

1 THE BEFORE POLLUTION CONTROL HEARINGS BOARD

2 STATE OF WASHINGTON

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ENVIRONMENTAL  
HEARINGS OFFICE

3 AIRPORT COMMUNITIES COALITION, )  
4 )  
5 Appellants, )  
6 CITIZENSE AGAINST SEA-TAC )  
7 EXPANSION, )  
8 Intervenor/Appellant, )  
9 vs. )  
10 DEPARTMENT OF ECOLOGY and )  
11 the PORT OF SEATTLE, )  
12 Respondents. )

ORIGINAL

PCHB No. 01-160

12 TRANSCRIPT OF PROCEEDINGS

13 DAY SEVEN

14  
15 March 26, 2002  
16 Lacey, Washington

17  
18  
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1 BE IT REMEMBERED that the above-entitled  
2 matter came on for hearing before the Pollution Control  
3 Hearings Board, Day Seven commencing on the 26th day of  
4 March, 2002, and continuing through Day Ten, the 29th  
5 day of March, 2002. The hearing was conducted at the  
6 Environmental Hearings Office, 4224 Sixth Avenue SE,  
7 Rowe Six, Building 2, Lacey, Washington.

8 Sitting as the Washington State Pollution  
9 Control Hearings Board were KALEEN COTTINGHAM,  
10 presiding; ROBERT JENSEN, Board Chair, and BILL LYNCH,  
11 Member.

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25 **AR 056165**

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A P P E A R A N C E S

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**AR 056166**

I N D E X

TESTIMONY

PAGE REFERENCE

**ERIK STOCKDALE**

By Mr. Eglick 7-0006 - 7-0031  
By Mr. Poulin 7-0031 - 7-0033  
By Ms. Marchioro 7-0034 - 7-0050  
By Mr. Pearce 7-0050 - 7-0052  
Board Questions 7-0054 - 7-0064  
By Mr. Eglick 7-0064 - 7-0072

**KELLY WHITING**

By Mr. Young 7-0079 - 7-0105  
By Mr. Reavis 7-0105 - 7-0109  
By Ms. Osborn 7-0111 - 7-0140  
By Mr. Young 7-0140 - 7-0146  
By Mr. Reavis 7-0146 - 7-0150  
Board Questions 7-0150 - 7-0151

**GORDON WHITE**

By Mr. Kray 7-0152 - 7-0169  
By Mr. Stock 7-0169 - 7-0178  
By Mr. Kray 7-0179 - 7-0180  
By Mr. Reavis 7-0180 - 7-0181  
Board Questions 7-0181 - 7-0181

**ELIZABETH LEAVITT**

By Mr. Pearce 7-0182 - 7-0199  
By Mr. Eglick 7-0199 - 7-0200  
Board Questions 7-0201 - 7-0203

**KEITH SMITH**

By Mr. Pearce 7-0203 - 7-0217

**AR 056167**

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E X H I B I T S

<u>NUMBER</u>	<u>DESCRIPTION</u>	<u>IDENTIFIED</u>	<u>ADMITTED</u>
1207	JARPA Application	7-0183	
2062	Letter to Hart Crowser from Jim Kelley	7-0184	
2130	Annual Stormwater Monitoring Report	7-0184	
0262	U.S. Fish & Wildlife Service Biological Opinion	7-0190	
1094	NPDES Permit	7-0206	

**AR 056168**

1 March 26, 2002

2 Day 7

3 <<< >>>

4 MS. COTTINGHAM: We will go on the record.  
5 Mr. Eglick, you were in the middle of  
6 cross-examination.

7 MR. EGLICK: Yes. Thank you.

8  
9 ERIK STOCKDALE, having been previously sworn  
10 upon oath, testified as follows:

11  
12 EXAMINATION

13 BY MR. EGLICK:

14 Q Mr. Stockdale, could you tell me whether you know,  
15 post-project, will there be more or less impervious  
16 surface in the Miller Creek drainage area?

17 A Gross imperviousness or net imperviousness?

18 Q Well, why don't you take a look at -- do you have the  
19 stormwater management plan there, Exhibit 1213?

20 A Yes.

21 Q Could you look at page 4-4, table 4-1. That's page  
22 4-4, table 4-4.

23 MS. COTTINGHAM: You are going to have to  
24 repeat those as soon as we find it.

25 1213, did you say?

**AR 056169**

1 MR. EGLICK: 1213. It's a Port exhibit.  
2 It's the comprehensive stormwater management plan.

3 MS. COTTINGHAM: I think it's one of the  
4 volumes that we don't have, so that's fine.

5 Q Well, take a look, if you would, at table 4-1 at page  
6 4-4 of that exhibit.

7 Do you have it, Mr. Stockdale?

8 A Yes.

9 Q Now, can you tell from the columns here -- do you see  
10 the column that says, increase in impervious area, and  
11 there's a designation for Miller Creek drainage area?

12 Do you see that?

13 A Yes.

14 Q So what does the Port stormwater plan say will be the  
15 increase in impervious area for the Miller Creek  
16 drainage area?

17 I believe that's the number, isn't it, on the  
18 right-hand side there in bold?

19 A 103.7 acres.

20 Q Okay. Now, that is net, isn't it, after all of the  
21 things referred to in your testimony about removing  
22 residences and so on? Isn't that correct?

23 MS. MARCHIORO: Object. Lack of foundation.

24 MS. COTTINGHAM: Sustained.

**AR 056170**

25 MR. EGLICK: Well, his testimony refers to

1 removal of the residences in the Miller Creek drainage  
2 area.

3 MS. MARCHIORO: But Ms. Stockdale's testimony  
4 does not refer to his review or any review of the SMP  
5 with regard to this issue.

6 Q (By Mr. Eglick) Well, Mr. Stockdale, wasn't your  
7 testimony to the effect that there would be a benefit  
8 from removal of residences in the Miller Creek drainage  
9 area?

10 A What I stated yesterday, and I quote in my prefiled  
11 testimony, is that there will be a decrease of  
12 approximately 4.3 acres of imperviousness within the  
13 riparian corridor restoration area. And yes, that does  
14 result in benefits that accrue to the creek.

15 Q But at the same time, isn't it correct that there's  
16 that decrease of, you said, 4.3 acres from removal of  
17 residences?

18 There's a net increase from the project in the  
19 Miller Creek drainage area of impervious surface of  
20 over a hundred acres, isn't there?

21 A That's what this table seems to indicate, yes.

22 Q Could you take a look for a moment -- and I'm hoping  
23 the Board has this one. **AR 056171**

24 Well, actually, let's start with something easier.  
25 Do you have the 401 up there, Exhibit 1? That's the



1 September 401.

2 A Yes, I do.

3 Q Could you look at page 8 of 33.

4 And this is the condition that's been talked about  
5 before under letter "K."

6 A I'm sorry. What page?

7 Q Page 8 of 33.

8 A Yes.

9 Q It's under letter "K."

10 Do you see that condition that has been talked  
11 about before: Other wetlands with predominately  
12 mineral soil shall have groundwater within the upper  
13 ten inches from at least March to mid-April in years of  
14 normal rainfall?

15 A Yes.

16 Q Is there a definition that you know of in the 401 for  
17 what a year of normal rainfall is?

18 A No, I don't believe that there is.

19 Q Now, would you agree that March to mid-April,  
20 especially this year, but I think in general, are  
21 wetter months in this part of the country?

22 A Wetter than?

23 Q Wetter than, for example, July, August and September.

24 A Yes.

**AR 056172**

25 Q Okay. Would you then take a look, if you would, at

1 Exhibit 1214.

2 MS. COTTINGHAM: We don't have that, just so  
3 you know.

4 MR. EGLICK: Really?

5 MS. COTTINGHAM: I guess it's a big one.

6 MS. MARCHIORO: 2014?

7 MR. EGLICK: No, 1214. That's the wetland  
8 delineation report.

9 It's really important that the Board have it. It's  
10 the Port's wetland delineation report.

11 Can we stop the clock?

12 MR. PEARCE: Yellow volumes.

13 MS. COTTINGHAM: It does not happen to be one  
14 that you made copies for us.

15 MR. EGLICK: Can we stop the clock, please?

16 MS. COTTINGHAM: Yes, you may.

17 MR. PEARCE: As we agreed with the ALJ,  
18 volumes 16 through 19 are very voluminous, have some  
19 voluminous reports.

20 The Board has an original copy of all of those, but  
21 I don't think you have three individuals.

22 MS. COTTINGHAM: We will just take notes.

23 MR. EGLICK: Okay. It will take me longer to  
24 get through the same question, because you are not  
25 going to be able to read it so I'll have to go through

1           it that way. It's a little bit of a handicap, but I'll  
2           plow through.

3                   MR. PEARCE: Well, how many copies do we have  
4           around here?

5                   MR. EGLICK: I've got one.

6                   MS. COTTINGHAM: Why don't we stop the clock  
7           for a second.

8                   If we go off the record for a second, would it be  
9           helpful if we took a five-minute break and had you make  
10          a Xerox copy of the page?

11                   MR. EGLICK: Maybe two or three, would that  
12          be okay?

13                   MS. COTTINGHAM: What's the Board's  
14          preference? Do you want to see it?

15                   MR. JENSEN: I'd like to see it in any form.

16                   MS. COTTINGHAM: Why don't we take a  
17          five-minute break and why doesn't somebody go out and  
18          tell them I sent you back there to use the Xerox  
19          machine.

20   (Recess taken.)

21                   MS. COTTINGHAM: Are we ready?

22                   MR. EGLICK: I believe so. And I think right  
23          in front of you are the excerpts that were copied.

24                   Should I go ahead?

25                   MS. COTTINGHAM: Go ahead. It's a reminder,

1           however, that when you use exhibits that the ALJ gave  
2           you permission to just do the one copy, you need to  
3           excerpt.

4                       MR. EGLICK: I'm sorry. I didn't realize  
5           that was the case. I knew it was for the four volumes  
6           of things, but not for this, and I apologize for that.

7 Q           (By Mr. Eglick) Could you look at page 3-23 of Exhibit  
8           1214, which is the wetland delineation report,  
9           Mr. Stockdale.

10                   Do you see there's a discussion of wetland 37?

11 A           Yes.

12 Q           And can you look over on the second page of that  
13           description, which is on page 3-24.

14                   Do you see there's a paragraph, three lines down,  
15           that says, excuse me, 3 paragraphs down there's a line  
16           that says, "During the October 1998 site visit,  
17           saturation within 12 inches of the soil surface and  
18           areas of shallow inundation and flowing water were  
19           observed in these wetlands"?

20 A           Flowing water?

21 Q           Yes.

22 A           Yes.

23 Q           Can you, then, take a look, if you would -- and by the  
24           way, I assume you have the page also 3-40.

25                   Do you see that? That's a description of Miller

1 Creek riparian wetlands.

2 A Yes.

3 Q Then if you look over on 341 at the second full  
4 paragraph, it's under the discussion of hydrology for  
5 those wetlands; do you see that?

6 A At the top of the page?

7 Q Yes.

8 A Yes.

9 Q And you would agree, don't you, that the description  
10 says that there was water saturated to the soil surface  
11 or within 12 inches of the surface during the September  
12 and October 1998 site visits?

13 Don't you see that?

14 A Yes.

15 Q Now, from your understanding of the performance  
16 standard that we just looked at on page 8 of 33 of  
17 Exhibit 1, section K, is there anything in that  
18 performance standard that requires that the conditions  
19 observed, for example, for these two wetland systems,  
20 be maintained during the period in which those  
21 conditions were observed and reported in the wetland  
22 delineation report?

23 A No.

24 Q And you would agree, would you not, that, for example,  
25 September and October are typically drier months than

1 March and April?

2 A Yes.

3 Q Let's go back to your prefiled testimony, and if we  
4 could look again at this table on page 6 of your  
5 prefiled.

6 That is the in-basin mitigation table.

7 A Okay.

8 Q Now, during the break, your counsel was kind enough to  
9 share with me some annotations that you had up at the  
10 witness podium there, and the annotations indicate, if  
11 you look on this line on your table 1 on page 6, do you  
12 see where it says, remove fill at Lora Lake, under the  
13 category of creation/restoration, which gets a  
14 mitigation credit of 1-to-1?

15 Do you see that?

16 A That's correct.

17 Q Now, the annotations that you were using for your  
18 testimony indicate, don't they, that the removal of  
19 fill at Lora Lake used to be categorized as a buffer  
20 enhancement? Isn't that correct?

21 A That's correct.

22 Q And when did you recategorize it into  
23 creation/restoration?

24 A That was changed when the restoration activity at that  
25 site changed from strictly a planting to the removal of

1 fill and the restoration of wetland conditions at that  
2 location.

3 Q Well, I guess the question I asked, though, is when did  
4 you change that?

5 A Well, as I indicated yesterday, the change occurred  
6 subsequent to the issuance of 401.

7 Q Maybe we should look at the table in the Natural  
8 Resource Mitigation Plan.

9 MR. EGLICK: That's Exhibit 2014, and that, I  
10 thought, was one the Board did have. It's big, but I'm  
11 hoping you have it.

12 MR. LYNCH: Could you say the page number,  
13 please.

14 MR. EGLICK: The table is on page 3-3 that  
15 I'd like to refer to now for a moment.

16 It's table 3.1-1 on page 3-3 of Exhibit 2014 to  
17 give you all the relevant stats.

18 Q (By Mr. Eglick) Are you there?

19 A Yes.

20 Q Okay. Now, if I look at the bottom right of this  
21 table, that gives a total, doesn't it, for three  
22 different types of wetlands that are impacted by the  
23 project in a direct way?

24 Isn't that right?

25 A That's correct.

**AR 056178**

1 Q So you've got: Forest, 8.17. Shrub, 2.98 - these are  
2 acres - and emergent is 7.22. Is that right?

3 A That's correct.

4 Q Now, looking back at your table 6, excuse me, page 6,  
5 your table 1, you have some calculations there, don't  
6 you, for credits based on mitigation of those  
7 individual impacts?

8 Is that right?

9 A That's correct.

10 Q Now, let's, then, look at the same time, if we could,  
11 at Exhibit 2025, page 16, and that is that exhibit we  
12 were looking at yesterday that's called "How Ecology  
13 Regulates Wetlands."

14 A Okay. I have it.

15 Q And what I'd like to do is do some math here, if we  
16 could.

17 MS. COTTINGHAM: Just so you know,  
18 Mr. Eglick, we don't have it.

19 MR. JENSEN: Yeah, we do.

20 MS. COTTINGHAM: 2026?

21 MR. JENSEN: 2025.

22 MS. COTTINGHAM: Oh, 2025. Sorry. We do  
23 have it.

24 MR. EGLICK: Okay. Should I wait a minute?

25 MS. COTTINGHAM: What pages?

**AR 056179**



1 MR. EGLICK: 2025, page 16. It's the  
2 recommended ratio kind of matrix or box at the top  
3 there.

4 But thank you, because it is no use if we're not  
5 all following, so I really appreciate that.

6 Q (By Mr. Eglick) So if you take 8.17 of forested  
7 wetlands - that's the impact of forested wetlands - and  
8 then you look at the table on page 16 of Exhibit 2025,  
9 and you were going to say what the ratio is that this  
10 exhibit says should be used for mitigating for creation  
11 of forested wetlands. If you are doing creation and  
12 restoration, the ratio is 3-to-1; right?

13 A You have to read what precedes this table in order to  
14 be able to use this table.

15 Q I understand that, but let's just look at the box for a  
16 minute. It says 3-to-1, doesn't it?

17 And I will get to what it says before and after in  
18 a moment, but it says 3-to-1, doesn't it?

19 A That's correct.

20 Q Just so I understand the calculation, if you were  
21 saying, if we were doing creation and restoration to  
22 mitigate for impacts to 8-plus acres of forested  
23 wetlands, then you need 24 acres of mitigation area, is  
24 that correct, per this table?

25 A That's correct.

**AR 056180**

1 Q Now, by the same token, for shrub wetlands, as they are  
2 called, and if you have, let's say, 2.98, which is the  
3 figure shown on page 3-3 of the NRMP, then for creation  
4 and restoration, would you multiply that 2.98 by two;  
5 is that correct?

6 A That's correct.

7 Q And you would get a little bit shy of six acres; is  
8 that right?

9 A That's correct.

10 Q Then if you have emergent, 7.22 acres, per page 3-3 of  
11 the NRMP, and you were doing creation and restoration,  
12 as your mitigation, you would have to multiply the 7.22  
13 by two; is that correct?

14 A That's correct.

15 Q Now, by the same token, if for any of these categories  
16 of impacted wetlands you were doing your mitigation by  
17 enhancement, then, for example, for forested, if you  
18 were going to do enhancement for mitigation for a  
19 forested wetland, you would have to multiply eight by  
20 six and get 48 acres of mitigation area would be  
21 required; isn't that correct?

22 A That's correct.

23 Q Then I would like you -- and I'm sure your counsel will  
24 want you to read portions as well, but I would like you  
25 to read the sentence, the two sentences that follow to

1           yourself, and then I have a question about them.

2           Or, actually, the sentence that follows the table  
3           on page 16 of Exhibit 2025 that says, it starts, good  
4           hydrologic information. Do you see that?

5   A       Yes.

6   Q       On the proposed mitigation site is necessary to  
7           establish a likelihood of success.

8           Now, do you agree with that?

9   A       Yes.

10   Q       Let me ask you a question. We were talking yesterday  
11           about the functional assessment.

12           I'm sorry. I did want to ask you one other  
13           question. Is there a ratio suggested in this "How  
14           Ecology Regulates Wetlands" publication -- this is on  
15           the Web, isn't it, so anyone can look at it?

16   A       It is.

17   Q       Is there a ratio suggested in this publication for the  
18           buffer enhancement?

19   A       No, I don't think there is.

20   Q       I did want to ask you about the functional assessment,  
21           and I'm sorry if I had forgotten to ask that.

22           You haven't performed your own independent  
23           functional assessment, have you, at the wetlands at the  
24           airport site?

25   A       No.

**AR 056182**

1 Q And would you agree that in determining whether or not  
2 mitigation has been successful that it is important to  
3 be able to functionally assess the mitigation areas  
4 using the same assessment method that was used for the  
5 preconstruction functional assessment?

6 A Yes.

7 Q Do you have somewhere in the file, in Ecology's file,  
8 not a narrative description of what was found by the  
9 Parametrix functional assessment, a document that  
10 actually describes, in a replicable way, the functional  
11 assessment method that Parametrix used?

12 A I'm sorry. I lost you.

13 Q And I apologize for that, and I'm mindful the Chair has  
14 said to keep it simple, so I guess I'm backsliding, so  
15 let me try again.

16 You know what replicable means. It means it can be  
17 reproduced. You can recreate it. Right?

18 A Yes.

19 Q And you've said that you looked at Parametrix's  
20 narrative descriptions of what they found on their  
21 functional assessments; is that right?

22 A That's correct.

23 Q But what I'm asking you about is something different.

24 What I'm asking is, can you point us to where there  
25 is, maybe you call it a protocol, something that

1           actually describes in a form that someone else could  
2           follow and recreate, how Parametrix conducted its  
3           functional assessment.

4   A       Separate from what is contained in the function  
5           assessment report?

6   Q       That's right.

7   A       No, there isn't.

8   Q       And in the functional assessment report, can you point  
9           us to a page that gives us a description, if we're a  
10          wetland scientist that just came into the room, of what  
11          exactly was the protocol for functional assessment that  
12          Parametrix used?

13   A       Well, the methods are described in this report.

14   Q       And there are references to a combination of general  
15          methods; is that correct?

16   A       That's correct.

17   Q       Does that description, can you point us to a place  
18          where that reference to a combination of general  
19          methods says what was taken from one and what was taken  
20          from another?

21                 You are looking at Exhibit 2018?

22   A       Yes.

23                 It probably would take me some time to get through  
24          this rather large document.

25   Q       Well, I understand. But most of the documents are

1           appendices.

2           Is there someplace in the section that describes  
3           what was performed that you can point us to?

4   A       What was performed?

5   Q       What was performed in the course of the functional  
6           assessment. Is there a protocol that you can point us  
7           to?

8           I assume this isn't the first time you've seen this  
9           exhibit.

10   A       No, it's not the first time.

11   Q       You are very familiar with it?

12   A       Well, I haven't looked at it with trying to answer your  
13           question, so I'm trying to...

14           Offhand, I can't answer your question. I  
15           imagine -- I would direct you to ask that question of a  
16           person who prepared the report.

17   Q       So for your purposes, being familiar with the document,  
18           you can't point us, right now anyway, to something that  
19           provides a protocol, a road map for how the functional  
20           assessment was performed; is that correct?

21   A       That's correct. Not right now.

22   Q       I just want to ask you a question about RCW 90.74,  
23           which is something that you referred to in your  
24           prefiled testimony.

**AR 056185**

25           And I guess the question I wanted to ask you is,

1           you describe how 90.74 applies here, but I want to ask  
2           you kind of a simple bottom-line question, if I might.

3                     Is isn't it true that if a project doesn't meet  
4           water quality standards, including with regard to  
5           wetlands, it can't be certified regardless of whether  
6           the project's mitigation complies with RCW 90.74?

7                     MR. PEARCE:  Objection.  Vague and calls for  
8           a conclusion.

9                     MS. COTTINGHAM:  Restate your question.

10                    MR. EGLICK:  Okay.  As far as the legal  
11           conclusion goes, he talks about the law in his  
12           testimony, but I will.

13  Q           (By Mr. Eglick) Mr. Stockdale, you are aware that 401  
14           certification under the Federal Clean Water Act depends  
15           on compliance with water quality standards and the  
16           clean water laws; correct?

17  A           That's correct.

18  Q           And my question is, is there anything about 90.74,  
19           which you've testified about extensively in your  
20           prefiled, that allows, in your understanding, the State  
21           to certify under 401, even if water quality standards  
22           are not met?

23  A           No.

24  Q           You also testified, didn't you, about retrofit for the  
25           stormwater water quality concerns and the provision in

1 the 401 for retrofit?

2 Do you recall that testimony?

3 A Yes, I did.

4 Q And this is the same question I think I asked you at  
5 your deposition, because I think you made this same  
6 argument there, but are you aware that in the 401, the  
7 retrofit condition contains a provision that says the  
8 Port cannot go with the retrofit required if it can  
9 show it's not feasible?

10 MR. PEARCE: Objection. Lack of foundation.

11 MR. EGLICK: Well, he testified extensively  
12 about the 401 and retrofit condition.

13 MS. COTTINGHAM: Why don't you lay a  
14 foundation.

15 Q (By Mr. Eglick) Mr. Stockdale, have you reviewed the  
16 401 conditions for retrofit that you are referring to  
17 in your prefiled testimony?

18 MS. MARCHIORO: Can you point to the  
19 condition, please.

20 MR. EGLICK: I'm sorry. I thought he was  
21 familiar with it. Page 26 of Exhibit 1, and it's  
22 subsection (c) on that page, and I apologize for that.  
23 I guess I should have for the Board as well, so thank  
24 you.

**AR 056187**

25 So it's Exhibit 1, page 26, subsection (c).



1 Q (By Mr. Eglick) Now, when I talked with you in your  
2 deposition, I asked you the same question, but are you  
3 aware that the retrofit condition is contingent on the  
4 Port not objecting and say this isn't feasible?

5 A Actually, that's not true.

6 Q Okay. Why don't you take a look at subsection (c), and  
7 can you read to me the second sentence.

8 A "For every 10 percent of new impervious surface added  
9 at the project site, the Port must demonstrate that 20  
10 percent of retrofitting has occurred unless  
11 demonstrated that a 20 percent rate isn't feasible."

12 Q And could you read the last sentence as well, please.

13 A "Where the project schedule in the stormwater  
14 management plan, including table A-3 conflicts with  
15 this condition, the Port and Ecology shall discuss an  
16 appropriate retrofit schedule."

17 Q Okay. Thank you.

18 I think I am done, but I would like to check my  
19 notes here. Juggling all these books, some things may  
20 have gotten lost.

21 Oh, I did want to ask you, you were talking  
22 yesterday about the WFAM method, W-F-A-M, and that's a  
23 functional assessment method?

24 A Right.

25 Q There's a form that goes with that, isn't there?

**AR 056188**

1 A Yes.

2 Q And how many pages is the form?

3 A It's five or six pages.

4 Q And it's a prescribed form that you fill out as you are  
5 doing the functional assessment on a wetland; is that  
6 right?

7 A That's correct.

8 Q Do you know what form Parametrix used for its  
9 functional assessments at the airport site?

10 A No.

11 Q I believe you testified yesterday that the Miller Creek  
12 watershed was depressed by chronic human activity, and  
13 I assume you weren't referring emotionally. You mean  
14 in some ecological sense; is that right?

15 A That's correct.

16 Q Okay. So I guess the question I had for you is, can  
17 you point to someplace in the documents that the Port  
18 prepared where they provided baseline studies of the  
19 pre-project condition of the Miller Creek watershed,  
20 ecologically?

21 MR. PEARCE: I guess I'll object to the  
22 foundation, because I'm not sure what documents he's  
23 referring to or what Mr. Stockdale knew.

24 MR. EGLICK: I would be happy if he referred  
25 to any, but let me ask another question.

**AR 056189**

1 Q Would one indication of a chronic depression due to  
2 human activity be a depressed population of a certain  
3 kind of fish, for example, over what you would expect  
4 to find?

5 A Yes.

6 Q Is there a census, a baseline census giving population  
7 and species of fish for Miller Creek, that you know of?

8 A No, not that I know of.

9 Q Now, at another point you -- and this is actually, I  
10 think, in your prefiled. I'm not sure you mentioned it  
11 today, but I think you did talk about something about a  
12 study that had been done on the sale of fertilizer and  
13 pesticides in King County. Do you recall that?

14 It's, for example, on page 16 of your prefiled,  
15 lines 11 and 12, and you are talking about residential  
16 lawn care typically requires the use of pesticides and  
17 fertilizers on lawns.

18 Do you see that?

19 A Which paragraph are you at?

20 Q It's page 16 of your prefiled, lines 11 and 12,  
21 paragraph 31.

22 A Yes.

23 Q Okay. Now, first of all, I was interested in that word  
24 requires, because -- I guess I shouldn't testify here,  
25 but I don't use that stuff.

**AR 056190**

1           Is there some legal requirement --

2                   MR. PEARCE:  Objection.  Counsel's right, he  
3           shouldn't testify.

4  Q    Is there some legal requirement that those materials be  
5           used?

6  A    No.

7  Q    And I guess more to the point, this study that you drop  
8           a footnote to didn't actually detect pesticides and  
9           fertilizers in Miller Creek attributable to the buyout  
10          area, did it?

11 A    The report, the USGS report, that's available on the  
12          Web, and it's Exhibit 2189, if the Board wishes to look  
13          at it, did look at Miller Creek, Miller and Des Moines  
14          Creek.

15 Q    In general; is that correct?

16 A    In general.

17 Q    And there is no quantification in that study, was  
18          there, that the buyout area we're talking about here  
19          was a net major contributor to any kind of pollution in  
20          Miller Creek, was there?

21 A    No.  They did not specifically identify the buyout area  
22          as being the only source.

23 Q    And, in fact, the substances, to the extent they were  
24          detected, could have come from a wide range of areas;  
25          isn't that correct?

**AR 056191**

1 A Including the Vacca Farm.

2 Q I'll grant you that, but a wide range of areas; is that  
3 correct?

4 A Any areas that are using the substances that are being  
5 tested for, yes.

6 Q And that could include, in fact, areas associated with  
7 the airport, couldn't it?

8 A The correlation in the report looked at the correlation  
9 between the sale, the retail sale of pesticides, not  
10 commercial sales of pesticides, so they were  
11 correlating sales at home improvement stores and so  
12 forth that are not sold commercially, but are sold for  
13 residential application.

14 So that was the purpose of the study. It wasn't  
15 looking for the use of pesticides by people that are  
16 licensed by the Department of Agriculture to apply  
17 those chemicals.

18 Q Are you talking about a study that concerns detection  
19 of trace amounts in some amount of these substances in  
20 Miller Creek?

21 A I don't follow your question.

22 Q Did the study give results saying that there were trace  
23 amounts or some amount of pesticides and fertilizers in  
24 Miller Creek?

**AR 056192**

25 A They correlated the sale of pesticides in the Miller

1 and Des Moines Creek area, and they correlated that to  
2 actual sample results taken in those basins.

3 Q Right. And so my question is, - and I appreciate your  
4 answer, but I'd like you to answer my question - the  
5 samples taken didn't distinguish, did they, between  
6 contribution from whatever source upstream residential  
7 or airport related, did they?

8 MR. PEARCE: I object to the lack of  
9 foundation. There's no foundation that any of the  
10 types of things that we're talking about are used at  
11 the airport.

12 MR. EGLICK: I didn't say they did. I'm  
13 asking him whether any distinction was made in the  
14 study. If you find a pesticide in the stream in some  
15 trace amount, is there anything in the study that says,  
16 if he knows, this is from the airport or this is from  
17 Joe's house upstream.

