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STATE OF MAINE

BOARD OF ENVIRONMENTAL PROTECTION

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IN RE: PUBLIC HEARING ON KENNEBEC RIVER  
HYDROPOWER PROJECTS LOCKWOOD,  
HYDRO-KENNEBEC, SHAWMUT AND  
WESTON

\* \* \* \* \*

PRESIDING OFFICER: ERNEST HILTON

This hearing was held pursuant to Notice at the  
Calumet Club, Northern Avenue, Augusta, Maine, on  
March 16, 2007, beginning at 9:00 a.m.

1                   (This hearing was held before the Board  
2 of Environmental Protection, at the Calumet Club,  
3 Northern Avenue, Augusta Center Drive, Augusta,  
4 Maine, on March 16, 2007, beginning at 9:00 a.m.)

5                   \* \* \* \* \*

6                   HEARING OFFICER HILTON: Good morning. I  
7 now call to order this session of the public  
8 hearing on the Maine Hydropower Permits and Water  
9 Quality Certifications for the following four dams  
10 located on the Kennebec River: The Lockwood,  
11 number L-20218-33-C-N; and the Hydro-Kennebec  
12 Projects number L-11244-35-A-N, both located in  
13 Waterville and Winslow; the Shawmut Project number  
14 L-19751-33-A-M, located in Fairfield, Benton and  
15 Clinton; and the Weston Project number  
16 L-17472-33-C-M, located in Skowhegan,  
17 Norridgewock, Starks and Madison.

18                   My name is Ernie Hilton. I'm a member of  
19 the Board of Environmental Protection and I am  
20 presiding officer for today's hearing. Members of  
21 the Board here today are starting at my right  
22 Elizabeth Ehrenfeld, microbiologist and instructor  
23 at Southern Maine Community College. She's from  
24 Falmouth. Starting at my left is Nancy Anderson  
25 from Cumberland Foreside, an attorney from

1 Cumberland Foreside. We have Dick Gould, code  
2 enforcement officer, former legislator from  
3 Greenville; Don Guimond, a town manager from Fort  
4 Kent and a fellow farmer; and Nancy Ziegler, an  
5 attorney from South Portland. I hail from the  
6 small town of Starks. Other folks seated at the  
7 table are Cindy Bertocci, the executive analyst  
8 for the Board; Carol Blasi is immediately to my  
9 right, the assistant attorney general with us  
10 today; Terry Hanson, the administrative assistant  
11 for the Board; and Dana Murch, the DEP's hydro  
12 coordinator. Our court reporter is Joanne Alley  
13 of Alley and Morrisette.

14 This is day two of the hearing today. We  
15 will have testimony from the three agencies, state  
16 agencies, and the Atlantic Salmon Commission. We  
17 plan to conclude this hearing by noon if at all  
18 possible. At this time I'd ask that all persons  
19 testifying who have not already been sworn in to  
20 stand and raise their right hand. Do you affirm  
21 that the testimony you're about to give is the  
22 whole truth and nothing but the truth?

23 (Whereupon, witnesses respond in the affirmative.)

24 HEARING OFFICER HILTON: Are there any  
25 questions, any housekeeping that needs to be

1 attended to before we begin? Seeing none,  
2 Gentleman, we've got -- I think the morning is  
3 devoted entirely to you. You have very important  
4 testimony for us. There is an allocation of time,  
5 I think 15 minutes or thereabouts, in the schedule  
6 that Cindy made up but I would certainly welcome  
7 you taking however much time you feel is  
8 necessary, that much or more, and you can begin.

9 MR. LAPOINTE: Thank you, Mr. Chairman. My  
10 name is George Lapointe. I'm the Commissioner of  
11 Marine Resources. I have one housekeeping thing.  
12 I have my cell phone on buzz because I have a sick  
13 kid at home. So if it buzzes, I just have to see  
14 if it's him just so people are aware.

15 HEARING OFFICER HILTON: I'm glad you said  
16 that because I hadn't turned mine off yet.

17 MR. LAPOINTE: Normally I do turn it off  
18 but not this morning. We submitted a letter to  
19 the Board dated -- I don't have the date on here  
20 -- during the appropriate time period, and so  
21 that's got most of our testimony and I just want  
22 to add a couple of things and then I will let Pat  
23 and Steve add as well. I sit on the Atlantic  
24 States Marine Fisheries Commission. I'm currently  
25 the chair of that commission and people have

1 talked about the planning process, the 2000  
2 Fishery Management Plan for American eel, which is  
3 now being amended. The other thing that's worth  
4 mentioning I think that demonstrates the continued  
5 work on American eel on the part of the state is  
6 that we are going to begin some bilateral  
7 discussions with the Canadians on management  
8 measures we can take to protect eels on both sides  
9 of the border because, you know, you've heard that  
10 this is a panmictic population and I think it  
11 demonstrates that the Department and the state  
12 have worked -- are working on eel in specific  
13 places like the Kennebec River, throughout the  
14 state, at an intrastate level and with the  
15 Canadians as well, and that's a process we've been  
16 taking part in since the commission started its  
17 planning process.

18 The other thing I just want to mention is  
19 yesterday there was a question about DMR policy,  
20 and our policy in regard to anadromous fish is to  
21 restore them to their historic range. I think  
22 this was a question from Chairman Hilton to Lou  
23 Flagg, and I think that's an important -- just so  
24 folks are aware, that's what the Department's  
25 policy is in regard to fish restoration, and those

1 are just the two points I'll add. Obviously I  
2 think the questions and answers will get into a  
3 lot of other things about what the Department is  
4 doing but that's all I wanted to say right now.

5 HEARING OFFICER HILTON: Thank you,  
6 George.

7 MR. KELIHER: Mr. Chairman, Members of the  
8 Board, my name is Pat Keliher. Actually, I don't  
9 have anything to add beyond the testimony. I  
10 think George did just allude to the fact that as  
11 far as the mission of the Department of Marine  
12 Resources, just to add to that, the mission of the  
13 Maine Atlantic Salmon Commission is to restore  
14 Atlantic salmon -- wild Atlantic salmon to their  
15 historic range as well, and with that, I'll just  
16 pass it back over to Mr. Timpano.

17 MS. EDWARDS: You're from the Atlantic  
18 Salmon Commission?

19 MR. KELIHER: That's correct.

20 MR. TIMPANO: Good morning. I'm Steve  
21 Timpano, environmental coordinator with the Maine  
22 Department of Inland Fisheries and Wildlife, and I  
23 have no additional direct statement this morning  
24 but I'm here to answer any questions that may come  
25 up on inland fisheries management or wildlife

1 management.

2 HEARING OFFICER HILTON: Mr. Watts or  
3 Friends, I think it's your chance to do some  
4 cross-examining of these gents. I might also note  
5 that they have placed at our disposal a couple of  
6 their technical staff and if you think you'll be  
7 asking questions of them, I can also swear them in  
8 if there's no objection from either FPL or  
9 Hydro-Kennebec.

10 MS. VERVILLE: No objection.

11 MR. THALER: No objection.

12 MR. NICHOLAS: Commissioner Lapointe, my  
13 name is Dave Nicholas. You wrote a letter to  
14 Florida Power & Light just ten months ago telling  
15 them that you were concerned about significant  
16 injury or mortality at their dams, is that  
17 correct?

18 MR. LAPOINTE: I believe that's correct.

19 MR. NICHOLAS: And this has been -- this  
20 letter has been previously marked as Exhibit 19  
21 and it's attached to Ed Friedman's testimony, and  
22 I'm going to show a copy to Commissioner Lapointe  
23 and what I'd like him to do is just read into the  
24 record the bracketed part.

25 MR. LAPOINTE: I was encouraged to be

1 slow. Let me read it to myself first. The words  
2 in brackets read as follows, MDMR, that's Maine  
3 Department of Marine Resources, is concerned that  
4 controlled spill via bypass gates will not be an  
5 effective measure for downstream eel passage and  
6 that significant injury or mortality to eels will  
7 occur unless additional measures are taken. In  
8 September and October, river flow exceeds  
9 hydraulic capacity only 5 to 15 percent of the  
10 time at the Weston and Shawmut Projects and 40 to  
11 50 percent of the time at the Lockwood Project,  
12 and it says and in parens, so I don't know what  
13 that's there for. If migrating eels are randomly  
14 distributed in the river, then eels will pass  
15 through the turbines at Weston and Shawmut 85 to  
16 95 percent of the time and through the turbines at  
17 Lockwood 50 to 60 percent of the time. We note  
18 that both FPL Energy and MDMR have observed eel  
19 mortalities below the Shawmut Project. That is  
20 the bracketed language.

21 MR. NICHOLAS: Thank you.

22 MR. LAPOINTE: And if there are questions  
23 about that, I'll refer to my technical staff.

24 MR. NICHOLAS: Now, you are familiar with  
25 the water -- you are familiar with the water

1 quality certifications that are at issue in this  
2 proceeding, correct?

3 MR. LAPOINTE: I'm familiar with them to  
4 the extent that I read the information that's  
5 associated with this -- with this hearing, yes.

6 MR. NICHOLAS: And with respect to the eel  
7 passage provisions of the water quality  
8 certifications, is there any provision in the  
9 certifications that requires anything other than  
10 that the dam owners do studies and talk to  
11 agencies?

12 MR. LAPOINTE: I'm not aware of that detail  
13 in the certifications specifically. When we deal  
14 with fish passage issues cooperatively at the  
15 state, we work cooperatively with the DEP I think  
16 on water quality certification issues and so it  
17 strikes me that the specifics about water quality  
18 certifications are best addressed to the subject  
19 matter agency rather than us. My technical folks  
20 as well may have some information on it.

21 MR. NICHOLAS: Well, I just want to clarify  
22 something. You have actually read the provisions  
23 on eel passage in the water quality  
24 certifications, right?

25 MR. LAPOINTE: I have.

1           MR. NICHOLAS: Okay. I have a copy of it.  
2 I'll just take as an example Lockwood water  
3 quality certification, and that's been marked as  
4 Exhibit 22. It was attached to Ed's -- Ed's  
5 testimony and this might just refresh your  
6 recollection if you have it in front of you.

7           MR. THALER: Is there a certain page?

8           MR. NICHOLAS: Yes, it would be --

9           MR. FRIEDMAN: What's the page number on  
10 the bottom?

11           MR. LAPOINTE: The page number on the  
12 bottom is nothing. The page number on the top in  
13 the water quality certification is page 13 and  
14 it's a document that says W, maybe slash or I,  
15 FOMB-22.

16           MR. NICHOLAS: It's Exhibit 22. It's got  
17 177 on the top.

18           MR. LAPOINTE: On the top right-hand page,  
19 yes.

20           MR. NICHOLAS: And so really -- you can  
21 just take a quick look at that but really all my  
22 question is, again, there is nothing in the  
23 certifications that are at issue here today that  
24 required the dam owners to do anything but perform  
25 studies and talk to the agencies, correct?

1           MR. LAPOINTE: That's what it says here,  
2           yes.

3           MR. NICHOLAS: So there's --

4           MR. LAPOINTE: Well, it also has  
5           information saying if agreement is reached on  
6           upstream and downstream passage that the  
7           applicants shall change the facilities.

8           MR. NICHOLAS: Right, and I'll get to that  
9           in a second. So there's nothing -- there's  
10          nothing about a particular fix and there's nothing  
11          in the water quality certification that sets any  
12          limit on the number of eels that can be killed by  
13          the dams, is that right?

14          MR. LAPOINTE: That's correct, and if I  
15          might, I believe that's because we didn't know  
16          what the fix was at the time the agreement was  
17          signed.

18          MR. NICHOLAS: And the eel passage studies  
19          were to be completed -- there were eel passage  
20          studies required and they were to be completed by  
21          December 31st -- December 31st of 2001, correct?

22          MR. LAPOINTE: That's correct.

23          MR. NICHOLAS: But they -- these studies  
24          were, in fact, not completed by December 31st,  
25          2001, correct?

1           MR. LAPOINTE:  There actually was three  
2           years of study when this was set up and, again, if  
3           we need specifics, we should ask Dr. Wippelhauser  
4           because she was here and I was not when this was  
5           written, and I believe that the agreement was for  
6           three years of study and that that was done and  
7           there were issues with how much could be done with  
8           the staffing we had and the resources available as  
9           well as some weather issues also.

10           MR. NICHOLAS:  There was supposed to be  
11           three years of study, weren't there?

12           MR. LAPOINTE:  And I believe there was.

13           MR. NICHOLAS:  So you're saying that, in  
14           fact, all the studies were completed that were --

15           MR. LAPOINTE:  Well, I think that there was  
16           three years of studies done.  I think that it's  
17           safe to say that like any new endeavor trying to  
18           figure out what studies were feasible or finding  
19           out which ones were feasible and then weather  
20           related issues as well made the scope of those  
21           studies much less than people originally thought,  
22           but to say that we didn't do three years of  
23           studies I think is incorrect.

24           MR. NICHOLAS:  Three years of studies were  
25           not completed, can we agree on that?

1 MR. LAPOINTE: I don't agree with that.

2 MR. NICHOLAS: There are continuing --  
3 there are more studies that need to be done on eel  
4 passage, correct?

5 MR. LAPOINTE: Absolutely.

6 MR. NICHOLAS: Now, the water quality  
7 certification states that if agreement is reached  
8 by all consulting parties on appropriate  
9 downstream eel passage measures, the applicant  
10 shall join the other parties in requesting that  
11 FERC approve the measures, and if no consensus is  
12 reached by June 30, 2002, the applicant or any of  
13 the consulting parties shall be free to petition  
14 DEP or FERC to approve appropriate conditions  
15 relating to eel passage of the project, correct?

16 MR. LAPOINTE: That's correct.

17 MR. NICHOLAS: Now, DEP -- excuse me, no  
18 consensus has been reached, correct?

19 MR. LAPOINTE: People have not gone to  
20 FERC, that's correct.

21 MR. NICHOLAS: Well, that was going to be  
22 my question. No one has petitioned -- there has  
23 been no consensus though, correct? That was my  
24 original question.

25 MR. LAPOINTE: I think -- I mean, there

1       hasn't been consensus because people have been  
2       working iteratively to try to figure out what to  
3       do with those projects.  So I don't think -- in  
4       saying that consensus hasn't been reached, it's  
5       because folks aren't sure what to do at those  
6       projects rather than somebody have a burning idea  
7       and having a big disagreement about it.  I think  
8       that's an important distinction.

9               MR. NICHOLAS:  Right, but my question was  
10       really only whether consensus has been reached  
11       because my follow-up question is DMR and, in fact,  
12       none of the resource agencies, the agencies that  
13       are sitting with you today, have petitioned DEP or  
14       FERC on eel passage, am I correct about that?

15              MR. LAPOINTE:  That's correct.

16              MR. NICHOLAS:  Am I correct?

17              MR. LAPOINTE:  (Witness nods.)

18              MR. NICHOLAS:  Commissioner Lapointe, are  
19       you familiar with the condition compliance orders  
20       that DEP issued to the dams?

21              MR. LAPOINTE:  I am not.

22              MR. NICHOLAS:  You are not.  So you were  
23       not consulted on this at all before it was  
24       issued?

25              MR. LAPOINTE:  Let me check with Dr.

1 Wippelhauser because I suspect she was consulted  
2 but I don't know that. She was.

3 MR. NICHOLAS: What's that?

4 MR. LAPOINTE: Dr. Wippelhauser was  
5 consulted on those, yes.

6 MR. NICHOLAS: Well, maybe this ought to be  
7 best addressed to Dr. Wippelhauser, but let me  
8 show you in the compliance order that's in the DEP  
9 file issued to Lockwood and I'm going to look at  
10 page 5 of the order. There's been some discussion  
11 on this before.

12 MR. THALER: Was that an exhibit?

13 HEARING OFFICER HILTON: That's DEP Exhibit  
14 5, the first one.

15 MR. NICHOLAS: And what I'm going to do is  
16 have you read -- DEP included in this compliance  
17 order a characterization of DMR's concerns about  
18 -- about eel mortality at Lockwood. Would you  
19 read this into the record?

20 MR. LAPOINTE: The language that's  
21 highlighted says, finally DMR and U.S. Fish and  
22 Wildlife Service have expressed concerns that the  
23 controlled spills via bypass gates may not be an  
24 effective measure for downstream eel passage and  
25 that significant injury or mortality to downstream

1 migrating eels may occur unless additional  
2 measures are taken.

3 MR. NICHOLAS: Now, can you tell me what  
4 the basis -- or perhaps one of your staff can --  
5 can you tell me the basis for DMR's concern as  
6 expressed to DEP?

7 MR. LAPOINTE: Mr. Chairman, can I have Dr.  
8 Wippelhauser come up?

9 HEARING OFFICER HILTON: Yes. Why don't we  
10 bring her into the witness pool along with  
11 somebody named Norm Dube.

