

A P P E A R A N C E S

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A P P E A R A N C E S (Continued)

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Cullen Stephenson, Department of Ecology
Joe Stohr, Department of Fish and Wildlife
Dennis Moss, Utilities and Transportation Commission
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Bryan Snodgrass, City of Vancouver
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A P P E A R A N C E S (Continued)

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A P P E A R A N C E S (Continued)

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HEARING
Volume 16: INDEX

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

WITNESSES:	PAGE
LINDA GARCIA	
Direct Examination by Ms. Brimmer	3735
Cross-Examination by Mr. Bartz	3768
Redirect Examination by Ms. Brimmer	3771
Recross-Examination by Mr. Bartz	3778
STUART ELLIS	
Direct Examination by Ms. Carter	3779
Cross-Examination by Mr. Johnson	3806
Redirect Examination by Ms. Carter	3819
KATHRYN BRIGHAM	
Direct Examination by Mr. Hall	3823
AUDIE HUBER	
Direct Examination by Mr. Hall	3847
BLAINE L. PARKER	
Direct Examination by Mr. Lothrop	3867
Cross-Examination by Mr. Johnson	3897

	EXHIBITS		
	NUMBER		REF 'D
1			
2			
3	Exhibit		
4	0185-000011-TSS	.....	3806
5	Exhibit		
6	1012-000001-POR	.....	3741
7	Exhibit		
8	3136-000003-VAN	.....	3763
9	Exhibit		
10	5207-000007-TRB	.....	3868
11	Exhibit		
12	5214-000001-TRB	.....	3783
13	Exhibit		
14	5530-000002-TRB	.....	3835
15	Exhibit		
16	5531-000002-TRB	.....	3859
17	Exhibit		
18	5610-000001-CRK	.....	3747
19	Exhibit		
20	5611-000003-CRK	.....	3748
21	Exhibit		
22	5612-000003-CRK	.....	3748
23	Exhibit		
24	5613-000003-CRK	.....	3748
25	Exhibit		
	5614-000003-CRK	.....	3748
	Exhibit		
	5615-000001-CRK	.....	3748

BRIMMER / GARCIA

PROCEEDINGS

1
2 JUDGE NOBLE: Good morning, everyone. Is
3 everyone ready to go back on the record?

4 It is 9:02 on July 21, 2016, and we are back
5 before the State of Washington Energy Facility Siting
6 Council in Case No. 15-001, in the Matter of Application
7 No. 2013-01, Tesoro Savage LLC Vancouver Energy
8 Distribution Terminal.

9 We are proceeding with the opponents' case.
10 Ms. Brimmer, do you have a witness this morning?

11 MS. BRIMMER: Yes, Your Honor. We call
12 Ms. Linda Garcia.

13 JUDGE NOBLE: Ms. Garcia, would you raise
14 your right hand, please.

15 (Witness sworn.)

16 JUDGE NOBLE: Thank you. Please be seated.
17 You may proceed, Ms. Brimmer.

18 MS. BRIMMER: Thank you, Your Honor.

19 LINDA GARCIA,

20 having been first duly sworn,

21 testified as follows:

22 DIRECT EXAMINATION

23 BY MS. BRIMMER:

24 Q. Ms. Garcia, please state your full name and
25 spell it for the record. And I will remind you, speak

BRIMMER / GARCIA

1 slow enough so that the court reporter can write it
2 down.

3 A. Linda Garcia, L-i-n-d-a G-a-r-c-i-a.

4 **Q. Ms. Garcia, you are a resident of the Fruit**
5 **Valley neighborhood of Vancouver?**

6 A. Yes, I am.

7 **Q. And you own a home in the neighborhood?**

8 A. Yes, I do.

9 **Q. How long have you lived in the neighborhood?**

10 A. Almost 20 years.

11 **Q. What is your occupation?**

12 A. I am a community outreach coordinator.

13 **Q. And that's for the Fruit Valley Foundation?**

14 A. Yes, it is.

15 **Q. And what is your educational background?**

16 A. I have a bachelor's degree in social work.

17 **Q. Please describe for the council what you do for**
18 **your work.**

19 A. It's a multifaceted position. I work with the
20 residents in the Fruit Valley neighborhood providing
21 resources, referrals through engagement activities and
22 educational, financial, help courses, helping them to be
23 more powered and progress back into the places that they
24 want to see themselves in.

25 I also work with local businesses, both within

BRIMMER / GARCIA

1 the Port of Vancouver and within the Downtown Vancouver
2 area. We look to them for sponsorships and funding,
3 also from other nonprofit organizations in our area to
4 help fund some of the programs that we do run.

5 **Q. You are here today on behalf of the Fruit Valley**
6 **Neighborhood Association, correct?**

7 A. Yes.

8 **Q. Can you please just describe a little bit for**
9 **the council who the association is and what they do.**

10 A. So the Fruit Valley Neighborhood Association is
11 representative of the body of Fruit Valley residents,
12 and we work as a liaison between the City of Vancouver
13 and the residents and other agencies. We are a voice
14 for the neighborhood. When things come up, we --
15 people, residents in the neighborhood, can bring those
16 concerns and issues to us, and then we can either vote
17 on them and move forward or continue talking about them.

18 **Q. Generally, who are the members of the**
19 **neighborhood association?**

20 A. The members are anybody who lives or works
21 within the Fruit Valley boundaries.

22 **Q. What's your position with the neighborhood**
23 **association?**

24 A. I'm the secretary.

25 **Q. And what does that generally entail?**

BRIMMER / GARCIA

1 A. I work with the agenda, I take notes during the
2 meetings, I follow up on any actions or motions that
3 have been taken and in the community as a whole, I act
4 as an advocate and as a community leader.

5 **Q. And that's a volunteer position?**

6 A. Yes, it is.

7 **Q. How long have you done that kind of work with**
8 **the neighborhood association?**

9 A. A little -- not quite five years.

10 **Q. And are you here today as the authorized**
11 **representative of the neighborhood association?**

12 A. Yes, I am.

13 **Q. How did that authorization come about?**

14 A. In January 2016, the neighborhood association
15 took a vote to have me come here as an authorized
16 representative for the neighborhood.

17 **Q. And I want us to be clear for the council, the**
18 **neighborhood association and the Fruit Valley**
19 **Foundation, your employer, are entirely different**
20 **entities, correct?**

21 A. Yes, they are.

22 **Q. And you are not here for the foundation?**

23 A. No, I'm not.

24 **Q. You're taking time off of work today to be here?**

25 A. Yes, I am.

BRIMMER / GARCIA

1 Q. Are you also here in your personal capacity,
2 Ms. Garcia?

3 A. Yes, I am.

4 Q. Is there a difference between your personal
5 position and your testimony today for the neighborhood
6 association?

7 A. No.

8 Q. Does the association -- the neighborhood
9 association have a position on the proposed Tesoro
10 Savage oil terminal?

11 A. Yes.

12 Q. What is that position?

13 A. We are opposed.

14 Q. And why?

15 A. We have -- we have multiple concerns regarding
16 the proposed oil terminal. One is, from the very
17 beginning, we were -- we were informed of the toxic
18 pollutants that would be emitted on a daily 24-hour,
19 seven-day-a-week basis from the second the terminal
20 would go online. Since we are right there, some of us
21 less than a mile from the site, our concerns are
22 livability, breathability and being exposed to those
23 toxins continually.

24 Another of our concerns are the oil rail cars.
25 Any -- any accident or incident -- the Fruit Valley

BRIMMER / GARCIA

1 neighborhood is unique in Vancouver in that it is
2 separated by a series of railroad tracks, and the only
3 way into or out of the neighborhood is to cross over
4 those tracks. So if an incident on the tracks were to
5 occur, accessibility into or out of would be extremely
6 limited, if not impossible.

7 And one of the biggest concerns is the storage
8 tank facility, holding 2.16 million barrels of oil on a
9 continual basis, one explosion would level the Fruit
10 Valley neighborhood. There's a reason we all refer to
11 it as ground zero. One of the -- or the biggest oil
12 storage facility disaster in this country in Texas City
13 held approximately the same amount of oil in their
14 storage tank and it leveled everything within a
15 three-mile radius and flattened homes, killed
16 multiple -- it was a true disaster. It, five miles out
17 of the radius, even destroyed many things. So it goes
18 beyond Fruit Valley after that point.

19 **Q. Is the neighborhood association really just**
20 **worried about increased industrialization in the work of**
21 **the port?**

22 A. Absolutely not. Fruit Valley neighborhood has
23 long held good rapport with the Port of Vancouver.
24 We've worked and collaborated really well for several
25 decades. When we have issues with any of the tenants,

BRIMMER / GARCIA

1 if we hear from any residents of any problem, we take it
2 to the board and they take care of it as quickly as they
3 can. We are well aware that industry and residential
4 can coexist peacefully. There just needs to be a
5 compromise, equal compromise, and with this particular
6 case, we have not gotten any compromise.

7 MS. BRIMMER: Ms. Mastro, I'm going to now
8 refer to the map. I have some extra copies for the
9 council, if it makes it easier to follow along. I think
10 you've all received copies of this. I want to make sure
11 to get the number right. It's not on that copy.

12 MR. BARTZ: 1012, I believe.

13 MS. BRIMMER: Thank you. 1012.

14 Your Honor, should I share the extra copies
15 I have with members of the council? Should I approach?

16 JUDGE NOBLE: Yes, you can if anyone hasn't
17 gotten their copy. Thank you. Please proceed.

18 BY MS. BRIMMER:

19 Q. Ms. Garcia, there's a -- it looks like a pen in
20 front of your microphone there. See it? That's -- that
21 should be a laser pointer. Be careful where you point
22 it. But if you can figure out how to turn that on, and
23 I'll have you look at this map probably behind you. And
24 I apologize, it's going to be little, but we'll do the
25 best we can. It's not working?

