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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 direct 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 Sebesticook 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 Sebesticook
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 Sebesticook 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