like to -- maybe you could correct me here if I misinterpret -- kind of go back to the question that I think, Nick, you had. There are subagreements

that Loop Power District has -- and if I misinterpret it, stop me -- that allow access to the canal. And you folks can make a decision on whether or not you will allow the irrigator access to the canal through those subagreements. That's my understanding from what I've learned from this. So there's a decision making process there. It's not something that they don't have discretion.

MR. ZIOLA: Basically we have agreements that say, you know, how they can put the stinger in. Jim, you can help me on this, too. But we basically have an operations agreement that says how they can put the stinger in, but none of that starts until they have a water right.

MR. SUESS: They have to get the agreement first.

MR. ZIOLA: Some operational issues so as not to jeopardize the integrity of, you know, the banks to where we might have a safety concern, a piping issue and those kind of things. But it's just primarily from a standpoint of not, you know, causing degradation or berms and those kinds of things, plus, you know, just to know where things are just so we can monitor them.

But they're pretty minor because -- you

know, an individual -- I mean, we're to allow access by the public, you know, for being on the project. So to, you know, allow one person to get on and ride a bike and another person not get access, you know, to fulfill their water right which they've received, you know, seems to be kind of opposed to each other.

MR. JAYJACK: So the water right obviously will have a quantity component to it, but does it also have an extraction -- some language as to where exactly they can extract that from, a particular point or points of extraction?

MR. FREAR: Yes, it does. They have to complete a map for the DNR, and actually their actual water right is given as the headworks because that's where it's diverted. But the DNR does make them put their diversion point on a map -- a particular point on that map.

MR. JAYJACK: So if an irrigator came to you and said to you, look, I have a water right and it says that I can divert anywhere in your canal within 100 feet of point A or whatever it might be, you have to allow me to draw water, put a siphon into this position or pump or something along those lines? You can't say no to that, correct?

MR. FREAR: Not according to water law we

can't say no.

MR. JAYJACK: That's what I was getting at.

MR. SUESS: There's nothing -- we can say here's how you have to draw water from that or either how you put your stinger in to protect the safety and the integrity of the canal. But other than that, we can't really say no, you can't once they have the water right from the state.

MR. JAYJACK: So really the only way you can say no is choose to not divert at all and then you would be within your rights to do that and they couldn't come back and say, hey, our water right requires you to divert water into this canal so we can withdraw it.

MR. SUESS: That's right.

MR. RUNGE: I think the difference we're talking about here is a right to water versus a right to access the water. And if this is a situation where a person had a water right but needed to -- a right to receive access from a private property land owner in order to get that water right, they need that permission first from the landowner. And I see that as no different from this situation. They've got a right to the water

but they don't have a right to access. That access -- that right to access was granted by Loup Power.

MR. JAYJACK: That's not what I'm hearing, though. I'm hearing -- they're saying they can't deny access. And the reason I'm asking these questions is I don't want us to be delving into a water rights issue if there's no relationship and there's -- we have no control to do anything in a license to effect that relationship, so that's the reason for these questions.

MR. RUNGE: Unfortunately, the Department of Natural Resources isn't here, and I'm not sure if that's an equivalent to, like I said, if Loup Power District is an equivalent to a private landowner that would need -- need to provide permission in order to access that water. I think that's something that needs to be researched further.

MR. WALDOW: The Loup is not a private land owner, they're a public agency.

MR. RUNGE: And if there's a difference between that, exactly, and how that difference is treated under law. And that's where we really do need DNR to come in and provide us with some additional information with an interpretation.

MR. JAYJACK: I had one question about one of the issues here, and I'm not even sure it was an issue, but we put it in the document -- but we thought we should put it in there and discuss it here. And I'm not quite certain where in the PAD we picked up on this issue, but it's bullet number 2. It says, effects of the project diversions on bacteria levels in the public water wells adjacent to the Loup River bypass reach.

Is that something we really need to look at in the context of hydro, or where did the issue arise from and should we remove it when we issue our scoping document?

MS. RICHARDSON: Lisa Richardson with HDR. That was a question -- just a comment that was raised by Department of Health and Human Services who attended a lot of the early coordination meetings that we had, and the concern was related to along the bypass reach when water is diverted into the canal, that there's less water, that water is going to become warmer, that warmer water may have an effect on groundwater and may raise the temperature in public water wells, and that may raise the temperature just enough that it would allow bacteria to grow.

And the analysis or the information that we gathered from -- did we get that from DEQ? We got information from the DEQ, I believe, that it was in Genoa, their public water wells, and they did have a couple of occasions where they had high levels, but those were not at times of the year when water temperature would have been a factor. They were in May or October.

It's in the PAD. It's in Section 6 of the PAD, the discussion of that. So that's why the district didn't include that as a specific issue to be studied. We felt like the original concern was not borne out by the data that we were able to gather.

MR. JAYJACK: So if we were to delete this issue, would anybody have a concern with us doing that if it's not really an issue that we need to look at. I would just as soon pull it out of the document.

MR. TURNER: Have you heard from the Department of Health and Human Services as to whether they were satisfied with what you found in the PAD?

MS. RICHARDSON: We have not contacted them since the PAD, and we have not heard from them

directly.

MR. JAYJACK: It's something we'll probably -- I know we're going to give thought to between now and the time that we issue the next scoping document. So stay tuned for that document as to what our decision was. We'll look at the written record as well and see if -- to come subsequent to this meeting to see if that agency responds.

MS. RICHARDSON: Okay.

MR. JAYJACK: Well, that was the only question I had. The other question I had was answered when we talked about depletion. So is there anything else anybody wants to bring up with specific regards to the aquatics?

MR. HARMS: Sediment issues as well might be a good place to cover that under aquatic resources here. And, Jeff, I might defer to you on some discussion about sediment.

MR. RUNGE: I'm trying to pull my notes together here, but a lot of that information was based on the Missouri River Level B study, and that was back in 1975.

You know that there is an effect of the project to the system, to river morphology or the

system. You see those piles of sand being withdrawn and deposited on the spoil pile, and there is sediment free water coming into the system at the tailrace area. And it's just having an understanding as to what degree that that sediment free water is having an effect on the system.

Reading the PAD and identifying just some numerical equations they've come up with, I'm trying to figure out what the certain proportion of the amount of sediment that is estimated to be removed from the system due to operations, and knowing that the system is highly variable, that may change. I do remember reading the PAD, and the amount of sediment being dredged from the system has reduced -- been reduced significantly compared to the sediment that they were dredging in years prior.

I don't have the exact dates and the exact amounts, but that would provide some indication of the reduced sediment supply in the middle Loup River system. That underestimation of sediment when compared to this Level B study may show that they're actually attracting more sediment from the system proportionately compared to what was observed in the past. Especially based on that Level B study.

So I believe that what we need to do is to

look at different -- well, first of all, make a comparison of the present condition, you know, the with project action alternative versus the without project action alternative to get a good understanding of what the sediment budget is.

MR. JAYJACK: Where specifically would you be looking, the Loup bypass reach and the Platte River downstream how far?

MR. RUNGE: Well, that depends. I mean, that's -- it's unknown to what degree that sediment deprivation has an effect downstream, and that's something that was never evaluated and we really don't have a good handle on.

So normally you'd think sediment deprivation within these clear water type, underwater situations, and that's localized. I mean, that's within a -- within a few miles or tens of miles from that site. You usually don't -- wouldn't see a significant effect or huge effect way downstream in the lower parts below the lower Platte.

MR. HARMS: Bob Harms, Fish & Wildlife Service. Maybe the first good step on looking into sediment in further detail would be to take a really close look at the Sediment Analysis Table 5-13, and

that's in the PAD page 523.

Now, we know these numbers. There's some good numbers here, you know, especially in terms of the amount of sediment that was taken out and removed from the settling basin is pretty tight, but there's some other numbers that can really vary wildly. You know, if -- you know, I'm looking at some information at the Duncan gauge on the Platte River. Duncan is on the Platte, and the Bureau reclamation estimated 1 million tons of sediment moving down the river of 14,000 CFS, and the power district estimated 1.8 million, and there's real variation there between those two numbers.

What I would suggest on the sediment yield -- what we would suggest on the sediment yield table would be to, number one, take a look at those numbers and see how variable they are, especially when they're doing the debits and credits, and get them peer reviewed.

That's a good first starting step, because this table says not much change in sediment movement. You know, what's going in is what's going out. That may be the first step. And then you take that and step that to the next component of the study which might be, is the lack of sediment

affecting availability of sandbar islands for terns and plovers on the lower Platte River from the tailrace down to the confluence of the Platte to the Missouri Rivers? Is there changes in size, perimeter, and height? It seems like a good first step is to take a look at the yield analysis.

Jeff, any comments to that? Thoughts?

MR. RUNGE: I guess to first of all quantify that effect and then if it's identified that there is a significant effect to federal regulated species, to look at different actions and alternatives that would help to offset that -- that negative effect.

But I would include an initial study here, especially looking at the refining and reevaluating that budget analysis. We've got Jason Alexander here from USGS. Is that something that can be done through a collection of studies or a collection of existing information or I guess has -- does the sediment budgets change enough over time that you really need to get down on the ground and develop a proactive study to really identify these different proportions?