BRIMMER / GARCIA

1 A. There we go.

2 Q. Okay. So generally, can you show us where the
3 Fruit Valley neighborhood is located. And if you need
4 to step to the map and talk loudly, that's okay. Just
5 make sure you speak up.

6 A. It is within this area right here.

7 Q. Can you hear her okay? You'll have to talk
8 really loud when you say that. Sorry.

9 A. It's in that area right there.

10 Q. Okay. And you're indicating an area that is
11 roughly northeast of the port; is that right?

12 A. Northeast and then east.

13 Q. Okay. Do you know where the project -- the
14 proposed project location is on the map?

15 A. Here.

16 Q. And you're indicating where the railroad loop
17 shows, correct?

18 A. Yes.

19 Q. You can take your seat again for now.

20 Is Fruit Valley neighborhood residential?
21 Commercial? Mixed? What is the nature of the
22 neighborhood?

23 A. It's a mix of resident and industry.

24 Q. Is there a lot of residential?

25 A. Yes.

BRIMMER / GARCIA

1 Q. About what percentage?

2 A. I'd say it's pretty equal.

3 Q. Are there houses near the railroad tracks into
4 and/or out of the port?

5 A. Yes.

6 Q. When was most of the neighborhood built?

7 A. The main part of the neighborhood was built in
8 the early 1940s, but there are homes that are along
9 separate areas in different sites of Fruit Valley that
10 were built in the very early 1900s.

11 Q. Are there schools in the neighborhood?

12 A. Yes.

13 Q. Can you show us on the map, and, again, I grant
14 it it's small, but can you show us roughly where the
15 school is?

16 A. I believe it's right there.

17 Q. And you're showing kind of the north end of the
18 neighborhood, right?

19 A. Yes.

20 Q. And what -- actually, we're going to keep you at
21 the map. Sorry. Are there playgrounds and parks in the
22 neighborhood?

23 A. Yes.

24 Q. And can you show us the location of some of
25 those, please.

BRIMMER / GARCIA

1 A. There's --

2 **Q. Talk loud.**

3 A. There's one at the school, which is there-ish,
4 and there's one directly across the street in the
5 community park, and there is one right down here on the
6 south side of the neighborhood.

7 **Q. And I think you've mentioned there is a homeless
8 shelter or homeless facility in the neighborhood. Can
9 you show us roughly where that is?**

10 A. It's a day shelter for homeless individuals to
11 go to during the day, and it is located right there.

12 **Q. You can take your seat again. Thanks.**

13 **And those last two items that you indicated, one
14 of the playgrounds and the homeless day facility, those
15 are in the very south -- get my directions right -- east
16 part of the neighborhood?**

17 A. Yes.

18 **Q. And that looks pretty close to the railroad.
19 How close to the railroad are those two things?**

20 A. The day shelter is directly adjacent. I would
21 say just a few yards, and the playground facility is
22 just a little bit further to the west of that. It's
23 separated from the railroad by a steel-fabricated
24 building.

25 **Q. I would like to now move to a discussion of some**

BRIMMER / GARCIA

1 of the neighborhood demographics. Are you familiar with
2 the demographics of the neighborhood?

3 A. Yes, I am.

4 **Q. What are the ways that you have become familiar**
5 **or are familiar?**

6 A. The biggest way, I suppose, is living there
7 almost 20 years. I've gotten to know my neighbors,
8 family members. Through my work, I advocate for
9 residents in Fruit Valley every day. So I've had to do
10 presentations at multiple workshops and conferences over
11 the last several years. So I pull demographic data
12 consistently because it does change quite frequently
13 there. So I'm always looking into the demographics to
14 present it, to locate our resources and find where our
15 needs are.

16 **Q. Have you also recently done some work with an**
17 **EPA website that displays demographics?**

18 A. Yes, I have.

19 **Q. So based upon your years of work and living in**
20 **the neighborhood, can you tell us what the income**
21 **distribution is in the neighborhood?**

22 A. Based on the demographics that I have most
23 currently, the average income for a family of four in
24 Fruit Valley is \$27,000 a year. It varies. Again, it's
25 a mobile community, so it changes a little more

BRIMMER / GARCIA

1 drastically than most other areas. The average -- we
2 base our averages on a 130 percent poverty guideline for
3 our resources and tools, and the national average, I
4 believe, is roughly around 31,000 for a family of four.

5 **Q. So Fruit Valley is below the national average?**

6 A. Yes, it is.

7 **Q. And what about comparing to the rest of the**
8 **Vancouver region? Do you know how the income in Fruit**
9 **Valley compares to Vancouver generally?**

10 A. It's significantly lower. It is one of the
11 lowest income neighborhoods in Vancouver.

12 **Q. Does Fruit Valley have a lot of kids in the free**
13 **lunch program?**

14 A. Yes, we do.

15 **Q. What percentage?**

16 A. The last demos that I pulled were from the
17 2014-15 K-12 Washington State report, and that had us
18 sitting at 90 percent.

19 **Q. And what is the ethnic makeup generally of the**
20 **neighborhood?**

21 A. It's about 36 to 37 percent minority.

22 **Q. And is that higher than the rest of the**
23 **Vancouver area?**

24 A. Yes, it is.

25 **Q. Do you know about how much?**

BRIMMER / GARCIA

1 A. It's about 15 to 18 percent higher.

2 **Q. And what's the age distribution in the**
3 **neighborhood?**

4 A. It's not as equal. Looking specifically toward
5 youth, 18 and younger falls at about 21 percent and
6 those 5 and younger are around 11 percent.

7 **Q. And, again, how does that compare with the**
8 **larger Vancouver area?**

9 A. It's a little bit higher.

10 **Q. In other words, there's more kids?**

11 A. There are more kids, yes.

12 **Q. I'd now like you to turn to the book that's in**
13 **front of you, please. And there are some exhibits in**
14 **there, and I'd like you to turn to Exhibit 5610, which**
15 **should be the first one, I think. And that should say**
16 **that it's an EPA EJ screening; is that right?**

17 MR. BARTZ: Your Honor, these are exhibits
18 that are in dispute between the parties. Perhaps we
19 ought to be addressing that now.

20 JUDGE NOBLE: I know. And are you
21 identifying these exhibits?

22 MS. BRIMMER: I'm identifying them. I was
23 about to lay a foundation.

24 JUDGE NOBLE: Thank you. She's laying a
25 foundation.

BRIMMER / GARCIA

1 A. I have 5611. I don't have 5610.

2 BY MS. BRIMMER:

3 Q. Oh, deer. All right.

4 MS. BRIMMER: Ms. Mastro, could we pull up
5 5611. Well, I don't want to show it until we get this
6 resolved. Give me a moment, please.

7 MS. MASTRO: Ms. Brimmer, I could print it
8 for you.

9 MS. BRIMMER: You could print it?

10 JUDGE NOBLE: Could we print 5610 in
11 addition to 5611?

12 MS. BRIMMER: I think we've got the next
13 one.

14 JUDGE NOBLE: I'd just ask you, Mr. Bartz,
15 are you maintaining your objection to the exhibits?

16 MR. BARTZ: I told counsel that we would
17 waive our objection -- withdraw our objection to 5612,
18 which is some demographic information, but we maintain
19 our objection today to 5610, 5611, 5613 and 5614.

20 JUDGE NOBLE: In that case, we can admit
21 5612. 5612 is admitted.

22 MS. BRIMMER: I would also note, Your Honor,
23 that I discussed with opposing counsel yesterday that we
24 are withdrawing 5615.

25 JUDGE NOBLE: 5615 is withdrawn.

BRIMMER / GARCIA

1 BY MS. BRIMMER:

2 Q. Ms. Garcia, I am now showing you what has been
3 marked as Exhibit 5610. Without describing what's in
4 the document, can you tell me, have you seen this
5 before?

6 A. Yes, I have.

7 Q. And where have you seen this?

8 A. Through the EPA's environmental justice website.

9 Q. Is that a website that is available for public
10 use?

11 A. Yes, it is.

12 Q. Have you visited and used the website?

13 A. Yes, I have.

14 Q. On more than one occasion?

15 A. Yes.

16 Q. And can you just tell us very generally, again,
17 don't describe what's in it, the title of the document?

18 A. It's an overview of demographic indicators.

19 Q. And did you print this out from EPA's website?

20 A. Yes.

21 MS. BRIMMER: Your Honor, we move admission
22 of Exhibit 5610.

23 JUDGE NOBLE: Is there an objection to 5610
24 still?

25 MR. BARTZ: Yes, Your Honor. And if I might

BRIMMER / GARCIA

1 just take a couple of minutes, okay, and explain to you
2 that objection and how it relates to the other exhibits
3 because they're all tied together. All right?

4 JUDGE NOBLE: So you're making a joint -- an
5 objection about all of them all at the same time?

6 MR. BARTZ: Yes. I presume when I'm done, I
7 believe, good or bad, admitted or not, you'll appreciate
8 we've dealt with these all together instead of
9 piecemeal.

10 So 5610 is objectionable because it defines
11 some terms that are used on the second page of the
12 more -- most objectionable documents, which are 5611,
13 5613 and 5614, and those are the very same documents, in
14 fact, 5611 is exactly the same document that Dr. Fanning
15 talked about on Monday when she said, and I quote, "In
16 fact, EPA is very, very careful to say don't use -- to
17 say don't use this to say what's exactly happening in
18 your neighborhood. We do not validate the tool for
19 that."

20 And on the second page, which is what the
21 definitions in 5610 refer to -- on the second page of
22 5611, 5613 and 5614, the EPA says, and I'm quoting, "The
23 EJSCREEN is a screening tool for predecisional use only.
24 Users should keep in mind that the screening tools are
25 subject to substantial uncertainty in their demographic

BRIMMER / GARCIA

1 and environmental data, particularly when looking at
2 small geographic areas."