12 MR. LAPOINTE: Right.

13 HEARING OFFICER HILTON: Why don't we bring  
14 them both up with their chairs, if they wish. Any  
15 objection from any of the parties to this?

16 MR. THALER: No.

17 MS. VERVILLE: No.

18 HEARING OFFICER HILTON: Norm, do you  
19 affirm that everything you will say before us will  
20 be the truth?

21 (Whereupon, the witnesses respond in the  
22 affirmative.)

23 MR. LAPOINTE: Can I borrow that document  
24 so that Dr. Wippelhauser can read that passage?

25 MR. NICHOLAS: Sure.

1 HEARING OFFICER HILTON: And, Dr.  
2 Wippelhauser, you're going to have to make sure  
3 you use the mike. I don't know that we -- we  
4 don't have another mike that we can spare I  
5 guess.

6 MR. NICHOLAS: Dr. Wippelhauser, can you  
7 just please tell the Board what was the basis of  
8 DMR's concern about use of controlled spills via  
9 bypass gate and that significant injury or  
10 mortality to downstream migrating eels may occur  
11 unless additional measures are taken, what was the  
12 basis for that?

13 MS. WIPPELHAUSER: I based that on the  
14 limited telemetry study that we had done there for  
15 two years where we used five eels and I think we  
16 saw two of them go through turbines. That was a  
17 very limited study so a difference of one eel  
18 going in one direction or another would have made a  
19 huge change in the results of that study.

20 MR. NICHOLAS: And with respect to that  
21 study, there were two eels that were -- the fate  
22 of the eels were unknown -- excuse me, the passage  
23 method was unknown. Did you ever find out what  
24 the fate of those eels were?

25 MS. WIPPELHAUSER: No, we didn't. We were

1 limited to fixed stations at the hydropower  
2 facility. We did some limited boat tracking down  
3 below but we didn't go very far down below the  
4 project.

5 MR. NICHOLAS: Commissioner Lapoint --  
6 well, actually --

7 MR. WATTS: Gail, this came up yesterday,  
8 to what extent do we know whether those eels were  
9 -- lived or died, those two that we don't know  
10 the passage route?

11 MS. WIPPELHAUSER: We don't know their  
12 fate. As I said, the --

13 MR. WATTS: This came up yesterday. Those  
14 two eels, it is at least possible that those eels  
15 were injured and did not continue their  
16 migration?

17 MS. WIPPELHAUSER: That's true, we don't  
18 know what their fate was.

19 MR. WATTS: And so it's at least possible  
20 that out of the five eels, there potentially were  
21 four that were injured enough so as to not  
22 migrate?

23 MS. WIPPELHAUSER: That's true. That's why  
24 we think -- beg your pardon -- that's why we think  
25 additional studies are needed with larger sample

1 sizes.

2 MR. WATTS: Those two are essentially just  
3 question marks?

4 MS. WIPPELHAUSER: That's right.

5 MR. WATTS: Thank you.

6 HEARING OFFICER HILTON: Mr. Watts, it  
7 would be best if we had our cross-examination take  
8 place by way of the Friends doing theirs and then  
9 you doing yours as opposed to just interjecting.  
10 I think it might provide a little more orderly  
11 course through the day.

12 MR. NICHOLAS: Dr. Wippelhauser, are you  
13 familiar with the compliance order that was issued  
14 to the dams?

15 MS. WIPPELHAUSER: I've read it in the past  
16 not recently.

17 MR. NICHOLAS: Do you have an understanding  
18 as to whether it was a finding that, in fact, the  
19 dams had violated the law or their permit or  
20 something else?

21 MS. WIPPELHAUSER: I'm not aware of that.

22 MR. NICHOLAS: And would Dana Murch  
23 possibly know the answer to that?

24 MS. WIPPELHAUSER: I believe so.

25 MR. NICHOLAS: Commissioner Lapointe, in

1 1987 your agency and other agencies and the KHDG  
2 dam owners, which include the predecessors to the  
3 owners of these dams, entered into agreement into  
4 which the dam owners agreed to put in permanent  
5 upstream and downstream passage at certain dams by  
6 1999, am I correct about that?

7 MR. LAPOINTE: You're reading it. I wasn't  
8 here in 1987, and I have no reason to doubt what  
9 you're reading.

10 MR. NICHOLAS: So are you not familiar with  
11 the 1987 KHDG Agreement?

12 MR. LAPOINTE: That's correct. I became  
13 Commissioner about six months after the 1998  
14 agreement was signed, a short number of months.

15 MR. NICHOLAS: All right. I don't have any  
16 further questions. Is Doug here? I think you  
17 scared him off.

18 HEARING OFFICER HILTON: We can move on to  
19 Save Our Seabasticook then.

20 MR. MERRILL: I had some questions for Mr.  
21 Keliher.

22 HEARING OFFICER HILTON: Oh, I'm sorry.

23 MR. NICHOLAS: I thought we were going to  
24 do it by witness.

25 MR. THALER: Excuse me, I thought Mr.

1 Nicholas was asking questions for Friends and Mr.  
2 Merrill is just co-counsel.

3 MR. NICHOLAS: No, Mr. Merrill is going to  
4 ask questions to Mr. Keliher.

5 MR. MERRILL: We're just doing it by  
6 witness.

7 MR. THALER: I'm sorry.

8 HEARING OFFICER HILTON: So you've  
9 allocated the various agency witnesses among  
10 yourselves?

11 MR. NICHOLAS: Yes, just brief  
12 questioning.

13 MR. MERRILL: Mr. Keliher, good morning.  
14 My name is Bruce Merrill. I want to show you what  
15 is an exhibit --

16 MS. ANDERSON: Microphone, sorry.

17 HEARING OFFICER HILTON: Yeah, Bruce you  
18 have to speak up.

19 MR. MERRILL: Is this one on? I'm going to  
20 show you Friends of Merrymeeting Bay Exhibit 28  
21 and see if you can identify that for us.

22 MR. KELIHER: Yes, Exhibit 28 is the most  
23 recent status review for Atlantic salmon in the  
24 United States.

25 MR. MERRILL: And that was prepared when?

1           MR. KELIHER: It was finalized in July of  
2 '06.

3           MR. MERRILL: And that is the most recent  
4 one that we have?

5           MR. KELIHER: That is correct.

6           MR. MERRILL: Now, in the joint testimony  
7 that was submitted by your agency and DMR and  
8 Inland Fisheries and Wildlife, on page 4, the  
9 third full paragraph down, it states that -- do  
10 you have that document?

11          MR. KELIHER: I do.

12          MR. MERRILL: It states that a program to  
13 reintroduce Atlantic salmon in the Kennebec is  
14 currently in the early stages with very limited  
15 resources. The terms of the project's existing  
16 water quality certifications have allowed ASC  
17 staff to begin several studies looking at less  
18 costly ways of reintroducing salmon compared to  
19 the traditional use of hatcheries. The ASC is  
20 confident that the interim upstream passage  
21 facility at Lockwood is sufficient for capture and  
22 subsequent transport of Atlantic salmon over the  
23 next few years; however, more work needs to be  
24 done to ensure that Atlantic salmon smolts can  
25 pass downstream with minimal injury or mortality.

1 Studies utilizing Atlantic salmon smolts as test  
2 animals are set to begin in 2007. Did I read that  
3 accurately?

4 MR. KELIHER: You did.

5 MR. MERRILL: So the tests aren't to begin  
6 until sometime this year and I'm assuming they  
7 haven't started yet, correct?

8 MR. KELIHER: That's correct.

9 MR. MERRILL: Now, if you can go back to  
10 Exhibit 28 --

11 MS. ANDERSON: Bruce, I'm sorry, before you  
12 go on, can you tell us -- the pages we have are  
13 17, 18, 19, so page 4 doesn't show up. Do you  
14 have the same pagination?

15 MR. MERRILL: Which document? I'm talking  
16 about their submitted testimony.

17 MS. ANDERSON: Oh, okay. I thought you  
18 were talking about the status review.

19 MR. MERRILL: No, no, I wanted to go back  
20 to the submitted testimony first. That was at  
21 page 4. Now, going to Exhibit 28 which is the  
22 status review, if you could turn to page 97, which  
23 on the exhibit is 019 in the upper right-hand  
24 corner.

25 MR. KELIHER: I have that page.

1           MR. MERRILL: Do you see the section on  
2           entrainment and impingement?

3           MR. KELIHER: I do.

4           MR. MERRILL: Could you read that, please?

5           MR. KELIHER: You could have given me a  
6           shorter one to start with.

7           MR. MERRILL: The section I have marked in  
8           pink brackets.

9           MR. KELIHER: Yes, entrainment and  
10          impingement, dams equipped with hydroelectric  
11          generating facilities entrain and impinge  
12          downstream migrating Atlantic salmon. Entrainment  
13          occurs when downstream migrants pass through  
14          turbines and die or are injured by direct contact  
15          with turbine runners, sheer force, cavitation,  
16          turbulence or pressure changes. Impingement  
17          occurs when a fish comes -- excuse me --  
18          impingement occurs when a fish comes in contact  
19          with a screen, a trash rack or debris at the  
20          intake. This causes bruising, descaling and other  
21          injuries. Impingement, if prolonged, repeated or  
22          occurring at high velocities, also causes  
23          mortality. Entrainment mortality for salmonoids  
24          ranges near 10 to 30 percent at hydroelectric dams  
25          depending upon fish passage -- excuse me --

1 depending upon fish length. This is juvenile --  
2 in parenthesis, juvenile versus adult. Turbine  
3 type runner speed and head, again in parentheses,  
4 EPIRI, excuse me.

5 MR. MERRILL: And that stands for the  
6 Electric Power Research Institute, correct?

7 MR. KELIHER: Yes, that's correct. Passage  
8 through Francis turbines results in the greatest  
9 mortality, again in parentheses, average of 20  
10 percent, followed by Kaplan, parentheses 12  
11 percent, and bulb turbines, parentheses 9 percent,  
12 and again in parentheses, O'Day 1999. Passage  
13 through turbines can also lead to indirect  
14 mortality from increased predation and disease,  
15 O'Day 99. Where multiple dams exist such as on  
16 the Penobscot River, the losses of downstream  
17 migrating smolts from turbine entrainment are  
18 often cumulative and biologically significant  
19 because of their large size, the turbine mortality  
20 of kelts is expected to be significantly greater  
21 than 10 to 30 percent. This is parentheses FERC  
22 1997.

23 MR. MERRILL: So that information came from  
24 FERC, correct?

25 MR. KELIHER: That is correct.

1           MR. MERRILL: So at the time of this latest  
2 report in July of 2006, the Atlantic salmon -- I'm  
3 sorry -- the status review for anadromous Atlantic  
4 salmon in the United States already knew that  
5 mortality occurred or serious injuries if the fish  
6 were going to go over the turbines, correct?

7           MR. KELIHER: That is correct.

8           MR. MERRILL: And you don't have to read it  
9 but if you look at the next paragraph, would you  
10 agree that they also indicate that delayed  
11 mortality of turbine passed smolts was  
12 considerably higher ranging from 42 in 1993 to 77  
13 in 1992 percent?

14           MR. KELIHER: I will agree that's what it  
15 says. Let me read the full paragraph, though.  
16 Yes, I mean, as you have highlighted on the  
17 exhibit which is numbered 020, within the status  
18 review delayed mortality of turbine passed smolts  
19 was considerably higher ranging from 42 percent in  
20 '93 to 77 percent in 1992, and then it goes on to  
21 say that the higher observed delayed mortality in  
22 a control group led by Sheppard in '93 was to  
23 conclude that comparison of delayed mortality  
24 between a controlled and treatment would be  
25 unreliable.

1           MR. MERRILL:  As between those two,  
2           correct?

3           MR. KELIHER:  That's correct.

4           MR. MERRILL:  So the status review realized  
5           that there was injury and mortality from the  
6           salmons going over the turbines at the time the  
7           report came out in July of 2006, correct?

8           MR. KELIHER:  Yes, it recognizes that  
9           fact.

10          MR. MERRILL:  And would you just look at  
11          the first page of the status review and tell us  
12          the agencies that participated in that, please?

13          MR. KELIHER:  The Penobscot Indian Nation's  
14          Department of Natural Resources participated as  
15          well as the U.S. Fish and Wildlife Service, the  
16          National Marine Fisheries Service and the Maine  
17          Atlantic Salmon Commission.

18          MR. MERRILL:  And the Maine Atlantic Salmon  
19          Commission is you, correct.

20          MR. KELIHER:  That is correct.

21          MR. MERRILL:  So the information was known  
22          that there was this problem at least in July of  
23          2006 but in your report to this Board, tests  
24          aren't even going to begin until sometime this  
25          year, correct?

1           MR. KELIHER: I'm sorry, can you repeat the  
2 question?

3           MR. MERRILL: Yes. The information in the  
4 status review was gathered prior to its  
5 publication in July of 2006, correct?

6           MR. KELIHER: That is correct.

7           MR. MERRILL: Acknowledging that there's  
8 injuries and mortalities from the fishing going  
9 through the turbines, correct?

10          MR. KELIHER: That is correct.

11          MR. MERRILL: And in the collective report  
12 that was submitted to the Board by DMR and your  
13 agency and Inland Fisheries and Wildlife, you  
14 indicate that studies utilizing Atlantic salmon  
15 smolts as test animals are not even going to begin  
16 until later this year?

17          MR. KELIHER: That is correct.

18          MR. THALER: Mr. Chairman, can I just  
19 inquire while Bruce is pausing, they are at half  
20 an hour which was their allocation. If they're  
21 going to go over and get extra time, I would just  
22 ask that we also get comparable extra time.

23          HEARING OFFICER HILTON: How much more time  
24 do you think you need?

25          MR. MERRILL: I just need to look at one

1 thing. I might have one or two more questions if  
2 it's okay with the chair.

3 HEARING OFFICER HILTON: Mr. Thaler, I'm  
4 going to keep your question under advisement here  
5 for just a couple minutes.

6 MR. THALER: That's fine.

7 MR. MERRILL: Mr. Keliher, are you familiar  
8 with the 1998 KHDG Agreement?

9 MR. KELIHER: Yes, I am familiar with the  
10 agreement.

11 MR. MERRILL: I want to see if I can direct  
12 him to a specific page. For the record, look at  
13 page 10 of the 1998 KHDG Agreement.

14 HEARING OFFICER HILTON: What exhibit  
15 would that be?

16 MR. MERRILL: The section I'm referring to  
17 is also in the direct testimony of FOMB on page  
18 009, rebuttal testimony.

19 MR. MURCH: It is DEP Exhibit 4, the second  
20 part of that past the blue paper, page 10. The  
21 page numbers are on the bottom.

22 MR. MERRILL: I'd direct your attention to  
23 the bottom of page 10 of the agreement and ask you  
24 to read the section that I've marked off with  
25 yellow highlighter, please.

1           MR. KELIHER: In the event that adult shad  
2 and/or adult Atlantic salmon begin to inhabit the  
3 impoundment above the Lockwood Project and to the  
4 extent that the licensee desires to achieve  
5 interim downstream passage of out migrating adult  
6 Atlantic salmon and/or adult shad by means of  
7 passage through turbines, licensee must first  
8 demonstrate through site specific quantitative  
9 study designs and conducted in consultation with  
10 the resource agencies that passage through  
11 turbines will not result in significant injury  
12 and/or mortality, in parentheses, immediate or  
13 delayed, in no event shall licensees be required  
14 to make this quantitative demonstration for adult  
15 shad and adult Atlantic salmon before May 1st,  
16 2006.

17           MR. MERRILL: So if they wanted to  
18 introduce salmon or adult shade, they didn't have  
19 to but they wouldn't be required to do anything  
20 before May 1st of 2006, correct?

21           MR. KELIHER: Can you clarify who they  
22 would be?

23           MR. MERRILL: Any of the dam owners -- I'm  
24 sorry, agencies.

25           MR. KELIHER: So if an agency wanted to --

1 I'm sorry, can you repeat, please?

2 MR. MERRILL: Here's my question.

3 According to the KHDG Agreement, the studies had  
4 to be done first before the fish were put in the  
5 water, correct?

6 MR. KELIHER: Before they were put in the  
7 impoundment, that's correct.

8 MR. MERRILL: Correct, but your letter to  
9 the Board states you're going to let them put the  
10 fish in the water first and begin the studies  
11 later this year.

12 MR. KELIHER: Well, we can't do the studies  
13 without fish being in the water.

14 MR. MERRILL: Does the agreement say you  
15 have to do the studies first and demonstrate that  
16 there won't be injury or mortality according to  
17 the agreement in 1998?

18 MR. KELIHER: For adults it does but not  
19 for smolts.

20 MR. MERRILL: So you're making the  
21 distinction that you can put the smolts in before  
22 you do the studies, just not adults?