MR. ALEXANDER: Jason Alexander with USGS. So there's a study that's proposed for this,

and I haven't been through the process before, really. But under sedimentation, and I'm just wondering is that -- since you already have a study proposed, is that something that you want more comment on? Our -- through our letter that we put in to -- for the PAD, our chief technical concern was about sediment. And we reviewed the PAD a bit, and we did look at the sediment budget, and our main concern about the sediment budget was that some of the numbers appear really, really large. See, I wrote some down just because the only -- I mean, our main concern was with the sediment budget, and I was going to comment on it today. I guess now would be it.

The numbers were used from the Missouri River Basin Commission Study, and the number here, the 7.4 million coming out at the Loup, that number is from a rating curve. And we're pretty familiar with this Missouri River Basin document because we've done a lot of work there, and that is a rating curve that was developed from sediment data that wasn't taken above 10,000 cubic feet per second but was applied up to 64,000 cubic feet per second. And so there isn't data past 10,000. So the rating curve wouldn't have a linear relationship that would

be -- especially once you start reaching flood stages of 64,000 you're not going to have a linear relationship between flow and sediment transport. And so without -- when it's extrapolated up that far, if you look at the data, most of that sediment transport and that 7.4 number is from flows that are above 15,000 CFS.

And all of the data that's used to create the curve is below 10,000, so it's the equivalent of doing like a flood frequency curve for a net analysis when you don't have data above, you know, infrequent -- any infrequent processes.

So that would be my main concern with that number, and that especially because the sediment removed from the settling basin is the tightest number you guys have. I mean, you guys have a really good number on how much you remove from the settling basin. And so that's a good number as far as a from a geomorphology perspective. That's the tightest number you can get in a sediment budget when you actually have a sediment removal number from pumping.

But since that's the tightest number, and the number that they put out that was -- that they cited in like 1976, I think you guys have seen a

decline of sediment coming into the settling basin. And so if that were, say, a systematic process -- so if, say, sediment yield in the upper basin was declining which would have resulted in a reduction of what was going on in the settling basin, then that should have been systematic.

So, say the numbers halved going into the settling basin. Then they probably should have halved in total sediment yield coming down which makes that total sediment yield above Genoa go to about half, from the 7.8 down to, say, you know, 3 or 4.

And then the yield from below the diversion is also equivalent to the same yield as, say, the entire central Platte basin.

And so those numbers just seem really, really big, and our only technical concern with that is if those numbers are really big relative to the number that's pretty tight which is the number in the settling basin, then the 14 percent or so sediment deficit that was reported in the PAD all of a sudden becomes something more like 50 percent. And so that would -- that was our concern with this budget.

You know, the Missouri River Water Basin

was a perfectly good study, but it was a basin wide study. It was a really large scale analysis. So when you're doing orders of magnitude difference, like I say, up to 64,000 CFS, you could have probably two orders of magnitude difference.

And so, for a study of the scale of the Missouri River Basin, that might be kind of, you know, just drops in the bucket. But at the scale of the Platte River basin or just the loop basin, that's a big number. And if it's a big number, then I think that would be a technical concern. And there is -- there's three things that happen to kind of superimpose on top of each other, and the one is that there should be, you know, just theoretically from any dam study -- and you guys do a lot of them obviously -- below any dam there's always a sediment deficit. Below any clear water input there's a sediment deficit, and there's superimposed on top of each other -- you know, there's the project, there's very few species within the project area, so between the diversion and the Elkhorn River where the sediment is input.

And then yesterday I was asking Mary about her -- Mary actually has -- you remember from the tern and plover partnership -- she actually has data

that would help in a study that could be done, and they do bar areas and bar elevations relative to -- in the downstream direction from the tailrace to the mouth of the Platte, and she shows a relationship that shows basically the bar areas and bar elevations near the tailrace. Basically bar elevation, bar area increases in the downstream direction.

So those three things kind of together lead one to believe that there's a sediment deficit. That would be our main technical concern with sediment.

MR. JAYJACK: You brought up a point that below -- we see that below dams there's a deficit of sediment because it's deposited in the reservoir above the dam but diverted elsewhere. And we recognize that, but it's not an issue at every single project.

So taking a step back, we'll look to see if, for instance, the state Fish & Wildlife agency brings up an issue related to, well, we've lost trout spawning habitat, for instance, or whatever fish species you're working with. And so we'll look to see if -- if the loss of that sediment is having an indirect effect on fish habitat, for instance.

And so I guess where I'm going with this is -- I mean, we can see that, yeah, there's -- and we saw it with our own eyes yesterday on the tour, that 1 to 2 million cubic feet per year of sand being deposited in the north -- I don't know the exact quantity -- but in the north sand management areas. So obviously that's been taken out of the river and it's being left there and some of it's being mined, a very small percentage of that.

But then the question becomes, you know, what is the effect downstream? And what I -- the type of question that I start to ask then is, is there anecdotal evidence of loss of sandbars downstream? Have they become smaller over the decades? So is there any kind of anecdotal evidence like that that would help us to look at, you know, how big an issue is this really? I mean, do we really need to go -- to delve into this any further?

MR. HARMS: Nick, Bob Harms. And let me speak to that. Probably for the last 10, 15 years the Nebraska Game & Parks Commission has been doing surveys for terns and plovers every year during the nesting season, and they do that in coordination with the Tern & Plover Partnership, Mary's group. Sometimes Fish & Wildlife Service gets involved in

that, too.

And years ago the -- what's happened is the bars between the Loup confluence or Columbus bridge or whatever down to the Elkhorn or Fremont, somewhere in that area, have become so vegetated that there's no nesting habitat. That's been going on for a long time to the extent that Game & Parks have gotten to the point where they weren't even going to do any surveys.

Now, this last year we were lucky enough to have some tremendous rainfalls out on the central Platte starting -- we had just finished doing our own tern and plover surveys when was it, May, June? I mean, it rained and rained and rained and rained, and the Platte River truly looked like the Missouri River. It was huge. And the effect of that -- what that resulted in was a tremendous amount of scouring of those old bars and restoring a lot of that habitat that's out there. And before then there weren't any. There was a time they weren't even finding nests -- tern and plover nests until below the -- you aren't familiar with these areas, but below Highway 92 bridge, Venice area. For years that's the only place they found tern and plover nests.

The bars were there. They were just overcovered. And they weren't being overtopped. There weren't any -- there didn't seem like there was much in bar formation. That's about as anecdotal as I can get, and I hope that helps.

MR. JAYJACK: If there's no storage, though, I'm still not making the connection. So it sounds like it's caused -- what removes the vegetation are big flows, and so if the process --

MR. HARMS: Ice jams do, too.

MR. RUNGE: I think to help answer your question, too, that sediment deprivation has an effect on sandbar formation. Sandbars are what terns and plovers nest on, and I think to answer your question to what degree is that having an extent, to what extent longitudinally and temporally throughout time? And it's really difficult to answer because we do have that declining hydrograph. We do have that reduction in peak flows. But we also have the effects of hydrocycling. And without having an intensive analysis that is able to tease out these factors, you don't know whether that reduction in bar height and bar formation is due to sediment deprivation, or is that due to continuous hydrocycling and that erosive effect of

hydrocycling, or is that due to bars becoming permanently vegetated because of the declining hydrograph?

And that's what we are recommending is that we develop a study so we can tease these different factors out, to really parse out what the actual effect of sediment is versus the effect of other forces.

MR. WALDOW: Gorge Waldow, HDR. In response to your question about anecdotal evidence, one thing I would ask everyone to keep in mind is that there -- there is a declining hydrograph or there are hydrographic changes. Pat, isn't it true that the Loup hydrograph has actually increased over time?

MR. ENGELBERT: We haven't looked at that.

MR. WALDOW: Let's say the hydrograph is changing for basically the discussion. The thing that I keep in mind is that this project has operated since the mid- to late 1930s. The one constant in all that time with the development of irrigation and the changes on the central Platte and the changes on the Loup Basin, the one constant over all these years has been the operation of this project.

Ever since that canal was built, every since that dredge was put in the settling basin, the project has operated as it was designed with this daily hydrocycling. And so when you look at -- when you look for variables and causes of these variables to -- if there are things -- like, we're seeing the tern and plover population trend shows a decline since the '80s, since they started doing the census studies, but the project hasn't changed since that time.

The populations vary. They go up and down. One year they're up. One year they're down, and it's not consistent between the species. This is anecdotal review of the studies. And so one year terns will be up and plovers will be down, but these birds share the same nesting areas. So there's the possibility of externalities impacting this beyond the project including return to birds from wherever they migrate which is not part of the census studies. The census studies are only looking at the local occurrence and nesting habits.

So there seems to me to be not very good linkages between habitat issues, quality habitat or poor habitat which is largely affected by the kind of events that Bob described.

Major flood events move sediment around and create sandbar habitat. Major ice jams scour sandbars and create clean habitat for the following year. A lot of the impacts that I've interpreted are recently precedent conditions such as bank-full flood events which will rebalance the sediment material, create new bars, erode old bars. The day-to-day changes don't seem to do much with the birds. They're used to dealing with that.