3 The demographic data that we've allowed in
4 as 5612, and I'm glad to have the witness' experience
5 and testimony about the demographics of the Fruit Valley
6 neighborhood, have been useful. Where they want to go
7 next is to try to impart to the council environmental
8 data which Dr. Fanning, as an expert witness, would not
9 do and refused council's questions to ask them -- to
10 help explain what was going on in those documents. So
11 my -- that's the first part of this.

12 The second part is this is a fact witness.
13 Every time Ms. Garcia's been referred to, she's been
14 referred to as a fact witness, again, as late as last
15 night, after they heard Dr. Fanning distance herself
16 from the very documents that were in her testimony. So
17 if you refer to the evidence rules, 701 and 702 are very
18 careful about opinion testimony of witnesses. This does
19 not meet the requirements of the opinion testimony for a
20 fact witness in 701. It's explicitly scientific data
21 that Dr. Fanning herself understood and said, don't use
22 it.

23 And then lastly, if it's relevant, which we
24 don't believe it is, it's highly prejudicial because
25 nobody here can explain what it all means. You had

BRIMMER / GARCIA

1 Dr. Fanning, again, a very experienced toxicologist as
2 presented by the opponents, who said, I can't tell you
3 what those differences are. That's prejudicial to have
4 something in evidence that we can't draw any rational
5 conclusions from. Again, if this witness now says she
6 can help us draw rational conclusions, she's a fact
7 witness, and I appreciate the liberal approach to
8 fact -- or expert witnesses, but we can't go there
9 today. We've already got an expert that they put
10 forward that said this is stuff we shouldn't be using
11 for the kind of analysis they now want to try to use it
12 for. So for all those reasons, these group of exhibits
13 should not be allowed, Your Honor.

14 JUDGE NOBLE: Mr. Bartz, could you also
15 address the APA statute about allowing evidence of even
16 hearsay evidence, if -- and I'll quote the statute --
17 it's the kind of evidence which reasonably prudent
18 persons are accustomed to relying in the conduct of
19 their affairs? Could you address the argument about
20 that?

21 MR. BARTZ: Yes, Your Honor. This is not at
22 all a hearsay objection. It's a 701 series of
23 objections and 400 series. It's not at all about the
24 fact you can get it off the website. We don't deny it's
25 available on the public website. What we're saying is

BRIMMER / GARCIA

1 it -- it intends to provide information which no one
2 here can explain with any experience or knowledge what
3 it means.

4 JUDGE NOBLE: I understand that. But I --
5 the statute says, including hearsay evidence, just
6 speaking about all the body of evidence.

7 MR. BARTZ: I understand, Your Honor. It's
8 not -- I'm not making a hearsay objection.

9 JUDGE NOBLE: Yes, I understand.

10 MR. BARTZ: Accepting that it's hearsay,
11 it's still not being proffered by a qualified witness,
12 and it's also, based on Dr. Fanning's unchallenged
13 testimony, not corrected by her counsel, not corrected
14 by anyone else, this is stuff EPA says, don't use for
15 small geographic areas. And finally, I'll let you know,
16 that 5614 is another geographic area in the city of
17 Vancouver where it's -- I'm anticipating they're going
18 to try to show how Fruit Valley is different under a
19 variety of environmental indicators from that other
20 neighborhood, and that's precisely the small geographic
21 area comparisons that EPA says don't use. Dr. Fanning,
22 the toxicologist and presented as a public health person
23 in her introduction said, don't use it. So this council
24 should not allow it to come in and certainly not
25 proffered by a fact witness.

BRIMMER / GARCIA

1 JUDGE NOBLE: Thank you. Ms. Brimmer?

2 MS. BRIMMER: Yes, that was a rather lengthy
3 and vociferous speaking objection.

4 MR. BARTZ: Excuse me, Your Honor, I object
5 to the characterization of my professional comments and
6 my work.

7 MS. BRIMMER: I will try to respond, Your
8 Honor. So let me start with I think that the objection,
9 at best, goes to weight. And this council certainly --
10 it's not like a jury trial. Certainly this council can
11 and, in fact, will weigh the testimony and determine
12 what weight to give it, which is I think what EPA's
13 comments on the website should be taken as, what is the
14 weight to be accorded this testimony.

15 I would also note that Ms. Garcia has
16 demonstrated that she is, in fact, familiar with the
17 demographics of the neighborhood and that she can, in
18 fact, judge information concerning demographics, that
19 she conducts demographic research as part of her regular
20 job and as part of her volunteer responsibilities as an
21 advocate and resident of the neighborhood. She, unlike
22 Dr. Fanning, is, in fact, intimately familiar with the
23 neighborhood.

24 Dr. Fanning's testimony, I think on this
25 point, was mischaracterized. She very honestly noted

BRIMMER / GARCIA

1 that there was a weight issue and what EPA published the
2 information for, but she also was not an expert in
3 demographics and was not purporting to give that kind of
4 expert opinion, and that is why she was very careful
5 about the information she gave, not because she was
6 making any comment at all about the validity of the
7 exhibit.

8 And finally, I would address, Your Honor,
9 the fact that this is exactly the kind of information
10 that someone in Ms. Garcia's position would regularly
11 use and rely on with respect to trying to understand and
12 form an understanding of the demographics of her
13 neighborhood and the environmental justice implications,
14 because environmental justice is very much relevant in
15 this council's considerations, and this is some of the
16 best information that is available on that and it is a
17 publicly available website and I was going to have
18 Ms. Garcia discuss how she came to these exhibits. It
19 would be a similar foundation to what I just laid for
20 5610. Thank you.

21 MR. BARTZ: Your Honor, it's important --
22 one piece, please. Counsel has just talked a lot about
23 demographics. And, again, the Port of Vancouver's not
24 objecting to demographics. Although we wish the Fruit
25 Valley neighborhood was not a filed opponent to this

BRIMMER / GARCIA

1 project, we're glad to have the Fruit Valley
2 neighborhood here today to provide information about an
3 important neighborhood rapport. We don't challenge
4 testimony about who lives there, what they look like,
5 how they operate, the languages they speak, all of those
6 things that are demographic data.

7 What the party opponents want to do, though,
8 is pages 1 and 2 of 3 -- 5611, 5613 and 5614, they want
9 them precisely for the environmental data, not the
10 demographic data.

11 And secondly, counsel's just wrong, and I
12 have the printout of the exchange between the counsel
13 and Ms. Fanning on Monday. It was not about
14 demographics; it's not about weight. The council asked
15 specifically, how do you compare this environmental
16 number from page 1 with the environmental number on
17 page 2, not demographics. And when asked, with that she
18 said, you can't do that, don't do that, EPA says don't
19 do that and I can't explain it to you. She's an expert.
20 This is a fact witness. No matter how familiar she is
21 intimately with the neighbors that she works for and
22 services -- serves really well in the Fruit Valley
23 neighborhood, it doesn't make her an expert about the
24 environmental data, which is what this needs -- these
25 screens in the numbered exhibits I've just given you,

BRIMMER / GARCIA

1 '11, '12, '13 and '14, that's what they do.

2 MS. BRIMMER: Your Honor --

3 JUDGE NOBLE: Do you want to respond to
4 that, please?

5 MS. BRIMMER: Yes, that's actually the first
6 time I've heard that it's the environmental data that is
7 the problem. We are actually using this for the
8 demographic data.

9 If you want to rule that the council should
10 disregard the environmental data, which is on the first
11 page of some of these exhibits, we are perfectly fine
12 with that. This is the first time I've heard that
13 precise objection. We are offering this simply for the
14 demographics, and we can't control what gets spit out of
15 the EPA website. We put in the whole document that
16 comes out from that. But we can, if the council wants
17 to redact that, that's fine with me.

18 JUDGE NOBLE: All right. Mr. Bartz, is the
19 Port willing to agree to these exhibits if the
20 environmental data is redacted? That does seem to be
21 the focus of your objection.

22 MR. BARTZ: No, Your Honor. The reason is
23 because what they do in the second page is they take the
24 environmental data and compare it and mash it with the
25 demographic data and come up with some conclusions.

BRIMMER / GARCIA

1 That's why the EPA says, don't try to use this to figure
2 out what's happening in the Fruit Valley neighborhood.
3 We don't know it that well.

4 So we've already got voluminous demographic
5 data. She's given it herself in her good testimony, and
6 Exhibit 5612, if the council would take a look at it, is
7 a very precise analysis of what the incomes are -- it's
8 three pages of data about who speaks which languages,
9 whether they own their home or rent their home. It's
10 precisely demographic data. The other pages are a
11 mashing of environmental data and some screening tool
12 EPA uses for something that's not appropriate here.

13 JUDGE NOBLE: Do you have a response,
14 Ms. Brimmer?

15 MS. BRIMMER: I have nothing further, Your
16 Honor. They don't want them in. I don't know that I
17 have any further response at this point in time.

18 JUDGE NOBLE: All right. Normally I would
19 feel that this is a matter of weight, but it appears
20 that it's not going to be possible to read these
21 exhibits in a way that eliminates the objected-to
22 content. I'm remembering the testimony that we heard
23 from the expert, and I do remember the caution about
24 using this environmental data. And normally also, the
25 APA is -- allows a liberal approach to the rules of

BRIMMER / GARCIA

1 evidence about evidence presented in this type of
2 hearing. However, I am trying to make sure that the
3 record is pristine in that regard. And so I will not
4 admit exhibits 5610, 5611, 5613 and 5614. The objection
5 is sustained.