23 MR. KELIHER: That's correct.

24 MR. MERRILL: What about the 15 adults that  
25 are in there already?

1           MR. KELIHER:  The 15 adults that are within  
2           the Sandy?

3           MR. MERRILL:  The salmon.

4           MR. KELIHER:  Yes.  That was a  
5           determination made by our agency to move forward  
6           with a salmon restoration project within the  
7           Kennebec drainage.

8           MR. MERRILL:  In violation of the 1998  
9           agreement?

10          MR. THALER:  I'll just point out that this  
11          seems to be legal argument which I thought we  
12          weren't supposed to be doing.

13          HEARING OFFICER HILTON:  I wouldn't say  
14          that it's a legal argument.

15          MR. KELIHER:  I'm sorry, Mr. Chairman, I  
16          didn't hear your comment.

17          HEARING OFFICER HILTON:  Oh, you may  
18          respond to the question.

19          MR. KELIHER:  Yes, we put them above the  
20          Lockwood impoundment.

21          MR. MERRILL:  The question is, is it in  
22          violation of the terms of the KHDG Agreement that  
23          said you would do the testing first?

24          MR. KELIHER:  I'm not an attorney, but I  
25          would say that we put them above the Lockwood

1       impoundment, not in the Lockwood impoundment. So  
2       this paragraph says in the event that adult shad  
3       shall begin to inhabit the impoundment above the  
4       Lockwood Project.

5               MR. MERRILL: When you put them in the  
6       water they basically have free access, right, you  
7       can't control where they go?

8               MR. KELIHER: That's correct, but we have  
9       no idea whether they are inhabiting that  
10       impoundment.

11              MR. MERRILL: They have to swim downstream,  
12       though, correct?

13              MR. KELIHER: That is correct.

14              MR. MERRILL: So do you agree or disagree  
15       that it appears that the actions that were taken  
16       in putting them in above the impoundment appear to  
17       be in violation of the 1998 agreement that said  
18       the studies would be done first?

19              MR. KELIHER: I would disagree with that  
20       because that's only if the dam owners want to pass  
21       these fish through the turbines.

22              MR. MERRILL: Which you've already  
23       acknowledged through the status review that that  
24       happens, correct?

25              MR. KELIHER: It could happen, that's

1 correct.

2 MR. MERRILL: I have no other questions.

3 Thank you.

4 HEARING OFFICER HILTON: Mr. Thaler, it  
5 appears that the petitioners took another five or  
6 six minutes for cross-examination time, which I  
7 will allocate equal time to both you and to  
8 Hydro-Kennebec.

9 MR. THALER: Thank you.

10 MR. NICHOLAS: I think Doug has some  
11 questions.

12 HEARING OFFICER HILTON: Mr. Watts?

13 MR. NICHOLAS: He'll give you the time.

14 MR. WATTS: Well, I've been told that we  
15 used up all our time.

16 HEARING OFFICER HILTON: I think the  
17 argument that's made is that whatever extra time  
18 you folks use, an equal amount goes to the  
19 opposition.

20 MR. NICHOLAS: We have no objection to  
21 that.

22 MR. MERRILL: No objection, no.

23 MR. THALER: Excuse me, but this isn't open  
24 ended I thought. They can coordinate, because  
25 we've been coordinating, to try to stay within the

1 time limits. It's up to them. If now Mr. Watts  
2 is going to go another ten or fifteen minutes --

3 MS. VERVILLE: I would also note that Mr.  
4 Nicholas was speaking on behalf of his client.

5 HEARING OFFICER HILTON: I don't think Mr.  
6 Nicholas is representing Mr. Watts. They only  
7 divided witnesses up between the two attorneys.

8 MR. VERVILLE: I apologize.

9 MR. WATTS: All right.

10 HEARING OFFICER HILTON: Everybody keep in  
11 mind here that a couple of the Board members turn  
12 into pumpkins at noon. I think Nancy Anderson and  
13 Elizabeth Ehrenfeld will be leaving at noon.

14 MS. ANDERSON: And Nancy Ziegler.

15 HEARING OFFICER HILTON: And Nancy Ziegler,  
16 all three, which means we lose our quorum which  
17 means we all disappear. So you need to keep that  
18 in mind. Noon is our drop-dead time here. So I'd  
19 better understand the schedule here now, and what  
20 I'm -- the petitioners were allocated 30 minutes  
21 for cross-examination, correct?

22 MR. BERTOCCI: Correct, and they've used  
23 35.

24 HEARING OFFICER HILTON: And they've used  
25 35 and I'm not counting our wheel-spinning time

1 here right now. I've already indicated that I'd  
2 give you an extra five, six minutes, whatever. If  
3 Mr. Watts want to take in a little extra time, I  
4 will caution him to be as brief as possible and  
5 whatever time I give them, I will also give you.

6 MR. WATTS: I have no questions.

7 HEARING OFFICER HILTON: Mr. Watts? Mr.  
8 Watts?

9 MR. WATTS: The question I have would be  
10 directed to DMR and it references attachment 3 in  
11 their testimony that they supplied to the Board.  
12 I believe it's the last page. It says attachment  
13 three, DMR counts of eels using upstream passage,  
14 and I guess the question I had was, first of all,  
15 is there a reason why counts at Lockwood are not  
16 included here?

17 MS. WIPPELHAUSER: Yes, because they don't  
18 have upstream passage in yet.

19 MR. WATTS: Okay. The second question I  
20 have is within the text of the testimony there's a  
21 comparison to eel counts at Hydro-Kennebec which  
22 is the second dam on the Kennebec River and Fort  
23 Halifax which is the first dam on the Sebesticook,  
24 and what I was wondering was is that not an apples  
25 and oranges comparison given that one is -- the

1 Hydro-Kennebec dam has a dam below it and the Fort  
2 Halifax dam does not?

3 MS. WIPPELHAUSER: I would say it isn't. I  
4 didn't include the numbers from Benton Falls which  
5 aren't exactly the same as Fort Halifax, but they  
6 are often in the tens of thousands or hundreds of  
7 thousands and that would compare to  
8 Hydro-Kennebec.

9 MR. WATTS: And we don't have any numbers  
10 from Lockwood?

11 MS. WIPPELHAUSER: That's correct.

12 MR. WATTS: So we're comparing the first  
13 dam on a river with the second dam on another  
14 river?

15 MS. WIPPELHAUSER: That's true.

16 MR. WATTS: Okay, that's all. Thank you.

17 HEARING OFFICER HILTON: So, Mr. Thaler,  
18 Sarah, between you and Jeff you have 38 minutes.

19 MR. MERRILL: I believe Save Our  
20 Seabasticook has questions.

21 HEARING OFFICER HILTON: I think they're  
22 right after the dam owners.

23 MS. VERVILLE: Is this on? Hello? This is  
24 a question, Mr. Lapointe, and actually it's for  
25 all three agencies. What would you like to see

1 the outcome of these proceedings to be? Do you  
2 believe that the petition should be dismissed?

3 MR. LAPOINTE: Our letter asks that the  
4 petitions be dismissed.

5 MS. VERVILLE: And what do you think the  
6 consequences will be if the Board makes a decision  
7 to modify the certifications such that there is an  
8 impact on the KHDG Agreement?

9 MR. LAPOINTE: I don't know what the impact  
10 would be.

11 MS. VERVILLE: Can I refer you to page 9 of  
12 the agency letter?

13 MR. LAPOINTE: Yes, and thank you for that  
14 clarification.

15 MS. VERVILLE: Read your last paragraph.

16 MR. LAPOINTE: Thank you. The last  
17 paragraph reads the DMR, DIFW and ASC strongly  
18 support the continuation of the 1998 KHDG  
19 Agreement without alteration because it has  
20 provided a vehicle for substantial progress in the  
21 restoration and enhancement of diadromous fish in  
22 the Kennebec Watershed and it provides a framework  
23 for continued progress. The fisheries management  
24 agencies believe -- too fast, sorry, you're the  
25 first people to have ever said that to me -- the

1 second sentence, the fisheries management agencies  
2 believe the Board's approval of the requested  
3 modifications of the water quality certifications  
4 for the Kennebec-Hydro Projects may undermine the  
5 KHDG Agreement and jeopardize future progress.  
6 The fisheries management agencies are also  
7 concerned that a division by the Board --  
8 decision, excuse me, decision by the Board to  
9 alter the water quality certifications will  
10 discourage all hydropower owners from entering  
11 into settlement agreements with the state in the  
12 future.

13 MS. VERVILLE: And do you still believe  
14 that today?

15 MR. LAPOINTE: Yes. I apologize for  
16 forgetting that paragraph.

17 MS. VERVILLE: Mr. Keliher?

18 MR. KELIHER: Yes, I strongly support that  
19 paragraph.

20 MS. VERVILLE: Mr. Timpano?

21 MR. TIMPANO: Yes, I would concur with full  
22 support of the paragraph.

23 MS. VERVILLE: Ms. Wippelhauser, a couple  
24 of questions. Do you believe that there is  
25 significant eel mortality occurring on the

1 mainstem of the Kennebec resulting from hydropower  
2 projects?

3 MS. WIPPELHAUSER: We have no data to  
4 indicate that there is significant mortality.

5 MS. VERVILLE: Do you believe that the  
6 viability of the eel population is being  
7 impaired?

8 MS. WIPPELHAUSER: No, I don't.

9 MS. VERVILLE: Do you believe -- and this  
10 is a question to all three agencies -- that the  
11 KHDG Agreement has benefited the restoration of  
12 anadromous and catadromous species on the Kennebec  
13 mainstem?

14 MR. LAPOINTE: Yes.

15 MR. KELIHER: Yes.

16 MR. TIMPANO: Concur.

17 MS. VERVILLE: Ms. Wippelhauser, as we all  
18 know, Department of Interior determined that the  
19 American eel was -- a listing of threatened or  
20 endangered was not warranted; however, that  
21 decision did say that there were local and  
22 regionalized declines in eel population. Does  
23 that translate to there being significant eel  
24 mortality on the Kennebec resulting from these  
25 hydropower projects?

1 MS. WIPPELHAUSER: We just -- we do not  
2 have any indication that there is significant  
3 mortality occurring. There seem to be fewer eels  
4 moving up on the mainstem Kennebec as I  
5 demonstrated in our counts from the fishways that  
6 we've installed. We haven't seen the kind of  
7 mortality that was occurring at Benton Falls and  
8 we're just not seeing a significant degree of  
9 mortality on the river.

10 MS. VERVILLE: Dr. Wippelhauser, Mr. Watts  
11 asked a question with regard to the eel passage  
12 counts contained in the exhibit to the agency  
13 letter arguing that it was not an apples to apples  
14 comparison. Before there was eel passage --  
15 upstream eel passage at the Fort Halifax dam, were  
16 you seeing larger eel counts on the Sebasticook  
17 River than you were on the Kennebec mainstem?

18 MS. WIPPELHAUSER: We don't have counts  
19 before we put in passageway but there were -- in  
20 1996 there was a moratorium placed on the eel weir  
21 fishery, and at that point all of the weir  
22 fisheries in the Kennebec occurred on the  
23 Sebasticook River at the outlet of lakes.

24 MS. VERVILLE: Okay. So what you're saying  
25 is that before there was upstream eel passage at

1 the first dam on the Sebasticook River, there was  
2 evidence of a significant eel fishery on the  
3 Sebasticook as opposed to one on the Kennebec?

4 MS. WIPPELHAUSER: That's correct.

5 MS. VERVILLE: Thank you. Mr. Keliher --  
6 Commissioner Keliher, there was testimony  
7 yesterday with respect to NOA fisheries 90-day  
8 finding with respect to the Atlantic salmon as  
9 potentially endangered or threatened. If NOA  
10 fisheries ultimately determines that the Atlantic  
11 salmon on the Kennebec River is listed as a  
12 threatened or endangered species, does that  
13 warrant modifying the certifications or the KHDG  
14 Agreement to trigger immediate installation of  
15 upstream fish passage for Atlantic salmon?

16 MR. KELIHER: No, it does not.

17 MS. VERVILLE: Thank you. Dr.  
18 Wippelhauser, there was questions regarding the  
19 effectiveness studies that Hydro-Kennebec will be  
20 conducting of its downstream fish passage  
21 facility. Are you confident that those studies  
22 will determine whether the facility is effectively  
23 passing out migrating eels and whether  
24 enhancements to the facility may be necessary and  
25 whether Brookfield will make whatever enhancements

1 are necessary on an expeditious basis?

2 MS. WIPPELHAUSER: Yes, I think those are  
3 very well designed studies. They consulted with  
4 all of the agencies. They've been very proactive  
5 in working with us and I think those will -- the  
6 studies that they're going to be doing this year  
7 will help us determine whether or not that passage  
8 facility is effective in passing eels and  
9 anadromous fishes.

10 MS. VERVILLE: Okay, thank you. Dr.  
11 Wippelhauser, let's assume for the sake of  
12 argument that there have been delays in completing  
13 studies and implementing downstream eel passage on  
14 the Kennebec River. What has been the impact on  
15 the American eel? Has there been a significant  
16 adverse impact on the American eel?

17 MS. WIPPELHAUSER: As an entire  
18 population?

19 MS. VERVILLE: Yes.

20 MS. WIPPELHAUSER: I would say no.

21 MS. VERVILLE: One last question. I'm  
22 going to ask Dr. Wippelhauser to read from the  
23 condition compliance order for the Hydro-Kennebec  
24 Project. This relates to some questions that Mr.  
25 Nicholas asked with respect to whether the

1 condition compliance orders require the licensees  
2 to do anything. I'm going to ask her to read from  
3 page 6, condition number 2.

4 MR. NICHOLAS: Sarah, what document is  
5 this?

6 MS. VERVILLE: This is the condition  
7 compliance order for the Hydro-Kennebec Project.  
8 It's in the DEP Exhibit 5, condition 2. If you  
9 could just read that condition.

10 MS. WIPPELHAUSER: Effective with the 2006  
11 downstream eel migration season, in the event that  
12 evidence, including the results of visual  
13 observations, reveals that certain interim  
14 downstream measures are needed to avoid  
15 significant downstream turbine injury and/or  
16 mortality, in parentheses, immediate or delayed,  
17 closed parentheses, at the Hydro-Kennebec Project,  
18 Hydro-Kennebec will consult with DMR and NMFS,  
19 National Marine Fisheries Service and U.S. Fish  
20 and Wildlife Service and agree to undertake cost  
21 effective measures designed to minimize mortality  
22 at the site.

23 MS. VERVILLE: So if there is significant  
24 mortality observed at the site, Hydro-Kennebec has  
25 to do something about it, is that correct?

1 MS. WIPPELHAUSER: That's correct.

2 MS. VERVILLE: I have no more questions.

3 HEARING OFFICER HILTON: Mr. Thaler.

4 MR. THALER: Can I have that mike?

5 MS. VERVILLE: Oh, sorry.

6 MR. THALER: Thank you, and, again, I'll  
7 try to ask questions from back here and if you  
8 could try to answer your questions facing the  
9 panel as best you can. Dr. Wippelhauser, just to  
10 follow up on the last point on the compliance  
11 orders, if the DEP compliance orders for FPL have  
12 the same condition as Hydro-Kennebec that you just  
13 read, would your answer be the same? Go ahead.

14 MS. WIPPELHAUSER: Yes.

15 MR. THALER: Let me ask a couple  
16 questions. I guess I'll stay with Dr.  
17 Wippelhauser for the moment -- actually let me  
18 strike that. I think Mr. Keliher you were asked  
19 to read certain passages from the Atlantic salmon  
20 status review that had been excerpted in Mr.  
21 Friedman's testimony, and that was FMOB Exhibit  
22 28. Also in that report that Mr. Nicholas had not  
23 had you read was a paragraph about site  
24 variability for evaluating downstream fish  
25 passage, and at page 017 in the upper right-hand

1 corner of that exhibit is a sentence that begins  
2 -- I'll bring it over to you. I'm just going to  
3 stand here and speak loud since that's my only  
4 copy, but it says downstream passage system  
5 collection efficiency, percent of fish arriving at  
6 forebay, slash, spillway that find and use  
7 facility, end paren, and total site passage  
8 survival, paren, total percent survival past dam  
9 regardless of path chosen, end paren, vary widely  
10 among sites within years and across years of the  
11 same study site, paren, USASAC 2005, end paren.  
12 The USASAC is that a national Atlantic salmon  
13 group?

14 MR. KELIHER: That is a -- it is a  
15 technical advisory group. It's the U.S.  
16 Assessment Committee. It's a group of state  
17 technical people from across New England as well  
18 as the federal services solely for Atlantic  
19 salmon.

20 MR. THALER: Right, and the paragraph goes  
21 on and in the interest of time I'm not going to  
22 take you through it but it generally goes on to  
23 say how each hydroelectric facility is unique in  
24 design, location of turbines, there are variations  
25 in river flow, et cetera, et cetera. In your

1 professional experience in Maine, is that  
2 generally true with respect to hydroelectric  
3 facilities in Maine for anadromous fish passage?