18 MS. COTTINGHAM: I think you can ask him what  
19 he knows about the study.

20 Q (By Mr. Eglick) Mr. Stockdale, do you know whether the  
21 study made any attempt to identify the source of the  
22 pesticides and fertilizers that may have been found?

23 A I would have to read the study to be able to answer  
24 that yes or no.

25 Q So you don't know?

**AR 056193**

1 A No, not right now.

2 MS. COTTINGHAM: Can I ask a clarification  
3 question?

4 MR. EGLICK: Yes, ma'am.

5 MS. COTTINGHAM: You cross-referenced this  
6 study, and I heard you say it had an exhibit number.

7 THE WITNESS: 2189

8 MS. COTTINGHAM: Thank you.

9 MS. MARCHIORO: It's a different exhibit  
10 number, and I'll find it for you, Mr. Stockdale.

11 THE WITNESS: Did I write down the wrong  
12 number?

13 MS. MARCHIORO: You did. I'll find it.

14 THE WITNESS: I apologize.

15 MR. EGLICK: I don't have any other questions  
16 right now. Thank you.

17 MS. COTTINGHAM: Mr. Poulin, do you have any  
18 questions?

19 MR. POULIN: Yes, I do.

20 MS. MARCHIORO: It is 1289. I-apologize, I  
21 transposed the first two numbers.

22

23 EXAMINATION

24 BY MR. POULIN:

25 Q Hi, Mr. Stockdale. Rick Poulin for CASE.

**AR 056194**

1           You submitted prefiled testimony in this matter,  
2           did you not?

3   A       I did.

4   Q       And you attached six photos of the Vacca Farm as  
5           attachment B to your prefiled testimony?

6   A       Yes, I did.

7   Q       Those photos were taken in 1997 and 1998; isn't that  
8           right?

9   A       That's correct.

10   Q       The photos do not accurately represent current  
11           conditions at Vacca Farm, do they?

12                   MR. PEARCE:  Objection.  Vague.

13                   MS. COTTINGHAM:  I'm going to allow the  
14           question.

15   A       The Vacca Farm hasn't been tilled in the last year, as  
16           far as I know, and so the conditions, if you were to go  
17           out today, I don't believe, would match what we see in  
18           those photos.

19   Q       Now, you were just discussing residual herbicides and  
20           pesticides in creeks downstream of SeaTac; is that  
21           right?

22   A       The Miller and Walker Creek, yes.

23   Q       And you reference the U.S. geological survey study from  
24           1999 in that footnote 39, on page 16 of your testimony  
25           that we were just looking at?

**AR 056195**



1 A Yes.

2 Q That's Exhibit 2189?

3 A I believe so, yes.

4 Q Are you aware that study acknowledges that many  
5 pesticides found in urban streams might be the result  
6 of nonresidential applications?

7 A And what line are you referring to in the exhibit?

8 Q That's the first page, third column in bold print,  
9 towards the lower right corner of the page.

10 A That is what it says.

11 Q Are you familiar with the Stormwater Pollution  
12 Prevention Plan in operation at SeaTac Airport?

13 A No, I'm not.

14 Q So you are not aware that the Port uses fertilizers,  
15 herbicides and pesticides in its landscape management  
16 activities?

17 MR. PEARCE: Asked and answered. Also  
18 counsel is testifying for the witness.

19 MR. POULIN: It's a different question.

20 MS. COTTINGHAM: Why don't you restate your  
21 question.

22 Q (By Mr. Poulin) Are you not aware that the Port of  
23 Seattle uses fertilizers, pesticides and herbicides in  
24 its landscape management activities?

25 A I have no knowledge about that.

**AR 056196**

1 MR. POULIN: Thank you. No further  
2 questions.

3 MS. COTTINGHAM: Any redirect?

4 MS. MARCHIORO: Yes. Thank you  
5

6 EXAMINATION

7 BY MS. MARCHIORO:

8 Q Mr. Stockdale, do you recall yesterday being asked with  
9 respect to bird strike monitoring?

10 A Yes.

11 Q And why did you not require bird strike monitoring  
12 prior to the issuance of the 401 certification?

13 A The reference to the bird strike monitoring was written  
14 at a point in time before we had extensive discussions  
15 with the Port and the FAA and the wildlife hazard  
16 management staff at the U.S. Department of Agriculture  
17 that provide that service at the airport.

18 And during those discussions, I learned a great  
19 deal about what that group does to manage wildlife  
20 hazards at airports, and one of the things that I  
21 learned was that in their monitoring of hazards in and  
22 around airports, they are not as concerned about the  
23 actual use of areas by wildlife that are considered  
24 hazards. They are not just waterfowl. They can  
25 include mammals that can cross the runway and can

1 interfere with aircraft operations, but they look at  
2 the actual use of the airfield and the airspace within  
3 a certain distance of the airport.

4 And so after learning more about what that group  
5 does and how they rate the hazard, the issue that I  
6 wrote in that e-mail, basically, went away. Instead,  
7 the Natural Resource Mitigation Plan contains a chapter  
8 on -- and I will find it. The wildlife hazard  
9 management plan starts on page 4-45 of the Natural  
10 Resource Mitigation Plan, and it discusses the concern  
11 and the application of the FAA's regulations, but then  
12 it also lays out a process by which the Department of  
13 Agriculture can and can't affect the mitigation areas  
14 in their management activities.

15 So there's a step process. On page 4-46, for  
16 example, there is a list of minor vegetation management  
17 activities that can be done without consultation with  
18 Ecology and the Corps of Engineers, and on the  
19 following page, there's a list of potentially  
20 significant management activities that are prohibited  
21 without consultation from the agencies.

22 So once we agreed to the language that's contained  
23 here, as well as the language that is contained in the  
24 wildlife hazard management plan, I was satisfied with  
25 the level of concern that I had previously identified

1 with respect to wildlife hazard management activities  
2 and how they would potentially affect the functions at  
3 the mitigation sites.

4 Q Do you recall the discussion with respect to in-basin  
5 mitigation?

6 A Yes.

7 Q And why did you not require more in-basin mitigation  
8 from the Port?

9 A There was discussion yesterday about whether or not the  
10 wetland -- the in-basin wetland mitigation opportunity  
11 that I had identified was at this wetlands right here.  
12 The area that I had thought that there would be  
13 opportunity was this area, basically the backyards of  
14 these homes on Des Moines Memorial Boulevard.

15 That opportunity, I answered, hasn't been pursued  
16 because it's still available. But the question, as I  
17 answered yesterday, is whether or not additional  
18 mitigation is necessary, and as I had stated in  
19 discussing how we evaluated the adequacy of the Natural  
20 Resource Mitigation Plan, I determined that the  
21 in-basin mitigation package does adequately mitigate  
22 for the impacts from a project, and, therefore,  
23 additional mitigation is not necessary.

24 Q Must there be a component of wetland creation in the  
25 mitigation plan for it to be acceptable by Ecology?

1 A No. Mitigation creation is one of four types of  
2 mitigation that can be done to provide mitigation to  
3 offset impacts to wetlands. And in some cases, it's  
4 clearly ill-advised or would not result in the  
5 replication or it would not provide the functions that  
6 are desirable, so in and of itself, it's not the only  
7 form of mitigation that is required to achieve that  
8 goal.

9 Q Now, I'll have you look at table 1 on page 6 of your  
10 prefiled testimony, please.

11 You were asked a question with respect to the Vacca  
12 Farm restoration and credit given there. Do you recall  
13 those questions?

14 A Yes.

15 Q And why did you provide for a 2-to-1 credit ratio for  
16 the Vacca Farm restoration?

17 A The activities of Vacca Farm are split into restoration  
18 and enhancement, depending on where they take place.

19 The restoration credit was given in the fields at  
20 the Vacca Farm that are tilled and were in active  
21 agricultural use at the time that the application was  
22 made. In those areas, the wetland functions are  
23 significantly depressed, and because the mitigation  
24 activity that is taking place there will result in  
25 raising the level of functions there at such a high

1 degree, that ratio that was given is a better ratio.  
2 It doesn't require as much mitigation in terms of  
3 mitigation credit to offset the impacts as the  
4 enhancement that is proposed in the Vacca Farm in  
5 wetland A, I forget, A-1, I believe it is, the green  
6 area that extends from the southern boundary of Lora  
7 Lake along to the other ditch.

8 So depending on the lift in wetland function that  
9 results in the different areas at that location is what  
10 dictated the ratio that was given for that activity

11 Q And do you recall the questions you received or were  
12 asked with respect to Lora Lake?

13 A Yes.

14 Q And why did you provide credit of 4-to-1 for the three  
15 acres of Lora Lake under the enhancement category?

16 A The 5.7 acres of the Vacca Farm enhancement, at line 14  
17 of my prefiled, includes three acres of the open water  
18 portion of Lora Lake, and the reason that I granted a  
19 credit for that at a ratio of 4-to-1, discounted at a  
20 ratio of 4-to-1, is because the activities that are  
21 proposed around that lake, which include the removal of  
22 the bulkhead and removal of an acre of fill, as well as  
23 the removal of the 12 homes around the lake and the  
24 re-establishment of a buffer around the lake, is going  
25 to result in benefits that accrue to the lake. The

1 benefits don't end at the edge of the lake itself.  
2 Those benefits will particularly benefit the wildlife  
3 species that will start using that site upon  
4 mitigation.

5 Now, it is true that nothing is being done to the  
6 lake, but when the bulkhead is removed and the fill is  
7 removed, the lake will once again become integrally  
8 connected to the wetland that's being restored along  
9 the edge of the lake.

10 I think the best way to describe the logic behind  
11 that would be to consider Lora Lake and fast-forward to  
12 20 years from now after the restoration occurs, so you  
13 are looking at, on this graph, look at the top where  
14 the light green is the restored wetland and the dark  
15 green around it is the buffer and then to the south is  
16 the Vacca Farm restoration and enhancement.

17 And you start with that condition, and then you  
18 consider an application that comes in for a permit for  
19 12 homes to be built along the north and the west shore  
20 of the lake, similar to what you see in the photo to  
21 the right, and for the fill along the shoreline of the  
22 lake, bulkheading of the lake and removal of the buffer  
23 that surrounds the lake, and you would have to conclude  
24 that impacts would accrue to the lake itself in  
25 addition to the direct impacts that result from those

1 activities.

2 And because impacts would accrue to the lake, we  
3 would have to consider those as an impact. Logic would  
4 hold that the restoration that is proposed in that  
5 location, because benefits accrue to the lake, that  
6 some form of credit should be given. And in this case  
7 I granted an enhancement credit at the discounted rate  
8 of 4-to-1.

9 Q Now, you were asked some questions with regard to  
10 Ecology's guidance document, Exhibit 2025, and the  
11 table that's at the top of that page.

12 How are those ratios actually applied?

13 A Well, as the first paragraph below that table on page  
14 16 reads, it reads, "These ratios are general  
15 guidelines that are adjusted up or down based on the  
16 likelihood of success of the proposed mitigation and  
17 the expected length of time it will take to reach  
18 maturity."

19 So these ratios are not what you end up with in a  
20 project. It's what you start with, and you start with  
21 these ratios at step 1 in our mitigation evaluation  
22 process, as I described yesterday. After a delineation  
23 is done, we use these ratios to provide an applicant  
24 with some understanding of what the mitigation ratios  
25 may be that Ecology will require, but we adjust these



1 ratios up or down depending on the impacts that are  
2 going to occur and the quality of the mitigation that  
3 is being proposed by the applicant.

4 So you don't apply these ratios out of the box the  
5 way that they are here. We adjust them individually on  
6 a case-by-case basis, depending on what the proposal is  
7 and what the impacts are.

8 Q Now, you were asked a question with respect to the  
9 removal of fill at Lora Lake and your handwritten note.  
10 Would you explain why you indicated that the removal of  
11 fill adjacent to Lora Lake used to be a buffer  
12 enhancement?

13 A Well, at the time that we certified the project --  
14 yesterday I indicated a couple of changes that had been  
15 made to the NRMP subsequent to issuance of the 401, and  
16 one of the changes was the removal of the fill along  
17 the shoreline of the lake. That's the light green  
18 polygon that is to the north and to the west of Lora  
19 Lake.

20 Previously, that fill was not being proposed for  
21 removal. It was proposed to be planted in a riparian  
22 buffer, but the proposal that we were looking at at the  
23 time did not include the removal of that fill, and so  
24 now that removal is resulting in wetland restoration.

25 It falls under that column.

**AR 056204**

1 Q And you were asked yesterday with respect to the  
2 inclusion of the 2.05 acres of temporary impacts into  
3 the 19.29 acres of impacts under table 1. Do you  
4 recall those questions?

5 A Yes.

6 Q And why was the 2.05 acres of temporary impact not  
7 included in this 19.29 acres of permanent impacts?

8 MR. EGLICK: Objection. Asked and answered.

9 MS. COTTINGHAM: I'm going to overrule it.

10 A Yesterday I stated that we treated that temporary  
11 impact differently because it is a different type of  
12 impact. It is a temporary impact that is lasting  
13 longer than a year. The impacts are -- one of the  
14 stormwater construction phase stormwater ponds, if I  
15 could take a second and show you a photo so you have a  
16 visual. There's another photo.

17 MR. PEARCE: A photo of the airport?

18 MS. COTTINGHAM: Is it attached to your  
19 prefile testimony?

20 THE WITNESS: I believe it is. It's Wetland  
21 37.

22 Q (By Ms. Marchioro) Well, why don't you just describe  
23 it, and we'll try to find it.

24 A In any case, the temporary construction phase pond that  
25 is being located in that area will be removed in a

1 couple of years, and when that pond is removed, that  
2 area is going to be restored. So how you account for  
3 that temporary impact is different than accounting for  
4 permanent impacts.

5 Now, yesterday, we looked at the language in the  
6 401 where I used the term that we were considering it  
7 permanent, and I stated that perhaps that probably was  
8 not the correct term to use, that I should have been  
9 more precise, but in terms of how you account for that,  
10 if you count it -- we're not counting that 2.05 acres  
11 on the restoration side of the equation, nor are we  
12 counting it on the permanent impact side of the  
13 equation, so it really is a wash.

14 We've accounted for it in a way that's consistent  
15 with other projects, and it is accurately accounted  
16 for.

17 Q Now, what is your understanding of the Port's  
18 obligation to retrofit the stormwater facilities at the  
19 airport?

20 A Subsequent to my deposition, I spoke to Ann Kenny and  
21 to Gordon White about this, and while it's true that  
22 the condition in the 401 --

23 MR. EGLICK: Object. Hearsay. No  
24 foundation.

**AR 056206**

25 MS. COTTINGHAM: Do you want to lay a

1 foundation?

2 Q (By Ms. Marchioro) Mr. Stockdale, are you familiar with  
3 the 401 certification?

4 A Yes.

5 Q And did you have a hand in writing conditions in the  
6 401 certification?

7 A Yes.

8 Q Are you familiar with the requirement of the 401  
9 certification to retrofit the stormwater facilities at  
10 the Port's airport facility?

11 A Yes.

12 Q And were you asked questions with respect to that  
13 condition in your deposition?

14 A Yes, I was.

15 Q And were you asked questions today with respect to that  
16 condition?

17 A Yes.

18 Q And did you have statements in your direct testimony  
19 that related to the retrofit condition?

20 A Yes.

21 Q So what is your understanding of the Port's obligation?

22 MR. EGLICK: Object. He certainly did  
23 address it in his direct testimony, and I think the  
24 cross-examination maybe brought out some issues with  
25 regard to that. I think the foundation would be

1           whether he drafted it or, excuse me, and what he meant  
2           when he drafted it or what he understands it to mean as  
3           a drafter familiar with it.

4           If this is a long way around the block to have him  
5           testify as to what Gordon White and Ann Kenny gave him  
6           to understand that it means, Ms. Kenny has been here.  
7           Mr. White is coming, I think, today, and it's not  
8           appropriate to bring it in through this witness,  
9           because then I have to cross-examine him about the  
10          understanding he said he gained after his deposition  
11          from two other people at Ecology. It gets a little  
12          attenuating, so I don't think the foundation has been  
13          laid.

14                 MS. MARCHIORO: Well, there have been  
15          numerous questions of witnesses who didn't write  
16          specific conditions in the 401 as to their  
17          understanding of those particular provisions. I think  
18          it is appropriate for Mr. Stockdale to be able to  
19          address a condition that he has an understanding of  
20          that also related to his testimony with respect to  
21          wetland mitigation.

22                 MS. COTTINGHAM: I'm going to allow his  
23          understanding. Let's avoid bringing in hearsay of  
24          people who are going to or who have already testified.

25                 MS. MARCHIORO: I appreciate that. Thank

1           you.

2   Q       (By Ms. Marchioro) Mr. Stockdale, what is your  
3           understanding of that obligation?

4                       MS. EGLICK: Well, then can I ask that she  
5           lay a foundation as to what his understanding is based  
6           on, because if it is based on, as I suspect it is,  
7           Ms. Kenny and Mr. White, then I'll have the same  
8           hearsay objection.

9                       He didn't have an understanding, as he has  
10          acknowledged, at the time of his deposition, which was  
11          in January and the 401 had been out for many months  
12          since then, so can we at least have the foundation laid  
13          as to whether his understanding is based on some  
14          independent review or a conversation with these two  
15          folks that he's already mentioned?

16                      MS. COTTINGHAM: Can you do that.

17   Q       (By Ms. Marchioro) Mr. Stockdale, did you have  
18           opportunity to read that condition following your  
19           deposition?

20   A       Yes.

21   Q       And did you form a conclusion with respect to that  
22           particular provision independently after reading it,  
23           following your deposition?

24   A       Yeah. I also spoke to Ann Kenny about the condition,  
25           so I can't separate my independent conclusion from what

1 I learned from talking to Ann Kenny.

2 Q Was your conversation with Ms. Kenny in an attempt to  
3 confirm your understanding of the condition?

4 A Yes.

5 MS. COTTINGHAM: I'll allow the testimony.

6 MR. EGLICK: I was going to object to the  
7 question as leading, but we would like the opportunity  
8 to have some additional time to cross-examine  
9 Mr. Stockdale on this, because it really does relate to  
10 something that goes beyond his direct, beyond his  
11 deposition and is really, I think, bringing in new  
12 testimony indirectly.

13 MR. PEARCE: I'll object, Your Honor.

14 Mr. Eglick asked him about the retrofit on direct and  
15 asked him to read portions of that condition into the  
16 record.

17 MS. MARCHIORO: In addition, the pages in his  
18 deposition that relate to the questioning at that point  
19 in time have been designated as pages that they want,  
20 that ACC is asking the Board to read. It's only  
21 appropriate that Mr. Stockdale be able to address that.

22 And we did not receive that information until  
23 midday yesterday, and so in order for me to have an  
24 opportunity to address it with Mr. Stockdale, this is  
25 my chance.

**AR 056210**

1 MR. EGLICK: Well, the depositions have been  
2 designated and we have raised that before yesterday.  
3 He raised the retrofit condition in his direct, so I  
4 asked him questions about it, and I believe in my  
5 questions I referred to the fact that we had talked  
6 about it in his deposition.

7 What I'm objecting to is that what we're having  
8 here is importing in an interpretation from Ann Kenny,  
9 who is gone, and apparently isn't being brought back,  
10 so we're not going to be able to cross-examine her, and  
11 from Gordon White who is coming later, and that's  
12 something I haven't had a chance to examine him on, and  
13 he never said anything about it in his prefiled or in  
14 any other testimony that this is how he formed his  
15 conclusion, and he can't separate them.

16 MS. COTTINGHAM: I will note your objection.  
17 I am not inclined to allow sir cross, I guess would be  
18 the right term of art, so proceed with your  
19 questioning.

20 Q (By Ms. Marchioro) Mr. Stockdale, do you recall the  
21 question?

22 A Can you repeat it.

23 Q I will.

24 What is your understanding of the Port's obligation  
25 to retrofit its stormwater facilities at the airport?



1 A My understanding is that the condition allows for the  
2 rate of retrofit at the airport to be adjusted based on  
3 operational constraints during the construction of the  
4 project, and in no certain terms does this condition  
5 allow the Port to get out of the obligation to retrofit  
6 the entire facility.

7 So it's the rate of the retrofit, not the retrofit  
8 itself that is what is being provided for in this  
9 condition.

10 Q Mr. Stockdale, what percentage of the functional  
11 assessment, wetland functional assessment that you have  
12 reviewed have been performed with a peer-reviewed  
13 functional assessment method?

14 A The function assessment that was done by the Port was  
15 done in a process under review by myself and wetland  
16 technical staff at the Corps of Engineers, and so that  
17 is a form of peer review because we have reviewed it,  
18 and - I will speak for Ecology - we have accepted the  
19 method as valid and accurate, and so I would say that  
20 this report has gone through a level of peer review, so  
21 all of it has gone through a level of peer review to my  
22 satisfaction.

23 Q Does a form have to be filled out when you are doing a  
24 functional assessment to make a functional assessment  
25 method appropriate?

**AR 056212**

1 A The form is a field sheet that is applied in the field  
2 to facilitate the application of any type of a method,  
3 be it a rating system or a functional assessment, but  
4 it's not -- it's a way to collect the data, but it's  
5 not quantitative.

6 MS. MARCHIORO: That's all I have.

7 MS. COTTINGHAM: Mr. Pearce.

8

9 EXAMINATION

10 BY MR. PEARCE:

11 Q Good morning, Mr. Stockdale.

12 You testified about whether wetland, creation of  
13 new wetlands is always required.

14 Could you look at page 14 of Exhibit 2025.

15 A Yes.

16 Q What's the title of this section?

17 A The title is "Compensatory Mitigation."

18 Q And I think the easiest -- is this an Ecology guidance  
19 document?

20 A Yes, it is.

21 Q Do you see the second paragraph under "Compensatory  
22 Mitigation," the sentence starting "thus"?

23 A Yes.

24 Q Could you read that to us, please.

25 A "Thus Ecology emphasizes restoration of former wetlands

**AR 056213**

1 or enhancement of significantly degraded wetlands as  
2 the preferred methods of compensation. With these  
3 methods establishing an adequate water regime is  
4 usually more certain."

5 Q Do you agree with that statement?

6 A I do.

7 Q And you testified about the mitigation ratios, I think.  
8 I'm not sure exactly how to ask this to you, but does  
9 it make a difference when you are applying these or  
10 does the condition of the wetland being impacted make a  
11 difference when you apply these?

12 A Yes.

13 Q So if I could just ask you a brief hypothetical, if a  
14 forested wetland, for example, was very pristine and  
15 very high functioning, would that make a difference in  
16 what ratio you actually applied?

17 MR. EGLICK: Objection as to the form of the  
18 question. Vague and compound.

19 MS. COTTINGHAM: Can you restate your  
20 question.

21 Q (By Mr. Pearce) If a forested wetland was being filled  
22 and you were seeking to apply the mitigation ratios in  
23 that circumstance, would you tend to require a higher  
24 or lower ratio if the wetland was in exceptionally good  
25 condition that you were filling?

**AR 056214**

1 A The condition of that forested wetland does dictate the  
2 ratio that we would apply to it. For a wetland to be  
3 forested, it needs 30 percent coverage by mature trees,  
4 so you can have a forested wetland, as we do in the  
5 backyards of many of these homes, that meet the  
6 definition of a forested wetland that are highly  
7 degraded - they can have lawn, and a lot of these areas  
8 are mowed lawns or were mowed lawn until just  
9 recently - underneath the wetland trees, so that is  
10 definitely one of the application considerations that  
11 we make in the field, and that's how we adjust the  
12 ratios that are in our guidance document.

13 MR. PEARCE: Those are all my questions.  
14 Thank you.

15 MS. COTTINGHAM: Mr. Stockdale, I have a  
16 couple questions for you.

17 Before I ask you, I have a question for the  
18 counsel. On this witness and on the previous several  
19 witnesses, there was reference to a National Academy of  
20 Sciences document, published book. It is not currently  
21 in evidence, I believe, although there was another  
22 wetland book submitted, and it's kind of a stretch for  
23 the Board to take judicial notice of this book.

24 What is the parties' desires or interest in putting  
25 this document forward for our consideration?

**AR 056215**

1 MR. EGLICK: Actually, Ms. Cottingham, I  
2 think it is in in the sense that excerpts have been put  
3 in with the idea, I think, the Board could, as I  
4 understand it, review the whole thing. I think it's  
5 actually on the Web.

6 But exhibit excerpts are 2178. It's not the whole  
7 thing, unfortunately, and I would be happy to buy the  
8 Board a couple copies of the whole thing if it would  
9 like, since a part of it is -- I think what happened is  
10 a part of it got copied, but not the whole thing.

11 MS. MARCHIORO: I think consistent with the  
12 ALJ's ruling, we excerpted to keep the Board's record a  
13 little bit manageable.

14 MS. COTTINGHAM: That's fine. So some of  
15 that document is already before us?

16 MS. MARCHIORO: I believe the portions of the  
17 document that were referred to in our testimony on  
18 behalf of Ecology's witnesses' testimony were excerpted  
19 and included.

20 For example, appendix E, that was discussed  
21 yesterday with respect to performance standards.

22 MS. COTTINGHAM: That's just a question I  
23 had.

24 MR. EGLICK: Some of it is in. I think some  
25 of it were questions where I asked questions of

**AR 056216**

1 Ms. Walter. For example, some was in and some was  
2 additional portions that she didn't cite in her  
3 testimony, but are part of the book.

4 So I guess my suggestion is maybe we get the Board  
5 a couple copies and put the whole thing in. We can do  
6 it in this form so it is not as thick.

7 MS. COTTINGHAM: Would you have any problems  
8 with the entirety being in?

9 MS. MARCHIORO: No.

10 MR. PEARCE: Ms. Cottingham, I don't have any  
11 problem with this being an exhibit. I would note,  
12 however, that many of the experts for all parties have  
13 referred to a number of technical documents. Pursuant  
14 the expert witness rules, all those documents, those  
15 technical documents and studies don't have to come in  
16 evidence in order for them to refer to them, but if the  
17 Board wants to see any of them, I'm sure the parties  
18 can provide you with those.

19

20

EXAMINATION

21 BY MS. COTTINGHAM:

22 Q My first question to you is -- and maybe because it was  
23 yesterday, it may be further for you to reach back and  
24 recall your testimony, but you were talking about the  
25 best available science that the NRMP was based on, and

1 then you said the Corps verified something.

2 I didn't catch, what did the Corps verify?

3 A The Corps of Engineers did the majority, if not  
4 essentially all, of the verification of the wetland  
5 delineation mark that was done that was carried out  
6 over several years.

7 Q Thank you. I just missed exactly what they verified.

8 Now, I want to make sure that I caught this  
9 correctly. And this was, again, yesterday, when you  
10 were talking about applying the credits, you said the  
11 higher the risk - I believe you said this. Correct me  
12 if I'm wrong - the higher the risk of success, the  
13 higher the requirement for credits, therefore, a 1-to-1  
14 ratio for low risk of success and 10-to-1 for high  
15 risk.

16 Did I capture that?

17 A Well, it's the risk of failure that carries a higher  
18 discount rate.

19 Q Thank you.

20 A And I apologize if I wasn't clear about that.

21 Q Some of my questions were captured by counsel already.

22 And, again, this is for this morning's testimony, I  
23 want to make sure I had captured what you said.

24 You said depending on the lift from depressed  
25 functions it determined whether the credit given was

1 for restoration or enhancement. So, then, I was trying  
2 to say you were talking about the area, the pink area,  
3 the farm, the previously farmed area, and that the  
4 tilled farm land was more depressed, thus it received a  
5 restoration credit.

6 Did I capture that correctly?

7 A That's correct.

8 Q Then you said the south part of Lora Lake and the ditch  
9 area was less depressed and therefore it received  
10 credit for enhancement; is that correct?

11 A That's correct.

12 Q And then my next question is, the buffer is not the  
13 buffer right along the riparian area, but it's the  
14 outer dark green; is that correct?

15 A So this dark green is a buffer. That's correct.

16 Q On the chart, then, what called "buffer enhancement" is  
17 that dark green?

18 A In table 6?

19 Q Page 6.

20 A Yes. Yes, it is.

21 MS. COTTINGHAM: No further questions from  
22 me.

23 Any questions from the other Board Members?

24 MR. LYNCH: I have a couple questions.

25



EXAMINATION

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BY MR. LYNCH:

Q Thank you for your testimony.

I'm trying to understand a little bit better how in-basin and out-of-basin mitigation works. Is it discretionary within the Department of Ecology for use of in-basin mitigation or out-of-basin mitigation?

A The RCW 90.74 directs Ecology to consider proposals for out-of-basin mitigation for certain types of projects. I believe the language is public infrastructure projects, or I believe that's the term in RCW 90.74. It doesn't say that we have to accept it, but it says that we have to consider it, and not just Ecology, but the Department of Fish and Wildlife.