6 MS. BRIMMER: Thank you, Your Honor.

7 BY MS. BRIMMER:

8 Q. Ms. Garcia, let's turn to slide 5612 if you
9 would, please.

10 MS. BRIMMER: Ms. Mastro, could we have that
11 on the screen please.

12 JUDGE NOBLE: Let me just add one thing.
13 I'm not ruling that this witness who has testified about
14 her research is not going to be able to testify about
15 demographic matters that she has developed a certain
16 knowledge of. Thank you.

17 MS. BRIMMER: Thank you, Your Honor.

18 BY MS. BRIMMER:

19 Q. Ms. Garcia, have you seen Exhibit 5612 before?

20 A. Yes.

21 Q. And is this a product of some of your research
22 on the EPA website?

23 A. Yes, it is.

24 Q. Can you describe -- let me back up. And you
25 printed out 5612?

BRIMMER / GARCIA

1 A. Yes.

2 Q. And you did the work associated with creating
3 5612?

4 A. Yes, I did.

5 Q. Can you describe how you did that? What did you
6 do to create this document?

7 A. I went to the website and typed in the ZIP code,
8 which is primarily Fruit Valley, and it brings you to a
9 map with that ZIP code to that specific location, and
10 then it has several dropdown bars, and you can enter the
11 data that you need to pull up of the specific pages from
12 that.

13 Q. Okay. And on the dropdown, do you have an
14 option to print various reports?

15 A. Yes.

16 Q. And is this EJSSCREEN ACS Summary Report one of
17 those options?

18 A. Yes.

19 Q. And I note near the top of the document, it
20 says, ring, five-mile radius. Do you see that?

21 A. .5 mile radius, yes.

22 Q. .5 mile. I'm sorry, yes. Can you tell us what
23 that means relative to the data that's on this exhibit?

24 A. It's the half-mile radius that I have pinpointed
25 for specific locations on there in detail.

BRIMMER / GARCIA

1 Q. Okay. And you had pinpointed where in Fruit
2 Valley?

3 A. The center of the neighborhood.

4 Q. So not particularly close to the port, not
5 particularly far away?

6 A. No. Pretty squarely in the center.

7 Q. Okay. And then this is the information that the
8 EPA website produces when you do that?

9 A. Yes.

10 Q. Did you alter this in any way?

11 A. No.

12 Q. And this produces information about things that
13 we were just talking about, minority population, age of
14 the population, income, correct?

15 A. Right.

16 Q. Does this information generally comport with
17 what you use in your job for demographics for the
18 neighborhood?

19 A. For the most part. This one is a little bit
20 more specific. The other research areas that I have
21 used are a little more general. So this was a little
22 bit more specific than most.

23 Q. Does it generally comport with your
24 understanding of the neighborhood demographics from
25 living there for 20 years?

BRIMMER / GARCIA

1 A. Yes, it does.

2 Q. What is your understanding of what environmental
3 justice indicators are?

4 A. We use environmental and social justice
5 indicators to define and determine what needs are in
6 Fruit Valley for the people that we serve. It's --
7 generally, lower income populations tend to be -- tend
8 to have the brunt of environmental and social injustice
9 concerns placed upon them a bit more frequently than
10 others.

11 Q. And how, then, do those bit more frequent -- I'm
12 sorry, the term you used for the moment escapes me. The
13 more frequent environmental concerns, how does that
14 relate to what's going on here with respect to the
15 proposed Tesoro Savage terminal?

16 A. It relates specifically to things that are out
17 of our control in Fruit Valley. We already have a
18 huge -- a huge dispersement of a lot of very bad things,
19 and I know that in general life is not fair, but there
20 comes a point where enough is enough and you can't just
21 expect a certain population to continue bearing that
22 brunt. So an injustice, either environmentally or
23 socially, just because a populous is oppressed, it
24 shouldn't happen. It does happen, but it shouldn't.

25 MS. BRIMMER: Ms. Mastro, I would like to

BRIMMER / GARCIA

1 display Exhibit 3136 which is the map that the City of
2 Vancouver put in the other day. Is it possible to blow
3 that up a little bit?

4 BY MS. BRIMMER:

5 Q. Ms. Garcia, I'm showing you the map that has
6 been admitted as Exhibit 3136. Do you recognize this as
7 a map of Vancouver?

8 A. Yes.

9 Q. Have you seen this map before?

10 A. Yes.

11 Q. And, again, can you show us generally on the map
12 where the Fruit Valley neighborhood is. If you have the
13 pointer -- that's great.

14 A. It's right along in there.

15 Q. Thank you. And do you know what the green --
16 that green line represents on the map? I'll help you
17 out. It goes along the river and branches.

18 A. That would be the railroad.

19 Q. And there's some tan areas around that railroad.
20 Do you know what that represents?

21 A. Yes.

22 Q. What is that?

23 A. That's the half-mile radius.

24 Q. What's the significance of the half-mile radius?

25 A. The significance of the half-mile radius is

BRIMMER / GARCIA

1 it's, I guess, technically considered the blast zone.
2 It's if an incident were to occur, that is where most of
3 the damage would happen, is within that one half-mile
4 radius.

5 Q. And it looks like those overlap in the Fruit
6 Valley neighborhood. Is that your understanding?

7 A. Yes, they do.

8 Q. Is it your understanding that any impacts from a
9 rail incident is confined to a half mile?

10 A. No. I've heard that it's upwards of one mile.

11 Q. So that would double the size of the tan area?

12 A. Yes.

13 Q. Is this information of concern to the Fruit
14 Valley Neighborhood Association?

15 A. Yes, it is.

16 Q. And why?

17 A. Because we do live -- a majority of the
18 neighborhood is within a half a mile on either line, on
19 either railroad line.

20 Q. I'm going to direct your attention to the Mosier
21 train incident from early June. And you're aware of the
22 recent crude oil train derailment near Mosier?

23 A. Yes, I am.

24 Q. How are you aware?

25 A. Ironically, I was testifying that day at a -- at

BRIMMER / GARCIA

1 an oil safety transportation hearing, and about an hour
2 after I finished, word came in that there had been a
3 derailment. And because it was so close to home, the
4 majority of us left and we went and continued monitoring
5 it on the Internet and TVs.

6 **Q. Were you ever at the site of the accident in**
7 **Mosier?**

8 A. Yes, I was.

9 **Q. And you saw the accident site?**

10 A. Yes, I did.

11 **Q. When?**

12 A. The very next day, Saturday, June 4th.

13 **Q. What did you see?**

14 A. I was in Hood River first. They were holding a
15 rally there for support for Mosier residents. Hood
16 River is just a few miles further west of Mosier. There
17 were several people, from city council to mayor to -- a
18 lot of the local residents had come out and they were
19 speaking and talking about what had happened and
20 understanding that, yes, they got very, very lucky this
21 time. But they didn't really want to hear the luck
22 part.

23 I then went to Mosier and saw the derailment
24 itself. And it's quite different when you see a
25 derailment in person than when you're watching it on TV,

BRIMMER / GARCIA

1 the news helicopters are flying at a very safe distance.
2 They don't get near it, so it just looks like a bunch of
3 match boxes that have been strewn about by a child.

4 When you're right next to it, it's very large
5 and looming. Several of the cars were absolutely
6 unrecognizable. They were just kind of silvery white.
7 Some of them were just lying along the tracks intact,
8 but lying in their own puddles of oil. There's no
9 descriptive for it. We looked at it when they weren't
10 flaming. The fires had been completely put out.

11 So to hear what the residents went through,
12 that's exactly what we don't want in Fruit Valley. That
13 easily could have been the Fruit Valley neighborhood
14 with homes far closer than what they were there.

15 **Q. We've heard a lot of testimony about insurance**
16 **and how the railroads and/or the project located here**
17 **are investing or getting insurance to cover those kinds**
18 **of accidents. How, if at all, does that address Fruit**
19 **Valley neighborhood's concerns?**

20 A. It doesn't address our concerns. As far back as
21 you can look, cleanup is not possible. They're still
22 cleaning up spills from 25 and 30 years ago. Beyond
23 that, there is no single amount of money that can
24 replace a human life. The costs are not even close to
25 comparable. I don't know how you can validate putting a

BRIMMER / GARCIA

1 price on grief. I don't know how you can simply hand a
2 check over to a family who doesn't have a mom or a dad
3 with them anymore or their child or they've lost every
4 single thing. It's -- that's one of the greatest
5 injustices of all.

6 Speaking particularly to Fruit Valley, we are
7 not expendable. We are human beings and we deserve
8 every single chance at life that everybody else does,
9 regardless of where we are demographically, where we are
10 socioeconomically, where we are race or ethnicity. It
11 doesn't matter. There's no cost that can be placed on
12 any single head of any single human life.

13 **Q. In conclusion, is there anything further you**
14 **would like to address to the council in your own or the**
15 **neighborhood association's behalf?**

16 A. Yes. I, personally, have been doing this for
17 over three years, from the moment that we found out
18 about this project. I have researched and studied and
19 tried my hardest to look at the positives of this and to
20 have as complete an understanding of the entire
21 situation. And it never equals out in my mind or in my
22 heart. My mind is saying that no amount of jobs and no
23 amount of money that can be brought into the community
24 can ever equal what we would be facing if there were an
25 accident or an explosion, anything regarding any of the

BARTZ / GARCIA

1 facets of this project. We are just tired of not having
2 our --

3 **Q. Take a minute.**

4 A. I'm sorry. We're tired of not being heard. I
5 would personally like to request that you hear every
6 word that I am saying and that residents in Fruit Valley
7 are trying to get across. It's not easy to speak up.
8 It's not easy to be bullied. It's not easy to hear the
9 things that we have to hear on a regular basis. Sorry.

10 **Q. You're okay.**

11 A. We just want to be heard finally. We want
12 somebody to take our concerns into consideration very
13 seriously and understand the ramifications that could
14 and most likely would occur if this project were to go
15 through and be complete. We are not expendable. You
16 cannot take our lives from us.