So it's hard for me to see -- make specific connections between the project operation in general, the hydrocycling in particular, and the success or nonsuccess of nesting of these birds. And so that's -- I'm not trying to dismiss the importance of those things. I'm just saying it's very difficult to come up with -- with study context that will address these things directly relative to the project events which are certainly out there since the project was built.

But how much the project affects sediment in the river, how much that sediment affects sandbar formation or degradation, how much that degradation or aggradation goes downstream, and then bringing in the temporal issues, is incredibly complex.

MR. HARMS: Bob Harms. I stepped out here

to get some coffee, so I may have missed some of this. But it seems to me based on what I heard from Jason and the information that I know Mary has on bar sizes and perimeters and heights, you know, it seems like there's a way of evaluating that. Some of that information is already available from the survey start, all the way down. And that might be a good starting point here. Take that and see if there's a difference as bars get larger and larger, and then go from there.

Jason, any comments on that that's going to kind of try to piggyback off of your earlier comments?

MR. ALEXANDER: Well, I guess my only comment on -- I do know that in regards to the temporal aspect of it, you know, we did a study -- Daniel at USGS did a study. He did not show changes in basically most major cross-sectional geometry metrics and gauges, which are near bridges. He didn't show -- in his study -- for some parts of the Loup, I think it was back to the 1800's, but in the North Bend area it might have only been the 30's on, but they haven't shown any major changes at those.

So I guess the thing that I was thinking about that that I was discussing with Mary yesterday

was a seasonality of sediment. And so there's, you know, like this year, for example, the bars got really, really big, and part of that change is because of the Loup flushes. So the Loup has got a lot of sediment. And even though there's a lot that's removed, there's still a lot of sediment in that reach. Probably maybe even a surplus in that reach between the diversion and the mouth. And so, you get a flushing of sediment into the Platte which then causes bars to build and you create habitat. So in a year like this year, Mary measured bar heights that were all above the elevations that would be adequate to -- for tern and plover habitat. And she showed that none of them overtopped from hydro peaking or storms.

I guess what I would most be concerned with in the sediment budget is that sediment budgets can be very rigid and, you know, you can look at them -- and, you know, in the long term you can say in the long term there might not be a sediment deficit because sediment flushes through. I think the way Mary interpreted it yesterday is that there's a seasonality to it. So if you get a big flood -- if you're lucky enough to get a big flood that comes down flushes that into the Platte, then

it builds bars and you have habitat.

If you have a year that stays more like an average year, you probably don't get enough sediment into the lower Platte and the bars don't build as big and maybe they're initially emerging after the spring floods, but they degrade faster and don't last as long if they're closer to the tailrace.

And so her -- her anecdotal observations were that bars degrade faster and don't build as high between the tailrace and the Elkhorn because -- and her anecdotal evidence and her anecdotal numbers are that there's not enough sediment to build those bars.

MR. JAYJACK: So it degrades faster and doesn't build as high up relative to what?

MR. ALEXANDER: Relative to, say, below the Elkhorn where there's another input of sediment or even upstream. I don't know how much.

MR. RUNGE: And one thing, too, in talking about species response is to focus on the physical habitat and the physical morphology and not looking at species' response because there's a lot of factors on the wintering grounds. They're based on habitat availability outside of the Platte that may -- you may have the best habitat on the Platte,

best looking habitat, but it may not be used compared to other years because of increased habitat availability in other river systems.

And so, to me it's, you know, let's just look at -- let's not look at species and species response, and have this more focus on river morphology, sandbar maintenance, graded system maintenance.

MR. ENGELBERT: Pat Engelbert with HDR. Clarification. Jeff had mentioned reduction in peak flows as a result of the project, and I think you were about to bring it up. Those are regulating reservoirs. They're not storage reservoirs, so I don't understand the reduction of peak flows as a result.

MR. RUNGE: There's numerous throughout the system -- the Platte River system, there's numerous storage projects that --

MR. ENGELBERT: I was talking specifically as a result of this project.

MR. RUNGE: Oh, no. No. It's not associated with the project, but it's a confounding factor that would confuse results from an analysis.

MR. ENGELBERT: Okay. Thank you.

MR. RUNGE: Thank you.

MS. NGUYEN: Just FYI. Mary gave me a copy of her report, her latest report, 2008, and I will be giving it to the court reporter to be put in as part of the record so we'll have it.

MR. JAYJACK: I would move at this time that we take a break and let the court reporter rest her fingers.

(A recess was taken.)

MR. JAYJACK: In the essence of time I think we should close the discussion on aquatics for now and if there are any additional comments to be brought up, there may be a little bit of time at the end of the meeting. But if not, there's an opportunity to provide written comments by -- Kim will give you the due date for doing that. But I think there are some other issues I think we need to talk about this morning.

So with that I'm going to turn it over to David to talk about the terrestrial issues he's identified as well as the threatened and endangered species issues.

MR. TURNER: As Nick said, I think we probably talked about a lot of this already this morning. But based on my review of what's in the PAD and the consultation recommendations so far, the

thing -- the critical issues in terms of terrestrial or wildlife species still seem to be the overall effects of the project operations and the hydrocycling flow fluctuations and how they are affecting the riparian resources.

Also how those things might be affecting bald eagles and migratory birds like bank swallows, cliff swallows and the small white lady's slipper orchid.

Is there any other terrestrial issues that I've missed in reviewing the PAD or your comment letters?

MR. HARMS: Bob Harms, Fish & Wildlife. You might include western prairie orchid, but that is a threatened species, so you might actually have it covered in the next section.

MR. TURNER: It is. It is covered. We deal with the endangered species sort of separately even though they're all related in regards to the overall terrestrial processes and they're all terrestrial species. Because of EA constitution of departments we deal with those separately.

From the silence I assume that we can move into threatened and endangered species.

There are -- again, we've identified

project operational effects and in particular on page 14 of the scoping document is our bulleted list of effects. I think we probably covered a large part of that again in our discussion in aquatic resources in terms of sediment projects and flow and how that's affecting the pallid sturgeon as well as a number of the habitat characteristics of the least tern and the piping plover.

And I've got a fairly detailed component list in terms of nesting habitat, foraging habitat for the least tern and piping plover. I won't read them verbatim because everybody can read them for themselves, but is there anything that I've missed here that we should be considering that we haven't already discussed?

MR. HARMS: Bob Harms. I guess I would have one comment that would -- it's kind of an overarching issue for all of us, and it will be an important overarching issue for our upcoming Section 7 consultation with you folks, and that is that -- it's the environmental baseline.

We would view the environmental baseline as being with versus without the project in this Section 7 consultation, so I hope these studies would be developed so -- in that way -- in

consideration of the environmental baseline, and not today versus continued operations. And this is just a comment point.

MR. TURNER: Environmental baseline has always been somewhat at odds in ASA consultations and the Commission's baseline even though the Commission's baseline has been held up in court over the years. And I think Nick pointed out a very good way of looking at it, and it gets to the same concept of what happens if you change operations such that you don't divert any water and basically make the project go away. It gets to the same questions that you're trying to answer, but you're not confusing the baseline.

MR. HARMS: I guess we would agree with that.

MR. TURNER: Whether it's reality is a bigger question, but it still gets to the same point. And we do look at in terms of the cumulative effects of what's happening. Whether we want to talk about it in terms of what the baseline is, we can talk about how things progressed over the years and where we are now and what's going to happen in the future under future operations. So, I don't see the conflict personally.

MR. HARMS: I guess the important thing is sometimes that can be a real rub figuring out the environmental baseline and getting it to so we can all agree and make progress. I guess as this proceeds on as long as we're talking about baselines and have a similar sort of an understanding, I think that will go a long ways.

MR. TURNER: As I said, we covered a whole lot of this in terms of flow fluctuations, wintertime ice and jams and how that affects things down. One question I did have is, is the principle focus on the least tern, the piping plover recovery efforts in the lower Platte? I mean, is that where most of this analysis is coming or is the bypass reach critical consideration? I mean, I was getting an impression this morning that we're really talking about the plovers and the least terns all occurring in the lower Platte from the tailrace down to the lower Platte, but I'm not hearing any discussions about the bypass reach per se.

MR. HARMS: Bob Harms. I can speak to that. It's really both the bypass and the lower Platte. It concerns both of them.

MR. RUNGE: The Loup River is a graded river system similar to the Platte River, and we do

have nesting sandbars above the project on the Loup River system, and so it's occurring above the project and it's occurring in the Platte River system downstream of the project that -- the habitats and the nesting.

Within that project area that gets to that -- that discussion about species response and how we don't have documented nesting within that area, but the project has been operating for 50 years and the surveys have only -- were only started in the '80s. So you've got multiple years of effects without any variations in operations that you can test to see what the species response was or habitat response was or channel response does in that bypass reach. And so considering how we have sightings above the system and the Loup River system, we do have nesting, and an absence within there could indicate that the bypass would have an effect.

MR. JAYJACK: An absence of what where?

MR. RUNGE: The absence of nesting within the bypass reach.

MR. TURNER: So the nesting above the diversions and nesting occurring below?

MR. RUNGE: There is, yes. And there's

also nesting that has -- we actually documented nesting this year occurring in the Platte River system above that bypass reach, too. So it's in the upper parts of the Platte, above that -- the bypass reach. And it's in the lower parts of the Platte River below that bypass reach. And it's also in the upper parts of the Loup in the bypass reach.