And if I may, I'm quite familiar with what precipitated that bill to be passed. That bill was aimed more at the Department of Fish and Wildlife, because the Department of Fish and Wildlife at the time had a very rigid position on mitigation. They were requiring on-site in-kind at a ratio of 2-to-1, and that not only conflicted with Ecology's approach, but made it very difficult for applicants to get through the process.

Q Are there any sidebars on how Ecology uses its discretion for in-basin and out-of-basin mitigation?

1 A Yes. Yesterday I described, in terms of this  
2 project -- it might be easier for me to describe how we  
3 applied it in this project. But RCW 90.74 does not  
4 lower the bar for compliance with state water quality  
5 standards.

6 If we determine that a project that is presented to  
7 us is consistent with RCW 90.74 in terms of meeting  
8 the -- there's a step process in that statute.

9 If we determine that it doesn't comply, then I  
10 don't see how we can certify it. That was the case  
11 with this project. Early on in the process, the  
12 majority of the mitigation proposal was out-of-basin  
13 only, and I told the Port that was unacceptable, that  
14 we needed in-basin mitigation, and it took some time to  
15 work through the various issues that we did, but the  
16 NRMP is a culmination of a lot of work around that very  
17 issue.

18 So to answer your question, the sidebars are still  
19 water quality standards.

20 Q I guess my final question, then, pertaining to this is,  
21 when you are looking at the in-basin mitigation, do you  
22 look at all the potential sites and do some sort of,  
23 not necessarily detail analysis, but do you look to see  
24 what sort of functions they would provide?

25 A Yes, and we did. We did look at quite a few sites in

1 the Des Moines basin. There was a map that was  
2 presented of potential mitigation sites in the Des  
3 Moines basin, and they were scattered through the  
4 basin. They were relatively small. And the Corps of  
5 Engineers discounted almost all of them, as far as I  
6 recall, because they would not have replaced the  
7 functions that were being lost. It would have ended up  
8 with sort of a checkerboard mitigation package where a  
9 little bit of mitigation could have been squeezed in  
10 the landscape here and there, but in positions where  
11 hydrology was highly altered due to urbanization.

12 There was one site where there was no way that a  
13 buffer could have been provided without disrupting a  
14 whole neighborhood, so a lot of sites were discounted  
15 because of their landscape considerations.

16 So when we looked at what was feasible for in-basin  
17 mitigation and we realized the constraints that are  
18 present in this basin, that's when the riparian  
19 restoration proposal started making a lot of sense,  
20 because of its feasibility and sustainability.

21 MR. LYNCH: Those are all my questions.

22 MS. COTTINGHAM: Mr. Jensen?

23 MR. JENSEN: Yes.

24

25

**AR 056222**

1 EXAMINATION

2 BY MR. JENSEN:

3 Q Mr. Stockdale, are you aware of what the historical  
4 classification or what type of wetlands the Vacca Farm  
5 were pre-farming?

6 A There is a survey that was done in the '50s by a  
7 professor at the University of Washington called George  
8 Rigg, and his lifelong work and his passion was he  
9 surveyed peat deposits throughout the state, and he did  
10 survey the Vacca Farm area.

11 His work and his survey was done in the area after  
12 peat extraction and sale was occurring in the Lora  
13 Lake. Lora Lake is excavation. The reason it was  
14 excavated is that peat was sold for topsoil, and that,  
15 I believe, he noted in the '50s.

16 Prior to that, I'm not sure what condition it was  
17 in prior to its conversion for agriculture. You  
18 probably could look at his survey and the type of peat  
19 that was deposited there to predict what plant  
20 community was likely there. I don't think it was a  
21 true sphagnum bog. I think it was more of a sedge-peat  
22 wetland.

23 But to answer your question directly, I'm not sure,  
24 but it was a peat system and it still is.

25 Q Has anybody surveyed the quantity of, you call it, peat

1 involved in that historic wetland?

2 I guess that's my question.

3 A The Port's consultants do have some data as to the  
4 depth of peat in various transects through sites, but I  
5 don't recall those finding right now.

6 Q How does peat get formed?

7 A How does it? Peat is formed where organic matter is  
8 deposited in water and where bacterial decomposition is  
9 retarded by low oxygen conditions, and it is deposited  
10 in Western Washington at a rate of something like an  
11 inch every 40 years. That's what Mr. Rigg determined.

12 You can actually date peat deposits by the depth of  
13 the peat.

14 Q How common are peat marsh or peat wetlands as compared  
15 to historic conditions in the state of Washington?

16 A There are few wetlands that remain, certainly in King  
17 County, and especially in the urbanized areas of King  
18 County, that are representative of reference  
19 conditions, if you will. A lot our peat wetlands have  
20 either been excavated or have been developed.

21 The Mercer Slough area in Bellevue is a large peat  
22 wetland associated with Lake Washington, the Mercer  
23 Slough area. There are others examples like that, but  
24 as a feature of the landscape, peat wetlands have been  
25 highly affected by land use, as have forested wetlands.

**AR 056224**

1 A lot of our old growth forested wetlands have been  
2 cleared.

3 Q Do you very commonly see any attempts in your review of  
4 wetland projects to restore peat wetlands?

5 A It would be difficult to try to restore a true sphagnum  
6 bog. That's a very rare type of wetland. It's very  
7 sensitive to stormwater inputs, so that type of a peat  
8 system would be very difficult to restore.

9 I've seen some very successful restoration projects  
10 where the soil that is being planted on is peat,  
11 because peat is very rich in nutrients, if it's not  
12 acidic for the plants to grow in, and also retains  
13 water much better than mineral soils, so it's a  
14 favorable medium for wetland restoration.

15 But as far as restoring historic conditions, if  
16 it's one of those rare types, it would be very  
17 difficult.

18 Q Is the answer, I guess, you haven't seen many efforts  
19 in that regard?

20 A I haven't seen a successful restoration of a true  
21 sphagnum bog, but I have seen successful restoration in  
22 peat areas where the restoration is to emergent  
23 conditions or sedge management.

24 Q Is the Port proposal, as I understand it, to restore  
25 any of the peat nature of this wetland, or is it

1 something different?

2 A The proposal at the Vacca Farm is to restore the  
3 wetland to a plant community that is suitable for that  
4 position in the landscape and is the type of plant  
5 community that you could expect in that location, so  
6 they are not trying to forest a plant community in an  
7 area where you wouldn't find it or with species that  
8 you wouldn't find.

9 Q But in terms of the nature of the wetland as it was  
10 historically formed, is there anything in the Port's  
11 proposal to try to restore this wetland to its historic  
12 position?

13 A No, I'm not -- to be honest, I don't know if the plant  
14 community that was there at the time of it being  
15 cleared was emergent in nature or if it was a woody  
16 scrub/shrub dominated community. We didn't look at  
17 that.

18 What drove the consideration for the plant  
19 community there, due to its location near the airfield,  
20 was the goal of discouraging its use by waterfowl,  
21 which present a noxious bird strike hazard for the  
22 airfield, so that ruled out an emergent wetland  
23 restoration, which could be carried out there, but that  
24 was inconsistent with the other goal that we  
25 acknowledged in this process.

**AR 056226**

1 I don't know if I've answered your question  
2 properly.

3 MR. JENSEN: Thank you. That's all I have.

4 MS. COTTINGHAM: Any questions as a result of  
5 Board questions?

6 MS. MARCHIORO: No.

7 MR. PEARCE: No.

8 MR. EGLICK: Yes.

9

10 EXAMINATION

11 BY MR. EGLICK:

12 Q Mr. Stockdale, there are different kinds of peat,  
13 right, peat wetlands?

14 A Yes.

15 Q And when Mr. Jensen asked you about Vacca, you answered  
16 in terms of sphagnum, is that correct, s-p-h-a-g-n-u-m?

17 A That was one. That is one of the types of plants that  
18 deposits organic material and forms peat.

19 Q Is there another type?

20 A Oh, yes. There's sedge.

21 Q And isn't Vacca characterized as a sedge/peat area?

22 A I believe it's characterized in Rigg as what's called  
23 riffle peat, which to the top layer is probably a sedge  
24 community, but there also are layers of a woody  
25 deposit.

**AR 056227**



1 I would have to look at the cross-section from that  
2 Rigg study.

3 Q But what you recall from it is that at least the top  
4 layer is sedge, isn't it?

5 MR. PEARCE: Asked and answered.

6 A Yeah, I believe so.

7 Q You answered some questions about whether the tilled  
8 farm land at Vacca was more depressed; do you recall  
9 that?

10 I think Ms. Cottingham asked you those questions.

11 A Yes.

12 Q And is that evaluation based on a portion of the  
13 wetland functional assessment, which I guess is Exhibit  
14 2018, is one of them?

15 Anyway, is that based on evaluation of the Vacca  
16 Farm area in the wetland functional assessment?

17 A I don't follow your question. I'm sorry.

18 Q Well, let me ask you another question, then. Does the  
19 wetland functional assessment address Vacca Farm?

20 A Yes, it does.

21 Q And is it part of, if you look at, for example, on  
22 Exhibit 2018, on page 3-5, does that include the  
23 entirety of Vacca Farm in its rating of wetland  
24 function for wetlands that are impacted?

25 A So page 3-5?

**AR 056228**

1 Q Right, of Exhibit 2018.

2 A No. There's more in the function assessment than what  
3 is just contained in this table.

4 Q Okay. I'm asking you about this table, though. Does  
5 this include the entirety of Vacca Farm in it?

6 A No. Because --

7 Q And the table goes over to table 3-6.

8 A -- the majority of the Vacca Farm is a prior converted  
9 cropland?

10 Q And that makes a difference, doesn't it, to the Army  
11 Corps of Engineers, because the Army of Corps of  
12 Engineers doesn't regulate them as wetlands; is that  
13 right?

14 A That's correct.

15 Q But Ecology regulates what the Corps calls prior  
16 converted cropland? Ecology regulates them as  
17 wetlands; doesn't it?

18 A Sure.

19 Q But in this rating for wetland functions, table 3-3,  
20 there is not a rating for Vacca Farm?

21 MS. MARCHIORO: Object. Asked and answered.

22 MS. COTTINGHAM: I'll allow the question.

23 A I don't think it was given a wetland number, because  
24 according to the Corps, it's not a wetland. I don't  
25 recall how it was handled in the functional assessment.

1 Q So it's not handled in table 3-3, though, is it?

2 A I don't think so, no.

3 Q And I guess I want to ask you, you were asked also  
4 about Lora Lake. I think it's funny to talk about  
5 these waterbodies and wetlands as depressed and less  
6 depressed, but I understand it's a term of art.

7 In any event, you were asked about Lora Lake and  
8 whether or not it was less depressed, so if you could,  
9 I guess, look at the NRMP, which is Exhibit 2014 and  
10 page 2-4, which is table 2.1-1.

11 MS. MARCHIORO: Ms. Cottingham, I believe  
12 this goes beyond the scope of your question of  
13 Mr. Stockdale. My recollection is your question had to  
14 do with the ditch and that portion of the Vacca Farm  
15 that's adjacent to the ditch. I don't remember the  
16 question going into Lora Lake and its condition.

17 MS. COTTINGHAM: I haven't heard the question  
18 yet, but my question was to clarify what he had talked  
19 about in terms of the rating on those two areas.

20 MR. EGLICK: Right. And I think in his  
21 answer, he kind of went a little bit beyond the  
22 question in terms of talking about functionality.

23 Let me ask it and the Board can rule.

24 MS. COTTINGHAM: Tell us what page you are  
25 on, again, so I can get there.

**AR 056230**

1                   Figure 2.1-4?

2                   MR. EGLICK: 2.1-1 on page 2-4.

3 Q           (By Mr. Eglick) You were talking about the Lora Lake  
4 area. Now, which area would that be represented by on  
5 this table 2.1-1?

6                   Would that be A-1?

7 A           No.

8 Q           What would it be?

9 A           Lora Lake is not a vegetated wetland, so it wasn't  
10 tabulated in this part of the document.

11 Q           So it's not included in this table of the summary of  
12 wetlands; is that right?

13 A           It's not included on this table; that's correct.

14                   MR. JENSEN: Can I just ask a question,  
15 because I see it on the chart.

16                   I see Lora Lake down here under west acquisition  
17 area on this chart 3.06 area, open water. That's down  
18 near the bottom.

19                   THE WITNESS: On page 2-4?

20                   MR. JENSEN: Yes.

21                   THE WITNESS: Oh, it is there. Thank you.

22                   There was somewhere else where it wasn't included in  
23 the chart, because it's not a vegetated wetland was the  
24 reason that it wasn't included, and I mistakenly  
25 assumed that we were looking at that chart.

**AR 056231**

1 Q (By Mr. Eglick) Okay. And is Lora Lake, this area,  
2 it's designated here as open water, isn't it, not as a  
3 type of wetland? Is that correct?

4 A Wetlands according to the Corps classification system  
5 do include open water wetlands where you don't have  
6 direct -- you don't have cattails growing out of them.  
7 You can have rooted aquatic plants or floating aquatic  
8 plants. They are true aquatic wetlands. They are  
9 considered a type of wetland.

10 Q And what function was assigned to Lora Lake that we  
11 could then talk about being depressed or not depressed?

12 A I don't believe we talked about Lora Lake as being  
13 depressed. What I talked about was in terms of  
14 determining whether the restoration and enhancement  
15 action will result in benefits that accrue to the lake.  
16 That was the context in which I discussed the functions  
17 in Lora Lake.

18 Q And I appreciate that clarification, and I apologize if  
19 I was unclear.

20 So it's listed as open water. It's not  
21 characterized with a function, other than open water.

22 Now, is there someplace in the functional  
23 assessment, then, where it's current kind of operation  
24 as open water is assessed?

**AR 056232**

25 A I would have to look through the functional assessment

1 in order to answer that question.

2 Q To your knowledge, was that addressed as an issue in  
3 the functional assessment?

4 A We addressed it in the review of the project, but I  
5 don't recall where, in which exact area of the  
6 documents it was discussed in.

7 Q So is there someplace, or let me ask you another way,  
8 shouldn't there be a place, if we're describing a  
9 depressed state to Lora Lake, some portion of it, and  
10 saying that we're going to give it a lift by what  
11 occurs along the shoreline, shouldn't there be  
12 someplace that provides a baseline as to the current  
13 functional status of Lora Lake?

14 MS. MARCHIORO: Objection. It  
15 mischaracterizes the witness's testimony. He just  
16 stated that he didn't give it a depressed  
17 classification.

18 Q (By Mr. Eglick) If we're trying to assess whether a  
19 particular action is going to give Lora Lake a lift,  
20 shouldn't there be a baseline from which to measure  
21 that, Mr. Stockdale?

22 A We look at wetlands in the field. We don't have to  
23 establish baselines to observe conditions that are  
24 artificial or degraded, so I guess I don't understand.

25 There's a bulkhead on the lake right now. There's

1 fill against the edge of that bulkhead. That in and of  
2 itself does affect the lake. It affects the species  
3 that use the lake. It affects the water quality in the  
4 lake, so we don't need to establish a baseline to be  
5 able to draw that conclusion.

6 Q And the Port is getting credit, is it not, under your  
7 calculation, for the removal of the fill and for  
8 removal of the bulkhead?

9 A That's right. They are getting what translates into a  
10 .75 acres of mitigation credit.

11 Q For removal of the fill and removal of the bulkhead;  
12 correct?

13 A Now, what I said, is that the benefits that accrue to  
14 the lake, that will accrue to the lake, result from all  
15 of the actions together, and it also includes the  
16 riparian buffer that's being built or being  
17 re-established landward of the wetland restoration  
18 area.

19 Q Someplace in the calculation where you made a credit  
20 for the Port, you have included three acres for the  
21 surface open water of Lora Lake as part of that  
22 calculation; is that correct?

23 A Yeah. I indicated that those three acres are included,  
24 on line 14 of my prefiled testimony, of that 5.7 acres.

25 Q And my question is, is there someplace we can look to

**AR 056234**

1 assess what the function was pre-compensatory action so  
2 that we can assess what the benefit is of this  
3 shoreline removal of fill and bulkhead on the adjacent  
4 three acres of open water?

5 A I don't recall where in either the NRMP or the  
6 functional assessment that is discussed.

7 MR. EGLICK: Okay. Thank you. I don't think  
8 I have anything else.

9 MS. COTTINGHAM: Mr. Poulin, do you have  
10 anything?

11 MR. POULIN: No.

12 MS. COTTINGHAM: You are excused,  
13 Mr. Stockdale. Thank you.

14 I'm going to suggest that we take, rather than  
15 calling up another witness, that we start our lunch  
16 break now and that we come back at 1 o'clock and  
17 resume.

18 Is this the last Ecology witness?

19 MS. MARCHIORO: No. We have two witnesses  
20 left, Mr. Whiting and Mr. White.

21 MS. COTTINGHAM: Okay. Thank you. We'll be  
22 back at 1 o'clock.

23 (Recess taken.)

24 (Beginning of reproduction of lost steno from audio tape.)

25 MS. COTTINGHAM: We're back on the record.



1 MR. PEARCE: Since Dr. Weitkamp was available  
2 in the later afternoon, we were hoping we would make  
3 more progress, but we always hope we're going to make  
4 more progress than we do.

5 MS. COTTINGHAM: That is good news, because  
6 the Board is going to have to adjourn today at 4:30.

7 MR. PEARCE: Okay.

8 MS. COTTINGHAM: I don't know how much time  
9 you were planning to do Dr. Weitkamp.

10 MR. PEARCE: What we were going to do, with  
11 the Board's permission, was to take him out of order  
12 and take him after Mr. Fendt, if we get that far.

13 MS. OSBORN: We would prefer not to do that.

14 MS. COTTINGHAM: To move him earlier or move  
15 him later?

16 MS. OSBORN: We would prefer not to move  
17 Mr. Fendt out of order.

18 MR. PEARCE: But Dr. Weitkamp can be here  
19 later in the late afternoon today, so I guess we'll see  
20 how far we get.

21 MS. COTTINGHAM: We'll see how far we get.  
22 If it is at or around close to the 4:30 time, we will  
23 adjourn for the day, and if it is like 3:30 or so,  
24 we'll reassess because I don't think we want to lose  
25 that much time.

**AR 056236**

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MR. PEARCE: Thank you, Your Honor.

MS. COTTINGHAM: With that, the court reporter will swear in the witness.

**KELLY WHITING**, having been first duly sworn upon oath or affirmed to tell the truth, the whole truth and nothing but the truth, testified as follows:

MS. OSBORN: Ms. Cottingham, before we get started with Mr. Whiting, I would just like to ask -- I have spoken with Mr. Young and also Joe Rochelle, who is the King County attorney that's been assisting Mr. Whiting in preparing for testimony about this issue of the deadline, the discovery cutoff deadline of February 28th, and this is pretty critical information with respect to Mr. Whiting's testimony, and I was just wondering if it would be possible for you to reiterate to Mr. Whiting and to counsel that is the deadline beyond which no testimony or information can come in.

MS. COTTINGHAM: That's not exactly my ruling. My ruling was no plans or documents prepared prior to that point in time, but if he forms his opinion after that, if he formed his opinion this morning...

**AR 056237**

MS. OSBORN: I guess I did not understand

1 your ruling. I'm reading from the order granting  
2 Appellant's motion to strike.

3 "Therefore any party is prohibited from relying on  
4 information created after February 28th, 2002."

5 MS. COTTINGHAM: Right.

6 MR. YOUNG: May we turn the clock off while  
7 we discuss this?

8 MS. COTTINGHAM: You may.

9 MS. OSBORN: So may I understand if  
10 Mr. Whiting is --

11 MS. COTTINGHAM: "These witnesses may not  
12 indicate either in prefiled testimony or in oral  
13 testimony what the Port or Ecology has done since  
14 February 28 in response to the comments of Mr. Whiting  
15 to revise, clarify, explain or modify the low-flow  
16 plan."

17 MS. OSBORN: And you are stating that  
18 Mr. Whiting could testify about what he has done since  
19 February 28th?

20 MS. COTTINGHAM: Well, if he is asked a  
21 question this morning, what do you think about "X" and  
22 it requires him to think, it is after February 28th.

23 MS. OSBORN: But based on the original  
24 discovery order in this case, we were unable to  
25 discover what Mr. Whiting thought after February 28th.

1 That was, in fact, the day that we deposed Mr. Whiting.

2 MS. COTTINGHAM: Well, this order is related  
3 to efforts to revise, clarify, explain or modify the  
4 low-flow plan, so if you would clarify exactly how your  
5 question fits in with that.

6 MS. OSBORN: Sure. Mr. Whiting is reviewing  
7 the low-flow plan on behalf of Ecology, is the King  
8 County employee, - this will come out in his direct  
9 testimony - and he prepared review comments that were  
10 transmitted to Ecology and the Port in late February.  
11 We, then, deposed him and ascertained actually what he  
12 knew exactly on February 28th. As it happened, we did  
13 it the last day, so it's our understanding from public  
14 records received from Ecology that there have been  
15 amendments and changes and work done to the low-flow  
16 plan since February 28th.

17 Mr. Whiting may have reviewed that. I don't know,  
18 because I haven't had any opportunity to talk to him  
19 about it. We relied upon that February 28th date as  
20 the date upon which no further information was going to  
21 be able to come in. So to the extent that he would  
22 testify about the work that has been done on the  
23 low-flow plan since February 28th, our request is that  
24 he would be not allowed to testify to that information.

25 MS. COTTINGHAM: Do you have anything to say

1 in regards to this? I believe it's not a change to my  
2 order. She's just asking for a reiteration of it.

3 MR. YOUNG: No. What my intention was to  
4 have Mr. Whiting speak to his comments that were made  
5 in February, which was the subject of the deposition,  
6 and then I would ask permission to make an offer of  
7 proof in regards to what has been done since that time  
8 with those comments, so that it's just an offer of  
9 proof. If it's been excluded, then it's been excluded.  
10 But I wanted to at least get that information on the  
11 record.

12 MS. OSBORN: Our concern about this has to do  
13 with discovery. I mean, at some point in time, as your  
14 order indicates, you have to stop so that the parties  
15 can stop asking each other questions about what's going  
16 on and prepare their own witnesses, prepare for  
17 cross-examination and so forth. So an offer of proof  
18 post-February 28th doesn't make any sense here in view  
19 of the fact that we have no ability to respond to it in  
20 any way.

21 MR. REAVIS: If it's an offer of proof, it's  
22 not evidence. It's just for the purpose of the  
23 appellate record, and I think that's all that Mr. Young  
24 is saying.

25 MR. YOUNG: Yes.

**AR 056240**

1                   MR. REAVIS:  So it's not something that needs  
2                   to be responded to, and so I don't think we are arguing  
3                   about anything that is really going to be involved in  
4                   the evidence in this case.

5                   I guess my only comment would be, I want to make  
6                   sure that we're sticking to what your order was and  
7                   it's not things that Mr. Whiting has done.  It's only  
8                   efforts that revise, clarify, explain or modify the  
9                   low-flow plan.

10                  MS. COTTINGHAM:  In response to his earlier  
11                  comments?

12                  MR. REAVIS:  Correct.

13                  MS. COTTINGHAM:  I'm going to allow the offer  
14                  of proof so long as you bracket it in your oral  
15                  testimony to say:  Your Honor, I'm now going to offer  
16                  something for the record; it's not evidence.  So if you  
17                  will bracket that.

18                  MR. YOUNG:  That was my intention and yes, I  
19                  will do that.

20                  MS. COTTINGHAM:  With that, we will go back  
21                  on the clock.

22                  MS. OSBORN:  Ms. Cottingham, just to clarify,  
23                  can that all be done at one time?

24                  MS. COTTINGHAM:  That's what I'm asking him  
25                  to do.

**AR 056241**

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MS. OSBORN: Okay.

EXAMINATION

BY MR. YOUNG:

Q Mr. Whiting, will you state your name and spell your last name, please.

A Yes. My name is Kelly Whiting, W-h-i-t-i-n-g.

Q And can you briefly summarize your qualifications for the Board, please.

A Yes. I'm a professional engineer in the state of Washington, specializing in hydrology and stormwater management. I've been employed in King County.

(Off the record.)

(End of reproduction from audio tape.)

MS. COTTINGHAM: We're going to go back on the record.

We had a malfunction with court reporter's machine. She will, using the tape, recreate the last 15 to 20 minutes or 10 minutes worth of discussion.

The purpose of the discussion was a request by ACC's counsel to clarify the order granting the motion to strike certain prefiled testimony to clarify about what is offered, what is allowed to be testified to by Mr. Whiting.

The Board denied the motion, and Ecology will

1 bracket its offer of proof for the appellate record,  
2 and it will not be offered for purposes of evidence in  
3 this matter.

4 With that, we'll start the direct testimony. Thank  
5 you.

6  
7 EXAMINATION (Continued.)

8 BY MR. YOUNG:

9 Q Mr. Whiting, can you state your name and spell your  
10 last name, please.

11 A Yes, I can. Kelly Whiting, W-h-i-t-i-n-g.

12 Q And please summarize your credentials for the Board  
13 here.

14 A I'm a professional engineer in the state of Washington.  
15 I'm specializing in hydrology and stormwater  
16 management.

17 I'm employed by King County, Department of Natural  
18 Resource and Parks as an Engineer 3. I've been  
19 employed by King County for 12 years doing stormwater  
20 management review. I've been a lead technical person  
21 on updates and implementation of the King County  
22 Surface Water Design Manual.

23 I've been the lead on the development of an  
24 HSPF-based continuous flow model that is used to  
25 regulate site development work in unincorporated King



1 County and any other jurisdictions.

2 Our design manual was also used as a guide for  
3 updates of the Ecology manual in 2001.

4 Q Just so we're clear, the King County Surface Water  
5 Design Manual is a stormwater manual; is that true?

6 A Yes. It's a stormwater design manual that is applied  
7 to new and redevelopment projects.

8 Q Can you just tell us, then, what your role on this  
9 project was, this SeaTac third runway project.

10 A Yes. I was a technical reviewer. I was first  
11 contacted in December of '99, asked to review the first  
12 draft of the Port of Seattle's comprehensive stormwater  
13 management plan, dated 11 of '99.

14 My role was as an independent kind of third-party  
15 reviewer, and that work was performed under contract  
16 with Department of Ecology.

17 Q And you also reviewed the low-flow plan; is that also  
18 correct?

19 A Yes. The low-flow plan originated in late 2000, and I  
20 reviewed a few iterations of that low-flow plan.

21 Q Now, let's talk first about the stormwater management  
22 plan. Can you just briefly summarize how the review  
23 process occurred.

24 A Yes. I reviewed the initial plan, provided feedback  
25 back to the Port of Seattle, Ecology, and the Port's

1 consultants, which resulted in some iterations of that  
2 plan. Through the year 2000, in October of 2000, we  
3 started what was called a facilitated meeting process,  
4 and that process continued on through July of 2001, at  
5 which time I wrote a letter that indicated that we gave  
6 our concurrence to the stormwater management plan as  
7 meeting or exceeding the requirements of the 1998 King  
8 County Surface Water Design Manual.

9 Q And do you recall the date of that letter?

10 A That letter was dated August 3rd.

11 Q Of what year?

12 A Of 2001.

13 Q Now, you reviewed the stormwater plan for compliance  
14 with the technical requirements of the King County  
15 Surface Water Design Manual; is that accurate?

16 A Yes, it is.

17 Q And as I understand it, you did not review for  
18 compliance with some of the procedural aspects of the  
19 manual; is that accurate?

20 A Yes. That was clearly stated in my scope that the  
21 procedural requirements for our manual did not apply to  
22 the Port of Seattle, their procedural requirements like  
23 permitting processes by the county, some bonding and  
24 financial guarantees that are procedural in nature and  
25 related to our King County permitting process.

**AR 056245**

1 Q What was your understanding of the reason for not  
2 reviewing the procedural requirements of the county?

3 A Well, I recall that it was explained to me that the  
4 Port of Seattle had an agreement with the city of  
5 SeaTac that the Port of Seattle would meet all the  
6 technical requirements of the King County manual, but  
7 specifically excluded procedural requirements from that  
8 manual, and that then got put in, was an amendment to  
9 my scope before I began work.

10 Q And can you just briefly tell us a little bit about  
11 what some of the technical requirements are and what it  
12 means for the plan to be in compliance with those  
13 requirements.

14 A Yes.

15 The surface water design manual includes eight core  
16 requirements, which apply to all projects subject to  
17 review under our manual and five special requirements  
18 which are applicable based on where the project is  
19 located or what type of land use that project is  
20 proposing.

21 So my review went down through those core and  
22 special requirements to determine whether the  
23 conceptual stormwater plan was meeting the performance  
24 goals and objectives of the King County Surface Water  
25 Design Manual. A couple of the core requirements that

1 I did not review against dealt with, as I mentioned,  
2 financial guarantees and bonding, which are procedural  
3 in nature.

4 Q Now, you mentioned that the stormwater management plan  
5 exceeded the requirements in the manual in certain  
6 respects. Can you explain what those respects are,  
7 please.