17 MS. BRIMMER: Thank you, Ms. Garcia. Have
18 some water. That's all I have, Your Honor.

19 JUDGE NOBLE: Cross-examination?

20 MR. BARTZ: You Honor, I know it's a little
21 early, but would a break be in order?

22 JUDGE NOBLE: No.

23 CROSS-EXAMINATION

24 BY MR. BARTZ:

25 **Q. Ms. Garcia, are you all right?**

BARTZ / GARCIA

1 A. I'm fine, thank you.

2 Q. Thank you. Good morning. My name is Dave
3 Bartz, a lawyer for the Port of Vancouver. I've just
4 got a few questions for you.

5 We heard earlier from a representative of the
6 city and a representative of the longshore union that
7 their objection to the project was with the cargo, the
8 crude oil. Is that a fair way to summarize, your
9 neighborhood's objection to this project is the crude
10 oil?

11 A. Yes.

12 Q. Are you familiar --

13 MR. BARTZ: Ms. Mastro, if we could pull up
14 Exhibit 1012 and kind of blow it up on that center part
15 of the neighborhood that Ms. Garcia was able to show us.
16 BY MR. BARTZ:

17 Q. I just want to get your local help on putting a
18 couple of things on the map for the council.

19 MR. BARTZ: If we could take that right-hand
20 section and put it -- blow it up a little bit more.
21 There we go.

22 BY MR. BARTZ:

23 Q. Ms. Garcia, you mentioned the tracks that
24 separate the neighborhood. That's what you mean by
25 those tracks that are running from bottom and top of the

BARTZ / GARCIA

1 photograph; is that right?

2 A. Yes.

3 Q. That's -- and some people called that the BNSF
4 north-south rail?

5 A. Yes.

6 Q. Or the BNSF yard?

7 A. Yes.

8 Q. Okay. And then are you familiar with how the
9 port's new rail entrance has moved farther to the south?

10 A. Yes.

11 Q. Okay. It used to be the Hill Track. Does that
12 sound familiar?

13 A. Yes.

14 Q. And that was more northerly than the current
15 River Place where the entrance is; is that right?

16 A. Yes.

17 Q. And that's further away from the neighborhood's
18 homes, the entrance, right?

19 A. A little bit, yes.

20 Q. So then that -- you mentioned the day shelter.
21 Have we blown it up enough so that you could point to
22 that? Could you show us where that day shelter was that
23 you mentioned?

24 A. This right here.

25 Q. Thank you.

BRIMMER / GARCIA

1 MR. BARTZ: I don't have any other questions
2 this morning. Thank you, ma'am.

3 JUDGE NOBLE: Redirect?

4 MS. BRIMMER: Just one --

5 MR. BARTZ: Excuse me, Your Honor.

6 JUDGE NOBLE: I'm sorry, Mr. Johnson.

7 MR. JOHNSON: I don't have any questions,
8 Your Honor. Sorry. Just for the record.

9 JUDGE NOBLE: You are not a potted plant.

10 MR. JOHNSON: I'm happy to be one.

11 MS. BRIMMER: Oh, my goodness, we all just
12 showed our age.

13 Redirect?

14 JUDGE NOBLE: Yes.

REDIRECT EXAMINATION

15
16 BY MS. BRIMMER:

17 Q. Ms. Garcia, I just have one question related to
18 the map. The east-west rail that is shown on that
19 picture, is that still being used?

20 A. I'm not sure what you're referring to. I'm not
21 seeing that.

22 Q. Maybe it's -- maybe we need to come down a
23 little bit, but there is a rail that does go east-west
24 in and out of the port, right? Do you see the rail that
25 comes in that's not their new line?

GARCIA

1 A. I don't know.

2 **Q. Okay. Enough. I won't ask any more.**

3 MS. BRIMMER: Thank you.

4 JUDGE NOBLE: Ms. Garcia, it's time for
5 council questions, but before the council asks you
6 questions, I have a couple of questions for you, and
7 that is you -- you have said that you have done
8 considerable research on different aspects of your
9 neighborhood relating to the physical harms that you are
10 worried about. I'd like you to be more specific about
11 that. What does your research show to be of concern
12 with regard to those aspects that you have concern
13 about? You spoke only generally.

14 THE WITNESS: In going over the papers --
15 the specific Tesoro Savage papers from the beginning and
16 reading the charts for the toxic air emissions, any
17 incidental or accidental concerns, that's mainly where
18 I've pulled most of the information that I have
19 researched from.

20 JUDGE NOBLE: Are you -- are you saying that
21 your major concern has to do with emissions and air
22 quality?

23 THE WITNESS: From the very beginning, yes.

24 JUDGE NOBLE: Is there any other concern
25 that you have about the physical status of your

GARCIA

1 neighborhood?

2 THE WITNESS: The other two that I
3 mentioned, which were the oil rail cars and the storage
4 facilities.

5 JUDGE NOBLE: And what is your concern about
6 the oil rail cars?

7 THE WITNESS: Any chance of derailment or
8 once it's with -- once the oil rail cars are within the
9 port, any coupling or any transfer, when they're
10 transferring the oil from the cars to the storage
11 facility to the shipping, any incident that would occur
12 with the rail cars that way.

13 JUDGE NOBLE: What did your research show
14 about the -- that caused you concern?

15 THE WITNESS: That there's -- there isn't a
16 100 percent certainty of no accident, that there -- that
17 there's no guarantee that it wouldn't happen.

18 JUDGE NOBLE: And how would that affect your
19 neighborhood?

20 THE WITNESS: If there were an explosion, it
21 would -- the initial explosion obviously would damage
22 multiple houses. It has the possibility of taking
23 lives. There's a Jail Work Center right there on the
24 port's property that I -- they specifically mentioned in
25 the latest papers from Tesoro, that I am not going to

GARCIA

1 quote verbatim because I can't do that, but they
2 specifically mention the Jail Work Center and Fruit
3 Valley neighborhood as having a higher risk of death.

4 Then if there were an explosion, we would,
5 from the smoke, get the toxins from that smoke as well
6 would drift and settle over the neighborhood.

7 JUDGE NOBLE: Do your concerns result just
8 from your general worry about things or from your
9 research?

10 THE WITNESS: Both, and the addition of
11 seeing -- having constant reminders by seeing accidents
12 over and over and over again and seeing the facts that
13 are coming up from those as well.

14 JUDGE NOBLE: All right. Thank you,
15 Ms. Garcia.

16 Council questions? Any to my left?

17 Mr. Siemann?

18 MR. SIEMANN: Thank you for being here this
19 morning. In your -- early in your testimony, you
20 mentioned that one of your concerns was that there
21 wasn't any compromise on behalf of the proponents for
22 this. Can you tell me what kinds of compromises would
23 be meaningful for you?

24 THE WITNESS: In the beginning, when one of
25 our larger concerns was the emissions of toxins, we

GARCIA

1 talked about having something similar to a catalytic
2 converter to scrub the air before -- to scrub it before
3 those were released. And we were told that the cost was
4 prohibitive and that it wouldn't be necessary. At this
5 point, a compromise would be just to hear what we're
6 saying. We're -- we've tried continuously to speak with
7 all of the parties and we get pushback. We don't -- we
8 kind of get a PR spiel. We don't feel like we're being
9 told the truth.

10 In comparison to the things that we're
11 seeing and reading, we feel like we're hearing a
12 completely different story and there's no level of
13 compromise that can be reached, then, if we're not
14 getting full disclosure and transparency.

15 JUDGE NOBLE: Any other questions, to my
16 left?

17 My right?

18 Mr. Shafer?

19 MR. SHAFER: Ms. Garcia, thank you very much
20 for your testimony this morning.

21 You spoke early in your testimony about this
22 event in Texas, and my sincere apologizes to have to
23 reference a horrific event, but could you elaborate more
24 on that, just share with us information, facts that you
25 know. Where was it? When was it? Do you know

GARCIA

1 essentially the cause of that incident? And in terms of
2 the destruction, was that largely due by an initial
3 explosion? Was that followed by fire? Just anything
4 more that you can elaborate on that. And then finally
5 anything -- any direct similarities between that event
6 and what you see as a potential here with this project
7 in your neighborhood.

8 THE WITNESS: Sure. The event was in the
9 early 1940s in Texas City. I don't want to speak to
10 specifics because I don't know the exact cause for that,
11 but the damage -- the majority of the damage was from
12 the initial explosion, from my understanding.

13 The similarities, there were 2 million
14 barrels of oil stored in those storage tanks on their
15 farm. The number that would be stored here is very
16 close at 2.16, if we have the full unit trains coming
17 through that they are predicting or that they're
18 classifying. So the similarities are eerily there from
19 the quantity to population around it. The houses near
20 Texas City were not nearly as close as what the majority
21 of the houses are in the Fruit Valley neighborhood. As
22 I stated earlier, most of the houses are within one mile
23 of that site.

24 MR. SHAFER: Thank you.

25 JUDGE NOBLE: Any other questions, to my

GARCIA

1 right?

2 Mr. Stohr?

3 MR. STOHR: Thank you, Ms. Garcia. You
4 spoke earlier about limited access or exit points to the
5 neighborhood. Could you show me on the map where those
6 exit points might be. Sorry to make you go up to the
7 map again.

8 MS. BRIMMER: Maybe we can blow -- I was
9 going to say, can we blow up the map even more? Is that
10 possible?

11 THE WITNESS: No, it's --

12 MS. BRIMMER: How is that?

13 THE WITNESS: So there's Mill Plain
14 crossing -- sorry. Mill Plain crossing that crosses the
15 railroad here, with Fruit Valley being over here. And
16 then there's another crossing at Fourth Plain Boulevard.
17 And then I need to go up. And there's the 39th Street
18 crossing. And then one more.