4 MR. KELIHER: Yes, it's absolutely true.

5 MR. THALER: And I would ask the same  
6 question generally to Dr. Wippelhauser, is the  
7 same true with respect to consideration of  
8 downstream eel passage?

9 MS. WIPPELHAUSER: I'm sorry, could you  
10 repeat that?

11 MR. THALER: Sure. In the issue of site  
12 variability, the uniqueness of each site in terms  
13 of efficiency of passage of eels, which are a  
14 fish, generally the same for eels?

15 MS. WIPPELHAUSER: Yes, it's true.

16 MR. THALER: Thank you. Let me -- I think,  
17 Mr. Lapointe, you were shown a copy of the  
18 Lockwood water quality certificate. I'm not going  
19 to quiz you on it, just generally, though, Mr.  
20 Nicholas asked you about that and a provision in  
21 there in terms of studies. The water quality  
22 certificate is a document that to your knowledge  
23 is issued not by DMR but by the DEP, correct?

24 MR. LAPOINTE: That's my understanding.

25 MR. THALER: Right, and I believe the one

1 that was shown to you by Mr. Nicholas had a stamp  
2 on it showing that it was filed with the Board of  
3 Environmental Protection, this Board, on August  
4 26, 2004 and, again, that's not something that DMR  
5 or any of the resource agencies do. That's DEP  
6 and the BEP who handle that water quality cert,  
7 correct?

8 MR. LAPOINTE: That is my understanding,  
9 yes.

10 MR. THALER: And in terms of the letter  
11 that was shown to you by Mr. Nicholas from May of  
12 2006 and then there was also reference to the  
13 compliance order about concerns of MDMR, have  
14 there -- to your knowledge, let's start with DMR,  
15 either Dr. Wippelhauser or Commissioner Lapointe,  
16 have there been significant fish mortalities at  
17 Lockwood, Weston or Shawmut?

18 MS. WIPPELHAUSER: Not to our knowledge.

19 MR. THALER: And in terms of the -- again,  
20 the discussion about -- strike that. Let me -- I  
21 have the mike. The other mike that you had before  
22 -- you only have one, if you could move the mike  
23 back to Commissioner Keliher, sorry.

24 MR. LAPOINTE: He's going to ask for a  
25 raise if you keep calling him commissioner so be

1 careful. He's kicked me twice now.

2 MR. THALER: I hope you're able to walk out  
3 of here after this case. Mr. Keliher, I'm just  
4 trying to show respect, in terms of the  
5 questioning of you by Attorney Merrill in terms of  
6 Atlantic salmon upstream in the Sandy River and  
7 then the study that's being done this year in a  
8 couple months of salmon smolt, is it generally  
9 true that salmon smolt travel downstream out  
10 migrate in the springtime?

11 MR. KELIHER: Yes, that's correct.

12 MR. THALER: And that tends to be when  
13 there's high water flows in the Kennebec River?

14 MR. KELIHER: Yes, most years, absolutely.

15 MR. THALER: And in 2006 were there high  
16 waters on the Kennebec River in the springtime?

17 MR. KELIHER: Yes, the spring freshet was  
18 very high.

19 MR. THALER: And when the spring freshet is  
20 very high fish tend to generally go over the dams,  
21 is that correct?

22 MR. KELIHER: Yes, they most certainly do.

23 MR. THALER: And Dr. -- I'm sorry, the mike  
24 will have to go back to Dr. Wippelhauser now. You  
25 were asked by Doug Watts, I believe, he was

1 questioning you about attachment 3 to the  
2 agencies' comments that was the DMR statistics in  
3 terms of eels at different locations, and he said  
4 nothing was shown for Lockwood and you indicated  
5 that that was because there was no upstream  
6 facility at Lockwood yet. That was going to be  
7 installed last year but was not because of high  
8 water, is that correct?

9 MS. WIPPELHAUSER: That's correct.

10 MR. THALER: And the plan is to install it  
11 this year, is that correct?

12 MS. WIPPELHAUSER: Yes.

13 MR. THALER: But even without the passage,  
14 to your knowledge, have eels been able to pass  
15 Lockwood?

16 MS. WIPPELHAUSER: Yes, some are passing  
17 Lockwood.

18 MR. THALER: Let me ask the panel  
19 generally, Board Member or Presiding Officer  
20 Hilton yesterday when asking questions about what  
21 is significant mortality said that, well, for a  
22 single eel or a single fish, if you're caught --  
23 if you hit a turbine or are caught by an angler,  
24 that's significant from that eel or fish's  
25 perspective. How do the agencies administer or

1 manage the fisheries resource in the state of  
2 Maine in terms of population of fishes or any  
3 other animals in the waters? Is it by a  
4 fish-by-fish basis or some other basis?

5 MR. LAPOINTE: When -- it's on another  
6 basis and that is we're trying to restore -- our  
7 goal for our agency and we work cooperatively with  
8 the other agencies is to restore fish to their  
9 historic rate and this means restoring the  
10 populations of fish, and we recognize in that that  
11 sources of mortality do occur but, again, it's a  
12 -- it's restoring populations in our rivers to  
13 their historic range.

14 MR. KELIHER: I would concur with  
15 Commissioner Lapointe. Our goal is to see upward  
16 population trends as we move forward with our  
17 programs.

18 MR. THALER: And, in fact, have there been  
19 upward increasing trends for the fishery on the  
20 Kennebec River?

21 MR. KELIHER: I'll speak to Atlantic salmon  
22 where I have authority. This is the -- this year  
23 is the first year we're able to truly assess  
24 population levels and move fish up river. So from  
25 this -- from that standpoint, I would conclude

1 that we have had a successful year, and we hope to  
2 continue that success into the future.

3 MS. WIPPELHAUSER: I'll talk about the  
4 population levels of the other species. Based on  
5 our juvenile abundance index, it looks like  
6 populations of American Shad are increasing on the  
7 river, it looks like the populations of alewife  
8 and blueback herring are also increasing, and I'm  
9 not quite sure what the eel population is doing.  
10 We're continuing to track the numbers as they move  
11 upstream.

12 MR. THALER: Thank you. Let me just shift  
13 for a moment and maybe again this may stay with  
14 Dr. Wippelhauser. Did FPLE consult with you or  
15 the agency in the development of the proposed  
16 radiotelemetry studies of the American eel for  
17 Lockwood, Weston and Shawmut?

18 MS. WIPPELHAUSER: They did.

19 MR. THALER: And did you and the agency  
20 approve those studies?

21 MS. WIPPELHAUSER: We did.

22 MR. THALER: Is it your opinion that those  
23 studies will provide important information  
24 appropriate to support sound decisions on  
25 modifications, if any, that would be needed for

1 fish passage?

2 MS. WIPPELHAUSER: Yes.

3 MR. THALER: And I'm asking that question  
4 not just for eels but also generally for  
5 anadromous fish.

6 MS. WIPPELHAUSER: Yes, we consulted on all  
7 those studies and we think they're well designed.

8 MR. THALER: And sorry to have the moving  
9 mike back and forth, but if you could move that  
10 back to Mr. Keliher. Mr. Keliher, Mr. Flagg was  
11 here yesterday and answered some questions. Were  
12 you present when Mr. Flagg was here?

13 MR. KELIHER: Yes, I was.

14 MR. THALER: Presiding Officer Hilton  
15 questioned Mr. Flagg about responding to the  
16 Atlantic salmon not being present between Lockwood  
17 and Weston and Mr. Flagg said that it was  
18 biologically appropriate to place the adult salmon  
19 in the upstream habitat Sandy River area for  
20 purposes of increasing the reproduction of the  
21 species. Do you generally agree with that?

22 MR. KELIHER: I absolutely agree with that  
23 assessment.

24 MR. THALER: And why?

25 MR. KELIHER: Salmon restoration is heavily

1 dependent upon quality of habitat. The quality of  
2 habitat within the Sandy River is probably some of  
3 the very best habitat for Atlantic salmon that we  
4 have in the State of Maine for a number of factors  
5 that deal with the overall threats to the  
6 species. Lack of invasive species or predator  
7 species within that system as well as water  
8 quality and quality of substrate all add up to  
9 high quality habitat.

10 MR. THALER: And let me -- if you could  
11 move the mike back to the DMR folks for a moment.  
12 There were questions yesterday by Board Member  
13 Anderson and possibly some others about the water  
14 quality of these stretches of the Kennebec River  
15 where the facilities are located, and she talked  
16 about Class B and I know Mr. Murch has this in the  
17 record somewhere, but just for the panel's  
18 benefit, the Weston Project is on a Class B  
19 stretch of the Kennebec River, the other three  
20 projects are on a Class C stretch of the Kennebec  
21 River. Mr. Murch can verify that for the Board's  
22 convenience if need be, and for Class B which,  
23 again, is just Weston, the Legislature has talked  
24 about whether -- there's supposed to be no  
25 significant loss of species attributable to human

1 activity, and I would ask DMR whether based upon  
2 your professional experience in the Weston area  
3 has there been any significant loss of species  
4 connected with the operation of the Weston  
5 Hydroelectric project?

6 MS. WIPPELHAUSER: No.

7 MR. THALER: And with respect to the other  
8 facilities that are in the Class C stretch of the  
9 Kennebec River which does allow for some loss of  
10 fish, Class C talks about maintaining the  
11 structure of the habitat, the biological  
12 community, and the question is with respect to  
13 that stretch of the Kennebec River, have there  
14 been any either anadromous fish species or the eel  
15 species have either of those species been  
16 significantly impaired in terms of their viability  
17 as a population?

18 MS. WIPPELHAUSER: Not that I'm aware of.

19 MR. THALER: If you can just give me one  
20 moment, Mr. Presiding officer, I think I might be  
21 done.

22 HEARING OFFICER HILTON: Certainly, Mr.  
23 Thaler.

24 MR. THALER: I don't have anything  
25 further. I don't know if Attorney Verville does.

1 MS. VERVILLE: I'm all set.

2 MR. THALER: Then we are all set.

3 HEARING OFFICER HILTON: Thank you, Mr.  
4 Thaler, and Save Our Sebasticook is next up, and I  
5 understand Mr. Fletcher is here today. Welcome.

6 MR. FLETCHER: I do appreciate being here  
7 but I'm going to allow my good friend, Mr. Vanden  
8 Heuvel, to ask the questions.

9 HEARING OFFICER HILTON: Mr. Vanden Heuvel,  
10 welcome to all of you.

11 MR. VANDEN HEUVEL: You completed the eel  
12 studies by 12/31/2001 thousand 1. If completed,  
13 where is the report and what is a short summary of  
14 the results of the study?

15 MS. WIPPELHAUSER: The results were put in  
16 the annual KHDG Agreement that explains the year's  
17 work.

18 MR. VANDEN HEUVEL: Can you give us a short  
19 summary especially regarding eels?

20 MS. WIPPELHAUSER: Do you want upstream  
21 passage, downstream passage, just downstream?

22 MR. VANDEN HEUVEL: Both.

23 MS. WIPPELHAUSER: We spent a minimum of  
24 three years at sites trying to identify locations  
25 of upstream passage. We made recommendations in

1 2003 I believe on four of the projects. We needed  
2 to do additional work at some of the projects,  
3 Lockwood being one, Weston being one and Burnham  
4 project being another one of the ones that needed  
5 additional work. In the latest KHDG report we  
6 said we needed to do a little bit of additional  
7 work at Burnham because the upstream anadromous  
8 passage had been installed and it changed the flow  
9 patterns and we wanted to verify that the location  
10 we thought eels would be congregating in were, in  
11 fact, where they were congregating. Regarding  
12 downstream passage, we did two years of studies at  
13 Fort Halifax and Benton Falls. The Fort Halifax  
14 Project was not generating in either of those two  
15 years so we could not comment on the efficiency of  
16 their downstream passage, and then we did work at  
17 Lockwood Project. We were able to tag five eels  
18 in one year. We attempted to do work in the  
19 following two years and were unable to -- excuse  
20 me -- we were unable to collect eels to tag to  
21 continue that study.

22 MR. VANDEN HEUVEL: How much of the 427,000  
23 did you end up spending?

24 MS. WIPPELHAUSER: I have no idea.

25 MR. VANDEN HEUVEL: Mr. Lapointe?

1           MR. LAPOINTE: I don't know the number  
2 specifically, but in the context of how these  
3 funds and other KHDG funds have been spent, we  
4 have enumerated that in the past and have plans  
5 for the remainder of those funds through the  
6 future. I don't have those numbers in front of  
7 me, but I believe those have been provided to  
8 outside groups, including SOS, in the past. I  
9 think it's also important when the \$427,000 number  
10 came up, I asked Dr. Wippelhauser and she can  
11 elaborate on this, it was an estimate on what she  
12 thought it would take for three years because  
13 that's what we needed for the agreement, and so  
14 that's I believe where the \$427,000 number came  
15 from, and she can correct me if I am mistaken in  
16 that.

17           MS. WIPPELHAUSER: That's correct. I was  
18 asked to do an estimate of how long it would take  
19 to do studies in three years.

20           MR. VANDEN HEUVEL: Did the DMR initiate  
21 discussions for the designs before they were  
22 agreed upon?

23           MS. WIPPELHAUSER: I don't understand your  
24 question. Could you --

25           MR. VANDEN HEUVEL: We'll skip it. How

1 many American shad were trapped and trucked at  
2 Lockwood in 2006 as compared to the DMR forecast  
3 and the installed capacity?

4 MS. WIPPELHAUSER: We didn't make a  
5 forecast. There were no American Shad that were  
6 trapped and trucked this year -- sorry -- last  
7 year.

8 MR. VANDEN HEUVEL: Did you make a forecast  
9 for alewife and how many were trapped?

10 MS. WIPPELHAUSER: We did not make a  
11 forecast for alewives and I don't have that  
12 number. I can't remember what the number was.

13 MR. VANDEN HEUVEL: Did you make a forecast  
14 for salmon, and how many were trapped?

15 MR. KELIHER: We did not make a forecast  
16 for salmon and 15 were trapped.

17 MR. VANDEN HEUVEL: Has the Atlantic Salmon  
18 Commission developed the multi-agency fisheries  
19 management plan for the river above Lockwood as  
20 well as initiated an Atlantic salmon stocking plan  
21 as specified by the '98 KHDG Agreement to be  
22 completed by 2006?

23 MR. KELIHER: Last year we wrote an interim  
24 plan but we have not yet initiated a multi-agency  
25 plan as you've asked.

1           MR. VANDEN HEUVEL: Will Maine continue to  
2 allow a commercial harvest of adult eels?

3           MS. WIPPELHAUSER: Some of the eel harvests  
4 -- the eel harvest in coastal water is managed by  
5 DMR. The eel harvest in inland waters is managed  
6 by Department of Inland Fish and Wildlife. There  
7 is a moratorium on the eel weir fishery that was  
8 put in place in 1996. At that time I think there  
9 were something like 24 fisherman and they had 42  
10 sites. There are now I believe 3 fishermen left  
11 in the fishery and they have four sites, and I'll  
12 let Steve comment on that. Steve doesn't want to  
13 comment.

14           MR. VANDEN HEUVEL: Will Maine continue to  
15 allow a commercial harvest of elvers?

16           MR. LAPOINTE: Maine -- we've had  
17 discussions with Inland Fish and Wildlife and  
18 we're discussing it within the context of the  
19 Atlantic States Marine Fisheries Commission the  
20 right amount of harvest, if any, to allow for both  
21 juvenile eels and adult eels as well, and those  
22 discussions are ongoing and importantly in the  
23 context of both our work and the context of the  
24 Atlantic States Marine Fisheries Commission plan,  
25 it deals with direct harvest of eels, if that's

1 appropriate, and it deals with habitat issues on  
2 eels such as has been provided by the KHDG. So we  
3 try to take both of those into account.

4 MR. VANDEN HEUVEL: Dr. Wippelhauser, you  
5 stated you are not seeing eel mortality on the  
6 Kennebec River. What was your methodology for  
7 determining eel mortality and can you share it  
8 with the dam owners?

9 MS. WIPPELHAUSER: Yes. Our crew went  
10 out. On a number of occasions they would go out  
11 in a boat, they would go into the tailrace area.  
12 I believe they've done this at Shawmut and  
13 Hydro-Kennebec and Lockwood. Sometimes they take  
14 an underwater camera out and they run transects  
15 across that area, and look for eels. It's not  
16 that we've seen no mortality. We've seen minimum  
17 mortality. I believe we've recorded something  
18 like 11 or 12 dead eels below the projects.

19 MR. VANDEN HEUVEL: Hydro-Kennebec felt  
20 that only with the construction of permanent  
21 downstream fish passage facilities could the goal  
22 of providing effective downstream passage for  
23 adult American eel, Atlantic salmon and American  
24 Shad be accomplished. What is different about the  
25 state's position?