8 A Yes, I can.

9 Starting with flow control or what are often called  
10 detention, King County would require what we call a  
11 level 1 flow control standard, which is simply a peak  
12 matching standard, trying to maintain the conveyance  
13 capacity of the downstream drainage system. We apply  
14 that to highly urbanized areas such as where this  
15 project is located.

16 The Port of Seattle had already selected to use a  
17 higher flow control standard, what we called our level  
18 2 standard, which in addition to controlling peak rates  
19 of discharge also controls the duration of discharges,  
20 which is more directly related to things like stream  
21 bank erosion and is a higher, more protective standard  
22 than would have been applied under the current King  
23 County design manual.

24 Additionally, the King County manual does not  
25 require that exiting development that is not being

1 redeveloped be subject to flow control standards.  
2 Basically, you take existing conditions and those  
3 become your release rates and you just don't make  
4 things worse.

5 The Port of Seattle's plan includes a significant  
6 amount of retrofitting of flow control on all STIA  
7 outfalls.

8 Q When you say STIA, you mean SeaTac International  
9 Airport?

10 A Yes, I do, SeaTac International Airport.

11 And that flow control standard is being taken back  
12 to a mostly undeveloped land-cover assumption, back to  
13 75 percent forested land-cover assumption for all the  
14 release points into Des Moines, Walker and Miller  
15 creeks.

16 Additionally, we don't require water quality  
17 treatment retrofits for existing developed areas that  
18 are not being redeveloped, and the Port of Seattle's  
19 plan includes a significant amount of water quality  
20 treatment retrofits for outfalls that are not currently  
21 up to current standards.

22 Q Does the retrofit mean they will actually go in and  
23 replace facilities? Is that what that means?

24 A No, typically not. It means that they will supplement  
25 those facilities that compensate for the performance of

1 older facilities that were not built to the same  
2 standards.

3 Q Does that apply to both water quality facilities and  
4 flow control, or not?

5 A That would apply to both. Yes.

6 Q Is there an example that you could give us that would  
7 be an example of a retrofit that the Port is proposing?

8 A Sure. The NEPL site, which is the north employee  
9 parking lot, includes a detention vault that was built  
10 under older standards, and the Port is proposing to  
11 supplement that, the performance of that vault with a  
12 new vault sitting parallel to it to bring the  
13 performance of that flow control facility up to current  
14 standards.

15 In addition, the SDN 1 outfall, which is on the  
16 north end of the airport, kind of the northeast  
17 corner --

18 Q Now, there's a map that shows the airport, which you  
19 can use if it would be helpful to you.

20 A Yes. First, I was referring to the north employee  
21 parking lot, that's this area up here, kind of off  
22 site, but also drains to Miller Creek.

23 Then SDN 1 is located in this northeast corner, and  
24 that is included with a water quality retrofit. A wet  
25 vault is proposed to be put there because there's not

1 currently water quality treatment for that area.

2 Q Now, you mentioned the flow control regime being based  
3 on a 75-percent forested standard. Do you know why  
4 that standard was chosen?

5 A The standard, the full standard is 75 percent forest  
6 cover, 15 percent grass cover and a maximum of 10  
7 percent impervious cover, and that is kind of a lightly  
8 developed release rate and land-cover assumptions, and  
9 it was chosen before my involvement in the project, but  
10 it falls into what is generally considered a stable  
11 flow regime for streams, especially streams that have  
12 experienced a significant amount of urbanization in the  
13 past.

14 Q Now, let's talk a little bit about the low-flow plan.  
15 Can you briefly summarize the history of the review of  
16 that plan.

17 A Yeah. The first formal low-flow plan was in the, I  
18 believe, it's the December 2000 draft of the SMP, and  
19 the low-flow plan, and so I reviewed it at that time.  
20 It had some significant review comments that needed to  
21 be addressed. I then reviewed a plan in July of 2001,  
22 and those comments were transmitted to Ecology via a  
23 separate August 3rd letter that's entitled low-flow  
24 plan. And after that, I was contacted in September of  
25 2001 to review a resubmittal, which addressed the

1           comments made in the July 2001 review comments, in the  
2           August 3rd letter.   Excuse me.

3   Q       Why don't we look at the August 3rd letter, which are  
4           Exhibit Nos. 1268 and 1269.

5                   MS. OSBORN:   Excuse me, Tom.   I've got the  
6           numbers, but what are we looking at; the two August 3rd  
7           letters?

8                   MR. YOUNG:   Yes.   1268 and 1269.

9   Q       (By Mr. Young) Do you have No. 1268 in front you?

10   A       Yes, I do.

11   Q       Is this your letter, then, regarding the stormwater  
12           plan?

13   A       Yes, it is, including the attachments.

14   Q       And in this letter, you state that the plan meets the  
15           technical requirements of the 1998 surface water design  
16           manual; is that correct?

17   A       Yes, it does say that.

18   Q       Then 1269 is your letter regarding the low-flow plan;  
19           is that correct?

20   A       That is correct.

21   Q       And I think you said that in this letter you had a  
22           number of comments regarding that plan; is that  
23           correct?

24   A       Yes, they are attached, I believe, as attachment, as  
25           enclosure 1.



1 Q And then those were included as conditions of the 401;  
2 is that your understanding?

3 A Yes. This comment letter was used to develop those  
4 conditional 401.

5 Q Then you received another version of the low-flow plan  
6 in December of 2001; is that correct?

7 A That is correct.

8 Q Did that version address the concerns that you raised  
9 in this August 3rd letter?

10 MR. POULIN: Objection. Leading.

11 MS. COTTINGHAM: I'm going to overrule the  
12 objection.

13 A It provided a substantial improvement in the amount of  
14 detail and documentation over the July 2001 report. It  
15 did not satisfy all of my comments, and it raised a  
16 couple new ones.

17 Q We'll get to that in just a second, but let me first  
18 ask you a couple questions about calibration.

19 Can you tell us what calibration is.

20 A Calibration, in this respect, refers to the HSPF model  
21 and the settings of the parameters that are used to  
22 define how different soil and land covers respond  
23 hydrologically: Does the water go to groundwater?  
24 Does it stay on the surface? How much  
25 evapotranspiration is occurring? Those kind of factors

1 are basically knobs in the HSPF model that can be  
2 turned.

3 The calibration is done by taking observed stream  
4 data and then a model with different, which identifies  
5 the different land cover and soil types in each  
6 subcatchment and defines the hydraulics like lakes or  
7 channel reaches or outfalls within the basin and puts  
8 those land covers and soil groups and hydraulics  
9 together to form a stream model.

10 The most commonly used approach in calibration is  
11 to start with what are called the regionalized  
12 parameter settings. They are a group of settings that  
13 were published by the USGS in 1990 and are the most  
14 commonly used set of parameters in this region. Often  
15 they are used without any specific subbasin  
16 calibration, and they are just used straight for  
17 typical site design work, kind of a regional average  
18 runoff response condition.

19 But in performing a calibration, we start with  
20 those regional average conditions, we compare the  
21 results to the observed stream data, and then make  
22 adjustments to those HSPF parameters to improve the  
23 mass balance and to improve the hydrograph fits to  
24 observed data, and that was a process that was  
25 undertaken in all three stream basins to develop basin

1 specific calibrations used in this plan.

2 Q In your testimony, you discussed the fact that  
3 calibration is a matter of judgment. Can you explain  
4 what you mean by that.

5 A Yes. There is not a written set of protocols on: This  
6 is ABC how to do a calibration. There is, however,  
7 sort of an agreed to approach that's most commonly  
8 used, which I just described starting with the regional  
9 average conditions and adjusting them as is warranted.  
10 But there's really no defined point where you say it's  
11 good enough or at this point we'll stop. It's a  
12 judgment call by the modeler as to what is an adequate  
13 calibration.

14 Q Is it possible to match the observed flows exactly?

15 A Typically, no, not for the entire period of record.  
16 You can have events. You tend to develop a confidence  
17 in certain periods of the observed record, because  
18 often periods of the observed record do not look like  
19 they, they look to have errors in them, either the  
20 gage is misreading, the gage went down, or there's some  
21 sort of -- the reliability of the observed data is  
22 sometimes the question. So you tend to have better  
23 fits for better parts of the records than others, as is  
24 shown in the calibration work that was done by the Port  
25 of Seattle.

**AR 056254**

1 Q Now, with regard to the calibration here, there were  
2 three models, one for each creek; is that right?

3 A Yes. That is correct.

4 Q And there are two calibrations, one for high flow and  
5 one for low flow; is that correct?

6 A That is incorrect. There should be one calibration.  
7 It's typically done using existing conditions in the  
8 basin. For these plans, 1994 was used as the base year  
9 for calibration, and once the model is calibrated, it  
10 is then, you can then take that calibration and move it  
11 back in time to like an undeveloped landscape, or you  
12 can move it forward in time, such as a third runway or  
13 other site improvements. So it's really one  
14 calibration per stream that is being used.

15 Q Now, with respect to the calibrations that were used in  
16 the SMP, are you satisfied that those calibrations were  
17 sufficient?

18 A Yes, I am.

19 Q And what about the calibrations with regard to, in the  
20 low-flow plan, are you satisfied that those are  
21 sufficient?

22 MS. OSBORN: I'm going to object to that as a  
23 leading question.

24 MR. YOUNG: I don't think it's leading. I  
25 was just asking him what...

1 MS. COTTINGHAM: I'm going to overrule the  
2 objection.

3 A In my review comments of the December 1, 2001 low-flow  
4 plan, there are some questions raised and a request for  
5 more information in regards to the calibration.

6 The issue is that a reassessment was done of the  
7 land-cover and groundwater routings in the airport  
8 areas, performed in November of 2001, and that resulted  
9 in a different set of assumptions for existing  
10 conditions between the low-flow plan and the SMP, and  
11 therefore it was requested that the calibration be  
12 evaluated to see whether this new improved land-cover  
13 and groundwater routing information would warrant a  
14 readjustment of those HSPF parameters or, in other  
15 words, a new calibration for those models.

16 Q Now, coming back to the low-flow plan, specifically,  
17 what standards were you applying in review of that  
18 plan?

19 A Well, the King County Surface Water Design Manual does  
20 not include specific standards on mitigations for low  
21 flows, nor does the 2001 Ecology manual, to my  
22 understanding. My role was to ensure that the modeling  
23 work done in the SMP, the high-flow side, was  
24 consistent with the low-flow plan and to ensure that  
25 the impacts were, statistics were performed correctly,

1 and that the mitigations that were proposed would meet  
2 the performance goals stated in the low-flow plan,  
3 which is to provide three months of low-flow offset to  
4 streams during the annual low-flow periods of those  
5 streams, basically the August, September, October time  
6 frame.

7 Q And I think you said that the December plan addressed  
8 some of your concerns that you expressed in your August  
9 3rd letter. Did it address most of them, or how would  
10 you characterize that?

11 A I would characterize it as addressing many, perhaps  
12 most of my comments. Some of my comments became a moot  
13 point with reversed analysis in December. There was  
14 also a substantial amount of changes made in the  
15 December plan that weren't anticipated, basically  
16 rerunning of all models, all six models, both existing  
17 and future conditions in each of the three stream  
18 basins, which was not anticipated and had resulted in  
19 some additional new review comments.

20 Q And you prepared, I believe, a draft set of comments in  
21 February of this year in regards to the December  
22 low-flow plan; is that right?

23 A That is correct.

24 Q And in regards to those outstanding -- well, why don't  
25 you summarize for us what the key comments from

1 February were?

2 A Is it an exhibit?

3 Q Yes, it is an exhibit.

4 MS. OSBORN: It's Exhibit 458.

5 MR. YOUNG: 458. Thank you.

6 Q Without going through every single one of these here,  
7 can you just tell us what the key points here are?

8 A Yes. It's broken up into three sections -- well, each  
9 of the stream basin modeling is discussed separately.

10 With Walker Creek, there was some problems with  
11 the -- there's a table or a graph that shows when  
12 annual low flows occur within Walker Creek, and I had  
13 seen that graph several times under the previous  
14 submittals, and it had changed substantially in the  
15 December plan, December 2001 plan, so that is one  
16 comment there that if that graph is correct, it would  
17 indicate that an earlier start time on the low-flow  
18 offset would be warranted. I also have some concerns  
19 about the demonstration of the ability to collect  
20 enough water in a timely manner to provide the low-flow  
21 offset that is necessary.

22 With Miller Creek, the reruns of the model are  
23 indicated to have eliminated the impact in Miller  
24 Creek. Basically, the embankment, the hydrologic  
25 performance of the fill embankment is providing offset

1 for the development that's occurring within the Miller  
2 Creek basin. However, there was some inconsistencies  
3 in the modeling work and some problems that needed to  
4 be corrected before I could concur with that conclusion  
5 of that December plan.

6 Because the revised analysis for Miller Creek shows  
7 no impact, many of the comments and the 401 conditions  
8 became a moot point relative to the Miller Creek, like:  
9 Is it feasible to deliver the water to the stream?  
10 Will the water quality be adequate for discharge to  
11 Miller Creek? All of those things became a moot point  
12 because the impact, revised impact number went to zero.

13 With Des Moines Creek, the concerns in my comment  
14 letter here is requesting a look at a more direct  
15 outfall location to instream rather than discharge to  
16 the edge of a wetland in late summer.

17 I have additional comments under the subject header  
18 of water quality. The December plan includes sections  
19 on sort of if there are water quality problems in the  
20 reserve storage water, what will be done, sort of a  
21 contingency plan, and that raised the comments outlined  
22 here in No. 4 related to things such as dissolved  
23 oxygen, pH, temperature, which are things that will be  
24 revised in the low-flow plan.

25 Q Now, these comments that you have outstanding, are you



1 of the opinion that these are things that can be  
2 feasibly addressed?

3 A Yes, I do.

4 Q Now, with regard to the calibration issue, have you  
5 accepted the calibration in Des Moines Creek?

6 A I have accepted the calibration in Des Moines Creek in  
7 regards to the SMP, the high-flow side. The 401  
8 condition requested that the low-flow calibration be  
9 compared to what's called the Tye Golf Course weir  
10 gage. It's a gauge just downstream of the airport,  
11 and the December plan instead looked at the east branch  
12 of Des Moines Creek at the Tye Pond in-flow gage, and  
13 therefore, I've requested that we receive some  
14 information on the performance of the current  
15 calibration at the Tye weir gage.

16 Q I think in your comments you say, don't you, that the  
17 calibration for Des Moines Creek was based upon the  
18 calibration in the Des Moines Creek basin plan? Is  
19 that right?

20 A Yeah. The first model that I was aware of for Des  
21 Moines Creek was done for the Des Moines Creek basin  
22 plan, which was a joint effort on many of the cities  
23 and jurisdictions in that area. The modeling work was  
24 done by King County, and it identified capital  
25 improvement projects, both for high flows, such as a

1 regional facility at the Northwest Ponds location, and  
2 also low-flow mitigations for Des Moines Creek that are  
3 regional in nature, to address the existing development  
4 in the entire Des Moines Creek basin.

5 Q So except for this checking of the gage that you are  
6 mentioning, are you satisfied that the calibration  
7 there is adequate?

8 A The calibration is consistent with the basin planning  
9 work, and, actually, there's only been, there's minor  
10 refinements to that calibration, as is indicated in my  
11 testimony, a lower deep fraction and a slight  
12 adjustment to an IRC parameter settings, and those two  
13 adjustments result in an improved fit over the basin  
14 plan model as is documented in appendix B of the  
15 stormwater management plan.

16 So yes, I am satisfied that through the calibration  
17 effort, they have improved on the ability of the model  
18 to predict flows over regionally accepted parameters  
19 and also over the basin planning work that was done  
20 previously.

21 Q And then with regard to the calibration in Miller and  
22 Walker creeks, have you accepted those or not?

23 A Yes, I have.

24 Q I want to come back just a second to the stormwater  
25 management plan.

**AR 056261**

1 MS. OSBORN: I'd like to go back. I believe  
2 Mr. Young may have just asked Mr. Whiting about a  
3 matter that has occurred post February 28th?

4 MR. YOUNG: That was not my intention.

5 MS. OSBORN: In terms of accepting the  
6 calibrations in Walker and Miller.

7 Mr. Whiting has testified he asked for a validation  
8 report respecting those, the modeling in those creeks.

9 THE WITNESS: To be honest, I didn't know  
10 about this February 28th, so I don't know whether I  
11 received what is entitled the verification report  
12 before or after that date.

13 MS. OSBORN: We know that on February 28th he  
14 had not received that report. In fact, the report  
15 produced to us is dated March 6th.

16 THE WITNESS: Okay.

17 MR. YOUNG: I didn't intend to ask him about  
18 anything after February 28th, so I can move on and ask  
19 some other questions.

20 MS. OSBORN: Could I move to strike? I would  
21 like to move to strike.

22 MS. COTTINGHAM: Can you read back the  
23 questions that he asked about the verification for the  
24 stream. You asked verification on Miller and Walker.

25 MR. YOUNG: I think I asked him has he

**AR 056262**

1           accepted the calibrations on Miller and Walker creeks.

2                   MS. COTTINGHAM:   Yes.

3                   MR. YOUNG:   That was my question.

4                   MS. COTTINGHAM:   Does his answer require him  
5           to rely on information produced after February 28th?

6                   MR. YOUNG:   It could be construed that way,  
7           so I can rephrase.

8                   MS. COTTINGHAM:   Why don't we strike the last  
9           two questions and the answers.

10   Q           (By Mr. Young) Let me come back here to the stormwater  
11           management plan, briefly.

12                   With regard to the water quality treatment, you  
13           reviewed the stormwater plan against the basic  
14           treatment plan; is that correct?

15   A           Yeah.   The King County water quality treatment  
16           requirements, what's called Core Requirement 8, include  
17           a set of menus, and those menus target different  
18           performance goals, and those different menus are  
19           applied geographically through what's called a water  
20           quality applications map and, basically, based on the  
21           resource, the downstream resource.   For example, Lake  
22           Sammamish is phosphorus sensitive, and therefore we use  
23           the sensitive lake water quality treatment menu for  
24           anything that drains to Lake Sammamish.

25                   We also have what's called a resource stream

1 protection menu. We have a sphagnum bog protection  
2 menu. Then as the default water quality treatment is  
3 what we call our basic water quality treatment menu,  
4 whose performance goal is 80 percent TSS removal, total  
5 suspended solids removal, and that was applied. That  
6 is the performance goal that would be applied to these  
7 three basins for projects in unincorporated King County  
8 and was the performance goal used in the stormwater  
9 management plan.

10 Q Now, if additional water quality treatment is required,  
11 do you have an opinion as to whether that would be  
12 feasible based upon your review of the stormwater  
13 management plan?

14 MS. OSBORN: I'm going to object as  
15 speculative.

16 MS. COTTINGHAM: Can you repeat your  
17 question.

18 Q (By Mr. Young) My question was, if additional water  
19 quality treatment facilities are required, do you have  
20 an opinion as to whether those would be feasible based  
21 upon your review of the stormwater management plan?

22 MS. COTTINGHAM: I'll allow it.

23 MS. OSBORN: It's vague.

24 MS. COTTINGHAM: I'm going to allow the  
25 question.

**AR 056264**

1 A Ecology requested that the Port's consultants look at  
2 that issue: Can the stormwater outfalls be retrofitted  
3 with enhanced water quality treatment in the future?

4 The result of that is a statement in the stormwater  
5 management plan that concludes that it would be  
6 practicable to retrofit those outfalls with enhanced  
7 water quality treatment.

8 I did not personally go through each outfall and do  
9 that myself, because it's outside of the scope of my  
10 review.

11 Q But based upon your understanding of the stormwater  
12 management plan, do you concur with the statement  
13 that's in there?

14 A Yes. I see nothing that would preclude the additional  
15 water quality treatment such as perhaps a sand filter  
16 or compost filter or something along those lines.

17 The approach that's being used is to monitor those  
18 outfalls through the monitoring program, and if the  
19 monitoring data indicates that there is a pollutant of  
20 interest that warrants enhanced water quality  
21 treatment, that enhanced water quality treatment  
22 specific to that pollutant will be added.

23 Q Now, I want to move into the offer of proof portion.

24 Since your comments in February, have you received  
25 additional information from the Port? **AR 056265**

1 A Yes, I have.

2 Q And what was that?

3 A The first thing I recall receiving was a CD-ROM with  
4 the electronic files on it, I believe, before February  
5 28th.

6 I received a packet of material afterwards, perhaps  
7 on March 6th, and on March 18th or 19th, I received a  
8 three-ring binder that was entitled low-flow report,  
9 basically, that I have not opened.

10 Q Did you receive any of the validation reports that you  
11 requested?

12 A Yes. In that second submittal, there was a report  
13 entitled verification report addressing Miller and  
14 Walker creeks and the need to recalibrate or not.

15 Q And, again, what did that verification report address?

16 A The need to go back through the calibration process  
17 because of the newly defined 1994 land-cover and  
18 groundwater routings that were done for the December  
19 low-flow plan.

20 Q What conclusions do you draw with regard to calibration  
21 in Miller and Walker creeks based upon that  
22 information?

23 A The report shows, actually, a slightly better fit to  
24 observed data for Walker Creek, and an **AR 056266**  
25 indistinguishable difference in Miller Creek, and based

1 on that, my conclusion is that those two models do not  
2 need to be recalibrated to address the updated 1994  
3 conditions.

4 Q So does that mean that you have accepted them, the  
5 calibration in those two creeks?

6 A That is my conclusion. I have not formalized that  
7 conclusion, nor I have not been asked to.

8 Q You mentioned that you had some outstanding comments  
9 from that February letter regarding some  
10 inconsistencies in the modeling of Miller Creek?

11 A Yes.

12 Q Have those been addressed?

13 A That is the same submittal, and those have been -- no,  
14 actually, excuse me. The Miller Creek information was  
15 submitted electronically on a CD prior to February  
16 28th, and I have looked at those, and the problems  
17 identified in my comments have been addressed in that  
18 revised model.

19 Q And what is the impact number of Miller Creek?

20 A I believe two decimal places zero is the exact number,  
21 where previously, in July, it was showing a surplus or  
22 a net benefit from the embankment discharges.

23 Q So are you satisfied?

24 A Excuse me. I just misspoke. Excuse me. Not July, but  
25 December. The December plan shows surplus of those and



1 this is showing a zero impact for that one stream.

2 Q Are you is satisfied that is an accurate number?

3 A I've indicated that I want to see that in the final  
4 form in revised plan, and I will review that and will  
5 make that determination at that time.

6 Q I think you also mentioned that you had some comments  
7 regarding the graph low-flow periods in Walker Creek.  
8 Has that information been received as well?

9 A Yes, it has.

10 Q Has that satisfied your concern in that regard?

11 A The revised occurrence graph is now consistent with the  
12 earlier one that I had seen and is not showing the 17  
13 events occurring prior to the start date of the  
14 low-flow offset so yes, it has. It has resolved my  
15 concerns, as stated earlier previously.

16 MR. YOUNG: That's all the questions I have  
17 for Mr. Whiting.

18 MS. COTTINGHAM: Mr. Reavis, do you have  
19 anything?

20 MR. REAVIS: I have just a few.

21

22 EXAMINATION

23 BY MR. REAVIS:

24 Q Mr. Whiting, in your prefiled direct, you refer to  
25 possible stream gage errors in connection with

**AR 056268**

1 modeling in general. Let me just ask you a general  
2 question.

3 Is it consistent with your experience that  
4 oftentimes or sometimes you will discover errors in  
5 stream gages?

6 A Yes. Particularly at low flows, particularly like with  
7 Walker Creek, it does not have a hard and fast  
8 cross-section. It is just a natural stream channel  
9 that the gage is located in, and it becomes very  
10 difficult to gage out low flows, and you can see that  
11 in the record.

12 It will staircase up when there's been no  
13 precipitation for weeks, and all of a sudden the gage  
14 records will start to pick up, and there's nothing that  
15 would drive that type of response. And you just get a  
16 leaf or something on the gage and all of a sudden it's  
17 not two-tenths of a cfs and it's two-and-a-half-tenths,  
18 and you are off by 25 percent.

19 Q And can you see that sort of change that you are  
20 talking about in the hydrographs that are prepared?

21 A Yes, you can. You can see that in the low-flow report  
22 where they compare the observed to simulated base  
23 flows.

24 Q And if you're modeling, then, this particular stream,  
25 as the modeler, how do you deal with that sort of

1 stream gage error?

2 A Well, you simply cannot make the model pick up flows  
3 when there's no precipitation to drive it. You have to  
4 pick the periods of record that you think are well  
5 observed by the gage and to do your best to match those  
6 periods of record.

7 Q So is that an instance where you exercise your judgment  
8 and simply disregard that data?

9 A Yes. It needs to be documented, of course, why you  
10 discounted the other periods of record, and that is  
11 simply what I was documenting there, and the testimony  
12 was taken from the low-flow report and discussions  
13 during these facilitated meetings.

14 Q Are there, to your knowledge, documented stream gage  
15 errors in these streams that we are dealing with here:  
16 Miller, Walker and Des Moines?

17 A The modeler for Miller and Walker documented some  
18 discrepancies in those gage records, yes.

19 Q You mentioned a minute ago the term mass balance. Can  
20 you explain what that is for us, please.

21 A It's simply that you can take the observed record and  
22 determine the total volume of water that passed that  
23 gage, and you should be, your simulated hydrograph  
24 should have the same volume also passing, so it's a  
25 volume check that they are not generating excess volume

1 or have too little volume.

2 Q Does that mean the water has to essentially go  
3 somewhere and you have to account for everything?

4 MS. OSBORN: Objection. That's leading.

5 Q Maybe if you can explain to us how you account for what  
6 you described, which is the mass that goes here and  
7 there.

8 A Yeah. It's just in those HSPF parameter settings you  
9 can control where the water goes. You can also lose  
10 water out of the bottom of the model through a variable  
11 called deep fraction, which is often used to help kind  
12 of do a course mass balance, and that is water that's  
13 assumed to be lost from the active groundwater and lost  
14 to deep groundwater and what appear further downstream.

15 Q Does the King County Surface Water Design Manual  
16 require any low-flow mitigation?

17 A We have an approach to stormwater management that  
18 encourages low-flow mitigation through things like  
19 forest retention, preferences to infiltration and  
20 dispersion where feasible, and impervious surface  
21 reductions and those things.

22 We do not have specific standards that say that if  
23 you can't do those things, you can't infiltrate all  
24 your water and this is what you have to do.

25 Typically, on-site development low flows are not

1 specifically mitigated unless infiltration and  
2 dispersion are feasible.

3 Q One last area and that is this issue of a one-hour time  
4 step. I believe you said in your prefiled testimony  
5 that you accepted a one-hour time step here.

6 Can you tell us why?

7 A Well, a one-hour time step is the time step used to  
8 collect the precipitation record, and so it is the time  
9 step used in the stream models.

10 The issue was that the runoff off of the runways  
11 and onto the grass infilled area where it's going to  
12 infiltrate will be spikier than can be picked up with a  
13 one-hour time step and that may affect the amount of  
14 volume that can infiltrate into these filter strips.

15 I accepted or did not comment on the one-hour time  
16 step because of the long surface flow pass across these  
17 grass filter strips. They are a 2 percent slope. They  
18 are extra long in most areas and would attenuate that  
19 affect of using a shorter time step.

20 MR. REAVIS: Thank you. That's all I have.

21 Just for the record, I think Mr. Young was dealing  
22 with his offer of proof, and then I went into my  
23 questions.

24 I wanted to just make it clear that I wasn't making  
25 an offer of proof. I was asking direct questions.

1 MS. COTTINGHAM: That's my understanding as  
2 well. Cross-examination?

3 MS. OSBORN: Yes. Would it be possible for  
4 us to take a brief break?

5 MS. COTTINGHAM: It would be. Why don't we  
6 take a ten-minute break and come back at ten after two.

7 (Recess taken.)

8 MS. COTTINGHAM: We'll go back on the record.

9 MS. OSBORN: Ms. Cottingham, just a couple of  
10 matters that I wanted to put on the record, partly  
11 because we lost some of the court reporting in the  
12 beginning.

13 First, I just wanted to clarify that ACC has not  
14 received some of the documents that Mr. Whiting  
15 discussed in the offer of proof, and I just wanted the  
16 record to reflect that.

17 And also because the purpose of the offer of proof  
18 is to preserve for some reviewing judge in the future  
19 what might have been in the record, ACC would like to  
20 make an offer of proof as well, and I can just do that  
21 through my own statement, rather than bringing  
22 witnesses in, if that would be acceptable.

23 MS. COTTINGHAM: Do you want to do that now  
24 or at the end of your cross-examination?

25 MS. OSBORN: I'll do it right now. It will

1 just take me a moment.

2 Our offer of proof is simply that we have received  
3 the copy of, I believe it's the March 6th verification  
4 report from Miller and Walker Creek.

5 Our hydrologist, Bill Rozeboom, has taken a very  
6 brief look at it and were he to testify about it, he  
7 would say that there's nothing contained in that report  
8 that actually addresses the low-flow mitigation.