19 MS. BRIMMER: That's the end of the map.

20 THE WITNESS: Okay. There's just one more,
21 and it's just roughly right around there, and that's
22 78th Street.

23 MR. STOHR: And those are exits that would
24 be used if you were in an automobile, correct?

25 THE WITNESS: Yes. And there is actually

BARTZ / GARCIA

1 one more. It's kind of a back road. It goes underneath
2 the train bridge. It's -- I don't know if it's on this
3 map, but it runs right next to the new rail line that
4 goes directly to the port.

5 MR. STOHR: That's great. Thank you.

6 JUDGE NOBLE: Any other questions, to my
7 right? Any questions based on council questions?
8 Mr. Bartz.

9 MR. BARTZ: Just one, Your Honor.

10 RECROSS-EXAMINATION

11 BY MR. BARTZ:

12 **Q. Ms. Garcia, that Texas City incident, was that a**
13 **fertilizer plant or a crude oil facility; do you know?**

14 A. Crude oil.

15 MR. BARTZ: Thank you.

16 JUDGE NOBLE: Ms. Brimmer?

17 MS. BRIMMER: I have nothing, Your Honor.

18 JUDGE NOBLE: Ms. Garcia, thank you so much
19 for your testimony today. You're excused as a witness.

20 THE WITNESS: Thank you.

21 JUDGE NOBLE: Do we have another witness?

22 MS. CARTER: Yes, Your Honor. Your Honor,
23 intervenors call Mr. Stuart Ellis.

24 JUDGE NOBLE: Mr. Ellis, would you raise
25 your right hand, please.

CARTER / ELLIS

1 (Witness sworn.)

2 JUDGE NOBLE: Thank you. Please be seated.

3 STUART ELLIS,

4 having been first duly sworn,

5 testified as follows:

6 DIRECT EXAMINATION

7 BY MS. CARTER:

8 **Q. Mr. Ellis, for those of us who have been here**
9 **16 days we always start out with, keep it slow for the**
10 **court reporter. So, Mr. Ellis, please state your full**
11 **name for the record, please.**

12 A. My name is Stuart Ellis, spelled S-t-u-a-r-t,
13 last name is E-l-l-i-s.

14 **Q. Please summarize your education and training.**

15 A. I have a bachelor's degree in fisheries science
16 from Oregon State University. I've been employed by the
17 Columbia River Inter-Tribal Fish Commission for the past
18 16 years. Prior to that I worked for five years for the
19 Northwest Indian Fisheries Commission, and before that I
20 did a series of seasonal jobs doing research projects
21 for Oregon Department of Fish and Wildlife.

22 JUDGE NOBLE: Mr. Ellis, you're already
23 speaking too fast.

24 THE WITNESS: Sorry.

25 BY MS. CARTER:

CARTER / ELLIS

1 **Q. We all do it. Mr. Ellis, you filed testimony in**
2 **this case. Do you still stand by your testimony?**

3 A. Yes.

4 **Q. Okay. So can you briefly describe --**

5 **JUDGE NOBLE: Ms. Carter, could you identify**
6 **yourself too for the court reporter.**

7 MS. CARTER: Oh, I'm sorry. I'm Julie
8 Carter, attorney for Columbia River Inter-Tribal Fish
9 Commission.

10 JUDGE NOBLE: Thanks.

11 MS. CARTER: I apologize.

12 BY MS. CARTER:

13 **Q. So Mr. Ellis, can you briefly describe the**
14 **management of the Columbia Basin fishery.**

15 A. Yes, I can. The Columbia Basin mainstem
16 fisheries are managed according to a court ordered
17 agreement under the US v Oregon court case under a
18 management plan for that agreement. It's a ten-year
19 management agreement that dictates abundance-based
20 harvest rates and treaty and non-treaty sharing within
21 the mainstem fisheries.

22 Further, the tributary fisheries throughout the
23 Columbia and up into Idaho are managed under -- by
24 relevant tribal and non-treaty comanagers. And then
25 there's a number of stocks in the Columbia that have

CARTER / ELLIS

1 impacts in various ocean fisheries, and those fisheries
2 are managed under a variety of comanagement processes
3 through the Pacific Fishery Management Council and
4 Pacific Salmon Commission for fisheries clear up to
5 Alaska that catch Columbia River fish.

6 **Q. Thank you. Give us some background on general**
7 **trends of salmon and steelhead abundance in the Columbia**
8 **in the recent years.**

9 A. Yes. Since -- there were some significant
10 declines over time in Columbia Basin salmon runs, but
11 since 2000, we have seen runs increase sometimes
12 dramatically to runs that -- in the late '90s, we had
13 runs of -- total runs, annual runs of around half a
14 million fish, and runs since 2000, total salmon and
15 steelhead returns, adult returns to the Columbia -- of
16 the upriver stocks tested for above Bonneville Dam have
17 been close to 2 million, and in 2014 there were
18 almost -- it was over 2.4 million.

19 **Q. So is there variability in these runs?**

20 A. Yeah. The salmon runs are cyclical. They go up
21 and down, but gradually the -- a lot of these runs have
22 been doing better and better as the region, the
23 ratepayers, the Bonneville Power Administration and US
24 taxpayers have invested heavily in salmon recovery
25 efforts that have helped rebuild these runs.

CARTER / ELLIS

1 **Q. So do you -- please.**

2 A. I might add that we do have a number of very
3 weak runs in the basin. Most of the weak runs are at
4 least stable and some of the weak runs are actually
5 increasing as well. But some are very, very small
6 still.

7 **Q. So do you have numbers pertaining to different**
8 **populations of fish?**

9 A. Yes. So the salmon/steelhead runs are dealt
10 with in a -- by both species and stocks within species.
11 For Chinook salmon, we generally refer to them in three
12 different stocks of fish, overall stocks, the spring
13 Chinook, summer Chinook and fall Chinook. Spring
14 Chinook runs are comprised of a variety of fish that
15 spawn throughout the basin, both above and below
16 Bonneville Dam. Their upriver run sizes, the run sizes
17 for fish growing above Bonneville, have averaged close
18 to 200,000 fish, a little less in the past ten years.

19 The summer Chinook runs are generally going far
20 up river, most of them go up in the upper Columbia and
21 those runs have been smaller at -- they average around
22 70,000 fish per year.

23 Fall Chinook runs are quite large. We've had --
24 in the past ten years, we've had just for the -- just
25 the upper river fall Chinook has averaged over 600,000

CARTER / ELLIS

1 fish, and we've had some record runs in recent years.

2 Sockeye have also been doing very well, except
3 for the Snake River Sockeye. The Sockeye runs have
4 averaged close to 300,000 fish in recent years, adult
5 returns, and steelhead also around 300,000. Coho,
6 upriver coho, a smaller run of about 120,000. And then
7 there's very small runs of chum in the Columbia as well.

8 **Q. So can you explain, do salmon spawn in the**
9 **mainstem of the Columbia?**

10 A. Yes, salmon do. There's a fairly substantial
11 spawning population of fall Chinook and some chum right
12 below Bonneville Dam along the shore and along some of
13 the islands right below Bonneville. There's also been
14 documented Chinook salmon spawning in the area just
15 downstream from the John Day Dam. And so those would be
16 the primary mainstem spawning areas. It's possible that
17 there is a little bit of spawning around some of the
18 mouths of the lower river tributaries, but probably not
19 much spawning in the end part of the river down below
20 there.

21 MS. CARTER: So Ms. Mastro, if we could pull
22 up Exhibit 5214, please.

23 BY MS. CARTER:

24 **Q. Mr. Ellis, are you familiar with this chart?**

25 A. Yes. This is a chart on water travel timing.

CARTER / ELLIS

1 It was prepared by Mr. David Benner, with the Fish
2 Passage Center. The Fish Passage Center is a publicly
3 funded organization that deals with data management, and
4 they assist with the research on different issues in the
5 Columbia Basin. And the Fish Passage Center and their
6 staff are heavily relied on by virtually all of the
7 agencies managing fisheries in the Columbia and
8 considered very good work.

9 **Q. So you regularly -- regularly use this**
10 **information in your job?**

11 A. I do, yeah. We use these types of data, as well
12 as a number of other data sources that the Fish Passage
13 Center helps coordinate and maintain.

14 **Q. So before I ask my next question, I'm going to**
15 **ask a general. What is a smolt, if you can give a**
16 **definition of that?**

17 A. Smolts are defined as fish that are ready to
18 leave their -- the streams where they were born and
19 begin their migration to the ocean.

20 **Q. Thank you.**

21 A. And they're considered smolts throughout their
22 migration until they enter the saltwater.

23 **Q. So what are the total number of smolts in the**
24 **Columbia River?**

25 A. That's a little bit of a challenging question,

CARTER / ELLIS

1 but I'll start with the hatchery smolts, because we have
2 the best information on the hatchery smolts. So for
3 upriver -- and, again, these are programs upstream from
4 the Bonneville hatchery and on upstream. We release
5 about -- the planned releases are about 95 million
6 smolts per year. Lower river hatchery programs,
7 including the Willamette River, release smaller numbers
8 of fish, but in recent years those have averaged around
9 54 to 55 million per year.

10 And we don't have great numbers on the wild
11 smolts because it's -- they're very challenging to
12 figure out exactly how many of them there are, but
13 undoubtedly wild smolts number in the millions of
14 year -- in the millions of fish per year.

15 There is, of course, some level of mortality as
16 the smolts move downstream through the hydrosystem and
17 things, but still, the National Marine Fishery Service
18 did an estimate just back in 2014 where they made an
19 estimate of about 155 million smolts that successfully
20 reached it to Tongue Point, which is down just a few
21 miles up from Astoria. So it's a significant number of
22 fish that are able to out-migrate from the Columbia each
23 year and its tributaries.