1 MR. LAPOINTE: Please repeat the question.

2 MR. VANDEN HEUVEL: Hydro-Kennebec felt  
3 that only with the construction of permanent  
4 downstream fish passage facilities could the goal  
5 of providing effective downstream passage of adult  
6 American eel, Atlantic salmon and American Shad be  
7 accomplished. What's different about the state's  
8 position?

9 MR. LAPOINTE: I don't entirely understand  
10 the question, but I think that the state's  
11 position is that I think downstream passage is  
12 consistent with the KHDG. You've discussed that  
13 more than we so I don't think our position is that  
14 -- differs from Hydro-Kennebec.

15 MR. VANDEN HEUVEL: Wouldn't you say that  
16 turbine passage is acceptable passage for  
17 juveniles only?

18 MS. WIPPELHAUSER: There were -- there were  
19 studies done at Hydro-Kennebec and, again, this  
20 was just visual observations, and they wanted to  
21 pass juvenile -- juvenile shad and juvenile  
22 alewives through turbines. They did not observe  
23 mortalities of those species below  
24 Hydro-Kennebec.

25 MR. VANDEN HEUVEL: Would you say turbine

1 passage is acceptable for adult salmon and adult  
2 eels?

3 MS. WIPPELHAUSER: It's probably not the  
4 preferred method.

5 MR. VANDEN HEUVEL: Should the state  
6 recommend the replacement of capping the tube  
7 turbines with slower turning models as part of its  
8 long-term fish restoration plans?

9 MS. WIPPELHAUSER: I don't know the answer  
10 to that.

11 MR. VANDEN HEUVEL: Mr. Lapointe?

12 MR. LAPOINTE: I don't know the answer to  
13 it either, but I think I would -- I would respond  
14 by saying that the KHDG provides the partners,  
15 including the state agency partners, with an  
16 iterative process to make changes to accommodate  
17 fish passage through time and so should we arrive  
18 at that conclusion in the future, we would use the  
19 KHDG to do that. Should we arrive at another  
20 conclusion, we'd use the agreement to do that as  
21 well, but I think that for us to presumptively,  
22 you know, put a prescription in or suggest a  
23 prescription is not something we would do.

24 MR. VANDEN HEUVEL: Thank you. Are  
25 floating baffles on dam sites in front of turbines

1 cost effective?

2 MR. LAPOINTE: I would say that was a  
3 question we would pose to the folks who put them  
4 in place more than us making a judgment on whether  
5 they are cost effective or not.

6 MR. VANDEN HEUVEL: Are metal plates in  
7 front of turbines cost effective?

8 MS. WIPPELHAUSER: We haven't used them and  
9 I don't know if they're cost effective.

10 MR. VANDEN HEUVEL: In fact, aren't they in  
11 place in front of Fort Halifax dam and were they  
12 cost effective and are they effective?

13 MR. LAPOINTE: My response would be we work  
14 on fish effectiveness in terms of the KHDG and the  
15 companies work on cost effectiveness and we try to  
16 do that in partnership. So I think we're not the  
17 right folks to ask that question. I would think  
18 that for those dams that they have put plates in  
19 front of the turbines that the companies thought  
20 those were cost effective means of trying to  
21 improve fish passage efficiency.

22 MR. VANDEN HEUVEL: Do you feel that there  
23 is a lack of engineering design in this process?

24 MS. WIPPELHAUSER: I'm not sure what you're  
25 asking. When we -- we don't tell hydropower

1 companies what to put in place. There are U.S.  
2 Fish and Wildlife Service engineers that make  
3 recommendations. They have the expertise to do  
4 that. We usually rely on them to make those  
5 suggestions.

6 MR. VANDEN HEUVAL: Why are the Weston  
7 downstream studies in 2008 versus 2007; at all the  
8 others, why are the upstream studies in 2007  
9 versus 2006? We're behind schedule on information  
10 on up and down passage characteristics of fish and  
11 eels. Don't we need as much information as  
12 possible as soon as possible?

13 MS. WIPPELHAUSER: We consulted with FPLE  
14 on those studies and we agreed that it was  
15 impossible to do an adequate study at three sites  
16 at the same time. I've tried to do two sites at  
17 once and it's very difficult.

18 MR. VANDEN HEUVEL: Why didn't you strip  
19 the salmon eggs and implant them in the Sandy  
20 River?

21 MR. KELIHER: As I answered a previous  
22 question, the reason that we are targeting the  
23 Sandy River is because of the high value habitat  
24 which gives us the most likelihood of a successful  
25 restoration project.

1           MR. VANDEN HEUVEL: Why didn't you strip  
2 the salmon eggs and implant them in the Sandy  
3 River?

4           MR. KELIHER: Actually I'm going to for the  
5 first time pass that question to Norm.

6           MR. DUBE: We simply don't have the  
7 facilities to hold the salmon until spawning  
8 because they enter the river anywheres from May  
9 through October.

10          MR. VANDEN HEUVAL: Can't you still remove  
11 the 15 salmon from the Kennebec River before they  
12 go downstream?

13          MR. DUBE: No.

14          HEARING OFFICER HILTON: Mr. Vanden Heuvel,  
15 you were allocated 15 minutes. Now, I gave the  
16 petitioners an extra 8 minutes and I gave the  
17 facility owners an extra 8 minutes and I'll give  
18 you an extra 8 minutes if you wish it.

19          MR. THALER: I'll just point out that I  
20 didn't use any of the extra 8 minutes.

21          HEARING OFFICER HILTON: My understanding  
22 was that you -- are you giving that time to Mr.  
23 Vanden Heuval or are you going to give it to the  
24 Board? What's your point?

25          MR. THALER: I'll reserve it if you want.

1 He's asking some questions that I certainly would  
2 like to follow up on.

3 HEARING OFFICER HILTON: Mr. Vanden Heuvel,  
4 do you have another 8 minutes' worth of  
5 questions?

6 MR. VANDEN HEUVEL: I'll reserve the rest  
7 of the questions for the Board.

8 HEARING OFFICER HILTON: No, you should ask  
9 your questions.

10 MS. EDWARDS: I'd like to ask one of Dr.  
11 Wippelhauser, very non-technical.

12 HEARING OFFICER HILTON: I'm going to  
13 allocate another 8 minutes to Sebesticook.

14 MS. EDWARDS: I've been curious about the  
15 role of eels in an ecosystem, okay, and I've been  
16 reading about Canada and they're trying  
17 desperately to restore eels to certain rivers I  
18 understand in Canada. What would happen to the  
19 Kennebec River Watershed -- or I guess it would be  
20 true of any watershed in Maine -- but what would  
21 happen if all the eels gradually died out and we  
22 didn't have any eels at all in the ecosystem? Do  
23 you know what would be the impact on the river and  
24 the rest of the life in the river?

25 MS. WIPPELHAUSER: I don't know the answer

1 to that. There have been lots of species that  
2 have gone extinct, and usually what happens is  
3 other species take their place.

4 MS. EDWARDS: That's what I was wondering.  
5 Maybe I should ask Inland Fisheries and Wildlife  
6 because they've had the experience with wolves or  
7 they've had other experiences. Is that what  
8 happens is that some other species would take  
9 their place?

10 MR. TIMPANO: Yes. I guess I would concur  
11 with that thinking of, I mean, the system as a  
12 whole, and the niches within that system that  
13 support specific species or specific species are  
14 adapted to, and you have other species that are  
15 marginally proficient in operating within that  
16 habitat.

17 MR. LAPOINTE: If I might -- and if it's  
18 inappropriate, Mr. Chairman, please tell me -- but  
19 I think an important other facet of that question  
20 is I believe that certainly our professional  
21 judgment and the science of fish and wildlife  
22 management suggests that we not -- we don't know  
23 the answer to the question but our professional  
24 experience suggests that we want to keep the  
25 natural components of the ecosystem in place and

1 so that's why we try to restore fish species  
2 because we think the absence of those species is  
3 not a good thing for the ecosystem because they  
4 have a place there because they're there now.

5 MS. EDWARDS: Thank you very much. That's  
6 essentially what I was trying to get at. We need  
7 the eels in the ecosystem. Thank you. I guess  
8 we'll reserve -- if there's any of the minutes  
9 left, we'll reserve them.

10 HEARING OFFICER HILTON: Board questions.  
11 Nancy Ziegler.

12 MS. ZIEGLER: Mr. Timpano, is that how you  
13 pronounce it? Tell me again what your -- you're  
14 with -- tell me who you're with?

15 MR. TIMPANO: IF&W.

16 MS. ZIEGLER: Okay, you're with IF&W, thank  
17 you. So this is also a question to you and to Dr.  
18 Wippelhauser, and I understand that so far you're  
19 not observing eel mortality in any significant  
20 numbers in the mainstem of the Kennebec, right,  
21 and so it's not -- but that doesn't mean that  
22 there isn't significant mortality, you just  
23 haven't observed it, the studies have not shown  
24 any significant mortality, is that sort of what  
25 you're saying? Because you kept saying I don't

1 know.

2 MS. WIPPELHAUSER: That's right. We've  
3 done limited studies but what we -- but the  
4 studies that we've done have not demonstrated huge  
5 numbers of eels being killed.

6 MS. ZIEGLER: Okay, and, Mr. Timpano, would  
7 you also concur that you see more eels --  
8 significantly more eels congregating in the lower  
9 reaches of the Sebasticook as opposed to where the  
10 Kennebec goes up on the mainstem?

11 MR. TIMPANO: I guess the best way to  
12 answer that is that our department, to my  
13 knowledge, is not specifically doing any studies  
14 or making observations of eels in that sense.  
15 That's primarily what DMR does.

16 MS. ZIEGLER: In terms of the fishery do  
17 you manage the fishery? Do you manage the  
18 fishery?

19 MR. TIMPANO: The inland fisheries  
20 management, the resident species, correct.

21 MS. ZIEGLER: Right. So if there are any  
22 concerns about -- I gather the goal is a  
23 sustainable fishery also, is that correct? I'm  
24 just trying to understand this.

25 MR. TIMPANO: Yes. Inland fisheries

1 management, and to the degree that we're managing  
2 for cold water species, different segments of the  
3 Kennebec River, for example, depend quite a lot on  
4 our stock fishery, and the sustainable part would  
5 be to the degree that we are able to have natural  
6 reproduction with cold water species, landlocked  
7 salmon and so forth, and the warm water species  
8 are primarily self-reproducing and we manage for  
9 sustainability also, yes.

10 MS. ZIEGLER: So the commercial harvesting  
11 licenses for eel are those managed by DMR?

12 MS. WIPPELHAUSER: The commercial fisheries  
13 for eels in coastal waters are handled by DMR so  
14 we license the elver fishery and the coastal eel  
15 pot fishery. Inland Fish and Wildlife licenses --  
16 they actually give permits for the inland pot  
17 fishery and the weir fishery.

18 MS. ZIEGLER: So those weir fisheries --

19 MS. WIPPELHAUSER: Right, and the weir  
20 fishery, as I mentioned, was -- a moratorium was  
21 put in place in 1996. That was done by Inland  
22 Fish and Wildlife, and they only allow people in  
23 the fishery that I think had been licensed for the  
24 previous three years.

25 MS. ZIEGLER: Okay, and if my terminology

1 is wrong, just correct me, but would you agree  
2 that the whole goal of managing the fisheries is  
3 to have a sustainable fishery?

4 MS. WIPPELHAUSER: Yes, that's correct.

5 MS. ZIEGLER: So the question of the fact  
6 that there are kills of various species of these  
7 fish by commercial or recreational fishing is sort  
8 of irrelevant in terms of our question here about  
9 fish passage down the river?

10 MS. WIPPELHAUSER: Could you --

11 MS. ZIEGLER: The only reason I'm asking  
12 this question is it's been thrown out there, okay,  
13 we have commercial fishing, they're harvesting the  
14 fish and the eel, and we have both types of  
15 species, anadromous and catadromous fish, and we  
16 have recreational fishing and so we're allowing  
17 fish to be harvested so, you know, the fact that  
18 some of the fish are lost and there's mortality  
19 through the turbines, I don't think that one has  
20 anything to do with the other partly because the  
21 goal is a sustainable fishery, right?

22 MS. WIPPELHAUSER: All of those things  
23 impact the fishery. They all impact the eel  
24 population. Through ASMFC we're trying to make  
25 improvements in all of those fronts. If you look

1 at the American Eel Fisheries Management Plan that  
2 was adopted by ASMFC in 2000, there is a  
3 requirement that all the states improve upstream  
4 and downstream eel passage basically through the  
5 FERC process when they can do that. We all have  
6 -- we have requirements for reporting all of our  
7 harvest information so we get very good catch data  
8 which we didn't have in the past. There was a  
9 requirement when the management plan was first  
10 adopted that the eel fishery should not increase,  
11 and now we're looking at addendum 2 which would  
12 probably put some limitations on the coastal pot  
13 fishery because there is a pot fishery in every  
14 state on the East Coast.

15 MS. ZIEGLER: And I understand the need to  
16 look at those fishing limits, but does it really  
17 have anything to do with the issues that we're  
18 dealing with here?

19 MS. WIPPELHAUSER: No, only that it's  
20 another source of mortality to the population.

21 MS. ZIEGLER: Okay, and my other question  
22 is having to do with the -- there's a slight  
23 difference in these compliance orders issued by  
24 the Department for the various projects depending  
25 on what -- and this has to do with the eel passage

1 downstream -- depending on what or what is not  
2 happening at each project, is that true?

3 MS. WIPPELHAUSER: Yes.

4 MS. ZIEGLER: And in each of the compliance  
5 orders on that Section 5, consultation and review  
6 comments, is that phrase that DMR is concerned  
7 that controlled spill via bypass gates will not be  
8 an effective measure for downstream passage and  
9 that significant injury or mortality to eels will  
10 occur unless other additional measures are taken,  
11 and do you agree with that?

12 MS. WIPPELHAUSER: Yes, we put that in  
13 there, again, it's "may", we don't have a lot of  
14 data. That's why we agreed to continue two  
15 additional studies that we weren't able to  
16 complete.

17 MS. ZIEGLER: But I guess my question is  
18 that you have a concern that the controlled spill  
19 via bypass gates is not an effective measure  
20 unless other measures are put in place? Do you  
21 agree with that?

22 MS. WIPPELHAUSER: Yes.

23 MS. ZIEGLER: Okay, and then in the  
24 Hydro-Kennebec order, which I'd have to get to  
25 here, they do have this diversionary boom in

1 place. Is that another type of measure that you  
2 think in conjunction with a gate may be more  
3 effective?

4 MS. WIPPELHAUSER: It may be. It's  
5 something that -- it's been used, as far as I  
6 know, in one other place specifically for  
7 downstream anadromous fish. We don't know if it  
8 will work with eels, and we think it's worth  
9 studying.

10 MS. ZIEGLER: And I think somebody made the  
11 comment, it may have been you, that the studies  
12 that Hydro-Kennebec is proposing, both the camera  
13 studies and the hydro acoustic studies, are  
14 appropriate studies?

15 MS. WIPPELHAUSER: Yes.

16 MS. ZIEGLER: Is there any reason why --  
17 and this is my last question -- you have also in  
18 the past tried to tag the eel and were only  
19 successful once in tagging five eel?

20 MS. WIPPELHAUSER: That's right.

21 MS. ZIEGLER: And what happened the other  
22 times when you tried to tag them?

23 MS. WIPPELHAUSER: I believe we were  
24 working on that study in the middle of the  
25 five-year drought that went from '99 to 2001 or

1 2002. We had a net. I think it was set in  
2 Wesserunsett Stream, there were other fish moving  
3 down, we did not catch any eels. We had a net in  
4 a couple of places. We just did not catch any  
5 eels.

6 MS. ZIEGLER: So now the studies that are  
7 being proposed, these radiotelemetry studies,  
8 proposed at Shawmut and Lockwood propose --  
9 they're tagging 30 to 50 eels at each site?

10 MS. WIPPELHAUSER: Yes.

11 MS. ZIEGLER: And do you believe that  
12 they're going to be successful in catching those  
13 numbers of eel to tag?

14 MS. WIPPELHAUSER: I think they will be  
15 because there's now something else going on that  
16 wasn't happening when we were doing our studies.  
17 Madison Paper Company which is up above the Weston  
18 -- there's two hydropower projects above Weston.  
19 They're not part of the KHDG Agreement. They were  
20 recent -- they went -- underwent their  
21 relicensing, they have eel and salmon passage  
22 requirements. They will be putting in downstream  
23 eel passage. At their second dam there's a place  
24 where we can easily trap eels and so we're going  
25 to try and use those eels in the studies for

1 probably Hydro-Kennebec and Shawmut and Weston --  
2 at Shawmut and Lockwood, sorry.