9 That's it.

10 MS. COTTINGHAM: Okay. With that, we will  
11 continue with your cross-examination of Mr. Whiting.

12 MS. OSBORN: Thank you.

13

14 EXAMINATION

15 BY MS. OSBORN:

16 Q Good afternoon, Mr. Whiting.

17 A Good afternoon.

18 Q In your review work on the low-flow plan and the  
19 stormwater plan, you represented the Department of  
20 Ecology; is that correct?

21 A I believe I jointly represented King County and  
22 Department of Ecology.

23 Q To your knowledge, did anyone else at the Department of  
24 Ecology review the stormwater plan?

25 A Yes.

**AR 056274**

1 Q And in terms of the modeling and compliance with King  
2 County surface water or the stormwater manual?

3 A No.

4 MS. COTTINGHAM: Mr. Whiting, just to tell  
5 you, that microphone does not broadcast so you don't  
6 need to lean into it to testify.

7 Sorry to interrupt.

8 Q (By Ms. Osborn) And with respect to reviewing the  
9 surface water modeling and the stormwater design  
10 components of the low-flow plan, was there anyone else  
11 at the Department of Ecology that reviewed those  
12 aspects of the plan?

13 A Not that I coordinated with, no.

14 Q And to clarify, you didn't, you did not review the  
15 groundwater modeling of the embankment; is that  
16 correct?

17 A Yes. I did not review the embankment modeling, but I  
18 understood that to be excluded from your question.

19 Q Now, I'd like to ask you a few questions about water  
20 quality.

21 Were you aware that there were higher copper  
22 concentrations in the Port's stormwater discharges?

23 MR. YOUNG: I'm going to object to the form  
24 of that question. The use of the term "high" is a  
25 vague term; also, it could be disputed.

**AR 056275**



1 MS. COTTINGHAM: Could you restate your  
2 question.

3 Q (By Ms. Osborn) Were you aware that there were copper  
4 concentrations in the Port's stormwater discharges?

5 A There is a table in the stormwater management plan that  
6 gives some concentrations of some outfalls and compares  
7 them to other monitoring data from other locations not  
8 related to the Port of Seattle, and I had our water  
9 quality specialists look at those, and based on that,  
10 it appeared that there was copper concentrations and  
11 low TSS, total suspended solids, which gives the  
12 impression that perhaps that copper may be in soluble  
13 form, and some comments related to that were  
14 transmitted to Ecology via my comment letters.

15 Q To be specific, looking at Exhibit 48 -- and we should  
16 have that. It might be in the black book right in  
17 front of you there.

18 Exhibit 48, enclosure 1, which is following the  
19 letter, on page 6 of enclosure 1, if you look down the  
20 page at the second paragraph following Core Requirement  
21 No. 8, there's a paragraph there discussing high Cu  
22 concentrations. Does Cu stand for copper?

23 A Yes, it does.

24 Q So is this one of the comment letters that you were  
25 just referring to?

**AR 056276**

1 A Can you hang on just a second.

2 My Exhibit 48 includes the letter and enclosure 2.

3 I do not have enclosure 1.

4 MS. COTTINGHAM: Neither does the Board.

5 MS. OSBORN: Can we go off the clock for a  
6 minute?

7 MR. YOUNG: We have it.

8 MS. OSBORN: You do have it?

9 MR. YOUNG: We do have it.

10 MS. COTTINGHAM: We only have enclosure 2.

11 MS. OSBORN: May we go off the clock?

12 MS. COTTINGHAM: You may.

13 MS. OSBORN: Ms. Cottingham, I'll provide you  
14 with a copy of the exhibit at this time. We'll make a  
15 copy for you.

16 Q (By Ms. Osborn) Looking at page 6 of enclosure 1,  
17 beneath the, down toward the bottom of the page, Core  
18 Requirement No. 8, second paragraph starting, discharge  
19 monitoring data. It indicates high copper  
20 concentrations.

21 This is an example of one of the comment letters  
22 you provided to the Department of Ecology; is that  
23 correct?

**AR 056277**

24 A That is correct.

25 Q Now, you are familiar with the water quality treatment

1 BMPs that are contained in the Port's stormwater plan;  
2 is that right?

3 A I'm sorry. I was thinking about the letter. Can you  
4 please restate the question.

5 Q You are familiar with the water quality treatment BMPs  
6 that are contained in the Port's stormwater plan; is  
7 that correct?

8 A Yes, I am.

9 Q And would the treatment BMPs that are contained in the  
10 plan control a dissolved metal problem as indicated in  
11 your letter here?

12 A That is not their performance objective.

13 Q And does compliance by the Port's stormwater plan with  
14 the King County manual's basic treatment menu, which  
15 you testified that it does comply; is that correct?

16 A That is correct.

17 Q With the basic requirements; is that right?

18 A With the basic water quality treatment menu.

19 Q And does that mean that the stormwater plan complies  
20 with or the Port's discharges will comply with state  
21 water quality standards?

22 MR. YOUNG: I'm going to object to the extent  
23 it calls for a legal conclusion.

24 MS. OSBORN: Water quality standards involve  
25 numeric criteria. It's a factual application.

**AR 056278**

1 MS. COTTINGHAM: Similar to the other  
2 objections that have been made on this same topic, he's  
3 qualified as someone who has an opinion about how it  
4 applies and we'll give it due weight, so you may answer  
5 the question.

6 A I am not an expert in state water quality standards,  
7 and my answer would be that it's not known whether  
8 those BMPs will result in discharges that comply to the  
9 state water quality standards, nor would compliance  
10 with the 2001 Ecology manual treatment requirements  
11 ensure compliance with state water quality standards.

12 Q You are familiar with the term AKART; is that right?

13 A I believe I know what it standards for, yes.

14 Q Does compliance with the King County manual ensure,  
15 does that mean that the stormwater plan meets AKART  
16 requirements?

17 MR. YOUNG: Again, I object. That calls for  
18 a legal conclusion.

19 MS. COTTINGHAM: Again, my ruling will be  
20 that the Board will give it due weight.

21 Q (By Ms. Osborn) If I can have you take a look at  
22 Exhibit 40, on page 5, and looking at line 19, is this  
23 the declaration that you prepared in this proceeding?

24 A Yes, it is.

25 Q And at line 19 does it state, "I commented that the

1 King County manual is not AKART"?

2 A This was in response to a declaration made by others on  
3 a comment that I provided on the original draft 401  
4 certification. I did state that here in that context,  
5 yes.

6 Q Does the King County manual address high dissolved  
7 copper concentrations or metal concentrations?

8 A The King County manual includes a resource stream  
9 protection menu, a water quality treatment menu. It is  
10 applied in King County to high value fish resource  
11 areas, such as spawning areas, and it's applied there  
12 because we have the most to lose if there was to be a  
13 high metal concentration in the streams, so we do have  
14 a water quality treatment menu that does target metal  
15 removals, but it would not be applied in these stream  
16 basins.

17 Q Thank you. That answers my question. So the basic  
18 treatment menu that's been used here is not designed to  
19 control for soluble metals; is that correct?

20 A No. It's performance goal is 80 percent total  
21 suspended solids removal.

22 Q That is designed to control for particulate metals; is  
23 that right?

**AR 056280**

24 MR. REAVIS: Objection. Leading

25 MS. COTTINGHAM: I'm going to allow the

1 question.

2 MS. OSBORN: I peg your pardon.

3 MS. COTTINGHAM: I'm going to allow the  
4 question.

5 MR. REAVIS: Cross-examine. I apologize.

6 Q (By Ms. Osborn) And this enhanced treatment that you  
7 just discussed applies when a receiving water is  
8 designated a resource stream; is that correct?

9 A We apply it to what we call the regionally significant  
10 resource areas. Those are designations applied through  
11 basin planning processes.

12 Q And Des Moines and Miller and Walker Creek have not  
13 been designated as resource streams; is that correct?

14 A No, they have not been.

15 Q I'd like to have you take a look at Exhibit No. 2068.  
16 This is the King County stormwater manual, excuse me,  
17 Surface Water Design Manual.

18 MR. LYNCH: I'm sorry. Would you say the  
19 number again.

20 MS. OSBORN: It's 2068. It's a green volume.  
21 Its own volume.

22 Q (By Ms. Osborn) I'd like to have you take a look at  
23 page 1-54, from the core requirements. There's  
24 discussion of resource stream protection menus here; is  
25 that right?

**AR 056281**

1 A That's correct.

2 Q And in the middle of that paragraph, it states that  
3 stream reaches, these stream reaches are important  
4 fishery resources where substantial aggregation of fish  
5 are likely to be present all or part of the year; is  
6 that correct?

7 A That is correct. That's what it says.

8 Q Good. Then taking a look at Chapter 6, page 6-10 in  
9 the water quality menus, some brief discussion here of  
10 resource stream protection menu, and it says, "Where  
11 applied," and it states, "The resource stream  
12 protection menu is applied to stream reaches determined  
13 to be regionally significant because of salmon use."  
14 Is that correct?

15 A Yes. That's in the leading paragraph.

16 Q Now, if King County had jurisdiction over the  
17 stormwater planning process for the third runway, would  
18 this process have gone through a master drainage plan  
19 process?

20 MR. YOUNG: Object. Speculative.

21 MS. COTTINGHAM: Do you want to lay a  
22 foundation for that question?

23 Q (By Ms. Osborn) You have indicated in your prefiled  
24 testimony that the Port's stormwater planning met  
25 certain requirements of the King County stormwater

1 planning process, but not others; is that correct?

2 A Yes. They met the technical requirements.

3 Q But they did not meet the master drainage plan

4 requirements; is that correct?

5 A That process that you are describing has been renamed

6 to large site drainage review, so they are the same

7 thing, and this project did not -- it went through

8 portions of large site drainage review, such as the

9 SEPA process, but it did not go in front of the county

10 hearing examiner and other processes that are specific

11 to King County permits.

12 Q And had King County had jurisdiction over it, would it

13 have gone through the large site drainage review

14 process?

15 A Yes. I believe it exceeds the threshold, at least the

16 aggregate of all the master plan projects exceeds the

17 threshold of large site drainage review.

18 Q Looking back at Exhibit 48, enclosure 1, on the second

19 page, you've included in these comments that were

20 submitted -- actually, looking at enclosure 1, the

21 footer says, it gives a date of February 9, 2000, but

22 these comments were made in 2001; is that correct?

23 A Yes. That's my typo. Thank you.

24 Q On page 2, you have excerpts from the large site

25 drainage review that are contained in your comments; is



1 that right?

2 A Yeah. That's cut and pasted out of the King County  
3 Surface Water Design Manual.

4 Q And large site drainage review process entails, for  
5 example, public hearings and comments and detailed  
6 technical standards; is that correct?

7 A Yes.

8 Q But you didn't perform that process or that process was  
9 not performed for this stormwater plan; is that right?

10 A It was not subject to King County processes. It went  
11 through its own set of public processes and public  
12 comment processes unique to the Port of Seattle.

13 Q Moving on to low-flow plan, you have indicated in your  
14 prefiled testimony, at page 18, excuse me, page 10,  
15 paragraph 18 that --

16 MS. COTTINGHAM: Can you give us a second,  
17 Ms. Osborn, so we can catch up with you.

18 Q Page 10, paragraph 18, at the bottom. I'm directing  
19 your attention to the very last sentence of the page.

20 Now, you've indicated here that low-flow  
21 mitigations proposed constitute a substantial amount of  
22 mitigation beyond the minimum requirements of the  
23 manual. Does the King County manual address low-flow  
24 mitigation plans?

25 A No, it does not.

**AR 056284**

1 Q And this is actually discussed in the declaration,  
2 isn't it, Exhibit 40, that you submitted earlier in  
3 this matter?

4 Is that correct, looking at page 6?

5 The limits on what King County, what the King  
6 County manual does not address with respect to  
7 mitigation for low flow is indicated on page 6 of your  
8 declaration; is that correct?

9 Exhibit 40.

10 A I'm looking at my direct testimony, page 6.

11 Q No. Your declaration. I'm sorry. Exhibit 40.

12 I'm referring to the declaration you submitted  
13 involving the stay motion in this matter from last  
14 October.

15 MR. YOUNG: Which paragraph?

16 MS. OSBORN: Page 6 starts off at line 4,  
17 paragraph 2, low-flow plan, first bullet following that  
18 heading.

19 A The question was did I say this?

20 Q This captures the limitations from the King County  
21 manual with respect to standards for low-flow  
22 mitigation or lack thereof; is that correct?

23 A It talks about the testimony I just gave with regards  
24 to forest retention and encouraging infiltration and  
25 dispersion where feasible. The mitigations proposed in

1 the low-flow plan are stormwater vaults with release  
2 structures, and those are not that unusual of a  
3 facility that's being proposed as far as the  
4 construction and operation of that facility.

5 Q Does the King County manual address the use of those  
6 facilities for low-flow mitigation purposes?

7 A Not specific for low-flow mitigation purposes, but we  
8 do have vaults for --

9 Q Thank you.

10 A -- both flow control and for water quality treatment.

11 Q You reviewed the July 2001 low-flow plan that was  
12 prepared by the Port; is that correct?

13 A That is correct.

14 Q Those were the subject of your comments dated August  
15 3rd; is that right?

16 A That's correct.

17 Q That Mr. Young referred to?

18 A That's correct.

19 Q Was the July 2001 low-flow plan complete?

20 A I did not find it complete.

21 Q And that incompleteness, in your opinion, of how it was  
22 incomplete was captured in that letter of August 3rd;  
23 is that correct?

24 A Yes, it was.

25 Q And did you recommend to Ecology that a complete plan

**AR 056286**

1 be required before the section 401 certification was  
2 issued?

3 A That was my preference, yes.

4 Q And you recommended that to Ecology; is that correct?

5 A Yes, I did.

6 Q Now, prior to the creation of that plan, you  
7 participated in a series of facilitated meetings for  
8 the low-flow plan in the spring and summer of last year  
9 2001; is that correct?

10 A Yes. That is correct.

11 Q And did the facilitated meeting process put a lot of  
12 pressure on the attendees in June and July?

13 MR. YOUNG: Object. Vague.

14 MS. COTTINGHAM: Do you want to clarify what  
15 you mean by your question?

16 Q (By Ms. Osborn) Did the facilitated meeting process and  
17 the tasks that were being outlined to be done during  
18 that meeting process put pressure on the attendees to  
19 accomplish those tasks in June and July?

20 MR. YOUNG: I object. It's the same  
21 question. It's vague.

22 MS. OSBORN: What's the vagueness?

23 MS. COTTINGHAM: The word pressure, I would  
24 imagine. Do you want to just clarify?

25 Q (By Ms. Osborn) did it require the attendees to work

1 fast and get work done to get the July 2001 low-flow  
2 plan out?

3 A I can only speak for myself. And the time lines were  
4 fairly tight to provide feedback and to have my input  
5 into the preparation of that plan.

6 Q Now, looking back at your prefiled testimony, the  
7 direct testimony that you submitted for today, on page  
8 10, in paragraph 17, starting on line 15, you state  
9 that "While these calibrations," referring to  
10 calibrations in the Miller, Walker and Des Moines  
11 Creek, "fall short of providing a perfect match to  
12 observed data," and then you make a conclusion there.  
13 And I'd like to ask you some questions about this  
14 falling short of providing a perfect match. You've  
15 also, with respect to these calibrations, used the term  
16 less than good match; is that right?

17 MR. YOUNG: I object. That's vague. There's  
18 a number of different stream models and a number of  
19 different comments, a number of different time periods.

20 MS. COTTINGHAM: I'd like to back up a bit,  
21 because I'm not sure we're in the same place you're  
22 reading from.

23 MS. OSBORN: Sure.

24 MS. COTTINGHAM: So if you will re-ask your  
25 question once you get us to the same spot. **AR 056288**

1 MS. OSBORN: You bet. I'm looking at the  
2 direct testimony of Kelly Whiting that was submitted in  
3 this proceeding, prefiled testimony, page 10, and  
4 specifically looking at paragraph 17.

5 MS. COTTINGHAM: Okay.

6 MS. OSBORN: And I'm asking Mr. Whiting about  
7 a statement he makes at line 16. "These calibrations  
8 fall short of providing a perfect match to observed  
9 data."

10 Q (By Ms. Osborn) And I'll also bring to your attention  
11 here Exhibit 458, which are your comments dated  
12 February 23rd, 2002, in a black notebook, the last one.

13 If you will look at page 5 of Exhibit 458, at the  
14 very last line on page 5, referring to the low-flow  
15 calibration for Des Moines Creek, you stated that "The  
16 flow comparison shows a less than good match to  
17 observed gage records." Is that correct?

18 A That is, yeah, in reference to Des Moines Creek in  
19 terms of low-flow simulation.

20 Q And looking over on the following page, page 6, top of  
21 the third or the third paragraph, the final paragraph,  
22 you refer to it as a poor match; is that correct?

23 You are referring to the Des Moines Creek basin  
24 low-flow comparison, is that correct, in that  
25 statement?

**AR 056289**

1 A Yeah. I do state that in my annotations to these  
2 comments, again, in reference to the Tyee gage east  
3 branch of Des Moines Creek results that were presented  
4 in that plan.

5 Q And at the deposition that we conducted on February  
6 28th, you indicated that there's a significant  
7 difference between the observed and simulated at that  
8 point, isn't that correct, in discussing those Des  
9 Moines calibrations?

10 A At the Tyee gage, yes, there is.

11 Q And you also stated that you cannot say the calibration  
12 provides a good match; is that correct?

13 A Again, for Des Moines Creek at the gage, the indication  
14 is that does, the data was not provided at the gage  
15 that was conditioned in the 401. It provided at a  
16 different gage location.

17 Q Now, the Des Moines low-flow model, as you testified a  
18 little earlier today, was based on King County's Des  
19 Moines basin plan modeling; is that right?

20 A Yes. That's correct.

21 Q And this created a constraint for you, didn't it?

22 A It created a -- yeah, in a way it did generate a  
23 constraint in that if a development proposal in an area  
24 that King County had done a basin plan follows that  
25 basin plan using their calibration and their

1 mitigations, it is generally acceptable.

2 Q So you were in a position where it was hard to  
3 criticize the use of this model because King County had  
4 created it and used it for the basin plan; is that  
5 correct?

6 A It hasn't stopped me from commenting on it, but it's  
7 difficult to not accept.

8 Q So you asked for a calibration to the Tye Pond gage;  
9 is that right?

10 A No. I wanted calibration comparison done at the golf  
11 course weir gage, gage 11-F.

12 Q Right. 11-F. Sorry. That was my error.

13 And doing that comparison with 11-F data was  
14 actually a requirement in the 401 certification, wasn't  
15 it?

16 A Yeah. That was taken, I believe, out of my comments on  
17 the July low-flow plan.

18 Q It wasn't in the December 2001 low-flow plan; is that  
19 right?

20 A It was not provided as part of that plan. A separate  
21 gage was used.

22 Q You want to see data from this golf course weir because  
23 it measures the west fork of the stream; is that right?

24 A It's downstream of the confluence of the east and west  
25 fork, and it includes -- it's really the furthest



1 upstream point at which all STIA related changes, land  
2 coverage changes would be accounted for. It's also a  
3 good gage in that it has a hard and fast  
4 cross-section, a weir that would typically be more  
5 accurate in gauging low flows.

6 Q Now, taking a look at Exhibit 458 again, which were  
7 your February 23rd comments, as you've just testified  
8 on direct with Mr. Young, you raised a number of issues  
9 in this review; is that right?

10 This is your review of the December 2001 low-flow  
11 plan?

12 A Yes, it is.

13 Q And you've raised some concerns in this; is that right?

14 A Yes. There are several pages of comments here, yes.

15 Q And it indicates on the very first paragraph, down at  
16 the bottom here, that material was received at a  
17 February 19th meeting, and then electronic files were  
18 received on February 22nd, but those materials had not  
19 been reviewed.

20 A You are looking at the very last paragraph?

21 Q No. I'm actually looking at the very first paragraph  
22 that starts underlined text.

23 A That is a correct statement, yes.

24 Q And as you testified earlier, some of the issues that  
25 are contained in this review comment, you actually

1 raised in your August 3rd letter; isn't that right?

2 A Well, I mean, we just talked about an example of that,  
3 would be the gage 11-F comparison.

4 Q And there are other issues that were raised as well; is  
5 that right?

6 A Well, that might take me a minute.

7 Q Maybe we can --

8 A Vault fill times on Walker Creek was a comment from  
9 this here as well.

10 Sorry to cut you off.

11 Q No, that's all right. I was going say maybe we can  
12 make this a little shorter just by we could talk about  
13 your deposition.

14 Do you recall that we went through the August 3rd  
15 letter and looked at, after reviewing this letter and  
16 identified items that were still outstanding from  
17 the --

18 MS. YOUNG: I'm going to object to using the  
19 deposition in this fashion. She's not trying to  
20 impeach him. She's trying to refresh his memory with  
21 it.

22 MS. COTTINGHAM: I'm going to sustain the  
23 objection.

24 Q (By Ms. Osborn) So is your testimony that you don't  
25 remember whether there are other outstanding concerns

1 from the August 3rd letter that remained outstanding  
2 when you prepared this review comment?

3 A I have not done a comparison. I don't recall my  
4 deposition specific line item by line item. It was  
5 like two days' worth. Therefore, I would hope that  
6 there are consistencies between my comment letters. I  
7 try to be consistent in my reviews, and I just don't  
8 have specific examples for you, at this time.

9 Q So, for example, at your deposition you state, looking  
10 at the items that are contained in the August 3rd  
11 letter --

12 MR. YOUNG: I'm going to object again to  
13 using the deposition in this way. He has not made a  
14 statement that she's trying to impeach. She's trying  
15 to refresh his memory with the deposition.

16 MS. OSBORN: Well, refreshing his memory is  
17 appropriate here where he knew about it less than a  
18 month ago and doesn't know now.

19 THE WITNESS: It's not that I don't know.

20 MS. COTTINGHAM: Hang on just a second.

21 Are you going to use it to impeach his memory or to  
22 refresh his memory?

23 MS. OSBORN: I'm going to use it to impeach  
24 his memory. He said he doesn't know. I'm going to use  
25 it to --

**AR 056294**

1 THE WITNESS: Excuse me. I said I couldn't  
2 give you a specific example.

3 MS. COTTINGHAM: Hang on. Hang On. I'm  
4 going to let the attorneys argue this out.

5 MS. OSBORN: Why don't we try it another way.

6 MS. COTTINGHAM: Okay.

7 MS. OSBORN: Because it's not my intention --  
8 I think Mr. Whiting does know this stuff, and we can  
9 get at it a different way.

10 MS. COTTINGHAM: Okay.

11 Q (By Ms. Osborn) Now, looking at your 2-23 comments, on  
12 a first page here, which doesn't have a page number,  
13 you state on the third paragraph, starting, "These  
14 review comments comprise findings and recommendations,"  
15 and you state in the middle of this that "The  
16 conclusion of this review is that additional  
17 refinements are needed prior to concurrence with the  
18 revised impact numbers in Miller Creek and for  
19 demonstration of sufficient and timely water collection  
20 for Walker Creek." Is that right?

21 A Yes

22 Q And those additional comments are provided as well; is  
23 that right?

24 A That is correct.

25 Q When you say concurrence, what you mean is that you are

1           trying to evaluate the feasibility of the mitigation in  
2           terms of will they meet their performance objectives  
3           and are the facilities constructible and is it feasible  
4           they will meet the performance objectives; is that  
5           correct?

6   A       Yeah. That sounds like a direct quote.

7   Q       And based on these comments, you asked for changes to  
8           the low-flow plan; is that right?

9   A       These comments being the February 23rd --

10   Q       That's right.

11   A       My recommending to Ecology that some changes be made to  
12           that low-flow plan.

13   Q       And you called for the validation report as you  
14           discussed in your prefiled; is that right?

15   A       That is correct.

16   Q       And you asked for a validation report for all three  
17           streams; is that right?

18   A       The 1994 land-cover and groundwater routing was  
19           redefined for all three streams, so yes, I did.

20   Q       And the concern here is with altering existing  
21           condition models, alterations that went on between the  
22           July low-flow plan and the December low-flow plan; is  
23           that right?

**AR 056296**

24   A       Between all previous modeling work where the  
25           calibration was actually performed under the SMP in

1 appendix B, but a change from that may warrant a  
2 recalibration, although I have not seen and completed  
3 my review of those reports.

4 Q Okay. What I'd like to do is go through some of the  
5 comments here and just to quickly explain them.

6 Looking at page 1 --

7 A Which comments; February 23rd?

8 Q February 23, yes.

9 These comments are addressed to Walker Creek;  
10 right?

11 A Page 1, yes. That is correct.

12 Q And in looking at the third bullet and subsequent  
13 annotations, your concern here is the Walker Creek  
14 vault filling times; is that right?

15 A For the reserve storage vault, yes, that is correct.

16 Q And reserve storage vault meaning the vaults that are  
17 going to hold the low-flow mitigation water?

18 A That is correct.

19 Q Is your concern here that if the vault filling extends  
20 beyond 60 days into the spring, then it may rob the  
21 streams of water that they need to maintain flows  
22 during the vault-filling period?

23 A Yes. The concept was that we would -- that the winter  
24 volumes of water would be captured in the reserve  
25 storage when the streams are having excess water and

1           that water then would be held and released during the  
2           low-flow period.

3   Q       And the 2-23 comments indicate that there was going to  
4           be follow-up on this issue; is that correct?

5   A       That is correct.

6   Q       And then there's some discussion of the need for the  
7           validation report in this section as well; is that  
8           right?

9   A       That is correct, at the end.

10   Q      Calling your attention to page 4, again to your  
11           annotation following the HSPF parameter settings, you  
12           indicate that there's a need for a validation report  
13           with respect to Miller Creek and that's the discussion  
14           here; is that correct?

15   A       Yes. That is correct.

16   Q       And in looking at page 5, there's a comment here, the  
17           second bullet, indicating that you request that an  
18           earlier start time for mitigation for Des Moines Creek  
19           be considered; is that right?

20   A       That is another comment that also appeared in the  
21           August 3rd comments. Thank you.

22           It appeared that there was a month or more of  
23           reserve storage left at the end of the augmentation  
24           period, and it appeared that an earlier start time  
25           could be accommodated, and it was placed as a condition

1 in the 401 certification, that that be evaluated.

2 Excuse me.

3 Q And it's indicated that there would be follow-up on  
4 this; is that correct?

5 A That was my understanding from the meeting that  
6 occurred.

7 Q And taking a look at page 7, water quality comments in  
8 the first paragraph right at the top there there's a  
9 discussion about water quality data pertaining to the  
10 water quality in the reserve vault; right?

11 A Yes. This was a request made of me by the Port of  
12 Seattle's consultants to see if we had data on water  
13 coming out of wet vaults during late summer, wet vaults  
14 being analogous to these reserve storage vaults.

15 Q And the concern there is there is not enough data to  
16 know what the water quality will be; is that right?

17 A We have not collected summer discharge data out of  
18 vaults, and so talking to my water quality specialist,  
19 we decided to contact the city of Bellevue, because  
20 they had some monitoring data on wet vaults, but not  
21 during the period of the year that we are interested in  
22 here.

23 Q Okay. And taking look at page 8, down on the fourth  
24 bullet here, there's a discussion that appears to have  
25 been ongoing since August 3rd, is that right, about



1 possible impacts to streams earlier in the year than  
2 mitigation is called for?

3 A Yeah. It dates back to the facilitated meetings that  
4 occurred prior to the August 3rd letter.

5 Q And I think you excerpted a quote here out of the  
6 August 3rd comment letter.

7 A Yes, I did.

8 Q And you indicate in these comments that -- let's see.  
9 Looking down at the third paragraph, under the fourth  
10 bullet, that "There are no biological conclusions drawn  
11 from the analysis to answer questions raised or support  
12 the position of no biological impact from based flow  
13 reductions in early summer"; is that right?

14 A Yes, that's what it says.

15 Q So what this means is that the December low-flow plan  
16 didn't contain the basis for drawing the conclusion  
17 that there were no biological impacts; is that correct?

18 A This bullet refers to analysis of what will reduced  
19 flows instream look like: Will there be fewer pools?  
20 Will fish be forced into pools earlier with more  
21 predation? Will there be affects on insect hatches?  
22 Other things that are biological consequences.

23 And when I took this issue to my fish biologist,  
24 those are the questions he asked of me: What will this  
25 look like instream so we can try and make some

1 predictions as to whether it would be impacted or not.

2 And so I forwarded these questions. Since I  
3 couldn't answer these questions, I forwarded them on in  
4 my comment letters to the Department of Ecology. This  
5 is, again, doing the same thing.

6 Q And this is not, as you indicate here, is no action  
7 discussed. You deferred the question to Ecology's  
8 review and analysis; is that right?