In other words, there's -- there's nesting upstream of both the Loup River system and the Platte River system within that -- upstream -- just upstream of that bypass reach. Just nothing within that bypass reach.

MR. TURNER: So there's nesting occurring within that very short section between the confluence of the Loup and the Platte? Is that what you're saying?

MR. RUNGE: No. It's actually in the Platte upstream of the confluence.

MR. HARMS: It's the Highway 81 bridge.

MR. RUNGE: When I say bypass reach, I also include that area of bypass that includes the Platte River, that area of the Platte River, too. I include that all as the -- which technically is incorrect.

MS. NGUYEN: So maybe somewhere here?

Because this is the Loup.

MR. RUNGE: Yes. We do have nesting upstream of there.

MS. NGUYEN: Upstream of the Loup and upstream of the Platte?

MR. RUNGE: Yeah. Actually, let me just explain it here. We do have nesting actually right up here just upstream of where the Loup comes in, and we do have nesting way up above this diversion area. It's just this little dewater reach of the Platte River. And this dewater reach of the Loup River we don't have nesting. And we do have nesting downstream of the -- actually, there's a nest this year just right down here of this trail bridge.

MR. WALDOW: Can you tell us how far upstream of the diversion the nesting is in the Loup River?

MR. RUNGE: We'd have to get to the records to get exact miles.

MR. WALDOW: It's some distance; is it not?

MR. RUNGE: We'd have to get the records to see. I don't know the exact amount of those locations and the nests change from one year to the next, too, so I could give you a number but that

number may be wrong.

MR. WALDOW: I'm not trying to put you on the spot but the data that we have -- and we need to get more data from the service as well as we're waiting for some from Game & Parks, but the impression that I had was that it's upstream on one of the branches of the Loup River not on the main stem. Does anybody know if that's correct?

MR. RUNGE: You mean like -- well --

MR. WALDOW: What I'm trying to get to is --

MR. HARMS: I drove a boat and we found birds on the bars upstream of that diversion all the way up to Fullerton Bridge and upstream of there, too.

MR. WALDOW: Okay. That's what I wanted to know. We don't have any of that data.

MR. HARMS: We did that survey about two or three years ago, and that may be the Games & Parks process. I don't know.

MR. THORESON: Randy Thoreson, National Park Service. I'm a little confused, Jeff, because when we took a tour out there in June, I think it was, we saw signs and evidence of nesting on the headwaters diversion structure area, and I believe

that -- am I confused to where you're pointing out?

MR. RUNGE: Yes. There is a structure, but just none using the sandbars. That diversion -- the spoil pile is removed from the river.

MR. THORESON: Does the canal have sedimentation there as Neal pointed out?

MR. RUNGE: Yeah.

MR. JAYJACK: Just to clarify what Jeff said for the court reporter, he said that the spoil pile is removed from the river. In other words, it's not influenced by the river.

MR. TURNER: Is there anything else we need to cover on threatened and endangered species?

MR. JAYJACK: In the first bullet, and this may have been a typo on my part, but I have on there that the geographic scope as being -- with regard to the pallid sturgeon as being an analysis of effects in the Loup River and lower Platte River, and I'm wondering if I should have just said the lower Platte River and not the Loup River. And would it be okay in the next scoping document if I deleted Loup River from the issue?

MR. HARMS: Yeah, that's fine. They're a big lower Platte sort of fish. That's not to say that things that go on the Loup River won't have an

effect downstream.

MR. JAYJACK: Understood. Thank you.

MR. TURNER: With that I'll turn it over to Mark for recreation use.

MR. MARQUESS: So if you just want to follow along in your document, moving on to 4.2.5, Recreational Land Use.

Our job here is to establish the baseline for the next 30 to 50 year license, so we're coming to the close of this first license and you've really -- second license, sorry -- and you've really established yourself, the district as a regional recreation provider, and that was really evidenced last night when we had big turnout of people that drove two hours in that terrible weather to talk about outdoor recreation, OHV. And that should be a feather in your cap. I congratulate you on that. It's great that you're doing that.

Some of the issues that have been identified, and we can go through these together. You know, the effects of existing recreation facilities. And there's quite a list there: fishing hunting, camping, boat launches, trails, playgrounds, swimming areas, and public access within the project boundary, current and future --

over the term of the new license -- recreation demand, including barrier free access.

You have a framework of recreation facilities you're providing now, and so there's -- the public out there is expecting that those facilities will be there. And one of the questions I came up with yesterday was when we went by the Monroe power plant there was an existing bathroom, a slide, some swings, and that's not mentioned as one of your park sites. Is that supposed to be a park site? Is it planned to be a park site or what's the status of that?

MR. ZIOLA: I don't know that we really -- it's not large enough, I guess, to define it as a park site. It was probably facilities that were put there so when some people are fishing their children have something to do. It may have also been there for our residents because at times we have a young -- we would have people with young family members, so it could have been something provided for the operator in their household. But, you know, the restroom is there because we do have people that fish below the power house. There's actually stairwells on that south side where you can actually walk down. And the building is not open 24-hours a

day, and we limit the public's use of those facilities within. So it was a means to provide some restroom capabilities for the -- the occasional fisherman who would stay there the better part of a day so they do have some means to use a restroom facility.

But as defining it as a park, it's just such a small, small area. You know we kind of turned around kind of right next to it, so it's just more of a convenience for people living there as well as the occasional fisherman that might bring a young child with them.

MR. JAYJACK: I have a quick follow-up clarifying question. So it's not a facility required by the license, for one?

MR. ZIOLA: No.

MR. JAYJACK: And number two, it's a facility that you own and operate, though?

MR. ZIOLA: Yes.

MR. JAYJACK: Is it on project lands?

MR. ZIOLA: Yes. The project lands go south of that house just a little bit. Yes, it is on project lands, and it might have been that we had a slide at the Columbus power house and someone said we should have a slide at the Monroe power house. I

really don't know the history.

Jim, do you have any other --

MR. FREAR: We never did include it in our Form 80 that we talked about. I never did include it as a park. It was just a convenience for the fishermen.

MR. JAYJACK: Just real quick for the record. The reason I ask that kind of a question is occasionally what will happen is when we go to the time of licensing or typically what we do have to do is we have to identify those facilities that are licensed project facilities, and it's not always evident because recreation springs up all over the place. And as early as possible we like to know those things.

Number one is, what is the facility? Is it on lands owned by the licensee? Are they considered project lands in the context of a license? And is it required by the existing license, et cetera?

So, as we go on through this process and we work on identifying these recreation sites, you can keep that in the back of your mind when you're identifying these sites in the written record and talking about studies at these sites. It's helpful

to us to know right up front exactly what these sites are.

MR. IVY: Added to that I think we'll have to determine for the next round which of those sites do you want to include within the boundaries as sites.

MR. WALDOW: George Waldow, HDR. I think that step should be taken care of in the land use inventory as one of our scheduled studies because we -- since the PAD went out we've had some discussions with the various agencies, and the idea that we're coming down to on this is we're looking at land use along the project boundary both external and internal, and looking for compatibility issues and the fact that you have the residents of the plant operator right there, and the property project boundary is fairly narrow still even though the power house is there.

I'm wondering about the compatibility of a full-time camp site, for example, to attract people there versus the people living in that residence being self-resolved.

MR. IVY: Right. You may want to move that restroom facility down to by the park area where -- before you go up that hill to get it away

from the residence.

MR. WALDOW: It was very effective having it where it was during the reconstruction of the power house with many contractors on site.

MR. MARQUESS: The next point we have is the effects of water quality on recreation fisheries, swimming, canoeing and boating.

MR. THORESON: My name is Randy Thoreson, National Park Service. Mark, I'll comment when you go through all of these because I'm kind of tied in all three topics.

MR. IVY: So you'll wait?

MR. THORESON: I'll wait.

MR. IVY: Anybody else have a comment on that one? Okay.

Effects of the project diversion on the recreational use within the bypass reach of the Loup River. And we've had some discussions about where the project boundary is at the headwaters, and from the maps that we looked at it looks like it does go on both sides of the Loup River for a small part there at the headwaters.

MR. SUESS: That's correct. Neal Suess. And we do. There is some land on the south side of the headworks that goes past -- basically comes back

to the east that we own, and I believe you also lease to the Games & Parks Commission.

MR. IVY: And so I'm curious as to what kind of use occurs there, and we talked a little bit more about there is some use out there, but we really don't know how much and what they're doing.

MR. SUESS: Hunting access.

MR. ZIOLA: I would say primarily hunting for, you know, the games species that we have in that area, and mushrooms may be the other primary access. As part of the lease Game & Parks is supposedly down there, you know, developing habitat both from a feeding standpoint, you know, as well as for wildlife development. I would say it's primarily recreational, hunting and mushroom hunting.

MR. SUESS: Nothing more than that at that point in time.

MR. IVY: And what's the access like there?

MR. ZIOLA: The access is through county roads or township roads, and there might even be lanes. But when you get -- as you come --

MR. SUESS: I think there's a private lane.

MR. ZIOLA: As you get into the -- as you get to the actual river part, it might be more lanes. But the primary access would be through township roads.

MR. IVY: So it's one of those places where if you know how to get there, you go?