24 Most of the hatchery smolts are released from
25 hatcheries during a time frame of March through June.

CARTER / ELLIS

1 Some releases are earlier or later. Most of the fish
2 begin their migration downstream at that time. That's
3 typically about the time that we think most wild smolts
4 are beginning their migration, but -- and then the bulk
5 of the migration out toward the ocean is in the spring
6 and early summer and into the -- it kind of dies down
7 toward the end of the summer, but there are actually
8 smolts in the river basically year round. Not -- some
9 fish will actually hold over at various points in the
10 mainstem and finish their migration outward the
11 following year. And so there's a variety of life
12 histories involved and not all the fish are always doing
13 the same thing, which, of course, makes them challenging
14 to count as well.

15 **Q. So is it safe to say that the numbers of smolts**
16 **changes by season?**

17 A. Yes, that would be correct.

18 **Q. Is there different numbers in the fall?**

19 A. Much smaller numbers in the fall. The more
20 successful life history strategies are to enter the
21 ocean in the summer when it's more productive, but
22 you'll have smolts that are holding over and continuing
23 to rear in the fall, but there won't be quite as many of
24 them.

25 JUDGE NOBLE: Mr. Ellis, sorry to interrupt

CARTER / ELLIS

1 again. But your voice is dropping off at the end of
2 your sentences and you're speeding up.

3 THE WITNESS: All right.

4 BY MS. CARTER:

5 Q. So moving to -- a little bit different. Can you
6 explain the fishery sectors in the Columbia River?

7 A. Yes. There's a variety of what we term fishery
8 sectors, which are different groups of people fishing
9 for different kinds of purposes. I'll start with the
10 non-treaty fisheries. There is a -- still a fairly
11 substantial non-Indian commercial fishery that occurs in
12 the area from Bonneville Dam down to the -- or Beacon
13 Rock down to the Columbia River mouth.

14 There are substantial non-Indian recreational
15 fisheries that occur throughout the mainstem and almost
16 all tributaries for a variety of species, fisheries
17 managed by all three states. There are also some
18 fisheries that are subsistence fisheries by what we call
19 non-treaty tribes in some of the upper Columbia areas.

20 Then for the treaty fisheries, the fisheries
21 managed by the four tribes with treaty fishing rights,
22 we also divide the fisheries into different sectors.
23 I'll start with the fisheries sector that the tribes
24 regard as kind of their most important fisheries, which
25 are their ceremonial fisheries. These are fisheries

CARTER / ELLIS

1 that primarily occur in the spring. They're typically
2 managed with permits and they send crews out to fish
3 targeting the spring Chinook but catching other species
4 as well. And these fish are used for a variety of
5 ceremonial and sometimes subsistence purposes.

6 None of these -- these fish are not allowed to
7 be sold and they're all -- they're all utilized by the
8 tribes, and each tribe runs their own spring ceremonial
9 fisheries directly.

10 And then they -- we further divide our fisheries
11 sectors into two other primary sectors, which one is our
12 platform and hook and line fishery. This is a -- we
13 group platform gear and hook and line gear just together
14 just because they're regulated similarly. But the
15 platform fishery is really a historic fishery that's
16 done -- they build wooden platforms along the river.
17 This is a fishery that some of you may have seen
18 photographs from Celilo Falls, the most famous ones
19 where people build platforms out over rapids and falls.
20 There is still some platform fishing in tributaries like
21 that, but this is where it evolves, from the Columbia.
22 And they fish large nets called hoop nets, or sometimes
23 dip nets, that are lowered into the water and a bag-like
24 net is attached to this hoop and it's rigged so that the
25 fish swim into the bag and get tangled up in there and

CARTER / ELLIS

1 then they haul the whole thing out and get the fish out.
2 So that's our platform fishery.

3 And then along with that, some fishers fish with
4 hook and line gear, using the same sorts of rod and reel
5 gear that recreational fishers would use. This platform
6 hook and line fishery can be -- it's often a subsistence
7 fishery, but it can be utilized for commercial purposes
8 as well.

9 And then the final sector, which actually is our
10 largest sector in terms of the number of fish caught, is
11 our gillnet fishery, which uses two types of gillnets.
12 One is called a set gillnet, where nets are anchored
13 either to shore or to buoys out on the river and the
14 nets stay stationary, or roughly stationary, during a
15 fishing period and the fishers come and check the nets
16 and get the fish out of the nets, but reset the nets in
17 the same spot so the nets kind of stay out in the water
18 for a certain period of time.

19 And then associated with that, we also have a
20 drift net fishery which utilizes similar gillnets, but
21 the nets are floated down the river with a boat and they
22 float for sometimes a mile, sometimes more, and then
23 retrieve the net with the fish and then go back upstream
24 and do that again.

25 But the set gillnet fishery is our largest

CARTER / ELLIS

1 fishery in terms of number of participants and catch and
2 is primarily used for commercial purposes. We also have
3 a small sturgeon fishery that can use gillnets or
4 longline gear, setline gear. So those are our fishery
5 sectors.

6 **Q. Thank you. I'm going to take a step back, look**
7 **at definitions, because you threw a lot of term of art**
8 **out there. So who are the non-treaty tribes and the**
9 **treaty tribes, because I don't think we introduced**
10 **those?**

11 A. So the -- there is the Colville tribes and the
12 Shoshone-Bannock tribes. So the Colville tribes are in
13 the upper Columbia up in Washington and the
14 Shoshone-Bannock tribes are way out in Eastern Idaho,
15 are both considered non-treaty tribes in that the --
16 that they did not sign the same type of treaties that
17 our four tribes, the Warm Springs, Nez Perce, the
18 Umatilla, and the Yakama Nation signed with the federal
19 government. So their fishing rights are -- well, I'm
20 not an attorney, but they don't -- they don't have the
21 same -- the same rights to fish as our tribes do, and so
22 they typically have separate, smaller arrangements with
23 the states and federal government to get fish but don't
24 have the same rights to the fish.

25 **Q. And then you mentioned other non-treaty**

CARTER / ELLIS

1 fisheries. Who would that be?

2 A. Yeah. And we typically count the non-treaty
3 tribal catch as part of the non-treaty catch.

4 **Q. Great. Thank you. Describe the amount of**
5 **fishing effort in the tribal fisheries.**

6 A. So we've -- for our platform hook and line
7 fishery, we did a survey just back in 2014 where we came
8 up with a count of right about 400 fishing platforms
9 between Bonneville and McNary dams. The vast majority
10 of them are between Bonneville and the John Day dams.
11 Not all of these platforms are fished all the time, but
12 most of them we think are fished at least part of the
13 year, and many are fished on a very regular basis.

14 And then for our gillnet fisheries, the effort
15 varies by season with our -- when we do spring
16 commercial fishing, we have had average net counts of --
17 for the set nets of about an average of around 300 or
18 so, with peak counts in the spring being over 400. And
19 in the summer, it's a real similar level, about 300 with
20 a peak going over 400 nets.

21 In the fall, however, fisheries are much larger
22 and our average net counts in the past ten years or so
23 have -- you know, weekly fishing period. These are all
24 weekly counts -- have been -- they've averaged around
25 500 fishing nets, the set nets, and with our peak net

CARTER / ELLIS

1 counts in many of the weeks in the peak of the fall run
2 have gone over 750 nets.

3 **Q. So how are the fishers organized when they**
4 **connect this fishery?**

5 A. So our fishers -- the tribal fishers tend to
6 fish in crews, which are typically comprised of family
7 members, but not always. Sometimes more distant
8 associations. But there's typically a crew chief that
9 will often own the boat or sometimes boats and own most
10 of the gear. This might be a father or an uncle in a
11 family. And then there are various crew members that
12 fish with them. And these crews, they vary in size from
13 just a couple of people to, oh, probably -- you know,
14 you might have big crews of ten or more people. They're
15 organized like that.

16 They -- I can get into a little bit of the -- of
17 how their fishing activity is -- well, it's a very
18 place-oriented fishery. Our fishers, they typically
19 fish in sites that their relatives or their families
20 have controlled for sometimes generations. They
21 sometimes register these sites with their tribes. These
22 sites give them a level of exclusivity to different
23 fishing areas, and they -- they're treated almost like
24 property rights.

25 So these sites -- some fishers have several

CARTER / ELLIS

1 sites, some fishers have very few sites. There are at
2 least a few productive sites. Not all fishing sites are
3 equally as productive. Some just simply because of the
4 layout of the river are much more productive in terms of
5 catching fish. And so the -- and because of this
6 place-oriented aspect of this, fishers, if they were to
7 lose access to a site, they would not necessarily have
8 access to other equally productive sites, or in some
9 cases they might not have access to any other fishing
10 sites at all.

11 So our tribes, they -- historically the tribes
12 have fished up and down the Columbia River over wide
13 expansive areas; but individual tribal families and
14 groups often have only fished within certain areas. And
15 so our tribes -- for instance, our tribes have never
16 given up their claim to rights to fish throughout what
17 are termed their usual and accustomed fishing areas,
18 which our tribes claim is a very large part of the
19 basin. And this is a much larger area than our tribes'
20 currently -- currently authorized fisheries in, but it
21 really makes it so that individual fishers are
22 definitely very geographically oriented to certain
23 fishing places along the river.

24 **Q. Thank you. So tell me about commercial**
25 **marketing of salmon.**

CARTER / ELLIS

1 A. Our tribes have invested very heavily in making
2 efforts to increase the marketability and the economic
3 value of our commercial catch. When I first started
4 working for the Columbia River Inter-Tribal Fish
5 Commission, in the fall season, fish being sold to
6 wholesale buyers were -- in a good year, fish prices
7 started out for what we call bright Chinook salmon,
8 which are the highest grade of fish, at maybe like
9 60 cents a pound and would drop to 30 cents a pound.