9 A I referred it to, yeah, to Ecology staff with  
10 biological expertise as to whether they would use the  
11 data, and it seemed to be -- there's a lot of work  
12 involved in doing this, and I wanted to make sure that  
13 work would be useful to people that implement this  
14 section. This is getting outside of my scope of doing  
15 modeling work.

16 Q I was going to ask you that. This is outside the scope  
17 of your contract with Ecology?

18 A In fact, it is. But it's an issue that arose, and I  
19 felt a need to comment on.

20 Q Looking over at page 9, on the very top paragraph, it  
21 says, "Both the Port and Ecology indicated they would  
22 consult their biological experts to determine the need  
23 for further action."

**AR 056301**

24 This is your annotation; right?

25 A Yes. That's my recollection of the meeting that

1 occurred.

2 Q And who did that in Ecology? Who is their biological  
3 expert that's doing this?

4 A I have not had conversations with them. Perhaps it  
5 would be Erik Stockdale or perhaps somebody else.

6 Q Now, looking a little further down on page 9, under  
7 general comments, actually item 6, general monitoring  
8 comments included, in this comment what you discuss is  
9 you indicate there's a need to monitor, not just what  
10 is infiltrating into at the top of the embankment, but  
11 also to monitor what's coming out at the toe or at the  
12 bottom; is that correct?

13 A Well, mostly correct. The proposed monitoring plan was  
14 to do some post-construction infiltration rate tests on  
15 the top of the embankment, and I feel that the  
16 embankment should be monitored over time that it's  
17 achieving its infiltration rates that are assumed in  
18 the embankment model, and that the attenuating effects  
19 or the timing of the discharges out of the embankment  
20 is equally important in achieving the level of low-flow  
21 mitigation that is proposed.

22 Q Then your annotation here indicates that this comment  
23 was discussed and that a more substantial monitoring  
24 strategy would be investigated; is that right? **AR 056302**

25 A That is my recollection from that meeting, yes.

1 Q So in sum, when you look at this document, Exhibit 458,  
2 you've identified a number of review comments in which  
3 you would like to see changes that, basically, you need  
4 to see in order to concur in the low-flow plan; is that  
5 right?

6 A Yes. That's the purpose of the comment letter, yes.

7 Q And you hadn't seen these changes on February 28th; is  
8 that right?

9 A None that we just discussed, no.

10 MS. OSBORN: That's all I have.

11 MS. COTTINGHAM: Mr. Poulin, do you have any  
12 questions?

13 MR. POULIN: No questions.

14 MS. COTTINGHAM: Any redirect?

15 MR. YOUNG: Yes.

16

17 EXAMINATION

18 BY MR. YOUNG:

19 Q With regard to the resource stream protection menu you  
20 were asked some questions about that, and you did not  
21 apply that menu to this project; is that right?

22 A That is correct. It was not the performance goal of  
23 this plan.

24 Q And why was that?

**AR 056303**

25 A Well, because it was not the performance goal of the

1 plan, it would not be applied by our, by this map that  
2 is part of Exhibit 2068.

3 Q Which map is that?

4 A It's the map in the back slip sleeve entitled water  
5 quality applications map, the green binder.

6 Q Can you show what you mean by that.

7 A Well, most of these basins are out because it's a city  
8 and we don't regulate or set standards in there, but  
9 you will see portions of Miller Creek shown as  
10 unincorporated.

11 I'm looking at Exhibit 2068. In the back, there's  
12 three maps, and one of them is entitled water quality  
13 applications map.

14 On the upper half - you don't have to unfold it all  
15 way - you'll find over on left-hand side, Miller Creek,  
16 and you will see a light green color associated with  
17 Miller Creek. That's our basic water quality standard.

18 And, for example, upper Bear Creek is a regionally  
19 significant resource stream, and that is the resource  
20 stream standard in the dark green color up on Bear  
21 Creek.

22 So that's another reason why a standard would not  
23 be applied, that water quality treatment menu would not  
24 be applied to development proposals in these basins.

25 Q Now, I think counsel pointed you to a comment that you

1           made with regard to the possibility of enhanced water  
2           quality treatment. Do you recall that?

3   A        Could you repeat the question, please.

4   Q        I'm sorry. I thought you referred to -- I think it was  
5           your February 22nd letter. I don't have that number,  
6           so we'll try to find that.

7   A        What was the question?

8   Q        We'll come back to it.

9            With regard to the large site drainage review  
10           questions that you received, in your testimony you say  
11           that the outcome of that process can't be predicted.  
12           Can you explain why that is.

13   A        Well, the process includes a SEPA process. It includes  
14           written reports by review staff, and the final  
15           determination made by a hearing examiner as to what the  
16           project, what standards the project would be held to.

17           What they try to do is to tailor stormwater  
18           protection standards to the project and to the  
19           downstream resource, and because this project did not  
20           go through that process. I can't predict how those,  
21           how that tailoring would play out.

22           I mean, some of what I would, if I'm asked to guess  
23           what would happen, some of the changes were already  
24           made through the Port's EIS process. They went from a  
25           level 1 standard, which was the base standard in a

1 basin, to a level 2 standard.

2 They are also proposing retrofits that are beyond  
3 the King County design manual, which is also something  
4 that typically would come out of a master drainage plan  
5 or large site drainage review process.

6 But I can't predict exactly what would come out of  
7 a process that didn't happen.

8 Q Now, with regard to the Des Moines Creek, you were  
9 asked some questions about accepting the calibrations  
10 in the Des Moines Creek area which were based upon the  
11 Des Moines Creek basin plan. Do you recall those?

12 A Yes.

13 Q You were talking about the Des Moines Creek basin plan  
14 as being done by King County. Who were the other  
15 participants?

16 A There's a Des Moines Creek basin plan committee, which  
17 King County is a member of, the Port of Seattle is a  
18 member of, and I believe the city of Des Moines, city  
19 of SeaTac. I may be incorrect, because I have not been  
20 to these meetings in a while, and I believe Watch Dog  
21 is also a member, and I may be missing perhaps one of  
22 the parties.

23 Q And the city of Des Moines is member of ACC, is it not?

24 A I don't know that.

**AR 056306**

25 Q And are there actions that you know of that are being

1 taken based upon the Des Moines Creek basin plan?

2 A Yeah.

3 MS. OSBORN: Objection. Outside the scope.

4 MR. YOUNG: I think you asked him questions  
5 about the Des Moines Creek basin plan, and I'm just  
6 following up on that.

7 MS. COTTINGHAM: I'll allow the question.  
8 I'm not sure of its relevance.

9 Q (By Mr. Young) Go ahead.

10 A I do know that they are in the design stage of a  
11 regional flow control facility at the Northwest Ponds  
12 site, located at the southwest corner of the airport.

13 Q That's the regional detention facility?

14 A It's a proposed regional detention facility.

15 Q Is that being designed based upon the Des Moines Creek  
16 model?

17 A Yes, it is. I've been working with the modeler to try  
18 to ensure consistency between the land use assumptions  
19 and groundwater assumptions of the SMP and the basin  
20 plan, but that model and that calibration is being used  
21 for that design work.

22 Q Is the city of Des Moines a part of that?

23 A I believe that they are part of the basin plan  
24 committee, and if I'm correct in that assumption, then  
25 yes, they are a part of that.

**AR 056307**



1 Q With regard to some of the comments in your February  
2 comment letter on the December 2001 low-flow plan -- do  
3 you have that exhibit number?

4 A 458.

5 Q 458.

6 -- one of the comments was with regard to the  
7 possibility of low-flow impacts in June and July. Do  
8 you remember that?

9 A Yes, I do remember that.

10 Q Do you know what the 401 says about that?

11 A I believe the 401 requested an evaluation of what those  
12 changes to the instream flows would look like in the  
13 stream, tailored after my comment on August 3rd.

14 I did not review the final 401 certification before  
15 it went out. I wasn't asked to do that, nor did I  
16 review the subsequent 401.

17 Q You had a comment about monitoring of the flow coming  
18 from the embankment?

19 A That's correct.

20 Q Is there any reason why that monitoring could not be  
21 done, to your knowledge?

22 A No reason why it couldn't be done and couldn't be  
23 included in the report, to my knowledge. **AR 056308**

24 Q And there's no reason why the evaluation of the June  
25 and July impacts couldn't be done, as far as you know?

1 A I'm recommending that they be done, and I don't see a  
2 reason why they cannot be done.

3 MR. YOUNG: That's all the questions I have  
4 for Mr. Whiting.

5 MR. REAVIS: I have just a few.

6

7

EXAMINATION

8 BY MR. REAVIS:

9 Q In response to questions a minute ago about the water  
10 quality BMPs and whether they will remove dissolved  
11 metals, I think your answer was that's not their  
12 objective.

13 My question is, will they, in fact, remove some  
14 dissolved particles?

15 MS. OSBORN: Objection. It's vague. We  
16 talked about some different BMPs.

17 MR. REAVIS: Well, I think the statement  
18 refers to - and I can just ask him about what it says  
19 in his prefiled testimony. Maybe that's the best way  
20 to go about it.

21 Q (By Mr. Reavis) Let me ask you, do you have your  
22 prefiled testimony there in front of you?

23 Page 7.

24 A This is my declaration. Hold on.

**AR 056309**

25 MS. COTTINGHAM: Which page are you on?

1 MR. REAVIS: Page 7, paragraph 11.

2 Q Let me ask you, if I could, to read the third sentence  
3 there, the one that starts with, "The manual's basic  
4 menu," if you could read it out loud.

5 A The fourth sentence.

6 Q Okay. I'm sorry.

7 A "The manual's basic menu is not designed to remove  
8 dissolved metals. However, the treatment BMPs proposed  
9 by the Port should be partially effective at removing  
10 metals, because some of those metals will be associated  
11 with solid particles."

12 Q Thank you.

13 You were asking some questions about whether the  
14 King County manual or the Ecology manual ensure or  
15 constitute AKART. Do you remember those questions?

16 A Yes, I do.

17 Q Do you have an opinion of your own of whether or not  
18 the Port's stormwater master plan is in fact AKART?

19 A It's not part of my duties to implement or determine  
20 AKART compliance, and so I don't have an opinion on  
21 that.

22 Q A minute ago Ms. Osborn pointed you to a sentence on  
23 page 10 of your prefiled testimony, and this is page 10  
24 there, paragraph 17.

25 A Right in front of me. Okay. Thank you.

**AR 056310**

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Page 10?

Q Right. Paragraph 17, do you have that one there?

A Yes, I do you.

Q And I think the sentence that at least she read to you, the first part of it, was the last sentence in paragraph 17. And what she read was, I believe, "While these calibrations fall short of providing a perfect match to observed data..."

Let me just ask you, is it possible to get a perfect match with observed data when you are performing this sort of modeling?

A Beyond a few time steps here and there, I would say not. You are not going to match the entire calibration window exactly.

Q Now, could you read for us, then, the rest of that sentence that starts with, they constitute...

A Yes. I'll read the whole sentence.

"While these calibrations fall short of providing a perfect match to observed data, they constitute an improvement over the regional average parameter settings used by most development proposals subject to the manual," the King County manual.

Q Let me ask you about the Des Moines Creek basin plan model. Was that model used by the Port in any of the iterations of the low-flow plan?

**AR 056311**

1 A Not the low-flow plan. The original 1199 SMP may have  
2 used the straight basin plan model. I don't remember  
3 when the adjustments that were made were made, whether  
4 it was pre-1199 or post-1199.

5 Q I thought a minute ago you testified about some  
6 adjustments that were made between July 2001 and  
7 December 2001.

8 A Yes, I did.

9 Q Maybe I misunderstood your testimony. Was that not  
10 based upon the Des Moines plan?

11 A No. Those were land-cover and groundwater routing  
12 adjustments that were made in November of 2001.

13 Q They were adjustments made to what?

14 A To land-cover assumptions and to where groundwater goes  
15 within the Des Moines Creek basin model.

16 Q I guess that was my question. Those were adjustments  
17 made to parameters included in the Des Moines Creek  
18 basin model?

19 A They were adjustments made to previous -- we're getting  
20 confused between the calibration, which is the knobs  
21 that you set and then the land-cover and groundwater  
22 assumptions.

23 Q I suspect I'm confused and you are not, but if you can  
24 just explain it.

25 A Well, I'm not helping you.

**AR 056312**

1           The adjustments to land-cover and to groundwater  
2 routing might require you to change it, to turn a knob  
3 somewhere in the model, and that is the discussion.  
4 Those land-cover changes may result in a need to turn a  
5 knob, and I need an assessment to tell me whether or  
6 not that is the case.

7           MR. REAVIS: That's all I have. Thanks.

8           MS. COTTINGHAM: Mr. Whiting, I have one  
9 question for you.

10  
11                                       EXAMINATION

12 BY MS. COTTINGHAM:

13 Q       You talked about the large site drainage review and  
14 that one was not done here. Is this because it's one  
15 of the procedural, one of the eight procedural core  
16 requirements that you said did not apply because of an  
17 agreement between the Port and the city of SeaTac?

18 A       It is a procedural requirement. It's not one of the  
19 eight core requirements, and the other correction that  
20 I would make is that the core requirements are not all  
21 procedural. There are two of them that I indicated  
22 were procedural, Core 6 and Core 7. The rest of them  
23 are primarily technical requirements.

24 Q       So some of the other procedural requirements are  
25 outside of the eight?

**AR 056313**

1 A Yes. It's the drainage review type.

2 MS. COTTINGHAM: Thank you. I have no  
3 further questions.

4 Any questions from the rest of the Board?

5 MR. JENSEN: Yeah, I have a question.

6

7

EXAMINATION

8 BY MR. JENSEN:

9 Q How do forests affect low flow?

10 A I'm sorry. How does what affect low flow?

11 Q Forests. Trees.

12 A Well, they allow -- you see very little surface runoff  
13 when you go out and look at the forest. Typically, the  
14 runoff is occurring either as shallow groundwater or as  
15 deeper groundwater, and it provides, typically provides  
16 a good summer base flow source for streams, and water  
17 is typically cool and clean when it comes out of the  
18 forest like that.

19 MR. JENSEN: Thank you. That's all I have.

20 MS. COTTINGHAM: Any questions as a result of  
21 the Board's questions?

22 You are excused. Thank you.

23 Before we go to the next witness, we're going to  
24 take a very quick break. Why don't we come back at 25  
25 after. Thanks.

**AR 056314**

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(Recess taken.)

MS. COTTINGHAM: We'll go back on the record.

Just to let you know, the Board does not need to adjourn today at 4:30, so we'll adjourn when it's an appropriate breaking point.

MR. STOCK: Ms. Cottingham, we're going to provide to the Board tomorrow copies of enclosure 1 to Exhibit 48.

Ms. Osborne indicated that you don't have them in your set.

MS. COTTINGHAM: Right.

MR. STOCK: We'll make sure they get there.

MS. COTTINGHAM: I don't think the original had a copy in it as well, so can you make sure that gets corrected.

The court reporter will swear in the witness.

**GORDON WHITE**, having been first duly sworn upon oath or affirmed to tell the truth, the whole truth and nothing but the truth, testified as follows:

EXAMINATION

BY MR. KRAY:

Q Good afternoon, Mr. White. Would you please spell your name for the court reporter.

**AR 056315**



1 A First name, G-o-r-d-o-n, Gordon; last name, W-h-i-t-e,  
2 White.

3 Q Are you employed by the Washington Department of  
4 Ecology?

5 A Yes.

6 Q What position do you hold at Ecology?

7 A I'm the program manager for the shorelands and  
8 environmental assistance program.

9 Q Would you please summarize your education and  
10 professional qualifications for the Board?

11 A I have a bachelor of arts degree from the Evergreen  
12 State College. I have about 20 years of experience  
13 both in the public and private sector working on  
14 natural resource protection issues.

15 At the Department of Ecology, I've been employed  
16 there for about four and a half years, and I manage  
17 both the budget and operations of the program that I  
18 just described. That includes the responsibility for  
19 managing the State's responsibilities for the Shoreline  
20 Management Act, flood control or the Flood Management  
21 Act, the State Environment Policy Act, and for the  
22 purposes of this hearing, of course, the 401 water  
23 quality certification program.

24 Q Have you prepared prefiled testimony in this matter?

25 A Yes.

**AR 056316**

1 Q What role have you played in developing conditions for  
2 Ecology's 401 certification to the Port of Seattle?

3 A My primary role that I played was to review the  
4 conditions as drafted by staff and to ask questions of  
5 how they reached reasonable assurance; are they  
6 reasonable and prudent in ensuring the protection of  
7 both water quality in the state as well as aquatic  
8 resources.

9 Q What are Ecology's options in determining the outcome  
10 of an application for a 401 certification?

11 A Well, generally our options are either denial,  
12 approval, approval with conditions, of course, and then  
13 we also can waive.

14 Q What does it mean to waive?

15 A Well, I've never done that before, but as I understand  
16 it, we have the option to wait a year, essentially, and  
17 make no decision, and waive our right under the Clean  
18 Water Act to determine that projects are qualified for  
19 a 401. We can waive our right to ensure that they meet  
20 water quality standards.

21 Q Would you please describe Ecology's general 401  
22 certification process in which Ecology employees  
23 participate in that process?

24 A Yeah. This is where I want to refer to the exhibit  
25 here.

**AR 056317**

1           I have been delegated the authority of managing the  
2           401 water quality certification program by Director  
3           Fitzsimmons, who's at the top of the chart here, then  
4           I'm in red on the left side of the chart. And within  
5           the program of shorelines and environmental assistance  
6           program, I have further delegated the signature for 401  
7           decision-making to my regional section managers,  
8           southwest region and northwest, central and eastern  
9           region where we have our regional offices, and that's  
10          where most of the 401 certification works occurs at the  
11          Department of Ecology.

12          And then underneath my regional section managers  
13          are the 401 review staff, individuals that are the lead  
14          and coordinating the 401 review. Then at headquarters  
15          we have our environment coordination section - that's  
16          described in the handout - where we also have 401  
17          staff. Primarily, they work on policy issues of a  
18          policy nature; although, they also serve as back-up  
19          support to the regional 401 staff if the workload is  
20          too great, and they can provide support there, and then  
21          for dredging projects in the Puget Sound and the  
22          Columbia River, for instance, that's of such  
23          specialized knowledge that we retain that 401 focus  
24          within headquarters, so it can reach to all areas of  
25          the state.

**AR 056318**

1 Q Has Ecology ever used a different process or assigned  
2 Ecology different roles in processing 401 applications?

3 A Yes. The process I just described was developed or  
4 adopted in 1998, about 1998. Ecology over the last ten  
5 years has regionalized most of its functions in terms  
6 of the day-to-day workings of permitting, and the 401  
7 program had not been regionalized, and so we developed  
8 our program to do so. So prior to about mid-1998, the  
9 401 function was purely done out of headquarters in  
10 terms of the coordination and review.

11 The reason we regionalized it, however, is most of  
12 the expert staff were in the regions, because what the  
13 401 reviewer does is work with expert staff from the  
14 water quality program, sometimes the water resources  
15 program in the case of damming licensing issues, and  
16 then, of course, our own experts, wetland experts,  
17 within the shoreline program, they are all in the  
18 region, and they have the 401 coordinator at  
19 headquarters, and the experts in the regions wasn't  
20 always the best fit. We felt it would be most  
21 efficient if the reviewers and we were getting near to  
22 the experts, as well as having greater accessibility to  
23 the prospective applicants who would be applying for  
24 401 as well other interested members of the public who  
25 were interested in its projects.

**AR 056319**

1 Q How did the process Ecology used in response to the  
2 Port's application compare to the process used for most  
3 other 401 applications?

4 A I think the broad outline is pretty much the same, just  
5 a lot more of it. This project had a lot of intense  
6 interest by a lot of different parties, and so there  
7 was a lot more process involved.

8 It involved experts within the Department at the  
9 highest level that we have to offer. Erik Stockdale,  
10 our wetlands expert, is our top wetland expert in the  
11 northwest regional office. Kevin Fitzpatrick is the  
12 lead water quality stormwater reviewer, top reviewer  
13 out of the northwest office, so we certainly engaged in  
14 the same outlines of process that we would use, but we  
15 engaged at a very high level.

16 Q Were there any other aspects of the 401 process with  
17 regard to the Port that were unique?

18 A Well, the level of public scrutiny. I had meetings  
19 with legislators who had strong interests in the  
20 process, strong desires to understand what we were  
21 doing, strong concerns, and a lot of, again, just a lot  
22 of public interest in the process.

23 Q I believe you said there was more process. Why was  
24 there more process in this instance?

**AR 056320**

25 A Because of some of the unique nature that this project

1 entails. Certainly it's large in scope, and some of  
2 the unique facets to it brought us to bring a lot of  
3 expertise and focus to it.

4 For instance, as you heard this morning Erik  
5 Stockdale describing the unique of nature of having to  
6 ensure that the impacts to wetlands, the functional  
7 impacts to wetlands were met in-basin where it was  
8 important, the hydrologic impacts, et cetera, yet we  
9 had this bird strike issue that we had to manage, and  
10 so we had to find ways to manage that issue that still  
11 protect the functional values of the wetlands, but also  
12 manage that issue so it wouldn't become a public hazard  
13 or a flight hazard; that would be an example.

14 The clean fill criteria is another example of a  
15 very unique situation, and to my knowledge, we hadn't,  
16 in a 401, required that level of scrutiny or standard  
17 to the fill that was going to be used in the project.

18 Q Would you please look at Exhibit 1, which is the  
19 September 401, and if you can look at page 26 of that  
20 exhibit, specifically the heading sub (c) there in the  
21 middle of the page. If you would please read that to  
22 yourself for a moment, I have a question about that.

23 A Sure.

24 Q Would the requirement fit into what you characterize as  
25 a unique aspect of this project?

**AR 056321**

1 MR. STOCK: I'm going object. This goes  
2 beyond the scope of his prefiled testimony. Nowhere in  
3 Mr. White's prefiled testimony does he refer to the  
4 retrofit plan.

5 MR. KRAY: Mr. White is the signator for the  
6 401. Prefiled testimony is for the purpose of  
7 providing everyone an opportunity to get things in  
8 advance and expediting the process. However, I don't  
9 think there's any limitation on the issues on which  
10 Mr. White can discuss, and counsel will certainly have  
11 an opportunity to cross-examine him on the issue.

12 MS. COTTINGHAM: I'll overrule the objection.

13 Q (By Mr. Kray) Do you recall the question?

14 A Yes. This is a unique requirement or unique issue that  
15 we have in the 401 certification and an important one.

16 Q Why is that?

17 A Well, the requirement to retrofit the stormwater  
18 facilities at the airport is an important one because  
19 some of the mitigation that the Port is offering  
20 instream, downstream of the facilities, we were  
21 concerned that if continued, the base flows that occur  
22 out at the Port now, the mitigation wouldn't hold up to  
23 those stormwater flows that occur now, so it was very  
24 important to us that the Port retrofit the existing  
25 facilities so that stormwater coming off the Port would

1 be a net benefit to the aquatic resources downstream.  
2 Q Mr. White, if you look at the second sentence of that  
3 paragraph, that begins "For every 10 percent," at the  
4 end it concludes with a phrase "isn't feasible."

5 What is your understanding of that provision?

6 MR. STOCK: Object. No foundation.

7 MS. COTTINGHAM: Do you want to set a  
8 foundation?

9 MR. KRAY: I certainly can. Thank you.

10 MR. STOCK: I'll also object, for the record,  
11 that it goes beyond the scope of his prefiled.

12 Q (By Mr. Kray) Have you had an opportunity to review  
13 this provision?

14 A Yes.

15 Q Are you familiar with this provision?

16 A Yes.

17 Q What is your understanding of the provision?

18 MR. STOCK: Object. No foundation. He still  
19 hasn't established a foundation. He hasn't established  
20 the basis for Mr. White's knowledge in this regard.

21 MS. COTTINGHAM: Sustained.

22 Q (By Mr. Kray) Mr. White, in the course of preparation  
23 of the 401, did you have an opportunity to discuss this  
24 provision with your technical staff?

25 A Yes, I did.

**AR 056323**



1 MR. KRAY: I'm not sure what more foundation  
2 I can lay on this issue. He's the signator on it.  
3 He's familiar with it. He's obviously discussed it  
4 with his staff.

5 MR. STOCK: Well, who did he discuss it with  
6 and when? He has not established a proper foundation  
7 for this. Just to say you've discussed it with your  
8 technical staff is not a proper foundation.

9 MS. COTTINGHAM: I'm going to sustain the  
10 objection.

11 MR. STOCK: And, also, I don't want to add  
12 onto it, but when? Was it last week? Was it before  
13 the issuance of the August certification?

14 Q (By Mr. Kray) How is it that you are familiar with this  
15 provision?

16 A Prior to the August 10th certification that I signed, I  
17 discussed this particular condition with Ann Kenny in  
18 consultation with Kevin Fitzpatrick.

19 MR. KRAY: May I proceed?

20 MS. COTTINGHAM: You may proceed.

21 MR. KRAY: Thank you.

22 Q (By Mr. Kray) With regard to the second sentence, what  
23 is your understanding of that provision? **AR 056324**

24 A I'll give you a little bit of history, because as I  
25 recall, the conversation around this was, we wanted to

1 require the retrofit requirement on this condition, and  
2 I raised the concern to Ann and Kevin: How can we be  
3 assured that the retrofit --

4 MR. STOCK: Ms. Cottingham, I'm going to  
5 interrupt, because this is a direct violation of the  
6 Board's prehearing order.

7 At page 3, the Board ordered that all direct  
8 testimony of a witness shall be in writing and prefiled  
9 with the Board, and there is no place in Mr. White's  
10 prefiled testimony where there is any discussion about  
11 this particular provision of the 401 certification.

12 I did not ask Mr. White about this during his  
13 deposition on January 16th, and we are now prejudiced  
14 by Mr. White going into this. It wasn't in his  
15 prefiled testimony, and that is in direct violation of  
16 the Board's order.

17 MR. KRAY: May I respond?

18 MS. COTTINGHAM: Yes.

19 MR. KRAY: Testimony has been given during  
20 the course of this hearing on this issue. I think  
21 Ecology should be given an opportunity, through its  
22 representative on the 401, to respond to that issue.

23 Merely because Mr. Stock didn't ask about it  
24 doesn't mean that he couldn't have asked about it, and  
25 that's no ground to prevent us from having testimony on

1 the issue.

2 MR. STOCK: But this isn't the witness to  
3 bring it in through. Mr. Fitzpatrick was on the stand,  
4 and they asked Mr. Fitzpatrick about it. Others were  
5 on the stand and they asked others about it. For them  
6 now to try to use their last witness to provide more  
7 clarity to something that is vague and ambiguous and a  
8 virtually unenforceable condition in the 401  
9 certification isn't proper, especially where it is not  
10 in the prefiled testimony and it's in direct violation  
11 of the Board's prehearing order.

12 MS. COTTINGHAM: I'm going to recognize your  
13 objection, but I'm going to allow the testimony in.

14 The prehearing order was to expedite the hearing  
15 process, not to necessarily exclude testimony, and you  
16 will have the ability to cross-exam this witness.

17 Q (By Mr. Kray) I believe at the interruption, you were  
18 giving some background. Would you please begin with  
19 that background again?

20 A Yeah. The condition started out as being, the  
21 condition was focused on requiring a retrofit of the  
22 airport for stormwater purposes, and I asked the  
23 question: Well, do we need to have a goal in mind in  
24 terms of how that would proceed during project  
25 construction?

**AR 056326**

1           That was an important goal, and so it evolved into  
2 this ratio approach. Recognizing that ratio, that goal  
3 may not always be attainable, may not always be  
4 feasible through every phase of the project, hence the  
5 qualifier on feasibility; however, the qualifier on  
6 feasibility is only a qualifier on the ratio, not on  
7 the requirement for retrofit.

8 Q       What happens if it isn't feasible?

9 A       Then it -- if it's not feasible to adhere to the ratio  
10 at each phase, then we work out other arrangements that  
11 are feasible to ensure that the retrofit can proceed.

12 Q       So the retrofit is still required?

13 A       Absolutely. If the retrofit, for some reason the  
14 retrofit -- the retrofit has to occur.

15 Q       When you began working on the Port's 401 application,  
16 who did you believe would sign the decision regarding  
17 the application?

18 A       I believe that I did. I would have.

19 Q       Why was that?

20 A       Even though I have deligated 401 signature authority,  
21 decision authority, to my regional section supervisors,  
22 it is the department practice for projects that reach  
23 to a high level of public interest that the program  
24 manager make the final decision. That's to ensure that  
25 the public knows that at the highest level of Ecology

1 executive management, which I represent, fully  
2 understands the issues and the import of the decision.

3 Q Did you ever have reason to believe someone else would  
4 sign this decision?

5 A No.

6 Q How did you stay informed about Ecology's progress in  
7 processing the 401 application?

8 A I received -- I stayed abreast of things by regular  
9 updates from the 401 project reviewer, as well as the  
10 regional director in the northwest regional office, as  
11 well as periodic meetings with the technical staff.