MR. SUESS: Yeah. If you don't know how to get there, you're in trouble.

MS. NGUYEN: You shouldn't be there.

MR. SUESS: You shouldn't be there. That's right. And the only thing that I will add there is we have talked with both the county and the township about that. At one time I believe the township wanted to close that road off and had talked about possibly closing that road off, and we said that's really a township decision; we don't care other than we obviously need access to get back in there since we own that property.

MR. ZIOLA: So we were neutral on the thing. We're not proposing you do it. Like Neal said, it's -- for us, it's neutral. Whatever the township, as well as the county deems, is this case.

MR. JAYJACK: So people are driving in these roads and parking along in here and walking in?

MR. ZIOLA: That would be the case. Most of the time where we get the access is -- and, Jim, help me out -- but it would be like where that number 6 is at. There's kind of a lane in there, and they'll want to get to where they can be on the south side of the fishing below the diversion structure. So I mean, there's been a few occasions I've been out there where it would be two or three people, there will be a vehicle parked down in there, and there will be fishing in that area below.

MR. SUESS: And you can see the lanes that kind of come -- you know, if you come up that little stretch that comes down, there's a lane that comes up there and then goes back towards the west towards the river, and then you can kind of come back around to those sandbars that are just downstream of the diversion structure right there, and they get on and fish from that side of the river versus coming on to property and fishing on the south side of the management area.

MR. JAYJACK: So those are publicly accessible lanes, not private lines?

MR. SUESS: Yes.

MR. JAYJACK: They're not private driveways or --

MR. SUESS: No.

MR. IVY: I was also curious as to why the project boundary does that dip.

MR. WALDOW: That's a dyke. It ties the project into ground. It's part of the weir structure. There's one on either side of the river.

For clarification on this bullet point, where you're talking about within the bypass region, are you speaking specifically within the project boundary?

MR. IVY: Well, we're also interested on looking on impact of the project on use of the bypass reach.

MR. WALDOW: Okay. With that then I would like to make two additional points. One is that the -- correct me if I'm wrong. Is the off-road park not posted to keep the vehicles off the river, what we consider the south bank?

And I say that to make it clear that the vehicles are not to be out there harassing fish and wildlife.

MR. ZIOLA: They'll be in the river channel, where you see that line of trees on the south bank. That's primarily -- they will at times be in the river channel proper up in there.

MR. WALDOW: And then the second point --

MR. ZIOLA: And it would be in those areas that are within the channel proper and that red line and maybe down in those areas there.

MR. WALDOW: The other point I wanted to make is that under Nebraska Law riparian owners own property out to the thread of the stream. And so for the entire reach of the river downstream of the project boundary, unless it's publicly owned land, it would be considered trespassing for anybody to be on the beaches or on the sandbars.

MR. ZIOLA: Other than the owners?

MR. TURNER: Other than the owners, yes.

MR. IVY: But floating reach is allowed under state law?

MR. ZIOLA: Correct. As long as you don't put your feet down on the ground, which, you know, during the spring flows and stuff there is enough flow that you can put in a canoe and --

MR. WALDOW: I just wanted to make that clarification because it limits the recreation opportunities substantially.

MR. IVY: And something you can help us with is how much use is occurring? We have no clue.

MR. ZIOLA: And, again, we are -- we put

some summertime numbers together on camp, not necessarily people but tent campers and those kind of activities and so on. Jim, were we doing it on a Monday to Friday basis?

MR. FREAR: Friday. Friday.

MR. ZIOLA: Friday. So as to what was setting up for the weekend.

MR. WALDOW: Was your point specifically the floating --

MR. IVY: Yes, the bypass.

MR. SUESS: I don't think we have any -- we don't have any indication below where our projects at as to what's going on. We know stuff happens down there, but as far as how much, that would be anybody's guess. I mean, there are people that canoe and kayak on the bypass reach on a regular basis between Monroe and Columbus, and even from Genoa to Monroe I'm guessing. That much I know of from personal knowledge. And I'm sure there's fishing that occurs and other hunting because it is pretty popular hunting spots in there. But again, it's all private ownership for the most part that I'm aware of.

MR. ZIOLA: Yeah. The state has river access on a parcel of ground south and east of what

we're looking at. I don't know what the exact location of that particular wildlife management area is.

MR. IVY: That's helpful.

MR. ZIOLA: Again, I think the State of Nebraska Game & Parks website shows public -- lands that are owned by the state opened to the public for recreational usage, so you might visit the Game & Parks website for some of those, and specifically looking in that stretch.

MR. IVY: And before we move on to land use, I wanted to go back to the geology because it was mentioned here within the effects of continued project operation and maintenance and recreational boating on shoreline erosion. And this is the area where I'm asking for information about how much boating would actually occur within the canal that would maybe lead to erosion issues within the canals and lakes.

MR. ZIOLA: There's very little boating that actually occurs in the canal, and especially any kind of -- you know, outside of canoes or kayaks or something like that. So as far as power boating, it's -- and part of that reason is because so many of the bridges don't have the clearance; whereas, if

you come with a canoe or a kayak, you come in and continue your way down. Power boats, there's almost no place you can get a power boat in easily.

MR. SUESS: In all my years of living in Columbus, I don't think I've ever seen a power boat on the canal. I mean, obviously Lake North you have power boating, but other than that --

MR. ZIOLA: In Lake Babcock there's a place where the canal comes into Lake Babcock that allows smaller boats. But as part of state game and recreation law, the whole lake is basically a no-wake zone. So you can have a power boat, but, you know, you can't be over 5 miles an hour. So you can have a motor on a boat but you're limited to 5 miles an hour or less.

MR. THORESON: Randy Thoreson, National Park Service. Do you see much canoeing and that stuff on the canal? You mentioned that a couple of times.

MR. ZIOLA: Not anymore. At one time as part of a local festival they did have a canoe race on it which they started downstream in the last siphon, but on a general basis, no, I don't really see it.

MR. SUESS: For the same reason on the

power boating you come up to a bridge, you got to basically get out. And then we also have the siphons every so often, so it's not particularly conducive for doing anything like that. But, for people that just want to go a mile here and there back and forth it would be okay. But, again, as far as what we see on a regular basis, probably pretty small.

Now, I know on the bypass reach there happens to be quite a bit. I know there's a couple groups that like to go out and canoe and kayak on that bypass reach on occasion when the water flows are --

MR. ZIOLA: Yeah, when you have a rain event.

MR. THORESON: Versus people like me who canoe and fish at the same time. And I'm rather successful doing that because the same reason people don't. Potential recreation I'm interested in.

MR. IVY: Right. Lake North is where the motors are allowed?

MR. ZIOLA: Yes. Full power boats. We don't have any motor size or limit. One of the other activities that takes part is the jet skis because in a lot of the state recreational areas

that are a little bit heavier, have a higher usage, they kind of limit it or totally ban the use of jet skis. So we go the whole range from sailboats through personal water craft up to full power boats, but we don't limit our horsepower like some of the sand pits might, where you might have 135 horse or something show up you can use.

MR. IVY: And that was the lake that we went to in the blizzard yesterday?

MR. PILLARD: Did you see it?

MR. ZIOLA: We were standing on the edge and you could not see the lake. And that's why I was trying to show the lake -- almost the entire perimeter of the lake except for the corners does have a wake wall because of -- and it wasn't because of any boating activities that was causing it. As you are well aware, it gets windy up there, too, so you do get hard driving winds out of the north when the lake is not frozen, as well as in the summertime we get strong winds out of the south. So it was as much wave action and things like that due to the conditions out there.

Jim, what was it, through the late '90s and early 2000s that we installed that wave wall? And that was to reduce maintenance and stabilize the

banks.

MR. IVY: So is it safe to say from a recreation perspective that the only place you really have to worry about erosion impacts would be the corners of that lake?

MR. ZIOLA: Yes.

MR. IVY: Now going to back effects of current operation, maintenance and recreation on adjacent land uses.

Any comments on that?

MR. THORESON: Randy Thoreson, National Park Service. Again I'll be giving comments when you're done there, but I was confused by adjacent because as George pointed out, we're looking within and outside the project boundaries, and my understanding would be within adjacent land uses. That would be acceptable because I think that's something that we looked at. We're not just interested in adjacent. We're interested in project use within the boundaries, too. We're interested in land use rather than property ownership in some cases.

MR. IVY: So is there any objection to adding within the boundary as well?

MR. SUESS: No.

MR. IVY: And one of the things I noticed yesterday during our tour is that you do have a lot of housing that's starting to encroach upon your boundaries, and so as these new housing developments are building close around the lakes, they like the view and canal, how is that going to impact the way you're doing your operations maintenance, recreation opportunities, those kinds of things?

MR. WALDOW: George Waldow, HDR. I would refer you to the fact that we also saw how the canal goes through the buildings -- city of Genoa. And I don't -- because the project has access roads on either side of the canal and the boundaries outside of those access roads, I don't foresee any significant impacts due to housing developments coming up to the project boundary, and I would use the Genoa development -- city as an example.

MR. IVY: Do you see increased desire for access from these developments? They'll want to add trails up to the banks?