3 MS. ZIEGLER: So you'll trap them and then  
4 you'll move them and track them?

5 MS. WIPPELHAUSER: Yes, probably move them  
6 downstream some.

7 MS. ZIEGLER: Okay, and then follow them?

8 MS. WIPPELHAUSER: Yes.

9 MS. ZIEGLER: That was actually a good  
10 clarification to try to understand how that was  
11 going to happen. If you believe -- if the  
12 Department, DMR, believes that downstream passage  
13 via these spillway gates probably won't work, why  
14 would you just study that method without actually  
15 -- if you already have -- if you already feel  
16 it's not going to work, why just study it for  
17 another two years?

18 MS. WIPPELHAUSER: One thing that they're  
19 going to be doing at Lockwood is using a deep gate  
20 which they did not open when we were doing our  
21 studies.

22 MS. ZIEGLER: But that's only Lockwood.  
23 What about Shawmut?

24 MS. WIPPELHAUSER: That's right. We  
25 haven't done anything at Shawmut. We haven't done

1 any studies at all at Shawmut. We don't know  
2 where the eels are going. The flow fields there  
3 are entirely different than Lockwood.

4 MS. ZIEGLER: Okay. That's it.

5 MS. WIPPELHAUSER: It's very hard to --  
6 it's very hard to try and figure out how to move  
7 eels from one place to another if you don't even  
8 know where they're going.

9 MS. ZIEGLER: So I guess your point is that  
10 you wouldn't know where to put a boom unless you  
11 could -- unless you could get some studies to see  
12 where the eel were going?

13 MS. WIPPELHAUSER: That would be very  
14 helpful.

15 MS. ZIEGLER: Thank you.

16 HEARING OFFICER HILTON: Do any of the  
17 witnesses or anybody else need to take a brief  
18 break? Why don't we take a break for just a  
19 couple minutes.

20 (OFF RECORD)

21 HEARING OFFICER HILTON: Board Members  
22 Ehrenfeld, any questions?

23 MS. EHRENFELD: Yeah, I have a couple more  
24 questions about fish counting which I started  
25 asking yesterday. Looking at attachment number 3

1 for DMR counting the eels upstream, on the Shawmut  
2 Project in '06, there were zero eels counted, and  
3 Weston, which is upstream from there, there were  
4 6,800, so obviously --

5 MS. WIPPELHAUSER: They weren't able to put  
6 the fish passage in at Shawmut in 2006 because of  
7 the high water.

8 MS. EHRENFELD: Okay, and could you clarify  
9 again how they're actually counting the fish, the  
10 eels going upstream?

11 MS. WIPPELHAUSER: Yeah, there's traps at  
12 the tops of all the fishways -- well, there's  
13 traps at the tops of the eel passageways. The  
14 eels are trapped in there, they go out the next  
15 morning and they simply count the eels. At Fort  
16 Halifax we did not go one eel, two eel.

17 MR. EHRENFELD: Okay.

18 MS. WIPPELHAUSER: We actually weigh them,  
19 take a sub sample and count the sub sample and  
20 calculate how many there are.

21 MS. EHRENFELD: Thank you. The other  
22 questions relate more to downstream counting.  
23 There's been a lot of discussion about mortality  
24 of the fish downstream from the river and whether  
25 or not there are significant fish kills. I'm

1 having a hard time understanding what the percent  
2 of mortality that gets measured. So there's a  
3 certain amount of mortality, if you see the dead  
4 fish, and I'm trying to get an idea of the percent  
5 you're actually seeing, so what the sensitivity of  
6 the observation would be.

7 MS. WIPPELHAUSER: I have no idea. I don't  
8 know.

9 MS. EHRENFELD: Okay, and then my final  
10 question that we've discussed a little bit but I  
11 wanted to get your opinion on is the difference  
12 between the two study types that were discussed at  
13 the different dams, the radiotelemetry which I  
14 understand is just measuring eel passage going  
15 downstream versus the photo and acoustic  
16 measurements where you're measuring all the fish.  
17 I'm sure there are other differences between the  
18 studies as well.

19 MS. WIPPELHAUSER: The two methods are the  
20 methods that are being used to address specific  
21 questions or objectives. At Hydro-Kennebec  
22 they're concentrating on a relatively small area.  
23 The hydro acoustics that they're using I believe  
24 has a range of about 24 meters. The  
25 radiotelemetry you may be able to detect a fish a

1 quarter of a mile away so there's much greater  
2 range. There's trade offs on each one of those  
3 types of methods.

4 MS. EHRENFELD: Thank you.

5 HEARING OFFICER HILTON: Nancy Anderson.

6 MS. ANDERSON: I have a couple questions.  
7 The first one is for Mr. Keliher. I don't know  
8 much about this proposal to declare the Atlantic  
9 salmon endangered in the area of the Kennebec. Is  
10 it specifically in the Kennebec?

11 MR. KELIHER: No, the 2006 status review  
12 that was referred to earlier is a technical  
13 document that from a technical standpoint based on  
14 the discreteness of the population has suggested  
15 an expansion of the current DPS to include the  
16 Androscoggin, the Kennebec and the Penobscot  
17 watersheds. Excuse me, yes, Mr. Lapointe reminded  
18 me to say what DPS was. The current DPS -- DPS  
19 stands for distinct population segment and  
20 Atlantic salmon are listed under the Endangered  
21 Species Act as a distinct population segment.  
22 That current geographical area that is listed is  
23 from the Edwards dam site -- the old Edwards dam  
24 site on the Kennebec downstream and then to the  
25 East all the way to the Dennys River Watershed.

1 MS. ANDERSON: So then you would be  
2 basically saying that these are separate species  
3 that need separate kinds of protection? Am I  
4 misunderstanding?

5 MR. KELIHER: The scientific conclusion --  
6 this has not gone through policy review and a rule  
7 has not been written -- the scientific conclusion  
8 is that the salmon in Androscoggin, Kennebec and  
9 Penobscot are of the same discreteness of the  
10 current salmon within the existing distinct  
11 population segment.

12 MS. ANDERSON: Got it. You were asked  
13 about -- so if this does -- is found to be a  
14 distinct population and has gone through the  
15 policy review and you were asked wouldn't that  
16 trigger an immediate need for everybody having  
17 adequate, safe downstream passage and you said  
18 no. Can you elaborate why? Because I gather  
19 besides the shad trigger there was also this  
20 alternative trigger in the Kennebec-Hydropower  
21 Agreement that allowed for use of salmon as  
22 requiring immediate action.

23 MR. KELIHER: That's right. There is a  
24 trigger alternative. Instead of using shad, we  
25 could use salmon if that was needed. We currently

1 don't know if that is needed. The issue of -- I  
2 can't remember exactly how the question was asked,  
3 but the federal services, the only way that  
4 federal services, I believe, could potentially  
5 reopen a license is if there is an issue of take  
6 under the Endangered Species Act. Currently this  
7 area is not listed under the Endangered Species  
8 Act so federal take requirements are not in play  
9 here.

10 MS. ANDERSON: So if it were listed, which  
11 is what this is all about, this proposal --

12 MR. KELIHER: Yes, it would be a  
13 consultation process. They'd have to determine  
14 the level of take. In a sense they would need a  
15 dead fish to determine that there is, in fact,  
16 take.

17 MS. ANDERSON: The mortality levels would  
18 have to be determined?

19 MR. KELIHER: Exactly. The dam owners  
20 would need to do efficiency studies.

21 MS. ANDERSON: Thank you. The other  
22 questions I have are about eel mortality because  
23 I'm feeling confused by the variety of information  
24 we've had. The first thing I wanted to ask Dr.  
25 Wippelhauser about is the Federal Register which

1 is -- well, there's this section in it that says  
2 based on the data available we can reasonably  
3 assume that where American eels encounter one  
4 hydropower facility during out migration there is  
5 a typical mortality rate in the range of 25 to 50  
6 percent, and when one or more turbines are  
7 encountered, the range of mortality rate increases  
8 to 40 to 60 percent for that watershed. So when  
9 Doug made his presentation yesterday, we had sort  
10 of a numbers description of cumulative impact, if  
11 we have X population and this percentage of  
12 mortality at the first dam, then there's this  
13 amount left, so you get a cumulative impact that  
14 builds up. So I wanted your response about that  
15 and what the Federal Register says about the 25  
16 percent to 50 percent mortality. Is that a good  
17 enough question?

18 MS. WIPPELHAUSER: I'm not sure what you're  
19 looking for.

20 MS. ANDERSON: Well, do you agree with the  
21 25 to 50 percent mortality and the cumulative  
22 impact?

23 MS. WIPPELHAUSER: I agree that there's  
24 cumulative impact. If eels are going down a  
25 series -- if there's four or five dams in a row,

1       there is some mortality at each one of those  
2       projects. I don't know if it's 25 to 40 percent.  
3       I don't know what it would be on these projects.

4               MS. ANDERSON: Okay, and then the second  
5       question had to do with the letter that was  
6       submitted as part of Doug Watts' original  
7       preliminary testimony on page 23, it's a letter  
8       from Nate Gray and at the bottom of the page it  
9       says the big dams with deep tailraces could hide  
10      an army of the dead and you'd never know, and I  
11      just wanted to know if you agree with that  
12      statement.

13              MS. WIPPELHAUSER: We don't have data. I  
14      don't know if there's an army of dead down there,  
15      but we haven't seen an army. You would have to  
16      probably use a lot of hydro acoustics to look at  
17      the entire tailrace downstream of a dam and we  
18      haven't done that.

19              MS. ANDERSON: Right. I can't remember but  
20      it seemed to me that I read something from you as  
21      well, a corroborative -- a statement that sort of  
22      corroborated this and I can't track it down. I've  
23      been looking for it. Oh, well, if I can find it  
24      in between, I'll ask you about it.

25              HEARING OFFICER HILTON: Anything further?

1 MS. ANDERSON: No.

2 HEARING OFFICER HILTON: I have a few here  
3 also. Gail, I'll start with you. You've been a  
4 very valuable witness today.

5 MS. WIPPELHAUSER: Thank you.

6 HEARING OFFICER HILTON: FPL proposes as  
7 one of the range of fish passage opportunities  
8 turbine passage, the various gates and et cetera,  
9 et cetera, and they have turbine passage and the  
10 witnesses have mentioned that in every one of  
11 their -- all three witnesses proposed that, and,  
12 yet, it is their turbines which, as I understand  
13 it from yesterday and today, the smaller turbines  
14 -- Hydro-Kennebec has the larger, slower moving  
15 turbines, FPL has the smaller, and there's already  
16 some indication of mortality because they did that  
17 little five eel study here a few years ago. What  
18 is your -- what is your reaction to that, the fact  
19 that they propose in writing that turbine passage  
20 is a viable possibility, it's part of their  
21 program, part of their plan?

22 MS. WIPPELHAUSER: They're going to be  
23 studying basically the out migration routes,  
24 they're going to be as I understand opening up a  
25 deep gate which they didn't do before, they're

1 going to --

2 HEARING OFFICER HILTON: This is part of  
3 the studies that they're going to be doing this  
4 year?

5 MS. WIPPELHAUSER: That's right. When we  
6 did our study of the five eels, the deep gate was  
7 not open. They may be able to change operations  
8 on those -- on those turbines. That may change  
9 where the eels move in the power canal. Those  
10 kinds of details on the study design haven't been  
11 worked out yet.

12 HEARING OFFICER HILTON: Okay. Let me go  
13 back to -- you made a response to Doug earlier  
14 this morning when he was asking you about the --  
15 he was trying to clarify your answer as to that  
16 five eel study. Two of them we know went through  
17 the turbine and died, two are unaccounted for and  
18 one was found in the backwater somewhere I guess  
19 still alive as I understand it, and you said in  
20 response to his questions about how much energy I  
21 guess or effort had gone into trying to locate  
22 this unknown eels, these two, that you were at  
23 fixed locations?

24 MS. WIPPELHAUSER: Yes.

25 HEARING OFFICER HILTON: You were on the

1 dam at fixed locations?

2 MS. WIPPELHAUSER: We had antennas set up  
3 in each one of the turbine bays so we could tell  
4 if an eel went through there. We had an antenna  
5 set up that was looking across the spillway and  
6 then we had an antenna set up below the flume  
7 that's between the turbines.

8 HEARING OFFICER HILTON: Okay.

9 MS. WIPPELHAUSER: Those were the fixed  
10 locations. Then we had a separate receiver that  
11 we could take out in a boat, and that's the one  
12 where we would use to go down below the powerhouse  
13 to try and track eels. I'd like to let you know  
14 there is one field person working on eels, and if  
15 he goes in a boat, he needs a second person with  
16 him. So there's not always somebody available.

17 HEARING OFFICER HILTON: The impression I  
18 have from both the readings of the agencies -- the  
19 agency writings and also from what you said today  
20 is that you speak about mortality and what you  
21 don't know about mortality and, yet, there is one  
22 study at least that has been done, this five eel  
23 study, it had results, it was a scientifically  
24 done study and, yet, you seem to treat it as  
25 anecdotal information. Can you comment on that?

1 MS. WIPPELHAUSER: It's not anecdotal.  
2 It's very limited. There were five eels. If you  
3 had one that's -- let's say it goes from the -- we  
4 know it went through a turbine category, we're not  
5 sure where it went, that's 20 percent. It's a  
6 huge change. That's why I'm saying we need a  
7 bigger study, a study with more eels so we get  
8 better information.

9 HEARING OFFICER HILTON: That's correct.  
10 None of us ever have enough information. This  
11 Board is never going to have enough information  
12 about the eels to really know, we are not  
13 omniscient, but, yet, you have completed a  
14 scientifically devised, carried out -- I mean, at  
15 the point where you had five eels, you decided to  
16 go forward with it to see what happened and, yet,  
17 you had the mortality -- the known mortality that  
18 you did and, yet, it seems to be -- it seems  
19 almost results oriented in that because you had  
20 the mortality that you did, you seem to want to  
21 treat it as anecdotal information, even though it  
22 seems to line up with what -- what was her name  
23 who wrote the --

24 MR. FRIEDMAN: Heather Bell.

25 HEARING OFFICER HILTON: Even though it

1 seems to line up with Heather Bell's overall  
2 findings in the 12 month report that she gave in  
3 the Federal Register. So I'm kind of curious  
4 about this discontinuity here.

5 MR. LAPOINTE: Trying to draw conclusions  
6 from a sample size of five is -- you can draw from  
7 it what you will, what you can, but you can't make  
8 more of it than it is. Imagine being at the  
9 rotary in Augusta and taking observation of five  
10 cars going by and talking about traffic patterns  
11 in the entire central part of Maine. You can talk  
12 about what happened at the rotary in Augusta  
13 during that observation period but expanding that  
14 to, you know, the other arteries that go into  
15 Augusta is -- you can do it but you should be  
16 really cautious about it. I think that's what  
17 Gail is trying to say. I don't think we're  
18 treating it as anecdotal. She used the correct  
19 terms. It's very limited.

20 HEARING OFFICER HILTON: Well, you seem to  
21 be dismissing it even though there is an abundance  
22 -- even though somebody else has studied over 12  
23 months an abundance of studies of all the arteries  
24 and all the roads in central Maine and the results  
25 of this study seem to confirm the central Maine

1 overall study. This is the disconnect here. When  
2 I read your report, what I see is a minimizing of  
3 what may be the issue. You mentioned that you've  
4 only counted 11 dead eel or whatever the number  
5 was, and as if you only think there are 11 eels  
6 above the dams or just a very minimal number of  
7 them. There is Madison Paper now you've indicated  
8 is going to be putting in downstream eel passage  
9 at a point which is considerably above Lockwood  
10 dam or any of these dams. It's going to be above  
11 the Sandy River, just below the Carrabassett River  
12 and they are investing a certain amount of effort  
13 into doing that, and you spoke in terms of  
14 gathering enough eels there to conduct these  
15 studies so how -- how are we supposed to handle  
16 this, these information sources that don't seem to  
17 quite come together? That's a rhetorical question  
18 really.

19 MS. WIPPELHAUSER: Well, as I pointed out,  
20 the two hydropower projects that are located up  
21 above there are not part of the KHDG Agreement.

22 HEARING OFFICER HILTON: That's correct.

23 MS. WIPPELHAUSER: Their relicensing came  
24 up -- I can't remember when it was but it was  
25 after the KHDG Agreement occurred. It was a

1 completely separate relicensing, and there were  
2 only two species involved up there. That's how  
3 that came about.

4 HEARING OFFICER HILTON: Gail, you said --  
5 and I think this is just about a quote -- there is  
6 no data indicating significant eel mortality --

7 MS. WIPPELHAUSER: I -- I'm sorry.

8 HEARING OFFICER HILTON: -- earlier today,  
9 and I think this is a direct quote, you said there  
10 is, quote, no data indicating significant eel  
11 mortality. Do you stand by that phrase?