12 Q What about interested parties, did you have any contact  
13 with those?

14 A Yes, I did. Starting around September of 2000 when ACC  
15 and CASE realized that I was the final signator to a  
16 decision on the 401, I started receiving a lot of  
17 e-mails and letters from them, and then also as well  
18 from legislators who had similar concerns about the  
19 project.

20 And then I had meetings with legislators on some of  
21 the issues that were being worked through on the  
22 project. I met with ACC in, I think, July of 2001, and  
23 then CASE in August of 2001, just prior to this  
24 decision.

**AR 056328**

25 Q Who did you rely on in reaching your decision regarding

1 the Port's 401 application?

2 A Well, I relied on the technical experts that Ecology  
3 deployed on the project, so that would be Kevin  
4 Fitzpatrick on the stormwater management plan, and the  
5 other things appended to that, of course, and then Erik  
6 Stockdale, on the Natural Resource Mitigation Plan, and  
7 then for any legal questions, Joan Marchioro was our  
8 lead attorney on the project and Ann Kenny for  
9 procedural issues around the 401.

10 Q And in relying on those individuals, did you also rely  
11 upon the people they relied upon?

12 A Well, yes. There was a team of people behind each one  
13 of those.

14 Q What role do you play in setting policy regarding  
15 Ecology's 401 water quality certification?

16 A Well, policy on 401, of course, occurs at three levels.  
17 There's the policy that the Legislature sets in the  
18 statute, and the governor affirms, of course, when he  
19 sign the bills that relate to it, so the Water  
20 Pollution Control Act sets an overarching policy.

21 Then there are specific rules that we may use, and  
22 those are ultimately determined by the director, by his  
23 signature through the Administrative Procedures Act,  
24 and then there would be procedural policy issues that I  
25 would be the final manager to sign off on; although,

1 because the 401 certification leads to water quality  
2 issues in the water quality program, the water quality  
3 program manager and I may share decision-making on  
4 certain departmental policy issues.

5 Q Do you know who Pete Kmet is?

6 A Yes, I do.

7 Q Who is Mr. Kmet?

8 A I believe Mr. Kmet works in the toxic clean-up program.

9 Q Was Mr. Kmet part of the team of experts you relied  
10 upon to determine that you had reasonable assurance to  
11 issue a 401 report?

12 A No.

13 Q Do you have reasonable assurance that the 401  
14 certification Ecology issued to the Port will protect  
15 water quality?

16 A Yes.

17 Q Was the Port anxious to receive a 401 certification  
18 from Ecology?

19 A Yes.

20 Q Is it unusual for an applicant to be anxious to get a  
21 decision from Ecology on a 401?

22 A Everybody is anxious about our decisions.

23 Q What pressure did you feel to complete review of the  
24 Port's 401 application?

**AR 056330**

25 A I didn't feel pressure. I felt intense interest in

1 making a decision in doing my job.

2 Q Did you put any pressure on members of the 401 team to  
3 reach a reasonable assurance determination?

4 A No. All I asked my staff to do when I interacted with  
5 staff who work in other programs but are working on the  
6 team here, I just asked them to do their job and do it  
7 thoroughly and stay focused on that.

8 Q What direction did Tom Fitzsimmons give you regarding  
9 whether Ecology should issue a 401 certification to the  
10 Port?

11 A He never gave me any direction about what my decision  
12 should be. He played a role, not unlike I did, to a  
13 degree, in terms of asking me questions and asking our  
14 review team questions he had about is this condition,  
15 is it reasonable and prudent to protect water quality  
16 standards.

17 He was mainly interested in our rationale, both  
18 when I told him that I would deny the project in  
19 September of 2000, interested in why, so he could  
20 understand it and explain it to others who would want  
21 to know, of course.

22 And then the same being when I said I had  
23 reasonable assurance based on our team of experts and  
24 interested in what the key issues were around that.

25 Q What direction did the governor's office give you



1           regarding whether Ecology should issue a 401  
2           certification to the Port?

3   A       I had no direction from the governor's office on this.

4                       MR. KRAY:  No further questions.

5                       MS. COTTINGHAM:  Mr. Reavis?

6                       MR. REAVIS:  I don't have any.

7                       MS. COTTINGHAM:  Mr. Stock.

8

9

EXAMINATION

10  BY MR. STOCK:

11  Q       Mr. White, you signed the 401 certification; correct?

12  A       Yes, I did.

13  Q       And this 401 certification is the most technically  
14       complex certification that you have ever signed; isn't  
15       that true?

16  A       Yes.

17  Q       And the next most technically complex certification  
18       that you had ever signed was the 401 certification you  
19       signed in the BMG case, Battle Mountain Gold; isn't  
20       that right?

21  A       Yes.

22  Q       And you signed the first certification on the  
23       application that we're dealing with here on August 10,  
24       2001, did you not?

25                       You can look at it, Exhibit 2.

**AR 056332**

1 A Yes. I'm just thinking back to the one in 1998.

2 Q But you signed it on August 10, 2001?

3 A Yes.

4 Q Isn't it true that you were in the governor's office on  
5 August 8th with Director Fitzsimmons explaining to the  
6 governor what Ecology was going to do with respect to  
7 this 401 application?

8 A Yes.

9 Q You had not met with the governor before signing the  
10 401 certification for the Battle Mountain Gold project,  
11 did you?

12 A No, I did not.

13 Q In fact, you have never met with the governor on any  
14 401 certification other than this certification for  
15 SeaTac Airport?

16 A That would be true.

17 Q You don't have technical expertise with respect to  
18 stormwater management issues, do you?

19 You yourself don't have technical expertise.

20 A No. But I just want to go back to your last question.

21 Q Well, if you've got a clarification --

22 A Yeah, just a clarification.

23 Q Your counsel can clear it up.

24 A Okay. It's not a big deal.

25 Q You don't have technical expertise with respect to

**AR 056333**

1 stormwater management issues; correct?

2 A Correct.

3 Q And you didn't do any independent assessment yourself  
4 of the stormwater management plan here?

5 A No.

6 Q You relied exclusively on Kevin Fitzpatrick for that?

7 A Yes.

8 Q In your testimony a few minutes ago, you said that to  
9 stay up to date on the project, you had periodic  
10 meetings with technical staff; is that right?

11 A Yes.

12 Q And did that include Kevin Fitzpatrick?

13 A Yes.

14 Q In fact, you only met less than five times with  
15 Mr. Fitzpatrick over the course of the review process;  
16 isn't that true?

17 A Yes.

18 Q And that's how you stay updated on a periodic basis by  
19 meeting with Mr. Fitzpatrick less than five times?

20 MR. KRAY: Objection. Mischaracterizes the  
21 witness's testimony.

22 MR. STOCK: I'll withdraw the question.

23 Q (By Mr. Stock) Let's talk about the Natural Resources  
24 Mitigation Plan.

25 You don't have any technical expertise with respect

1 to wetlands; is that right?

2 A No, I do not.

3 Q And you didn't do any independent assessment of the  
4 Natural Resources Mitigation Plan?

5 A No.

6 Q You relied exclusively on Erik Stockdale for that; is  
7 that right?

8 A Yes.

9 Q And just as with Mr. Fitzpatrick, you met with  
10 Mr. Stockdale less than five times on the Natural  
11 Resources Mitigation Plan; isn't that true?

12 A Yes.

13 Q You also didn't perform any independent assessment with  
14 respect to the clean fill criteria, did you?

15 A No, I did not.

16 Q You didn't rely upon Kevin Fitzpatrick for that, did  
17 you?

18 A Yes, I did.

19 Q You relied on Ching-Pi Wang, did you not?

20 A I relied on Ching-Pi Wang for his analysis on the  
21 pathways analysis.

22 Q Do you recall me taking your deposition on January  
23 16th?

24 A Yes, I do.

25 MR. STOCK: Page 24, Counsel.

**AR 056335**

1 Q Did I ask this question and did you give this answer:

2 "Question. Ching-Pi Wang, what did you  
3 rely upon for him?

4 "Answer. The clean fill parts of the  
5 401 determination.

6 "Question. Did you rely upon Ching-Pi  
7 Wang for anything other than the clean fill  
8 criteria in the 401 certification.

9 Answer. No."

10 Do you recall those questions and those answers?

11 A Yes, I do.

12 Q You've answered the question.

13 A Okay.

14 Q With respect to -- Mr. Wang didn't tell you that he was  
15 only involved in the assessment of the fate and  
16 transport of contaminants under the airport operations  
17 and maintenance area, did he?

18 A The only time I interacted with Mr. Wang was during a  
19 briefing that he gave legislators -- and I think you  
20 were in the room, Mr. Stock.

21 Q I was.

22 A -- where he presented that analysis.

23 Q That's the only time you've had interaction with  
24 Mr. Wang on the 401 certification; is that right?

25 A Yes.

**AR 056336**

1 Q Did you perform any independent assessment of the  
2 impact to characteristic uses of the stream?

3 A No.

4 Q In fact, no one at Ecology has done that, have they?

5 A I don't know.

6 Q You signed the 401 certification; correct?

7 A Yes.

8 Q And that 401 certification means that Ecology had  
9 reasonable assurance that the project will comply with  
10 state water quality standards; is that right?

11 A Yes.

12 Q That's your understanding; right?

13 A Yes.

14 Q And is it also your understanding that part of the  
15 state water quality standards is to protect  
16 characteristic uses of the streams?

17 A Yes.

18 MR. KRAY: Objection to the term streams. I  
19 guess you are using a generic for --

20 Q Well, Des Moines, Miller, and Walker creeks, those are  
21 the streams we're talking about, isn't it, Mr. White?

22 A Yes.

23 Q You can't tell me, as the signator of the 401  
24 certification, who at the Department of Ecology or  
25 whether the Department of Ecology ever performed any

1 assessment with respect to the impact to the  
2 characteristic uses of those streams from this project?

3 A Yes, I can't tell you that I know that.

4 Q In fact, that hasn't even been done, has it?

5 A I don't know.

6 Q You were here during Mr. Whiting's testimony just a  
7 little bit ago, were you not?

8 A Yes.

9 Q You heard Mr. Whiting say that he has deferred that  
10 issue to the Department of Ecology.

11 A I may have. Although I got a little lost in shuffling  
12 of paper back and forth between counsel and  
13 Mr. Whiting, so I may have missed some of that.

14 Q With respect to your new testimony on the retrofit --

15 MR. CRAY: Objection.

16 MR. STOCK: Well, it is new testimony. I  
17 don't see what he's objecting to, but I'll rephrase it.

18 Q (By Mr. Stock) With respect to your testimony on the  
19 retrofit condition of the certification, we didn't talk  
20 about that during your deposition, did we?

21 A No, you didn't ask me any questions about that.

22 Q What is your understanding of the term in the condition  
23 where it says that if the Port can establish that it  
24 isn't feasible, it doesn't have to meet the 20 percent?

25 What's your understanding of the term "isn't

1 feasible"?

2 MR. KRAY: Objection. I think the question  
3 focuses too narrowly on a particular portion. The  
4 phrase is actually broader than that.

5 MR. STOCK: Well, he can read the whole  
6 phrase. I think Mr. Kray is just trying to eat up the  
7 clock.

8 MR. KRAY: Objection.

9 MS. COTTINGHAM: I'm going to allow him to  
10 answer the question.

11 A I think it means what it says, for every 10 percent of  
12 new impervious surface added at the project site, the  
13 Port must demonstrate that 20 percent of retrofitting  
14 has occurred unless demonstrated that a 20 percent rate  
15 isn't feasible.

16 Q And when you signed the 401 certification and stated  
17 "isn't feasible," what did you mean by that?

18 What did you have in mind?

19 A What I -- it's a judgment that would have to be made on  
20 site as the project was proceeding around. If there  
21 are certain facilities that you can't retrofit because  
22 other pieces of the stormwater management plan have to  
23 go in first, it may not always be feasible.

24 Q So from the physical standpoint, you mean that it may  
25 not be feasible from a physical standpoint?

**AR 056339**



1 A Yes. I really relied on Kevin Fitzpatrick in terms of  
2 his expertise around understanding whether something  
3 would be feasible or not.

4 Q What about cost, when you signed the 401 certification  
5 and said that if the Port could demonstrate it wasn't  
6 feasible, did you also mean cost?

7 A No, it's more of a practicality.

8 Q Well, where in this certification, and in particular  
9 that condition, is the gloss you are putting on that  
10 specified in the certification?

11 A What do you mean --

12 MR. KRAY: Objection to the term "gloss."  
13 Argumentative.

14 MS. COTTINGHAM: Can you restate your  
15 question.

16 Q (By Mr. Stock) You just told us that this term "isn't  
17 feasible" refers to a physical aspects of the  
18 stormwater structure?

19 A So you are concerned that we haven't defined the word  
20 feasible in our document?

21 Q You agree you haven't defined that term in your  
22 document?

23 A I don't believe we have.

24 Q You relied upon Ann Kenny for administration and  
25 coordination with respect to the 401 review; is that

1 right?

2 A Yes.

3 Q And you did not rely upon Ann Kenny for any statements  
4 she made to come to the conclusions of reasonable  
5 assurance; isn't that true?

6 A Yes.

7 Q So whatever Ann Kenny had to say on technical issues,  
8 you didn't rely upon it for your conclusion of  
9 reasonable assurance; correct?

10 A Yes.

11 Q That's correct, isn't it?

12 A Yes.

13 MR. KRAY: Asked and answered.

14 Q So any technical questions we've got with respect to  
15 the 401 certification, on the conditions of the 401  
16 certification, should be put to others, Ann Kenny, for  
17 example, Kevin Fitzpatrick or Erik Stockdale?

18 A Yes, with respect to stormwater management and the  
19 natural resource management.

20 MR. STOCK: Okay. That's all I've got.

21 MS. COTTINGHAM: Mr. Poulin?

22 MR. POULIN: I have no questions for

23 Mr. White.

24 MS. COTTINGHAM: Any redirect?

25 MR. KRAY: Yes.

**AR 056341**

EXAMINATION

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BY MR. KRAY:

Q (By Mr. Kray) With regard to the August 8th meeting with the governor, did you find it unusual to meet with the governor?

A No.

Q Have you met with the governor in the past?

A Yes. I've met with the governor when Tom Fitzsimmons and I told him what we were going to be doing on the shoreline guidelines, which was another high profile, controversial issue that the governor had gotten a lot of interest from a large variety of parties, and so that was an example.

And then just to address an earlier question by Mr. Stock, after the Battle Mountain Gold decision was rendered by this Board, we did have a meeting with the governor to discuss the next steps, just to be clear.

Q With regard to clean fill, were you aware that other Ecology employees beyond --

MR. STOCK: Object. Leading.

MR. KRAY: Mind if I finish the question?

MR. STOCK: Well, it's leading already. I'm just trying to save you time.

MR. KRAY: You never know. I might change it midcourse.

**AR 056342**

1 MR. STOCK: Well, you might.

2 Q With regard to clean fill, you stated that you were  
3 aware that Ching-Pi Wang had a role in that. Who  
4 else --

5 MR. STOCK: I'm going to object. It  
6 mischaracterizes his testimony. Can Mr. Kray just ask  
7 him a question, please?

8 Q (By Mr. Kray) Who else at Ecology worked on clean fill?

9 A A staffperson by the name of Chung Yee provided  
10 information to Kevin Fitzpatrick.

11 Q In your deposition, did you forget to mention Mr. Yee  
12 and Mr. Fitzpatrick in response to Mr. Stock's  
13 question?

14 A Yes, I did.

15 MR. KRAY: No further questions.

16 MS. COTTINGHAM: Mr. Reavis.

17 MR. REAVIS: I have just a couple.

18

19 EXAMINATION

20 BY MR. REAVIS:

21 Q Mr. Stock asked you some questions about reliance on  
22 Mr. Fitzpatrick and Mr. Stockdale and meeting with  
23 those two five times or less. Do you remember those  
24 questions?

25 A Yes.

**AR 056343**

1 Q Did you do things besides have meetings in order to  
2 stay abreast of what was going on with the 401?

3 A Yes.

4 Q And are those things described in your prefiled  
5 testimony?

6 A Yes.

7 MR. REAVIS: That's all I have. Thank you.

8 MS. COTTINGHAM: Any questions from the  
9 Board?

10 MR. LYNCH: Yes.

11

12 EXAMINATION

13 BY MR. LYNCH:

14 Q Thank you for your testimony today.

15 I just had one question. Regarding the issuance of  
16 the 401, were there discussions at all about the impact  
17 of a possible 303-D listing on reasonable assurances?

18 A I recall very early on in 1998 that there was some  
19 discussions around that. I remember reviewing some  
20 notes about that.

21 Q Do you remember if that had to do with metals in the  
22 water or something else?

23 A It was about the relationship of a 303-D list to  
24 potential discharges from the Port.

25 MR. LYNCH: Thank you.

**AR 056344**

1 MS. COTTINGHAM: Any questions as a result of  
2 the Board questions?

3 Thank you, Mr. White. You are excused.

4 MR. KRAY: Ms. Cottingham, that concludes  
5 Ecology's witnesses.

6 MR. PEARCE: The Port calls Ms. Leavitt.

7  
8 **ELIZABETH M. LEAVITT**, having been first duly  
9 sworn upon oath or affirmed to tell the truth, the  
10 whole truth and nothing but the truth, testified as  
11 follows:

12  
13 EXAMINATION

14 BY MR. PEARCE:

15 Q Good afternoon, Ms. Leavitt. Could you state your  
16 name, for the record, and spell your last name.

17 A Elizabeth M. Leavitt, L-e-a-v-i-t-t.

18 Q Could you give us a brief description of your  
19 educational and work background.

20 A I have a bachelor's of science degree with honors from  
21 West Virginia University in 1980. I have 22 years'  
22 experience since then as a regulator under the Clean  
23 Water Act, as a consultant, and then as an owner's  
24 representative of both the Jet Propulsion Lab in  
25 Pasadena, California, and at the Port of Seattle.

1 Q What's your current position at the Port of Seattle?

2 A I'm the manager of the aviation environmental program  
3 at SeaTac Airport.

4 Q Could you give us a brief outline of your  
5 responsibilities in that position.

6 A I'm generally responsible for ensuring that all aspects  
7 of the Port of Seattle's environmental program at the  
8 airport are carried out, and in that regard, I have a  
9 staff of about 11 people that report to me directly, as  
10 well as drawing resources from the corporate  
11 environment program of up to six other professional  
12 staff and/or consultants.

13 I'm also responsible for the 401 application and  
14 the 404 permit on the matter that you are currently  
15 hearing.

16 Q Have you been responsible for permitting on any of the  
17 other Port of Seattle projects?

18 A Yes. I've been at the Port since 1990, and in that  
19 capacity, I've done quite a few clean-ups at the SeaTac  
20 Airport, and I've also done the Terminal 5 Southwest  
21 Harbors project redevelopment and all the environmental  
22 remediation projects associated with T5.

23 Q Could you take a look at Exhibit 1207. Wendy, will get  
24 the original of that to look at. **AR 056346**

25 Can you identify what that document is for us.

1 A Yes. It's the application that I submitted to Jonathan  
2 Freedman at the Army Corps of Engineers and to the  
3 Department of Ecology on October 25th, 2000, applying  
4 for a 401 and 404 permit. It's commonly referred to as  
5 a JARPA application.

6 Q And is the scope of the proposed work and the purpose  
7 of the work explained in that application?

8 A It is.

9 Q Could I have you look at Exhibit 2062 to identify that  
10 for the record, and I believe we need another book for  
11 that.

12 Could you identify this for us.

13 A This is the management act consistency statement that  
14 was submitted to Ecology on January 11th, 2001, by me  
15 on behalf of the Port of Seattle.

16 Q Thank you.

17 And I, actually, would like you to identify one  
18 other one for the record, if you would. It's Exhibit  
19 2130.

20 MS. COTTINGHAM: Can you restate the number,  
21 please.

22 MR. PEARCE: Exhibit 2130.

23 A You want me to identify this?

**AR 056347**

24 Q Yes. Could you, please.

25 A This is the second revised public notice issued by the



1 Army Corps of Engineers on December 27th, 2000, for the  
2 project.

3 Q Are you aware of the duration of the 404 permit?

4 A In this case, we anticipated a 404 permit with a  
5 seven-year duration, but they are commonly issued for a  
6 period shorter than that.

7 Q You've submitted prefiled testimony in this matter,  
8 have you not?

9 A I have.

10 Q I won't ask you to go through everything, of course,  
11 but could you refer to, if I could refer the Board to  
12 Exhibit B to your testimony - and I'll get this stuff  
13 out of your way - and I'll ask you to refer to the  
14 Board here, which is a copy of Tab B.

15 I'll set it up here for you. Could you very  
16 briefly go through that and just show the Board the  
17 portions of the master plan project for the 404, for  
18 which the JARPA permit submitted are located.

19 A Sure. I think you've seen enough figures that you are  
20 familiar with the existing layout of SeaTac Airport.

21 What this figure shows is the extent of the fill  
22 that the Port anticipates needing to be placed to the  
23 west of the existing airport to create the property  
24 necessary for the third runway, also for runway safety  
25 areas that need to be built on either end of the

1           airport, the relocation of South 154th, and the south  
2           aviation support area, as well as the two borrow sites  
3           that requires work in wetlands and therefore require  
4           404 permits.

5           Also a number of other projects that you note on  
6           there that are part of the master plan update, but  
7           don't technically require filling the water of the U.S.

8           So things such as south terminal expansion project,  
9           some garage upgrades and that sort of work.

10 Q       Do you supervise the staff that implements the Port's  
11           current NPDES permit?

12 A       I do.

13 Q       How many staff are involved in that?

14 A       Well, it's sort of a difficult question to answer,  
15           because there are three staff members that are directly  
16           responsible for some of the reporting components of the  
17           NPDES permit, but there are large number of people that  
18           I couldn't estimate that are actually responsible for  
19           our compliance, including treatment plant operators and  
20           maintenance workers and others.

21 Q       How do you understand the term adaptive management?

22 A       Are you asking me that question in the context of storm  
23           water?

**AR 056349**

24 Q       That would be a good example. Thanks.

25 A       Adaptive management at the airport is the process that

1 we work with the Department of Ecology where the  
2 monitoring that's required in our NPDES permit for  
3 storm water creates a mechanism where we can implement  
4 best management practices, conduct monitoring to  
5 determine how well those BMPs are working, and if they  
6 are not working sufficiently, we can look to either new  
7 technologies or other best management practices and  
8 actually get a feedback loop going so that we can  
9 continually improve the stormwater facility that leaves  
10 the airport as technology advances and allows us to do  
11 more.

12 An example I might offer, you've heard a lot about  
13 fecal coliform and the 303-D listing in Des Moines  
14 Creek. Part of what the Port did after the basin plan  
15 group identified that fecal coliforms were an issue in  
16 Des Moines Creek --

17 MR. EGLICK: Ms. Cottingham, I'm going to  
18 object, if only for the record, to the scope of this  
19 testimony. First of all, it's a narrative, of course.  
20 But I wouldn't object to that alone. It's also beyond  
21 the scope of the direct, and the prefiled order did say  
22 that all direct testimony would be in writing, and  
23 certainly she can explicate, give an overview, amplify  
24 something in the prefiled, but this is not within the  
25 scope of the prefiled.

**AR 056350**

1 MR. PEARCE: Well, Mr. Eglick got a very  
2 different story when we talked about this earlier with  
3 his witnesses, and this is the same objection they are  
4 making over and over.

5 I'm going to ask Your Honor to understand that a  
6 little leeway needs, we need a little bit of leeway.  
7 The prefiled direct was largely a matter of convenience  
8 for all the parties. This is just an example of things  
9 she has talked about in her direct testimony, the  
10 adaptive management.

11 MR. EGLICK: Well, adaptive management as a  
12 general topic may be touched upon, but we are now going  
13 into specifics on a particular instance having to do  
14 with 303-D listing and fecal coliform, and it's not to  
15 be found in the direct testimony.

16 The direct testimony was not just a convenience.  
17 It was -- it's supposed to be a convenience to save  
18 time, but the idea was also supposed to be that the  
19 Board and the parties could read that direct testimony,  
20 prepare cross-examination and have their experts here  
21 who would be relevant to it and proceed on that basis,  
22 and this is ambush, frankly.

23 MS. COTTINGHAM: I'm going to do the same  
24 reminder I did before and ask that the counsel be aware  
25 of the time constraints and that we did this for

1 efficiency. I'm going to allow some leeway, but I'd  
2 like you to be judicious with it.

3 MR. PEARCE: Thank you.

4 Q (By Mr. Pearce) Could you very briefly describe the  
5 example you were going to give the Board.

6 A Yeah. In the example of fecal coliform in Des Moines  
7 Creek, what the Port decided we should do is to go back  
8 to the airport property and see whether we had any  
9 sources of fecal coliform that might be contributing to  
10 the problem in the broader basin. So my staff went and  
11 did source tracing, literally going up the stormwater  
12 pipes in the system to determine whether we had any  
13 sources, and sure enough, we did find that we did, and  
14 went ahead to do some DNA testing to determine whether  
15 those sources were human or animal in nature and  
16 determined they were predominately related to birds  
17 and/or small mammals, and as a result of that traced  
18 those sources specifically to a roof that had a lot of  
19 bird, pigeon fecal coliform sources on it, and  
20 proceeded to work to try to eliminate those as a  
21 potential source for the creek.

22 Q Are you aware of whether the master plan updates are  
23 adding any habitat for waterfowl in the Des Moines  
24 Creek basin?

25 A No, we are not.

**AR 056352**

1 Q Changing subjects briefly, did the Port participate in  
2 the consultation process with the U.S. Fish and  
3 Wildlife Service?

4 A The Port of Seattle on behalf of FAA participated with  
5 both the U.S. Fish and Wildlife Service and the  
6 National Marine Fisheries Service under an ESA  
7 consultation to the master plan.

8 Q What was the outcome of that consultation?

9 A Both services rendered opinions, one a formal opinion  
10 and the other informal, that the project was not likely  
11 to adversely affect endangered species.

12 Q I'd like to ask you to look at Exhibit 262. Can you  
13 identify this document for us.

14 A Yes. This is the letter from U.S. Fish and Wildlife  
15 Service to L. Johnson, the FAA administrator, with our  
16 concurrence on our biological assessment, in other  
17 words their issuance of the biological opinion on the  
18 master plan project.

19 Q I just wonder if the actual biological opinion is here.

20 That's okay. Dr. Weitkamp can talk about that.

21 Subsequently, was a lawsuit filed by ACC regarding  
22 the biological opinion?

23 A Subsequent to issuance of this letter?

**AR 056353**

24 Q Subsequent to the issuance of the biological opinion.

25 A I believe that the lawsuit by ACC was actually

1 submitted while we were in consultation with the  
2 services, which would have preceded this letter, so it  
3 was actually in the midst of our preparation of the  
4 biological assessment, which got the consultation  
5 going.

6 Q Do you recall what the resolution of that lawsuit was?

7 A I don't know the official term for it, but ACC, in  
8 effect, dropped the lawsuit.

9 Q Would you look at Exhibit 1252. Have you seen that  
10 document before?

11 A I believe that I have, yes.

12 Q Would you turn to page 3 of that document.

13 MR. EGLICK: I'm going to object. I know  
14 that we have an objection in for relevance, and we have  
15 discussed this earlier in the hearing. This is a  
16 dismissal, and I guess this was raised on the very  
17 first day with Mayor Nelson, but this is a dismissal of  
18 an ESA lawsuit concerning protection for listed  
19 endangered species, which is not relevant to this  
20 proceeding.

21 This proceeding is about species far beyond listed  
22 endangered species and in an area that's different than  
23 what this biological opinion looked at. In addition,  
24 this witness can't lay a foundation for entry of this  
25 exhibit, even if it were relevant.

**AR 056354**

1           If the Board keeps it in the record for background,  
2           that's one thing, but this is going to open a whole  
3           area of discussion with this witness that I think would  
4           be inappropriate, and I might add, although the  
5           biological opinion is referenced in the prefiled  
6           testimony, I don't believe the witness includes her  
7           legal opinions on this exhibit or I don't believe, and  
8           maybe Brother Pearce can correct me on this if I'm  
9           wrong, but I don't believe it even references this  
10          exhibit.

11                   MS. COTTINGHAM: How does the matrix deal  
12          with this exhibit?

13                   MR. PEARCE: There's a relevance objection  
14          only or hearsay objection, but as far as hearsay, the  
15          attorneys for ACC have signed this. It's an admission  
16          by a party opponent under the hearsay rules.

17                   It's also relevant because it has to do with the  
18          reason they dismissed it as moot is because ACC felt  
19          like the biological opinion gave them everything they  
20          sought to achieve, providing a substantial amount of  
21          protection for bull trout, chinook salmon and marbled  
22          murrelets.

23                   That protection of species is certainly one of the  
24          beneficial uses of streams. **AR 056355**

25                   MS. COTTINGHAM: Do you want to address the



1 relevance question?