MR. ZIOLA: We have already provided the trails, you know, even before. But, again, you know, we don't in the area of the lakes where most of the development is at, we -- I guess we don't limit -- we have not experienced any --

MR. SUESS: We ourselves I wouldn't think would add additional trails. I mean, both sides of the canal basically there's a 36-mile trail if you want to use it. If some landowner itself wants to build a path through the woods to get to the canal, that would be up to him obviously, but we wouldn't go out and probably put anything additional there. They can get access at the various points that we provide access to it. And then obviously in and around Lake North and the Columbus area we have the whole trail system with the Columbus area recreation trails folks. We've developed -- provide that access to the folks in Columbus.

I suppose there might be others that we could do something with but they've been very specific about how, you know, they wanted to see things develop in our interaction with them.

MR. IVY: Okay. Thank you. And the last one was the effects of encroaching vegetation and bank stabilization measures along shoreline areas on aesthetic resources within the project area.

And you've got several areas where you're removing trees and that drastically changes the aesthetics. So any comments on that?

MR. SUESS: The only comment I would make

is we're removing trees in conjunction with an order we got from FERC.

MR. ZIOLA: On the dam safety side.

MR. SCHUCKMAN: So I mean, that's the only reason that we've been removing trees at all is because of that order that we have.

MR. IVY: Thanks.

MR. TURNER: Maybe this really isn't an issue we should be considering. I mean, I'm not sure where it arose.

MR. ZIOLA: We don't remove trees. In fact, in the Lake Babcock camping area, our operational people have been planting new trees because of the age of the ones that are there. So we're trying to reestablish trees where it's within our okay to do so. But most of any tree removal is directly required by our operator safety aspect of things, so, we do not -- in fact, like I say, we try to reestablish trees in some of the park areas where we're losing them just due to age.

MR. IVY: So really the thing to focus on here is the bank stabilization and the aesthetics of that?

MR. SUESS: Right.

MR. ZIOLA: Yes.

MR. WALDOW: I think there is another aspect, too. Annual inspectors have requested trees that are a threat to falling across an access road, an important access road, need to be removed. And that's kind of an almost individual tree basis, but that's -- I know that that was a requirement.

MR. IVY: Great.

MR. ZIOLA: We always have an all weather road to any of those major structures.

MR. IVY: Right. So that was the last of the points that I was going to bring up. So if you want to add your comments.

MR. THORESON: Randy Thoreson, National Park Service. The National Park Service in our hydro program is mainly interested in three areas, recreation, land use, and aesthetics. Other studies that go into that we're obviously interested in are aquatics and how does that relate to fishing experiences; some of the things we talked about today. We looked at those studies, but the main areas that we look at is recreation, land use and aesthetics. And I'd like to just briefly touch on each one of those individually.

We've hit a couple of the points on that within our discussion but I want to maybe

reemphasize a couple points there.

Mention was made within the scoping document, as well as the PAD, about recreation survey as a tool for assessing recreation within the project area. I view that as a tool, an instrument to analyze recreation, not a specific study in itself although it's labeled as study. I'd be interested in where does that go, where does the survey go? By itself we need to draw some conclusions and go with some meaningful measures coming out of that. And it's more of just a form meaning in my opinion. And I think you'll see the park service pretty consistently commenting on that although we recognize form meetings and -- you know, we still like to see some survey recreation analysis.

So in relation to the survey I have a couple of points here. Evidenced last night by a gentleman that spoke last night, a citizen, there was some confusion about the recreational survey and what it was. I don't know how you can get the word out on that, but I think the public needs to know what the survey is. It's not going to be shutting down the recreation areas although he said that, if you recall. And I guess I have a concern coming

from the public that the recreational survey is going to be a stop to recreational availabilities in the corridor here.

I think there needs to be an open and transparent process with the recreational survey and make the public aware and communicate what the survey is.

Also on the National Parks Service, to my experience, I'd like to have some input with you on the rec survey instrument itself rather than just see it being undertaken without any input and review. I'm sure other agencies would like that too, as well, I'm assuming.

MR. WALDOW: Can I add something?

MR. THORESON: Let me finish up. I'm on a roll. Also interested in the seasonal. You know, I'd like to know exactly when during the season the recreational survey is being undertaken. It sounds kind of obvious, but I've been involved in a couple projects where they did the recreational survey outside the peak, you know, which made no sense. So I'd like to know when the recreational survey will be done within the season.

Let me just continue on that, and George will want to say a couple things and I'll continue.

I guess the question I have to FERC is through the experience I've had with FERC relicensing, a recreation plan is one of the conditional -- standard conditions that come out with licensing. And in some cases it's post license within a year of the license. I guess I'd like to get some feedback from you folks, Mark, and that is, is that the way you intend this project to go as you use the survey and then as a standard consideration ask for a recreation plan?

MR. TURNER: Actually, you bring up a couple of points that I'd like to talk about. Your points are good in terms of what you'd like to see included in the survey, but it kind of leads into some of the topics we're going to talk about next, and that's where we're going in the prefiling of the study development aspects and what information is missing. And I think all of those things you probably need to be involved in, and we reiterate at that point in time. And I would fully expect the park services to be involved in helping develop that recreational survey.

With regards to plans per se, the Commission has in its very recent history been pushing applicants to give us very definitive

measures in its license proposal, and very definitive measures even recommended by the public and agencies and the NGOs. We're trying to get away from that post licensing aspect of developing plans to the extent -- obviously, we're not going to be 100 percent successful in a lot of cases if there's very complex issues and things still need to be ironed out. But our goal is really to get to those definable, defensible types of measures that we can implement on license issues.

So, from that perspective we would fully expect a recreation plan to be in place in our proposed -- as part of the license application, receive comments on that plan and its adequacy and things that we could review in our environmental analysis and make recommended changes based on our analysis and decisions and then say, okay. The plan is approved with these or without these modifications in place. So that's where we're intending to go.

MR. THORESON: Randy Thoreson, National Park Service. I think, you know, I've been involved in this since last May, I believe was the first official -- May 6, I believe. I'd like to commend Loup and the consultant HDR by getting us involved

early in the process. I think that's really been beneficial. When I looked at the PAD and initial information, I don't think it's lacking a lot of information related to recreational studies and stuff like that. They've done a pretty good pre-inventory. I think adding a survey to that will strengthen that data. And I wrote that down that one of the elements related to recreation is early on rather than waiting post license.

Did you want to say something before I go on to land use?

MR. WALDOW: Yeah. This is a good point that you raise, and we've talked about it internally kind of looking forward here. I'm saving the first subject for later.

The issue of whether you prepare the plan in advance of the license application or do a preliminary plan and then finalize it after, what I would tell the licensee in this case is that not knowing where we're going to go with some of these other issues, the land use issue, for example, and what kind of settlement agreements might be in the future, there may be an advantage in resolving some of these things together rather than just say we can do the recreation land now and then everything else

will fall into place.

I know that because of the interrelationships among some of these things like recreation and the fishing -- fisheries issues, fishing access, those things can play together. And I would at this point like to suggest that Loup Power District might want to retain some flexibility as we approach the actual license issuance because there might be what I like to call win/win solutions to some of these issues, and I wouldn't like to limit the flexibility that we have at the very end by locking in something too soon. That's my opinion. That's not the district's opinion.

MR. TURNER: I fully appreciate that, and I know that there's a lot of consultation efforts going down that line, but one of our goals here really is to try to get to a license that is -- and has measures that can be implemented at the time of the license. At the very minimum you're going to have to make some proposals in your application. I mean, we're going to do X, Y and Z here, and this is the type of thing. So you're going to have some foundation for that, and you're going to have to include that foundation in your application.

MR. WALDOW: We understand.

MR. TURNER: But the sooner you can talk about the interrelationship, the better off the parties are. So that's kind of what we're -- the message we're trying to send is to get your goals and objectives and the studies to help you define those measures early. Start talking about those measures early, and anywhere to the extent you can, give us those final plans with your final application.

MR. WALDOW: I think we understand that, and I don't see it being a big deal or a big problem, and I appreciate Randy's positive comments about the early involvement and transparency. And that's something we intend to continue, and I don't see problems with the things he brought up. This is going to unfold with the study plans that are forthcoming, and they will be posted on the project website. This isn't going to be done in a vacuum.

MR. THORESON: One other thing that I want to talk about is that I did some research and maybe Ron -- back in 1985 the park service did get a particular grant for park improvements. Could you tell me what those were?

MR. ZIOLA: In '85 that would have been the two shelters, one at Lake Babcock and one at

Lake North. Those are -- there is signage to that with those credits given to those individuals out there.

MR. THORESON: I was just curious.

MR. ZIOLA: It's the ones with the shingles on the roof.

MR. THORESON: Going back to land use. I'd like to mention a few comments about land use. And Mark mentioned bullet points with regard to land use. It talks about the effects of current project operation on adjacent land uses.

I already made -- the observation should be within and outside the land use area -- project land use area. I don't think I have any more about land use. I do have a comment about aesthetics.

On page 15 in the scoping document it talks about the encroaching vegetation. You talked about that a little while ago. I'd like to know how you're going to be talking about aesthetics related to the environmental assessment. It really isn't a study or a suggestion, but you're trying to fold that into some sort of analysis. I'm not just -- you talked about it. I'd also like to see some information as to water craft recreation along the canal.