12 MS. WIPPELHAUSER: Yes. DMR has not seen  
13 significant eel mortality on the Kennebec River.

14 HEARING OFFICER HILTON: That's in terms of  
15 numbers or percentages? I mean, it seems to me as  
16 though 40 percent loss of even this rather poor --  
17 even if you characterize that as a poor study, a  
18 40 percent loss is at least some data indicating  
19 significant eel mortality. I don't want to argue  
20 with you about it. I'll let it go. I'll ask  
21 Commissioner Lapointe, and I guess you also, Pat,  
22 were either one of you -- Mr. Lapointe, you  
23 weren't I know; Mr. Keliher, I'm not sure about  
24 you. Were you involved with the Atlantic Salmon  
25 Commission at the time the '98 agreement was --

1 MR. KELIHER: No, I was not.

2 HEARING OFFICER HILTON: Okay. Dr.  
3 Wippelhauser, I believe you were?

4 MS. WIPPELHAUSER: I was not. I was asked  
5 to do a cost estimate for the three-year study.  
6 That was my total involvement.

7 HEARING OFFICER HILTON: You were with DMR  
8 at the time?

9 MS. WIPPELHAUSER: I was. I was under  
10 contract.

11 HEARING OFFICER HILTON: Oh, okay, and  
12 Steve?

13 MR. TIMPANO: Yes, I was a participant with  
14 the development of the agreements.

15 HEARING OFFICER HILTON: So you were  
16 sitting at the table more or less?

17 MR. TIMPANO: Correct.

18 HEARING OFFICER HILTON: Okay. I guess  
19 I'll pass this on to all of you. Has this  
20 progressed on the course that you expected at the  
21 time? At the time the agreement was originally  
22 negotiated, you each had -- all of you had some  
23 sort of a collective sense about what was going to  
24 happen and how fast it was going to happen. Has  
25 that time line been pretty well adhered to or

1 not?

2 MR. TIMPANO: I guess I would defer to  
3 whatever DMR's and Salmon Commission's  
4 expectations were at that time. Inland Fisheries  
5 and Wildlife participated but had little input as  
6 far as the issues of anadromous or catadromous  
7 restoration. So from my viewpoint, I think as far  
8 as I can see, yes, it has progressed, but I'll  
9 defer to them for the specifics or particulars.

10 MR. LAPOINTE: I'll let Gail answer. I  
11 mean, I think that the biggest concern of all the  
12 partners with the KHDG is the slowness with the  
13 resolution on Fort Halifax but that's before the  
14 courts and that's something we can't do anything  
15 about, and then I think that, you know, the  
16 progress might be a little bit slower than we had  
17 expected but my overall sense is that the  
18 agreement and the spirit of the agreement has  
19 allowed us to progress very significantly in terms  
20 of fish passage. When you asked the question  
21 about the status review and the coast wide numbers  
22 on dam mortality, when I meet with my colleagues  
23 at the Atlantic States Marine Fisheries  
24 Commission, they say Maine is way ahead of other  
25 states in terms of what we're doing for eel

1 conservation and I take a lot of comfort in that.  
2 So I think that looking back at an agreement that  
3 was written in 1998 before I got started and  
4 having inherited it, I am comfortable with how  
5 we're progressing because we're returning fish  
6 species, we're making progress on fish passage and  
7 that's what the agreement was all about.

8 HEARING OFFICER HILTON: Well, you  
9 understand that the reason why the petitioners are  
10 before us is because they're frustrated, and I  
11 don't know if any of you were here last night when  
12 Nick Bennett was here. I think you all know who  
13 Nick Bennett is with the NRCM. He represented the  
14 Kennebec Coalition last night, and he expressed a  
15 great deal of frustration at how slow things are  
16 progressing, and so I'm kind of curious as to what  
17 your reaction is to the level of frustration, the  
18 frustration by the petitioners and also the  
19 Kennebec Coalition's frustration.

20 MR. KELIHER: I was here to hear Mr.  
21 Bennett's remarks last night. He tried to  
22 summarize a little bit, but he categorized the  
23 agreement as a legally-binding document, one that  
24 was not perfect and one that was a compromise  
25 between all parties. I think whenever you enter

1       into such agreements there will be rough spots in  
2       the road, if you will. Nick did talk about I  
3       believe it was with Benton Falls a rough spot  
4       where DEP had to interject dealing with some  
5       compliance and that was done. Overall, I mean, I  
6       thought Nick's points were spot on. It's not  
7       perfect but we are moving forward in what I think  
8       is a very successful restoration project, and as  
9       Nick did last night, I'll remind the Board the big  
10      prize was the Edwards dam removal. We would not  
11      be here if it was not for the removal of the  
12      Edwards dam.

13               HEARING OFFICER HILTON: To what degree is  
14      the -- you two fellows in particular -- actually  
15      all three of you, are part of the political  
16      establishment, if you will. To what degree are  
17      your feelings as you expressed them here today and  
18      the expression of the agencies' exertions tempered  
19      by your strongest desire that the agreement be  
20      held together as opposed to just a recognition  
21      that things take time? How much of this is based  
22      on -- premised on the fact that we can't push too  
23      hard because we want to keep this agreement  
24      together and how much of it is just, well, this is  
25      just the way things go?

1           MR. KELIHER: Well, the loss of this  
2 agreement -- I'm trying to see if I can figure out  
3 a good way to -- the ability for the state  
4 agencies to sit down proactively with other  
5 hydropower owners to engage them in detailed  
6 settlement discussions is very important to our  
7 ability to successfully carry out our mission as  
8 defined by the Legislature. So I do hold the  
9 importance of this agreement and to ensure that it  
10 is not impacted at a very high level.

11           HEARING OFFICER HILTON: Okay. I'm going  
12 to take you to your Exhibit 3 which is the eel  
13 count thing, and looking at the first column which  
14 is the dates, the dates of the Fort Halifax,  
15 Hydro-Kennebec, and I note that at Fort Halifax  
16 there is interim upstream eel passage, these are  
17 all upstream passages, upstream eel passage in  
18 1999, and then as you go down the list and up the  
19 river, you go 1999, 2001, 2003, 2004. My  
20 understanding is that upstream eel passage only  
21 costs \$10,000 per dam. That's pretty minor,  
22 almost pocket change in some respects, and, yet,  
23 there was five years before this upstream eel  
24 passage at Weston dam. Now, how much energy and  
25 effort does that reflect on the part of the

1 agencies towards getting something happening  
2 here?

3 MS. WIPPELHAUSER: It represents a great  
4 deal of agency. The reason there was passage at  
5 Fort Halifax in 1999 was because DMR actually  
6 built the passage. The first year we went out  
7 sampling -- sorry, we built it in, yeah, 2000.  
8 The first year we went out sampling there were so  
9 many eels there you couldn't walk on the ledges.  
10 We were literally dipping eels, putting them in a  
11 bucket and hauling them up over the dam. That was  
12 the only thing we were able to do the first year.  
13 We weren't able to do our studies at the other  
14 sites. At one of the sites we were -- that had  
15 not been licensed yet, the company asked us to  
16 sign a release, a waiver, an insurance waiver,  
17 which the AG's office told us not to do. So we  
18 couldn't do studies there for a couple of years.  
19 Weston dam we were trying to do studies there.  
20 It's a very difficult site to get to. We did some  
21 studies one year, they did some resurfacing on  
22 their spillway, it changes the flow  
23 characteristics, we had to do our studies again to  
24 see if, in fact, that had changed where eels were  
25 congregating. Just the upstream passage took us

1 all that time, and we put in a lot of work every  
2 single year.

3 HEARING OFFICER HILTON: I'm not familiar  
4 enough with the wording of the agreement to right  
5 offhand be able to pose this, but wasn't -- wasn't  
6 the upstream eel passage requirement incumbent  
7 from day one for each of the dams?

8 MS. WIPPELHAUSER: It was incumbent on the  
9 three-year study. We were supposed to do a  
10 three-year study to determine where to put eel  
11 passage in. Where to place them, sorry.

12 HEARING OFFICER HILTON: I see. Gail,  
13 looking at this study that FPL has in mind, you  
14 spoke about the 30 to 50 eel on the Shawmut dam  
15 and Lockwood. You've expressed a certain amount  
16 of concern or reluctance to use population wide  
17 data, you know, the data that was used by the U.S.  
18 Fish and Wildlife Service in the 12-month finding,  
19 and, yet, when -- when the 30 to 50 eel study  
20 takes place at each of those two dams, there's  
21 going to be certain very particular operating  
22 characteristics, river characteristics and dam  
23 property characteristics, certain gates are going  
24 to be open just so much and not more and you're  
25 going to take measurements of all of these, how

1 much these deep gates are open, how much the other  
2 gates are open or closed or whatever and how fast  
3 the turbines are going and how much river flow  
4 there is or CFS, and, yet, you say that you have  
5 to study this because you need to know how it  
6 works specifically because you need to have  
7 specific data, specific studies, and, yet, those  
8 particular operating characteristics will probably  
9 never occur again. The water flow will never be  
10 the same, the sheen on the concrete, you know, at  
11 any particular point in time because you just  
12 talked about the resurfacing they did at the  
13 Weston dam. So aren't these studies really -- do  
14 these studies really have that much specific value  
15 as opposed to just trying to rely on and use  
16 larger population wide or regional wide data?

17 MS. WIPPELHAUSER: The telemetry studies  
18 will be able to tell us where eels are moving in  
19 the head pond. So we'll know if they're over on  
20 one side or this side or if they're congregating  
21 in specific places. If I look at a study that  
22 tells me there's 25 percent mortality at a dam  
23 that has a similar configuration of turbines, I  
24 don't know anything. I don't know any specifics  
25 about the site.

1           MR. LAPOINTE: I think another important  
2           consideration in terms of your question, Mr.  
3           Chairman, is when a study is done at one of the  
4           dams under the configurations that you talk about  
5           and the configurations -- the conditions will  
6           change, an important part of certainly our  
7           agency's and I think the other agencies' and the  
8           other partners' commitment is to do adaptive  
9           management so that, in fact, they try something  
10          and if it looks like it's working in one area and  
11          not another, they'll tinker with it. When we had  
12          the issue of the eel kill at Benton Falls in 2004,  
13          as I recall, there was a bucket load of things, a  
14          number of things, that were tried before they kind  
15          of settled in on where they are now. They tried  
16          something, they saw if it worked. If it didn't  
17          work, they tried something else, and I think  
18          that's an inherent part and a good part of the  
19          KHDG Agreement is that it allows that to occur  
20          because we can't expect the conditions to stay  
21          static.

22                 HEARING OFFICER HILTON: You mentioned  
23                 earlier this iterative process which seems to be  
24                 built into the KHDG Agreement.

25                 MR. LAPOINTE: Yup.

1 HEARING OFFICER HILTON: How many  
2 iterations do you go?

3 MR. LAPOINTE: There's a consultation every  
4 year, and Gail should probably speak to this more,  
5 that when staff is working with the companies or a  
6 dam operator whether it be on the study design or  
7 the design of a facility, it's not just one  
8 consultation a year. They get together and they  
9 work through it, but I'll let her speak more about  
10 that.

11 MS. WIPPELHAUSER: Yes, we usually meet at  
12 least once a year on these studies that are done.  
13 We may meet a couple of times as the studies are  
14 being conducted. It's an iterative process. For  
15 instance, Hydro-Kennebec is using the boom. We  
16 have no idea if that's going to be effective for  
17 eels. If it appears to be effective there, then  
18 we may consider recommending that at other places,  
19 but at this point we don't know if it's going to  
20 work.

21 HEARING OFFICER HILTON: Dick Gould.

22 MR. GOULD: I'd like to follow up a little  
23 on the uniqueness of this agreement, the '98  
24 agreement. All hydroelectric dams are licensed by  
25 FERC, is that correct, in this state or am I --

1 MS. WIPPELHAUSER: Yes.

2 MR. GOULD: Okay. In those other dams that  
3 are FERC licensed, are you able as a state agency  
4 to sit down and change the licensing format with  
5 FERC, or is it a uniqueness that is only with this  
6 '98 agreement with these dams?

7 MS. WIPPELHAUSER: When a project comes up  
8 for relicensing, there is a -- and this process  
9 has actually changed recently -- there's a  
10 consultation process that goes on. It used to be  
11 first with the agencies and then the hydropower  
12 company and then they would submit an application  
13 and then we would go through that process again  
14 with FERC. Now they're trying to move to  
15 something where they get everybody together at the  
16 same time. So we have that consultation process  
17 during which we identify what species we have  
18 concerns about. If we want upstream and  
19 downstream passage for eels or salmon or other  
20 species, we request studies, we request that they  
21 conduct certain studies and then usually what  
22 happens is the hydropower company will say, well,  
23 here's what we want to do, we want to put in a  
24 Deneil fishway and they may send us a drawing and  
25 we comment on that, and there's a lot of back and

1       forth exchange, and then eventually, if you're  
2       lucky, FERC accepts all of that and it goes into  
3       the license.

4               MR. GOULD:  May I follow-up, Mr. Chair?  I  
5       guess I didn't explain myself too well.  Once the  
6       license is done and all the consultation is done,  
7       do you have any opportunity -- let's say it's a  
8       license for 40 years or whatever it may be, do you  
9       have any opportunity to now change the criteria of  
10      that license?

11              MS. WIPPELHAUSER:  I believe the state  
12      agencies and the federal agencies have the ability  
13      to do that if there is a reopener in there.  I'm  
14      not very familiar with that process.

15              MR. GOULD:  What I'm trying to get at is  
16      what is the uniqueness of this '98 agreement that  
17      would give you special powers that you wouldn't  
18      have in any other FERC license?

19              HEARING OFFICER HILTON:  I think that's  
20      probably a question that's a little bit broader  
21      than the panel here can answer.  I don't know,  
22      unless you feel you can answer it.

23              MR. LAPOINTE:  I think one of the things  
24      the agreement gave us and what makes it unique is  
25      not in what it allows us to do at FERC, but it

1 deals with the river -- the dams in question, a  
2 number of dams on the river as a package. In the  
3 past there was -- you would deal with a FERC  
4 licensing issue at one dam and then deal with a  
5 separate licensing issue on another dam and then a  
6 separate licensing issue on another, et cetera, et  
7 cetera, et cetera, and so the packaging having a  
8 comprehensive settlement agreement that dealt  
9 with, again, the river unit, the river segments  
10 for which the agreement holds -- is in effect,  
11 that's the uniqueness, that it ties them together  
12 and doesn't treat them separately. We may have  
13 gone slower on the agreement than some of the  
14 written terms in there. We talked about that. We  
15 would be going way slower if we didn't have the  
16 agreement, and we've used this as a template, you  
17 know, we have this thing called the Penobscot  
18 River Restoration Agreement and that was to try to  
19 do the same thing, to deal with a number of dams  
20 at once. We dealt with one recently on the Saco  
21 as well because I think you'll find that folks  
22 believe that's a much better way of moving forward  
23 for the goal we all share of restoring fish to  
24 their native habitat than doing piece by piece.  
25 So I think that's where the uniqueness is.

1 HEARING OFFICER HILTON: That's what Mr.  
2 Bennett said last night. Anything else, Mr.  
3 Gould?

4 MR. GOULD: No, that's fine.

5 HEARING OFFICER HILTON: Dana?

6 MR. MURCH: Just a couple of quick  
7 questions. One for Gail on eel mortality to try  
8 to bring some clarity to some of the questions the  
9 Board members asked. Assume I'm at Weston and  
10 assume I do a study and I put tagged eels in front  
11 of the turbines and I'll find out that I've got X  
12 mortality of eels going through those turbines,  
13 whatever that number is, but then I go do another  
14 study tagging eels and figuring out where they go  
15 when they reach this dam which is, in fact, the  
16 study that I understand that FPL is proposing to  
17 do and I figure out that all of the eels are going  
18 to places A, B and C and I've got gates or  
19 whatever that I can open there and I pass all the  
20 eels downstream through those openings so that no  
21 eels go through the turbines. As a result, it  
22 doesn't matter -- am I correct that it doesn't  
23 matter what the turbine mortality is if all the  
24 eels safely pass someplace else?

25 MS. WIPPELHAUSER: That's true.

1           MR. MURCH: Okay. So I think that's part  
2 of the confusion for Board members. When we talk  
3 about mortality in some of these studies that you  
4 were reading from Fish and Wildlife Service,  
5 they're talking about turbine mortality and, yes,  
6 eels going through -- not all eels going through  
7 turbines or any other fish is going to  
8 successfully pass. What you try to do is get them  
9 to not go through, at least get a lot of them to  
10 not go through. So I thought that just might be a  
11 clarification, and just one other point, Friends  
12 of Merrymeeting Bay has asked the Board to modify  
13 the certifications for these four dams to require  
14 immediate safe and effective upstream and  
15 downstream fish passage. Friends of Merrymeeting  
16 Bay has defined safe as meaning all fish migrating  
17 upstream can pass the dam and no fish migrating  
18 downstream are killed or injured by the dam, and  
19 fish includes eels. Are any of you aware of any  
20 upstream fish passage facilities that could meet  
21 that standard? If you could verbalize.