2 I think you were just addressing the hearsay  
3 objection.

4 MR. PEARCE: Yes, that was hearsay objection.

5 The relevance is that it does have to do with the  
6 protection of certain species, not all species, but  
7 protection of aquatic biota is certainly a part of,  
8 aquatic biota is certainly part of the beneficial uses  
9 protected under the Clean Water Act.

10 MR. EGLICK: Well, Ms. Cottingham, Exhibit 29  
11 which, I think, is the letter from Fish and Wildlife  
12 says in it that, for example, bull trout aren't found  
13 in Miller, Walker, Des Moines and Gilliam creeks, and  
14 that, I think, tells you what the relevance is. That's  
15 the point, is this deals with a different set of  
16 species than are the concern for the impact area of the  
17 airport, in a different area, and it's going to open  
18 for this witness, who didn't refer to this exhibit and  
19 did not give prefiled direct testimony as to this  
20 exhibit, it's going to open a whole series of  
21 questions.

22 I think the end result is going to be the same  
23 objection. It's not relevant to what the Board has in  
24 front of it, and the fact that there was a  
25 determination of no biological impact because, for

**AR 056356**

1 example, the species weren't present, doesn't speak to  
2 the issue before you.

3 MR. PEARCE: If it's not relevant, then large  
4 portions of Dr. Strand's testimony are completely  
5 irrelevant and should be stricken, because he talks  
6 about chinook salmon using the outfalls at Puget Sound  
7 of these streams, and the services certainly thought  
8 this was a relevant issue because they made us go, the  
9 Corps of Engineers, go through a long consultation  
10 process about whether this project would have any  
11 impact on protected species.

12 MR. EGLICK: With regard to Dr. Strand,  
13 that's just not so. He was talking about a species far  
14 beyond and apart from chinook. And with regard to the  
15 biological opinion, those occur because when you make a  
16 404 application, there's a referral, and there  
17 automatically has to be the preparation of something  
18 responsive to endangered species concerns. It's not  
19 something that means that these agencies said what they  
20 were looking at was relevant to what's before the  
21 Board. It's kind of apples and oranges.

22 MS. COTTINGHAM: The Board is going to allow  
23 this exhibit to be used as background, and we'll give  
24 it appropriate weight as necessary.

25 MR. PEARCE: Thank you.

**AR 056357**

1 MR. EGLICK: Thank you.

2 Q (By Mr. Pearce) Could you read that sentence for us,  
3 please, Ms. Leavitt.

4 MR. EGLICK: Well, if it's just background,  
5 wouldn't that mean the Board would read it, but we  
6 would not engage in substantive direct and  
7 cross-examination on the background document because  
8 that will make it a lot more than background.

9 MR. PEARCE: There's nothing wrong with her  
10 reading it so the Board can hear it for background.

11 I don't know what you are so afraid of, Peter.

12 MR. EGLICK: I don't think it's a matter of  
13 afraid. I think it's a matter of ambush, and  
14 basically, trying to pull the wool over the Board's  
15 eyes. I'll direct my comments to the Board.

16 MS. COTTINGHAM: Let's tone it down a bit.  
17 It's getting late in the day. We're getting close to  
18 running out of hours here on the allocation, so let's  
19 be mindful of that and move on.

20 MR. PEARCE: That's exactly what I'm  
21 concerned about, about the lengthy arguments on things  
22 like this, Ms. Cottingham.

23 MR. EGLICK: Well, Ms. Cottingham, the use of  
24 the document for background doesn't require reading it  
25 into the record. The Board can read it, but I guess

1 I'll withdraw that objection. If we then get into a  
2 series of substantive questions about it, I would ask  
3 to be able to object again.

4 MS. COTTINGHAM: Be mindful it's for  
5 background and the Board will give it weight, if any.

6 MR. PEARCE: Thank you.

7 Q (By Mr. Pearce) Could you read that sentence for us,  
8 please.

9 A Starting at, the effect of the biological opinion?

10 MS. COTTINGHAM: And you need to tell us  
11 where you are.

12 MR. PEARCE: We're on page, numbered page 3  
13 at the bottom. It's page 4 of the exhibit.

14 THE WITNESS: Exhibit 1252.

15 A "The effect of the biological opinion and concurrence  
16 letter is exactly what ACC had sought to achieve in  
17 this case and the related district court case, to  
18 provide substantial additional protections for bull  
19 trout, chinook salmon and marbled murrelet. These  
20 administrative actions have rendered this case largely  
21 moot. ACC therefore seeks voluntary dismissal of this  
22 petition."

23 Q Thanks.

**AR 056359**

24 Moving on, are you familiar with the fill  
25 acceptance process set up in the 401 certification?

1 A Generally, yes.

2 Q Could you tell us the Port's understanding of how the  
3 fill acceptance process works, not the technical detail  
4 of the testing, just how the acceptance process works,  
5 and if you can use that chart there, and it's the same  
6 chart that's attached as Exhibit F to your testimony.

7 A Basically, if you start at the top of the flow chart, a  
8 proposed fill source comes to the Port's attention,  
9 generally, through a contractor who is proposing to use  
10 it, and people that report to me then request that a  
11 phase I environmental assessment be conducted on that  
12 source, and I think you've heard a lot of testimony  
13 about what a phase I assessment includes.

14 If you don't pass the phase I assessment, the  
15 source is rejected, and the Port will not have further  
16 consideration of that source. If the results of the  
17 phase I indicate that there is potentially  
18 uncontaminated soil at the location, we then direct  
19 that a phase II assessment be done, and this part of  
20 the assessment will now be done in consultation with  
21 the Department of Ecology regarding how many samples  
22 are necessary to adequately characterize the presence  
23 or absence of contamination in the source material.

24 Assuming that the phase II assessment step is  
25 passed, we then go to comparing the sample results from

1 either the phase II assessment and/or from additional  
2 samples that are collected of the actual source  
3 material against the criteria that are laid out both in  
4 the biological opinion from the Fish and Wildlife  
5 Service and in the 401 certification.

6 That's sort of a three-staged assessment. (1) if  
7 the soil is proposed to be used in upper layers of the  
8 embankment, it has to pass the ecological protection  
9 criteria.

10 If it's in the wedge of the drainage layer cover,  
11 it has to pass the criteria outlined in the biological  
12 opinion in the 401 relative to those numbers.

13 If it's going to be used in general embankment  
14 fill, the results are compared against the criteria for  
15 that portion of the fill, and then a determination is  
16 made as to whether or not that material is suitable for  
17 the runway project.

18 Q When do you conduct the SPLP testing?

19 A The SPLP tests or leachability tests are done on some  
20 soils which potentially exceed numeric criteria, but  
21 which might not result in actual water leaching through  
22 that soil that would result in harm to the adjacent  
23 water bodies.

24 So the SPLP test could be used for general  
25 embankment fill in terms of the criteria process.

1 Q In that letter, you see the far lower right-hand corner  
2 box where it say, pass SPLP test?

3 A Um-hmm.

4 Q There's an arrow to the left that says yes.

5 Which boxes are those intended to go to?

6 A It's intended to go to the general embankment fill box.

7 Q Not to the suitable for drainage layer cover box?

8 A No.

9 MR. PEARCE: Those are all the questions I  
10 have.

11 MS. COTTINGHAM: Mr. Eglick, are you going to  
12 do the questioning on cross?

13 MR. EGLICK: Yes, ma'am.

14 MS. COTTINGHAM: Can we take a nanosecond  
15 while I find a new pad of paper.

16 (Off the record.)

17

18 EXAMINATION

19 BY MR. EGLICK:

20 Q Ms. Leavitt, didn't the Port have a study done by a  
21 consultant called Herrera & Company that showed that  
22 fecal coliforms were actually coming off the Port's  
23 runway areas?

**AR 056362**

24 A I know that Herrera performed a study on behalf of the  
25 city of Des Moines that looked at the potential fecal

1 coliform sources, but I'm not aware of a study they did  
2 for the Port.

3 Q Did the Port have a study done by some other  
4 consultant, then, that showed there were fecal  
5 coliforms coming off the runway areas of the Port,  
6 airport?

7 A Off the runway areas, not that I'm familiar with, no.

8 Q Did the Port have a study done by a consultant that  
9 showed that there were fecal coliforms attributable to  
10 humans coming off the airport property?

11 A Yes.

12 Q Thank you.

13 I wanted to ask you just one other question, and  
14 that is whether or not you're speaking here today for  
15 the Department of Ecology?

16 A No, I don't represent the Department of Ecology.

17 MR. EGLICK: Okay. I don't have any other  
18 questions, then. Thank you.

19 MS. COTTINGHAM: Mr. Poulin?

20 MR. POULIN: No questions for CASE.

21 MS. COTTINGHAM: Any redirect?

22 MR. PEARCE: I don't believe so. Thanks.

23 MS. COTTINGHAM: I have one question for you.

24 Mr. Young, were you raising your hand to ask a  
25 question?

**AR 056363**



1 MR. YOUNG: No. I'm sorry. I was  
2 stretching.

3

4 EXAMINATION

5 BY MS. COTTINGHAM:

6 Q Could you turn to the chart that is at tab F in your  
7 prefiled testimony.

8 It's this one up here. The third box down, the  
9 square that says, conduct fill source sampling. Is  
10 that phase II?

11 A That is phase II, yes.

12 Q The criteria in, not the criteria, the sampling numbers  
13 that are in the 401 certification, which layer in here  
14 or which boxes do those sampling numbers apply to?

15 A Anywhere from the box or the figure that says, passed  
16 general embankment fill criteria, on down.

17 Q So those diamond-shaped ones?

18 A Yes.

19 Q That's not just limited to the conduct SPLP, but it's  
20 any of those boxes?

21 A It is.

22 And I'd just like to add, that's a minimum number  
23 of samples. That's not meant to... **AR 056364**

24 Q Right. I was just trying to find out where in here.

25 A Exactly. The box above that, the phase II box, if you

1 just referred to it as the box in which Ecology would  
2 work with the Port and help direct us in terms of the  
3 number of samples they think are required to adequately  
4 characterize the source of fill.

5 MS. COTTINGHAM: Thank you.

6 Any other questions?

7

8 EXAMINATION

9 BY MR. JENSEN:

10 Q Does the 401 require a phase II test or is that an  
11 option?

12 A The 401 would require a phase II if the Port wanted to  
13 proceed with a potential source of fill that the phase  
14 I would call into question.

15 Q But if the phase I doesn't call it into question, it's  
16 not required, is it?

17 A No. It might not necessarily be, but certainly  
18 sampling of that material prior to acceptance at the  
19 airport would be, so there would still be sampling  
20 required.

21 Q That would be the DOE required sampling under their  
22 certification?

**AR 056365**

23 A Right. But the Port could also opt, there might be one  
24 source that we don't believe is worth further analysis  
25 because of the phase I results, and we might reject

1           that source that a contractor would bring forth as  
2           being not worth the additional evaluation in our mind.

3                       MR. LYNCH:  No questions.

4                       MS. COTTINGHAM:  Any questions as a result of  
5           the Board's questions?

6                       Thank you, Ms. Leavitt.  You are excused.

7                       MR. PEARCE:  We would call Keith Smith.

8

9                       **KEITH SMITH**, having been first duly sworn  
10           upon oath or affirmed to tell the truth, the whole  
11           truth and nothing but the truth, testified as follows:

12

13   EXAMINATION

14 BY MR. PEARCE:

15 Q       Could you state your name for the record, please.

16 A       My name is Keith Smith.

17                       MS. COTTINGHAM:  You might have to speak up a  
18           bit.  That's not a broadcast.

19 A       Keith Smith.

20 Q       Is your resume attached as Exhibit A to your prefiled  
21           testimony, Mr. Smith?

22 A       Yes, it is.

23 Q       I believe it's also attached to Exhibit 1023, if I can  
24           have you look at Exhibit 1023.                               **AR 056366**

25                       There are a number of resumes in there.  I just you

1 to affirm that it was in there for the Board.

2 A Yes, it is also attached as an exhibit to 1023.

3 MR. PEARCE: It's also attached to tab A to  
4 his testimony.

5 MS. COTTINGHAM: So we didn't need to pull  
6 this out.

7 MR. PEARCE: Sorry.

8 Q (By Mr. Pearce) Where are you employed, Mr. Smith?

9 A I'm employed by the Port of Seattle as the water  
10 resources manager.

11 Q And could you give us a brief description of your job  
12 duties as water resources manager for the Port.

13 A My job duties include developing and managing a  
14 comprehensive water resources management program for  
15 Seattle-Tacoma International Airport that includes  
16 stormwater management, industrial wastewater  
17 management, NPDES permit compliance, erosion and  
18 sediment control, and, to a lesser extent, protecting  
19 water run to the sanitary sewer system.

20 Q When you say Port of Seattle, is that just the airport,  
21 or does that include other Port facilities?

22 A No, just the airport.

23 Q Could you give us a brief description of your education  
24 and experience that's relevant to your current job  
25 duties.

**AR 056367**

1 A I have a bachelor's degree in geology and a master's  
2 degree in water resources management from the  
3 University of Wisconsin.

4 I'm a registered professional geologist in the  
5 state of Florida where I spent 15 years working for  
6 state water management agencies, working in regulatory  
7 programs, doing water resource assessment studies and  
8 water quality studies. It ultimately, resulted in,  
9 that six years, as division director with the South  
10 Florida water management district where I supervised  
11 staff doing water resource assessment studies, model  
12 development application, water quality and quantity  
13 monitoring.

14 I also worked for the Oregon Department of  
15 Transportation managing their geotechnical and  
16 hydraulic programs, including some preliminary work on  
17 their NPDES stormwater permit.

18 I was the director of environmental health for  
19 Thurston County here in Olympia where I supervised all  
20 their environmental management programs, including  
21 their groundwater and surface water programs, and for  
22 the last two and a half years for the Port of Seattle  
23 as water resources manager.

24 Q Does the airport have a current NPDES permit from  
25 Ecology?

**AR 056368**

1 A Yes, it does.

2 Q I'd like to, if I could, get you to identify that for  
3 us. I believe it's at 1094.

4 MR. POULIN: It's also Exhibit 3.

5 A Yes. Exhibit 1094 is the current NPDES permit issued  
6 by the Department of Ecology that the Port, the  
7 airport, operates under.

8 Q Thank you.

9 MR. PEARCE: And Mr. Poulin reminds me it's  
10 also included as Exhibit 3, for the Board's  
11 convenience.

12 Q (By Mr. Pearce) Does a portion of this permit cover  
13 stormwater discharges?

14 A Yes, it does.

15 Q How does the Port sample stormwater pursuant to this  
16 NPDES permit?

17 A The permit has fairly specific monitoring requirements  
18 for the airport stormwater discharges. It specifies  
19 the locations that we monitor. It specifies the  
20 parameters that we monitor for, and in a less specific  
21 manner, it specifies the times and the events which we  
22 monitor for.

23 Q Is instream sampling required?

24 A Instream sampling is not required as part of the NPDES  
25 permit.

**AR 056369**

1 Q What is the purpose of the sampling, as you understand  
2 it?

3 A As I understand it, the NPDES permit is a BMP-based  
4 permit; that is to say that we implement BMPs and we  
5 monitor to gage the effectiveness of those BMPs.

6 So the monitoring locations are located such that  
7 we can use that to gage the effectiveness of our BMPs.

8 Q Where, in general, are the monitoring locations?

9 A Generally, the monitoring locations are upstream, very  
10 close to where the stormwater is generated. They are  
11 not instream, and they are upstream of where the water  
12 would enter the receiving bodies.

13 Q Do you know why or how these samplings locations were  
14 chosen?

15 A The permit that's specifies the sampling locations is a  
16 result of a negotiated settlement. Both the Port and  
17 CASE, a citizens group, appealed the NPDES permit when  
18 it was issued, and as a result, the negotiated  
19 settlement indicated or changed the specified  
20 monitoring locations, and the events and other times  
21 that we would do the monitoring.

22 MR. POULIN: I would object and move to  
23 strike that answer as nonresponsive to the question of  
24 where monitoring was specified. I don't believe  
25 there's an adequate foundation. I believe it can be

1 readily established that most of those conditions  
2 predate this permit and the settlement that he's  
3 describing.

4 MR. PEARCE: You can bring that out on cross.

5 That wasn't the question I asked him. I asked him  
6 how they were decided upon.

7 MS. COTTINGHAM: I'm going to overrule the  
8 objection, and you can bring that out in cross.

9 Q (By Mr. Pearce) Do you have any understanding of why  
10 the sampling is upstream and not instream?

11 A If the sampling was taken instream, if the sampling was  
12 done instream, then we would be getting other waters  
13 from other discharges that would not allow us to  
14 characterize what the Port's discharges are putting in  
15 the stream or not putting in the stream.

16 Many of the stormwater discharges as they enter the  
17 receiving bodies are comingled with waters from  
18 entities around the Port, city of SeaTac, the  
19 Department of Transportation, other facilities, and if  
20 those waters are mixed, we can't get a good idea what  
21 our contributions may or may not be, so locating the  
22 sampling locations as far upstream and as close to the  
23 Port's facilities as possible, we can better  
24 characterize what our discharges are. **AR 056371**

25 Q Do you know what percentage of the Miller Creek



1 watershed, or I guess I should say the Miller  
2 Creek/Walker Creek watershed is the airport?

3 Let me restate that question. I said it backwards.

4 Do you know what percentage the airport is of the  
5 Miller and Walker Creek watershed?

6 MR. POULIN: Objection. Vague.

7 I don't understand what that question means.

8 MS. COTTINGHAM: I think you asked a compound  
9 question or at least about a couple of basins, so can  
10 you simplify it.

11 Q (By Mr. Pearce) Do you understand what a watershed is?

12 A Yes, I do.

13 Q What is a watershed?

14 A It's, basically, the area that contributes flow to  
15 defined stream.

16 Q And do you have an understanding of what proportion of  
17 the Miller and Walker Creek watershed is encompassed by  
18 the airport?

19 A Yes, I do.

20 Q What is that?

21 A Approximately five percent.

22 Q And do you know what percentage of the airport is of  
23 the Des Moines Creek watershed?

24 A Yes, I do.

25 Q What is that?

**AR 056372**

1 A Approximately 27 percent.

2 Q Could I ask you to take a look at Exhibit 426.

3 Is this a stormwater monitoring report?

4 MS. COTTINGHAM: What exhibit are you in?

5 MR. PEARCE: I'm sorry. It's Exhibit 426,  
6 stormwater receiving environment logs.

7 Q (By Mr. Pearce) I believe my first question is whether  
8 this is an annual stormwater monitoring report from the  
9 Port of Seattle?

10 A This is not an annual stormwater monitoring report. It  
11 was a special study that was undertaken.

12 Q Are you familiar with this report?

13 A I have reviewed the report, yes.

14 Q If you look on the first page, it says volume 1. Is  
15 there a volume 2?

16 I believe there's a volume 2 that has the data that  
17 was generated for the report.

18 Q Have you reviewed volume 2?

19 A I've looked at volume 2.

20 Q Could you tell us how the hardness data and the metals  
21 concentration data are reported in this document.

22 A The metals data and hardness data are both reported as  
23 flow-weighted composites.

**AR 056373**

24 Q Over what time period?

25 A Generally, the flow-weighted composites are done to

1 represent a specific storm event.

2 MR. POULIN: Your Honor, I'm going to have to  
3 object to this on the same basis that has become  
4 familiar. This is not addressed in anything  
5 approaching this detail in this witness's direct  
6 prefiled testimony.

7 MR. PEARCE: It's not addressed in this much  
8 detail. He has addressed the metals in the streams.  
9 He addressed the storm --

10 MR. POULIN: I invite you to show us where  
11 the discussion of hardness is in the prefiled testimony  
12 and we can compare.

13 MR. PEARCE: Well, hardness, I don't think I  
14 have to use the specific word. This witness is  
15 entitled to talk about the -- he's the Port's  
16 representative talking about how the stormwater  
17 monitoring is reported at the airport.

18 MS. COTTINGHAM: I'm going to allow the  
19 questioning. You can bring out any concerns you have  
20 on cross-examination.

21 Q (By Mr. Pearce) I think the question was, over what  
22 time periods are the hardness and metals concentration  
23 data reported in this study? **AR 056374**

24 A In the hardness, the flow-weighted composite --

25 MR. POULIN: I'm going to object that this

1 question is hopelessly vague. There are countless  
2 dozens, if not hundreds, of samples. I don't believe  
3 there's any foundation for the witness's familiarity  
4 with the individual samples or which ones he's talking  
5 about.

6 MR. PEARCE: The witness has testified that  
7 he read both of them, that he's an expert in these type  
8 of reports, and he can tell me if all the different  
9 samples were reported differently or not. I'm just  
10 asking him over what time periods are the metal  
11 concentrations and the hardness data reported.

12 MS. COTTINGHAM: I'm going allow the  
13 question.

14 A The flow-weighted composites are set up to characterize  
15 storm events in the stream, and as such, they represent  
16 an average value, both for metals and for hardness for  
17 a particular event.

18 Now, the events can vary in duration, anywhere  
19 from, I would say, on the order of half a day to  
20 several days depending each individual precipitation at  
21 that time.

22 Q So it does not report one-hour average concentrations?

23 A It does not report one-hour concentrations.

24 MR. POULIN: Your Honor, I'm going to object  
25 once again. This report about which they are

1           testifying in detail, isn't even identified among the  
2           materials reviewed in this witness's prefiled  
3           testimony. This is strictly ambush, and between the  
4           leading questions and the new subject matter, I think  
5           this is entirely inappropriate, and I will just renew  
6           my objection for the record.

7                        MS. COTTINGHAM: For the record, you may  
8           continue.

9   Q        (By Mr. Pearce) So it also doesn't report one-hour  
10           average hardness values; is that correct?

11                       MR. POULIN: Objection. Leading.

12   Q        Do you know whether it reports one-hour average  
13           hardness values?

14   A        It does not report one-hour average hardness values.

15   Q        Are you familiar with the use of glycols at the  
16           airport?

17   A        Yes, I am.

18   Q        Can you tell us how frequently they are used.

19   A        Glycols are used generally on what I would call an  
20           incidental basis by the airlines approximately eight  
21           months of out of the year.

22   Q        And by incidental, what sort of quantities are we  
23           talking about?

24   A        Generally, on the order of a hundred gallons or so on a  
25           daily basis.

**AR 056376**

1 Q Are there any BMPs installed at the airport with  
2 respect to glycols?

3 A There's several BMPs that we use at the airport. The  
4 main one is that we restrict application of glycols to  
5 aircraft to areas that drain to the industrial  
6 wastewater treatment plant, and by collecting them and  
7 routing them to the plant, they don't get into the  
8 stormwater and they get into the creeks.

9 That BMP has been in effect since the mid-'60s.  
10 Recently, through sampling we've identified several  
11 areas where glycols were escaping into the stormwater  
12 system and not being captured by the industrial  
13 wastewater system, so we have rerouted those areas  
14 where we were detecting glycols from the stormwater to  
15 the industrial wastewater system. I believe we've done  
16 three of those types of reroutes in the last several  
17 years.

18 Q Do you have an opinion about the effectiveness of those  
19 three reroutes?

20 A Yes, I do. I think they are very effective, because  
21 subsequent sampling has shown that there is less  
22 glycols in those areas that have been redirected.

23 Q I would ask you to look at Exhibit 7 as well.

24 There were some questions earlier in the hearing  
25 about this, and could you tell me what these data

1 sheets are.

2 MR. POULIN: Objection. What data sheets are  
3 you talking about?

4 MR. PEARCE: Exhibit 7.

5 MR. POULIN: Thank you.

6 MS. COTTINGHAM: Proceed.

7 A This is an example of construction stormwater discharge  
8 monitoring that we do. The NPDES permit requires us to  
9 monitor and sometimes sample construction stormwater  
10 discharges after a rainfall event of more than a half  
11 an inch within a 24-hour period, and these are the  
12 reports, field reports that are generated.

13 Q Thanks. And I just have a few short questions about  
14 the locations.

15 Could you look at the second page, down at the  
16 bottom where it says, air traffic control tower.

17 I mean, let me ask you a question. Where is that  
18 project?

19 A The air traffic control tower is located in the SDE 4  
20 drainage basin. The upstream and downstream locations  
21 are within a stormwater system. They are several  
22 thousand feet upstream of where this particular  
23 discharge would enter the receiving body.

24 Q When you say the upstream location, is that the U slash  
25 S symbol?

**AR 056378**

1 A Right. The U slash S is the upstream location and the  
2 SDE 4-948 is a specific location within the system,  
3 generally a manhole or a catch basin, and the same for  
4 D slash S is a downstream location.

5 Q Looking at the next page, south where it's in the  
6 middle, where it says, south terminal expansion  
7 project. Could you tell us the location of those  
8 stormwater, construction site stormwater monitoring.

9 A The south terminal expansion project, these are located  
10 within the same SDE 4 basin. They are also upstream of  
11 where these waters would enter receiving waters. They  
12 are not as far upstream as the air traffic control  
13 tower, but they still are on the order of several  
14 hundred feet of where it would enter receiving waters.

15 Q How about the south terminal expansion project, the  
16 very next one down, where is that located?

17 A That's located in the same general area. I believe  
18 this one is a little further downstream, but still  
19 upstream of where these waters enter the receiving  
20 waters.

21 Q Thank you.

22 Based on your experience, does the mere creation of  
23 new impervious surface at the airport affect stormwater  
24 quality on metals? **AR 056379**

25 MR. POULIN: Objection. Argumentative and



1 leading.

2 Q Sorry. I didn't mean to argue with you, Mr. Smith.

3 MS. COTTINGHAM: I don't understand.

4 MR. POULIN: The mere creation of  
5 construction for stormwater. We don't need editorial  
6 comment in our questioning.

7 MR. PEARCE: I'll strike that.

8 Q (By Mr. Pearce) Does the creation of new impervious  
9 surface affect stormwater quality?

10 A The creation of impervious surface in and by itself  
11 does not necessarily generate pollution, polluted  
12 stormwater runoff or water quality problems.

13 Q What does, in your understanding?

14 A Generally, it's the activities that take place on that  
15 impervious surface.

16 Q And at the airport, what would that kind of activity be  
17 for metals?

18 A For example, for the runway, it would be operating  
19 airplanes on that surface, and any ground service  
20 vehicles that would operate on that surface.

21 Generally, the metals come from the brakes, the brake  
22 materials in both the airplanes and the trucks and  
23 other vehicles.

24 MR. PEARCE: Thank you, Mr. Smith. I have no  
25 more questions.

**AR 056380**

1 MS. COTTINGHAM: Ms. Marchioro?

2 MS. MARCHIORO: I have no questions.

3 MS. COTTINGHAM: I think this would be a good  
4 time for us to break, and we can start back up with the  
5 cross-examination first thing tomorrow morning.

6 Is that acceptable?

7 MR. POULIN: Yes.

8 MS. COTTINGHAM: With that, Mr. Poulin, your  
9 chore for the day is to tell me the number of hours  
10 expired.

11 MR. POULIN: My pleasure. For Appellants: 1  
12 hour, 43 minutes, 37 seconds.

13 And for Respondents: 3 hours, 8 minutes, 42  
14 seconds.

15 MS. COTTINGHAM: How about if we go to the  
16 witness list.

17 We're in the middle of Smith, Wisdom, Weitkamp,  
18 Fendt, Swenson, Brascher, Ellingson. In that order  
19 still?

20 MR. PEARCE: I believe so, Your Honor.

21 We're so fortunate.

22 MR. REAVIS: After Mr. Ellingson, we have  
23 Gould, Clark, Riley, Strunk, and Kelley, and there's  
24 four more, but that will get us a couple days.

25 MS. COTTINGHAM: Okay. Great. With that, we

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will adjourn for the day, and see you at 9:30 in the morning.

(Day 7 of the hearing adjourned.)

**AR 056382**

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CERTIFICATE

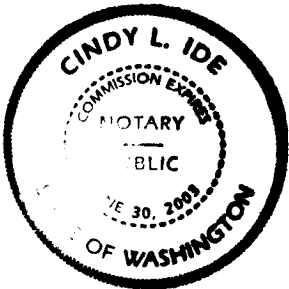
STATE OF WASHINGTON )  
  )  
COUNTY OF THURSTON )

I, CINDY L. IDE, a Certified Court Reporter and Notary Public in and for Thurston County, Washington, do hereby certify that I reported in machine shorthand the above-captioned matter before the Pollution Control Hearings Board of the State of Washington, on March 26, 2002; that the foregoing transcript was prepared under my personal supervision and control and constitutes a true record of the proceedings.

I further certify that I am not an attorney or counsel of any parties, nor a relative or employee of any attorney or counsel connected with the action, nor financially interested in the action.

WITNESS my hand and seal in Olympia, County of Thurston, State of Washington, this 29th day of April, 2002.

*Cindy L. Ide*  
\_\_\_\_\_ )  
CINDY L. IDE  
Notary Public in and for the  
State of Washington, residing  
at Olympia.



My Commission expires 6-30-03.

AR 056383