MR. IVY: I have to admit I didn't write this document, so I'm not sure exactly what the thinking was behind it, but I'm guessing that it is looking at the stabilization measures that have occurred, some that are not very esthetically pleasing. So just going through and seeing what can you do to make it look nicer?

MR. THORESON: Are you looking at not just the lakes but the whole canal area?

MR. IVY: Right.

MR. THORESON: I think that would be important. That's what I've got for my comments at this time.

MR. IVY: Okay. I just want to emphasize that recreation is no longer tangential to what you do. You've really become a major recreational player in the region, and I hope that you'll move forward in taking on that responsibility and continue to do that because you provide a great service. I just want to throw that out there.

MS. NGUYEN: Anything else on any of these four resource areas?

I think our schedule or ILP processing plan and EA schedule is next on the agenda. So, this is our -- we're fortunate to have our ILP guru

here today. That's Mr. David Turner over there. So, this is the pre-application process of the ILP. So, since it's relatively new to us, I thought I'd put this up and see if anybody else has any more comments.

And then the specific dates are obviously in the processing plan in your scoping document 1, but we wanted to highlight a couple of things, mainly all the study plan dates and filings that are coming up.

MR. TURNER: Kim, let me interject a couple of things. I think we'll take a few minutes to talk about the ILP process and some of the things that are going to unfold over the next couple of years and why they came about, and kind of put them in context with what you're going to be experiencing.

The ILP was really created to improve the efficiency in which the Commission deals with its license application to come before us. Historically -- and when I say historically about five, six, seven years ago -- it wasn't uncommon for the Commission to take as long seven years to process an application once it was filed. And that doesn't include the two or three years the applicant

took to prepare his license application. A lot of that was because of information gaps that weren't completely filled out for a variety of reasons during the pre -- prefiling stage.

And we did scoping, for instance, after the application was filed and new issues were raised. So we're moving scoping to this period in the prefiling so that we know where those issues are and what needs to be done to help gather the data to deal with those issues.

Historically also in that prefiling period applicants kind of went off on their own to do a study. They got input on their study requests and went off and tried to fill that to the best of their knowledge and brought forth that information, and it still didn't quite cut mustard for whatever reason. So we're trying to in the ILP resolve at least those two components of the problems, and that's identifying the issues, identifying the data gaps there to address those issues, get agreement on the types of studies that need to be done to address those issues. And then to coordinate those activities.

The other aspect of our downfall was some of the things that were outside of our control like

getting 401 water quality certification or completing ESA consultation. And those two aspects were historically a problem, and they had underlying issues very similar for similar reasons. The agencies still didn't feel they had the right data to do their analysis to issue the certificates or complete EA consultations. So a lot of this effort really is to bring together everybody up front, talk about and identify those issues, and define the data gaps and how we're going to fill those gaps.

So over the next couple of months, the next really big issue here or the next step that you're facing is to tell the district what kind of data or what kind of studies need to be completed that deal with your issues that you -- these issues that we've identified.

And it's incumbent upon you to take the time to do that, and we've included it in the ILP that went out to all stakeholders, including state and federal agencies, NGO's, tribes, a whole slew of the parties that are particularly involved, some criteria that helps you define those studies to make sure that those studies are connected to the project and they're going to result in recommendations that can be applied to a license and implemented by a

licensee to make sure that we're not gathering data for data sake, and that they have very defined objectives that will lead to those good -- that good information to help characterize what a new license is going to require.

So in the next -- well, by February 10, we need to get information on whether or not we got the issues defined and what kind of studies need to be done, and those study requests really need to be well defined.

It's like telling an applicant we want this and asking them to bring them me a rock and say no, it's the wrong rock, wrong color. Come back again. We're trying to give him something to develop where he's going to take that information, develop a proposed study plan, and then we're going to sit down and work through that study plan and try to resolve any disagreements. And it's a very defined time frame for each of these steps in the ILP. And we want this done as efficiently and quickly as possible so it doesn't drag out over two and a half years.

One driving factor here for the applicant is they have to file the license application within three years of -- within two years of their

expiration date. That's a given. That's a dead given. That milestone doesn't give. So just --

MR. JAYJACK: It's statutory. We can't waive that requirement. Congress would have to do that.

MR. TURNER: So given that, we have a very fine time frame to get to that point and develop that application. So I recommend you go on our website page and look at the ILP regulations.

There's a process plan in the back of your scoping document that talks about the dates. And again, it's a very scheduled driven process but it's done by design so that we can get to where we need to be within that prefiling time.

(A recess was taken.)

MR. TURNER: Just to kind of pick up, in the process plan it talks about how we're going to work through this. As I said, we'll work through the studies, get agreement, develop a study plan and have an opportunity to comment on that study plan.

The applicant will then follow the revised study plan and you'll have a chance again to comment on that. And ultimately if there's any disagreements, the Commission will make a decision as to what we believe is necessary to develop and

approve the study plan. And they'll be required to go out and develop that information for the application.

And then one year from that date we're going to -- we'll all return to at least review those results and make sure that we have the study plans, gathering the data that we intended, whether it needs to be modified or not. And we'll do that at least once, maybe twice depending on whether or not it's multiple years of studies. And then the applicant will ultimately file a draft or a preliminary licensing proposal, and you get a chance to review that and the data and provide input, and then we'll develop -- with that information develop a final license application.

But each one of those things has some very defined time frames within the ILP process, and we encourage you to go back and look at the regulations, look at the process plan and look at the dates that are defined in there. There's some wiggle room in there within the dates to kind of set meeting dates and that kind of thing, but there is a drop dead date as well. So keep that in mind. Keep your calendars open and try to the extent you can to coordinate your activities around that.

And that also was part of the design of the ILP is to develop a process plan so that folks have an early on idea of where they're going to be going over the next two years in developing the application.

Are there any questions about the ILP process?

MR. THORESON: Randy Thoreson, National Park Service. I just was wondering if it might come up with a parallel track with regard to environmental assessment and how that relates to the process plan there and the dates on that.

MR. TURNER: It's not going to be a parallel track. Once the license application is filed with the Commission, we'll review it for its accuracy and then we'll do an environmental assessment or AIS depending on any controversy. Right now I don't see an environmental assessment will probably be appropriate here. That will be made for public review. That assessment will also be used to initiate Section 7 consultation as appropriate. And from there we'll develop -- presuming there will be a draft and final, it might even be just a single EA. We can develop a final environmental assessment based on the comments that

we get on our assessment. And that then forms the basis for the Commission's licensing decision.

MR. CARLSON: So to clarify, then, there's a pre-licensing process and a -- or a pre-application process and a post application process, correct? And the EA is part of the post application process. Now, do you go through a separate scoping or is this scoping for that EA?

MR. TURNER: This scoping is for that EA. We're doing that analysis now to make sure we have the issues that should be covered. Things change in time over the last couple of years, and things can crop up. This isn't necessarily engrained in stone. If new issues kind of come to bear, we'll adjust our environmental assessment accordingly. But our intent is to make sure that we, to the best extent we can now, based on the best available information define those issues in the studies so that we're not getting surprised down the road.

MR. CARLSON: So the scoping kind of covers both the studies that will be going into the pre-application process as well as the EA?

MR. TURNER: Exactly.

MR. CARLSON: And then my understanding is that this is also the time when you would accept

comments on the scoping document, Scoping Document 1 and you will be then revising that to send out a Scoping Document 2; is that correct?

MS. NGUYEN: That is correct, yes.

MR. CARLSON: So this commenting period, we're commenting both on the studies and proposed studies that we would include and also on the -- referenced in the PAD and so forth, and then also on the scoping documents. We're commenting on two different things for the February 10.

MR. TURNER: Exactly. Study requests that you want there. Now, as I understand it, the PAD was probably just -- and it's all required as a general list of the type of studies. They haven't put really a lot of detail in there, but that in part is because some of that really needs to be developed in consultation once the issues are defined.

So it's now your turn to say, yeah, these things need to be studied and really we have these kinds of methods in mind to get to that kind of data. And the applicant can look at it and weigh in their minds whether or not they're willing to do that, and the kind of connection it has to the project and its operations and say, yeah or nay, or

here is an alternative. And then we're going to sit down and talk about these alternatives.

MR. THORESON: Randy Thoreson, National Park Service. Let's go back to the EA a little bit and point out to me why on page 25 and 26 which you have on the screen there at the tail end of that chart it talks about the preliminary licensing application, the very end of that, all stakeholders. If it happens between the preliminary and the license application filed, shouldn't there be a row there that talks about the EA?

MR. TURNER: No. This is the applicant's licensing proposal. Consider it a draft of the application. It lays out what they're proposing to do, if anything, in terms of changing their operations or proposed -- it's just here is the early draft of the application. It should be constructed to look like an environmental assessment the Commission may be producing.

And that was the other aspect of the ILP; to try to morph this PAD that you've got which gives a lot of the existing information based on what they were able to glean and gather from their consultations with everybody and existing literature -- that morphs into the draft application

or preliminary licensing proposal, and we're recommending that applicants use our environmental assessment guidelines to construct that.

That then morphs into the final license application based on the components we see from everybody on the contents of that preliminary licensing proposal.