22           MS. WIPPELHAUSER: No.

23           MR. MURCH: Are any of you aware of any  
24 downstream fish passage facilities that will meet  
25 that standard?

1 MS. WIPPELHAUSER: No.

2 MR. MURCH: If the Board adopts this  
3 standard and I come to you and say how do we meet  
4 this standard, what do you tell me?

5 MR. LAPOINTE: The Edwards dam meets that  
6 standard. The only way you can achieve a hundred  
7 percent efficiency is, from my understanding, not  
8 to have the facility there.

9 MR. MURCH: Thank you.

10 HEARING OFFICER HILTON: Nancy Ziegler.

11 MS. ZIEGLER: The two years of studies --  
12 as I understand it, two years of telemetry studies  
13 are going to be done at -- the first year is going  
14 to be Shawmut and Lockwood and the second year  
15 they're going to add Weston, this is FPLE, am I  
16 right about that? Is that correct?

17 MS. WIPPELHAUSER: Yes.

18 MS. ZIEGLER: I'm trying to understand why  
19 two years at Shawmut and Lockwood if in the first  
20 year -- and you do a controlled study where you  
21 are able to catch 30 to 50 eel at each site, tag  
22 them and release them and watch what happens to  
23 them, why not at that point require -- okay, you  
24 see the patterns, behaviors of the fish, you see  
25 the flows, you see the results, why not require

1 some form of -- I mean, I understand you're going  
2 to be saying, well, some form of additional  
3 passage devices at those sites -- I mean, I  
4 understand there's a deep gate at Lockwood. I  
5 suspect you think that they're going to need to do  
6 more. That's my suspicion, but why two years if  
7 after the first year it shows that a number of  
8 those fish go through the turbines and you see the  
9 patterns?

10 MS. WIPPELHAUSER: I think maybe you have  
11 -- you're misunderstanding the study. The first  
12 year they would do a study at Lockwood and Shawmut  
13 and then the next year they would just do Weston.

14 MS. ZIEGLER: That's fine.

15 MS. WIPPELHAUSER: We simply -- they simply  
16 couldn't do all three sites at the same time.

17 MS. ZIEGLER: After that first year of  
18 doing the study at Lockwood and Weston, are they  
19 going to put in interim fish downstream passage  
20 for eel?

21 MS. WIPPELHAUSER: They may. We may be  
22 able to recommend something at that point. Based  
23 on the results of the study, based on the results  
24 we see at Hydro-Kennebec, there may be something  
25 that we learn in that year that we can recommend.

1 MS. ZIEGLER: Would they be required to at  
2 that point or would they be allowed to wait until  
3 2009 or 2010 as it is?

4 MS. WIPPELHAUSER: Oh, no, we would  
5 probably consult with them and make  
6 recommendations as to what they should do.

7 MS. ZIEGLER: Okay. I guess I would have  
8 to ask Dana Murch.

9 MR. MURCH: Let me just add, I don't want  
10 to rehabilitate Gail here, but I think what she's  
11 suggesting is the results of the study may be  
12 inconclusive so she's hedging her bets here.  
13 Could you respond to that?

14 MS. WIPPELHAUSER: I wasn't trying to hedge  
15 my bets. I mean, they may very well be  
16 inconclusive, but if we learn something after that  
17 first year of study, then we would make  
18 recommendations as to what they should do.

19 MS. ZIEGLER: Yeah, and I guess my question  
20 then is more to Dana Murch which maybe he can  
21 answer later, you know, whether or not if you make  
22 a recommendation, will they provide interim fish  
23 passage.

24 HEARING OFFICER HILTON: We kind of need to  
25 move on here. Cindy, one question.

1 MS. BERTOCCI: The KHDG Agreement reflects  
2 a number of fisheries management decisions that  
3 you have made for a variety of species that are in  
4 a variety of situations with respect to the status  
5 of the populations. Can you just say for the  
6 Board or express for the Board the types of issues  
7 that you have to balance when you enter into one  
8 of these agreements?

9 MS. WIPPELHAUSER: Well one thing is  
10 there's three agencies that are managing different  
11 species and they all have different requirements.  
12 So, for instance, salmon have to get much further  
13 up river and probably historically went much  
14 further up river than any of the other anadromous  
15 species. Eels have to go -- eels may go far up  
16 river. Short-nosed sturgeon don't go above  
17 Lockwood. So there's different requirements for  
18 all these species, and we have to take that into  
19 account when we're doing the passage requirements  
20 and the timing. I don't know if that's what you  
21 were looking for.

22 MS. BERTOCCI: I guess what I'm trying to  
23 get at is the priorities -- I'm assuming there's  
24 some sort of balancing that must occur. Is it  
25 more important to try to look at an agreement for

1 the Atlantic salmon given the status of that  
2 population or what you know or what you have for  
3 information about various populations because when  
4 you enter into an agreement, you're obviously  
5 negotiating with certain sets of information and  
6 certain priorities, and I was wondering if you  
7 could somehow describe that for the KHDG Agreement  
8 or am I not making any sense?

9 MR. LAPOINTE: I think you're correct in  
10 that some species are of higher priority because  
11 of their status or concerns about the population  
12 or their legal status in some cases in the context  
13 of something like the short-nosed sturgeon. For  
14 many of those species, there are regional or  
15 interstate fisheries management plans and so you  
16 want the agreement to be consistent with the goals  
17 of those plans. If you have something like  
18 alewife that you know the numbers have been  
19 rebounding on, obviously that's an easier thing to  
20 work with than something a species for which the  
21 population isn't rebounding or we have concerns  
22 about and you have less flexibility. So those  
23 kinds of things come into play but I think in the  
24 end the agreements and the work on the agreements  
25 includes all those species because we recognize

1 they are all important from an ecosystem  
2 perspective.

3 HEARING OFFICER HILTON: We need to move on  
4 to any sort of a final opportunity for the various  
5 parties to follow up on whatever has been said  
6 this morning. So by my chronometer, we've got 12  
7 minutes left before noon and Nancy and Nancy and  
8 Elizabeth, you need to leave at noon. Okay, so to  
9 the petitioners, I will give you four minutes.

10 MR. WATTS: Could I ask just one question?

11 HEARING OFFICER HILTON: Excuse me?

12 MR. WATTS: Could I ask one question?

13 HEARING OFFICER HILTON: You've got four  
14 minutes.

15 MR. WATTS: Four minutes, well, I'm not  
16 going to take that much. Gail, this is for you.  
17 Bob Richter's testimony mentions that FPL found 38  
18 mortalities at Shawmut this year, and in 2005, I'm  
19 looking at his testimony, Bob Richter or FPLE, at  
20 page 14, in 2005 27 eel mortalities were observed  
21 at the Shawmut Project, in 2006 38 eel mortalities  
22 were observed below the Shawmut Project. What  
23 number of dead eels is significant when you're  
24 looking at a place below Shawmut?

25 MS. WIPPELHAUSER: At Benton Falls we've

1 said when the count gets up to 50 in a year, we  
2 start talking to them.

3 MR. WATTS: So we're at 38 at Shawmut. You  
4 said there was no evidence of significant eel  
5 mortalities on the Kennebec River and this past  
6 year Bob Richter found 38 below Shawmut.

7 MS. WIPPELHAUSER: I didn't see that  
8 information until he provided it.

9 MR. WATTS: Does that change your  
10 characterization then?

11 MS. WIPPELHAUSER: I would say then that  
12 Shawmut is one of the places that we should -- if  
13 we're looking at the Kennebec River, then Shawmut  
14 is probably the project that we should concentrate  
15 on first.

16 MR. WATTS: Would the data from 38 this  
17 fall -- past fall, 27 the fall before, 2005, at  
18 Shawmut, does that data that FPLE collected, does  
19 that change your statement that there is no  
20 evidence of significant eel mortality on the  
21 Kennebec River?

22 MR. WATTS: I would have to say that it's  
23 not significant.

24 MR. WATTS: What number would be  
25 significant?

1 MS. WIPPELHAUSER: I told you --

2 MR. WATTS: 50?

3 MS. WIPPELHAUSER: -- at Benton Falls when  
4 we saw 50 eels in a season or in a night, we went  
5 to them and started talking to that. They called  
6 us up last year when they saw something like 27 on  
7 one occasion. So that's when we're starting to  
8 get -- talk to them, see if they could change  
9 their flow characteristics or their generation.

10 MR. WATTS: So if there were 12 eels that  
11 Bob Richter just couldn't find, that would add up  
12 to 50 from 2006?

13 MS. WIPPELHAUSER: That's true.

14 MR. WATTS: So in other words, if Bob just  
15 couldn't get out there one day or because it was a  
16 stormy day and he found 38 rather than 50, in your  
17 opinion that changes it from significant mortality  
18 to no evidence of significant mortality?

19 MS. WIPPELHAUSER: Doug, if we're using a  
20 number, that's what we've been using.

21 MR. WATTS: It's 50.

22 MS. WIPPELHAUSER: So that's what we're  
23 using.

24 MR. WATTS: So 50 is the Department's  
25 trigger point for no evidence of significant

1 mortality or evidence of significant mortality?

2 MS. WIPPELHAUSER: That's sort of what  
3 we've been using, yes.

4 MR. WATTS: Thank you.

5 MR. LAPOINTE: That's what we've been using  
6 at the Benton Falls dam. One of the difficulties,  
7 yes, we can use that number for a discussion and I  
8 think Gail's comment that, you know, it suggests  
9 we should look at Shawmut is true, but -- so  
10 that's a useful surrogate at this point.

11 HEARING OFFICER HILTON: Jeff or Sarah?

12 MS. VERVILLE: We have no further  
13 questions.

14 MR. THALER: I do.

15 HEARING OFFICER HILTON: Mr. Thaler.

16 MR. THALER: Quickly to George or Gail, in  
17 light of the questions from Board Member Ziegler  
18 and talking about significant mortality, if the  
19 sustainability of the fishery population is the  
20 goal, the ultimate goal that was being discussed,  
21 and given that fishing is a designated use on the  
22 rivers as is hydropower, if the Department wanted  
23 to as quickly as possible reduce mortality if it  
24 felt that the viability of the eel population, for  
25 example, or any other species was being impacted,

1 would restricting the number of fish or eels that  
2 could be taken in a day or a week or a season by  
3 recreational or commercial fisherman be quicker  
4 and impact more of the population than some of the  
5 measures talked about for the hydro facilities?

6 MR. LAPOINTE: I think it might be quicker  
7 but to say that it would impact a greater  
8 proportion of the population isn't a statement I'd  
9 be willing to make. I think that when we work on  
10 the eel population, the Atlantic States Commission  
11 plan and this state's efforts importantly include  
12 both habitat and the fisheries because they are  
13 both important to work on. We can't say it's all  
14 one or the other. It's a combination of the two,  
15 but I'll go back to the commission plan and our  
16 state efforts and I think we're doing that. We've  
17 reduced the number of elver fishermen very  
18 significantly, and I think the landings would  
19 reflect that. We've talked about how old age has  
20 gotten rid of a lot of the weir fishermen in  
21 inland waters. I think there certainly has been a  
22 restriction put on in Maine and elsewhere on the  
23 number of eels that somebody can use for bait  
24 fishing because that was a significant source of  
25 mortality. So we're working on the fish side, and

1 do we have additional things to do? Yes. I mean,  
2 I mentioned the bilateral talks with Canada so  
3 that, in fact, we could -- because this is one big  
4 bathtub in terms of eel, we want to deal with them  
5 as well, and then on the habitat side, we know  
6 that we have additional work to do and that's why  
7 we continue to work on things like this agreement  
8 and other river agreements because we realize  
9 that's significant as well.

10 MR. THALER: So just to clarify, though,  
11 from the DMR's perspective, the 50 eel figure  
12 right now under the Maine law and regulations an  
13 individual -- any individual in this room could  
14 take 50 -- up to 50 eels a day and that would  
15 still be lawful, correct?

16 MS. WIPPELHAUSER: Yes, that's correct.

17 MR. THALER: Just two more questions, Mr.  
18 Chairman. I think, Gail, you were responding to a  
19 question maybe of Board Member Ehrenfeld and I  
20 want to make sure there's no confusion in the  
21 record. The radiotelemetry studies that FPL will  
22 be doing at the different facilities over the next  
23 year or two will not just be eels but will there  
24 also be anadromous fish studied as well?

25 MS. WIPPELHAUSER: Yes, that's correct.

1           MR. THALER: All right, and the last  
2 question was that there was mention at the end of  
3 the day yesterday I think by Mr. Stetson about a  
4 written U.S. Fish and Wildlife policy that talked  
5 about 95 percent efficiency and there was a  
6 request made to see if that could be provided.  
7 Are any of the agencies at the table aware of such  
8 a written policy?

9           MR. KELIHER: Speaking for the Salmon  
10 Commission, we are not aware of any written policy  
11 that gives that guidance at all.

12           MS. WIPPELHAUSER: We're not aware of any  
13 written policy on passage efficiency requirements  
14 either. In some of our comments on FERC  
15 relicensings, we have requested or recommended  
16 that we're looking for a goal of 95 percent  
17 efficiency and sometimes that gets put in the  
18 license but not always.

19           MR. THALER: Nothing further.

20           MR. FRIEDMAN: Chairman Hilton, may I ask a  
21 question, please?

22           HEARING OFFICER HILTON: We have to go to  
23 SOS at this point. Sorry, Ed. Jeff or Jane?

24           MR. FRIEDMAN: Can I ask while I'm walking  
25 over?

1           MR. VANDEN HEUVEL: Do you think it is best  
2 practice to allow eel or adult salmon to pass  
3 through small high-speed turbines?

4           MS. WIPPELHAUSER: No.

5           MR. VANDEN HEUVEL: I have further  
6 questions, but we'll leave it at no. Are we  
7 putting eel passage at all the dams in the state  
8 and if you had the money, could you do it in three  
9 years?

10          MS. WIPPELHAUSER: Whenever a hydropower  
11 project comes up for relicensing, if it's in an  
12 historic habitat route, we require --

13          MR. VANDEN HEUVEL: Wrong, wrong, wrong.  
14 All dams in the state, not hydropower dams, all  
15 dams.

16          MS. WIPPELHAUSER: Oh, sorry. Because  
17 there are so many dams in the state, we're not  
18 putting upstream passage in at this point.

19          MR. VANDEN HEUVEL: Is it in your future  
20 plans, and if I gave you money, could you get it  
21 done in three years?

22          MS. WIPPELHAUSER: No, I couldn't get it  
23 done in three years.

24          MR. VANDEL HEUVEL: With the right  
25 resources?

1           MS. WIPPELHAUSER: I would talk to you if  
2 you had the money, though, and also, not all of  
3 the dams are on historical habitat. So we'd have  
4 to -- there are some of them that would be so far  
5 up in the drainages that eels probably  
6 historically never went there so we would not put  
7 passage in.

8           MR. VANDEN HEUVEL: Isn't a \$10,000 eel  
9 passage in the wrong position better than no eel  
10 passage at all?

11          MR. WIPPELHAUSER: No.

12          MR. VANDEN HEUVEL: Wouldn't you expect dam  
13 owners to continuously improve upon it if it was  
14 installed?

15          MS. WIPPELHAUSER: Could you repeat your  
16 question?

17          MR. VANDEN HEUVEL: I said isn't an initial  
18 eel passage -- \$10,000 eel passage in the wrong  
19 position, even if it's in the wrong position,  
20 better than no eel passage at all?

21          MS. WIPPELHAUSER: No, it isn't, because if  
22 it's in the wrong position, the eels aren't going  
23 to be going up it. I would rather do a study for  
24 two or three years to figure out where to put it  
25 than to put it in and have it not work.

1           MR. VANDEN HEUVEL:    Do you feel you have  
2   to do a study for every dam --

3           MS. WIPPELHAUSER:    I do.

4           MR. VANDEN HEUVEL:    -- in the state?

5           MS. WIPPELHAUSER:    I do.

6           MR. VANDEN HEUVEL:    That's it for me.

7           HEARING OFFICER HILTON:   Thank you.  I  
8   think we're at the conclusion of the hearing.

9           (Whereupon, the above-named hearing was concluded  
10   at 12:00 p.m.)

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CERTIFICATE

I, Joanne P. Alley, a Notary Public in and for the State of Maine, hereby certify that on the 15th & 16th days of March, 2007, personally appeared before me the within-named witnesses who were sworn to testify to the truth, the whole truth, and nothing but the truth in the aforementioned cause of action and that the foregoing is a true and accurate record as taken by me by means of computer-aided machine shorthand.

I further certify that I am a disinterested person in the event or outcome of the aforementioned cause of action.

IN WITNESS WHEREOF, I have hereunto set my hand this 2nd day of April, 2007.

\_\_\_\_\_  
Joanne P. Alley  
Court Reporter/Notary Public

My commission expires: July 18, 2008