That final license application gets filed with the Commission, gets reviewed by the Commission, and if everything is there, including all of the other exhibits, the Exhibit G drawings that come in, the Exhibit F's that have existing project facilities and financing cost information that's associated with Exhibit H, all those other components that are not required to be produced early in the prefiling gets filed.

Once we determine that we -- that all of that meets our regulations for filing an application is adequate, we'll notice that. And once we determine that all the information is available, we'll issue a Ready for Environmental Analysis Notice. That REA Notice is your trigger then to say, here's our final recommendations for licensing this project and these measures. And we take that information, do an environmental assessment

considering what they proposed, what you've recommended, and based on that analysis make our recommendation, at least in draft form if not final form in the EA, to the Commission and get comments on that, and that goes before the Commission who makes its licensing decision.

MR. JAYJACK: So what you're looking at here is a prefiling schedule. Once the application is filed and we notice it, like David said, you'll probably most likely see post licensing schedule, and there is where you'll see a line item for environmental assessment.

MS. NGUYEN: Which is this page 18 of the scoping document that I have up here tentatively.

Let's get to that ILP processing schedule and talk about a couple of big dates coming up. As you've already said, February 10 is the next big date for everyone, and that's their comments on the PAD, our SD1, and their study requests.

And then after that, we'll issue an SD2 in March.

And then from your study requests, then Loup will come in with their proposed study plan in March.

And then you go through a series of

meetings on the study plan and then comments from everyone, and then Loup files the revised plan in July, as you can see here. And then we make our determination in August.

MR. TURNER: That's your first year, basically, or next six months.

Any questions? Comments?

MS. RICHARDSON: Lisa Richardson with HDR. We've been talking with the district about schedule, and the April 27 date is a -- we have to conduct that study plan meeting by that date. We are tentatively looking at April 21 for a study plan meeting, and then we kind of envision that there may be follow-up meetings after that. So, we're going to be looking for some tentative dates in May and June that we can continue to coordinate and go back and forth on the study plan so that we'll have something -- when we file our revised study plan, we'll have good concurrence from everybody on what those studies include.

MR. TURNER: It's been our experience on the 30-some odd ILP's that are ongoing at the Commission right now that it has been very rare that people have been able to actually sit down and resolve studies in that one meeting, so I would

encourage you to kind of set some subsequent dates within that 90-day period to kind of talk about those meetings so that everybody can participate.

MR. JAYJACK: On a related point, if in the next 30 or so days -- because this is roughly around 26 or 27 days -- if you recommend studies be done or propose studies be done, we really encourage folks to follow our regulations and address the criteria that apply to you, to your agency or to you as an individual because it helps us in making our study determination. And we fully expect folks to address the study criteria that applies.

It's not helpful to us if -- I'll use a toxic study as an example. Your recommended study is to go and do a toxic study plan. It's very broad and does not address any or just a few of the issues because it's very hard for us to make a determination on that very broad and general type of a study recommendation. The better you apply the criteria and use the criteria, the more we understand the study requests and the better chance that we're going to fully understand it and base a good decision on exactly what it is you want in terms of a study.

So, I can't reiterate enough that, you

know, you folks really need to address those criteria so that we understand what it is that you want and we can make a good decision.

MR. WALDOW: George Waldow, HDR. Could you comment on the concept that we have talked about internally where a study -- study of an issue lends itself to a tiered study approach where you do studies for a season or even a year to identify the magnitude of some impact physically, and then subsequent to what you learn from that study there may or may not be another study to follow on to look at the impacts of that issue on a species or a site or whatever the case may be.

Does that fit within your discussion of the concept here?

MR. TURNER: It does. The only caveat that I would apply is that we would also like to see where you're likely to go, the next steps. You have a hypothesis and it says this is one avenue that we're going to go, and if it says this, we're going to do Y. If it says this, we're going to do X. That should be as well defined as possible because we don't want to get down into later discussions -- while there are opportunities for that in terms of reviewing the study results, we really want to have

that path already pretty much worked out. And in part, that's related to certain conditions that are mandatory, the Section 4E conditions, for reservations which, as I would see here, don't apply.

But Section 18 restrictions, for instance, or 401 quality certification conditions those agencies have under the ILP, a process available to them is to basically ask for a new look at the Commissions' decision if we didn't go with a study that they recommended. Under those -- those specific authorities, they could ask for a different or a third panel review of those.

And to the extent that those studies you're talking about in the tiered approach might be affected by that decision, they would not be able to implement that process after this initial study determination. It's only available to them on this first year. So to the extent we can define that up front, those two things, it helps in those kinds of situations.

But it also really helps resolve where we're going down the line. We don't have to -- we really won't be continuing to negotiate those kinds of details two years down the road here.

So to the extent you can, we want that plan defined up front and in as much detail as you can. So tiered approach works. It's just that it still should probably contemplate to the extent possible where you go with the end studies.

MS. NGUYEN: And did you say that first date was April 21? Right, Lisa?

MS. RICHARDSON: April 21, right.

MR. CARLSON: In terms of commenting on that first -- on the proposed study plan, I would also request of the district or their consultant to consider that our comments are ultimately due on the 26th of June. It's the end of the 90-day period and for any later meetings during that 90 days, or any revised plans or anything, draft revised plans or anything of that nature, we should get it well before the 26th in order to have to time to -- for comments. I mean, we don't want to receive on the 85th day of a 90-day period. It just give us a real opportunity there to provide any comment, and we'd be obligated almost to further those until the following comments on the revised study plan.

MS. NGUYEN: You mean comments on your subsequent meetings after the initial --

MR. CARLSON: Yes, subsequent meetings,

any draft working products that come out of that, if -- if they expect us to come within that, we'd like to receive that well before the 90th day of the comment period.

MS. NGUYEN: One of the ILPs I'm working on now is after every meeting that they've been having during this period is they do a summary and send it out to everyone, all the stakeholders or anyone who was at the study plan meeting, and that gives you an opportunity to comment before the next meeting.

MR. TURNER: To the extent you'll reach agreements verbally or otherwise, things should be documented in the record. So it might alleviate some of your concerns about getting earlier drafts. I think some applicants have been doing that, but it's obviously not a requirement for regulation.

The next product really is the revised study plan. But to the extent you can keep those kind of -- that dialogue flowing, keeping it in the record, and any agreements in the record, hopefully it will facilitate the process. There won't be any real surprises in the revised study.

MS. RICHARDSON: Lisa Richardson for HDR. We appreciate that there needs to be a lot of back

and forth dialogue, and really that June 26 date is a date for your comments technically on the study plan, the proposed study plan, so by that same token we'd encourage you to provide us with your comments as early as you can at that first study plan meeting so that we can then incorporate and discuss and -- just since the PAD has been filed, we've had some discussions with Randy. We've had some conference calls on the recreation work group with Fish & Wildlife and Game & Parks trying to get input already on what it is that you're wanting the study to look like.

We just need to coordinate back and forth all of us together and that nobody wait until the last minute to provide their information.

MR. JAYJACK: Exactly. Just to kind of reiterate the point, you'll know largely what the applicant's position is as to the studies that they're proposing to do in March, so that's really when you should be looking at it. You've got a three-month window there to review.

MR. CARLSON: The problem is if you're receiving products through that 90 days, it comes down to what actually are you commenting on, the March document or what's been developed since then?

MS. NGUYEN: Anything else? Do we want to go back and maybe take a look at our tentative EA schedule? Does anybody have any comments on this?

MS. RICHARDSON: I have one question. Either David or Nick, one of you noted a draft versus a non-draft. I think this schedule shows that you're not intending to have a draft. Is there a point where you might decide that you do need a draft EA and when will that occur?

MR. TURNER: It will most likely occur after the application is filed and we see how things have progressed in terms of proposed measures, what kind of controversy there still allies, how much difference there is between recommendations we're anticipating versus the issues, but it will likely happen after the application is filed.

MR. JAYJACK: The cue to look for is what I mentioned to Randy before. When we issue the notice you'll see typically -- I think we still do this -- at the end of the notice there will be a licensing -- or a processing schedule, and if you still see single EA at that point, then that's -- we're sticking with the default.

But if -- we'll know a lot more when the application is filed. If there's a change, then

you'll probably see a line item for draft EA and another line item for final EA. So that's really when to start looking.

MS. NGUYEN: Anything else on the schedule? Anybody else on anything else? Hearing nothing, I move to close the meeting and I thank you again for coming and for your participation. We greatly appreciate it. That's why we're here. So thanks again.

(At which time the meeting adjourned at 12:30 p.m.)

C E R T I F I C A T E

STATE OF NEBRASKA)
) ss.
COUNTY OF DOUGLAS)

I, Margaret Tyska Heaney, General Notary Public within and for the State of Nebraska, do hereby certify that the foregoing proceedings of the Federal Energy Regulatory Commission was taken by me in shorthand and thereafter reduced to typewriting by use of Computer-Aided Transcription, and the foregoing one hundred thirty-four (134) pages contain a full, true and correct transcription of all the proceedings to the best of my ability;

IN WITNESS WHEREOF, I hereunto affix my signature and seal the 15th day of January, 2009.

MARGARET TYSKA HEANEY
GENERAL NOTARY PUBLIC

My Commission Expires: October 18, 2012