10 For some of the other species, prices were
11 sometimes down around a nickel a pound for a fish being
12 sold to wholesale dealers. But our tribes, through a
13 series of efforts of both training fishers to -- our
14 fishers often undergo what we call HACCP training, which
15 is -- it's a federal -- it's spelled H-C-C-P and --
16 H-A-C-C-P, excuse me. And it's an acronym that is
17 basically a -- teaches federal food sanitation and
18 handling guidelines that has helped our tribes take
19 better care of their catch. We've spent a lot of time
20 courting various wholesale fish dealers, processors,
21 retailers to try and get them more interested in our
22 catch. We've made efforts to help our tribes find ways
23 to upgrade their equipment and their skills, and our
24 tribes are doing a much better job at taking care of
25 their catch. Ice is much more readily available now

CARTER / ELLIS

1 than it was a while back. And as a response to all of
2 these efforts, prices paid by wholesale fish dealers
3 have gone way up to sometimes over \$5 a pound in the
4 spring. Actually this -- this spring, in the very late
5 spring, we had a couple of wholesale dealers that paid
6 between like 7 and \$9 a pound for a while for spring
7 Chinook. So those are very high prices. Fall Chinook
8 salmon typically are going -- and the prices start out
9 in the \$3 range, those kind of numbers. So these are
10 huge increases.

11 And we also have a number of tribes that sell
12 fish direct to the public. This is a little bit unique
13 up here in the Puget Sound area, selling fish direct to
14 the public doesn't occur at nearly as high a level among
15 tribal fisheries as it does on the Columbia. In some
16 cases maybe as much as like 15 percent of our commercial
17 catch is sold direct to the public, and these prices can
18 be -- can be much higher. It is my understanding that
19 right now many fisheries are asking and getting prices
20 that may range between 7 and sometimes more than \$10 a
21 pound for fish being sold direct to the public.

22 This fishery -- the direct-to-the-public sales
23 are harder to track. When fish are sold to wholesale
24 fish dealers, there was a paper trail on those fish
25 called a fish ticket, which is basically a receipt that

CARTER / ELLIS

1 both the buyer -- the fish buyer and the fisher sell to
2 track the sales. But we don't -- we're not able to
3 maintain quite the same recordkeeping on the
4 direct-to-public sales, and so we don't -- we don't have
5 super good information on the exact monetary value of
6 those sales or exactly how much it is, other than
7 it's -- we have certainty that it's quite substantial.

8 JUDGE NOBLE: Ms. Carter -- I'm sorry,
9 Mr. Ellis, were you finished with your answer?

10 THE WITNESS: Yeah.

11 JUDGE NOBLE: I think we need to take a
12 break, and so I'm sorry to interrupt the direct
13 testimony here, but it is well past time for the normal
14 break and so, Mr. Ellis, excuse us for interrupting your
15 testimony.

16 THE WITNESS: That's fine.

17 JUDGE NOBLE: We'll be back in 15 minutes at
18 10:55. Thank you. We're off the record.

19 (Recess taken from 10:41 a.m. to 10:59 a.m.)

20 JUDGE NOBLE: We're ready to go back on the
21 record. Ms. Carter?

22 BY MS. CARTER:

23 **Q. So we're going to return back to the commercial**
24 **fisheries on the Columbia River. What other species do**
25 **tribes fish for?**

CARTER / ELLIS

1 A. So besides salmon and steelhead, the tribes also
2 have subsistence fisheries for both lamprey and smelt.
3 And these fisheries -- well, lamprey fisheries
4 historically used to occur throughout tributaries and
5 falls throughout the basin. Lamprey populations are
6 quite depressed. Most lamprey fishing currently occurs
7 at Willamette Falls, and there's a little bit that
8 occurs at places like -- in the Deschutes River. Smelt
9 fishing, also done for subsistence occurs primarily in
10 the Cowlitz River, and occasionally when the smelt
11 returns to the Sandy -- smelt returns, smelt occurs in
12 the Sandy as well.

13 Additionally, the tribes have commercial fishing
14 for both shad, which are a very abundant non-native
15 fish, and also commercial fisheries for sturgeon which,
16 of course, are a native fish. Our sturgeon fisheries
17 are fairly small compared to salmon fisheries. Most
18 sturgeon fishing is done in the wintertime and -- but
19 occasionally sturgeon fishing can be done throughout
20 other times of the year. Salmon -- excuse me, sturgeon
21 have -- they've got generally stable populations
22 upstream of Bonneville, but they're pretty small and
23 they do fluctuate. Sturgeon spawning occurs in the
24 mainstem down below the dams, primarily, in the tail
25 races of the dams, and sturgeon -- successful sturgeon

CARTER / ELLIS

1 spawning is very limited by the proper flow and
2 temperature conditions for the eggs to survive. And so
3 while our sturgeon populations are depressed, it's a
4 fairly lucrative fishery in that they get pretty good
5 prices and the fish, of course, grow quite large. And
6 so it's a pretty important fishery, especially in our --
7 in the wintertime, when sometimes there's not a lot of
8 other economic activity for tribal members to make money
9 at.

10 **Q. So you referenced "flow." How familiar are you**
11 **with physical conditions along the Columbia River?**

12 A. So both from managing data and dealing with data
13 like the exhibits shown, but then I also -- I've done a
14 number of -- I've done probably -- well, well over 100
15 low-elevation flights over the Columbia River counting
16 fishing nets. And it's one of the regular aspects of my
17 job. So I'm quite familiar with how the river looks
18 from an altitude of around 800 to about 1500 feet above
19 the water.

20 **Q. So can you describe some of the factors that**
21 **affect how tribal fishers carry out their fishing, like**
22 **factors that affect their success in fishing.**

23 A. Yes. So the tribal fishers face a number of
24 challenges, everything from very cold water in the
25 winter to changes in pool elevation, changes in flow,

CARTER / ELLIS

1 the aquatic vegetation, the weather and wind. There can
2 be high winds and -- and even in recent years, crowding
3 has become a challenge to fishers with the number of
4 wind surfers that we have out on the river and other
5 recreational people doing things on the river, but
6 people come all -- from all over the world to wind surf
7 in the high winds and waves of the Columbia River up in
8 the Columbia River Gorge, and it does complicate some of
9 our tribes' fishing activities with the number of people
10 that are out sharing the river with them.

11 **Q. So we're going to take a little step back**
12 **because this chart that we have up here, can you**
13 **describe -- can you talk about this chart?**

14 A. Yeah. So the significance of this chart really
15 primarily has to do with smolts and the smolts'
16 survival. It's quite well documented that salmon smolts
17 from upriver have a much higher survival at higher
18 flows, which also have faster travel times. So if -- in
19 this chart you'll notice up in the top section that as
20 the flows increase, what we call the water transport
21 time, which is basically the -- if you take an
22 imaginary, you know, random average particle of water
23 and followed it downstream, how long would it take to
24 get from point A to point B. And as flows go up, that
25 speeds up. The travel time's reduced and that is

CARTER / ELLIS

1 strongly associated with better smolts survival.

2 So the one aspect of this thing that's I
3 think -- well, there are a couple aspects with this that
4 are of relevance to this hearing, are simply that
5 with most of the larger majority of the smolts coming in
6 the spring or summer, that tends to be higher flows. We
7 get flows up at McNary sometimes in the spring of
8 400,000 CFS. Our tribes have made a lot of efforts to
9 get the river managed according to what we call a more
10 natural hydrograph, which means you have high spring
11 flows with lower summer and fall flows, more like
12 historic conditions, which is better for fish survival.
13 But it complicates assessing how many smolts might be
14 exposed to an event like an oil spill, just because,
15 depending on the time of the year and the location,
16 they'll -- the smolts will be in the river in a certain
17 reach for different times, depending on the flow and
18 where you are in the river, and, you know, the smolts
19 will be migrating downstream. Smolts are generally
20 believed to migrate at generally the same speed as the
21 water is moving. They migrate fairly passively. That's
22 not, you know, always the case, but that's typically how
23 they are migrating.

24 And so, you know, if there were a spill,
25 figuring out exactly how many smolts might be affected

CARTER / ELLIS

1 is kind of complex. At certain times we have very high
2 numbers of smolts in the river. The Fish Passage Center
3 that prepared these data also made some estimates that
4 at Bonneville Dam during the peak smolt out-migration,
5 we can see anywhere from six to pretty close to 14 and a
6 half, almost 15 million smolts in a five-day period. It
7 averages something around 9 million smolts per day. But
8 of course that's variable. That's kind of in the month
9 of April and May when there's really a lot of smolts
10 going through. So all of those factors will greatly
11 complicate assessing what numbers of fish might be in
12 the river if there were a spill at some certain time and
13 some certain place.

14 **Q. You used the term "migrating passively." Can**
15 **you elaborate on that?**

16 A. So they -- they're basically, you know, swimming
17 enough to, you know, maintain stability. Sometimes
18 smolts actually even will face upstream and migrate
19 backwards. They're not -- they're not just swimming
20 aggressively in a downstream direction trying to get to
21 the ocean. They tend to float and just kind of go along
22 with the current, to a large degree. There's variation
23 in that, of course, but that's basically kind of how
24 they do it.

25 **Q. So likewise, on the flow, can you talk about**

CARTER / ELLIS

1 fluctuation of reservoir levels?

2 A. Yeah. So the federal hydropower projects are
3 managed for a mixture of flood control and power
4 production and transportation. And so all of those
5 factors together means that the Columbia River is a very
6 actively managed river. The Corps of Engineers has
7 basic standards in place which they use to manage
8 things. It varies by place. The Bonneville reservoir
9 has an average fluctuation reservoir level that goes up
10 and down as much as seven feet. The Dalles reservoir is
11 a little smaller criteria, it's around five feet
12 average. And then it's -- it's higher than that in the
13 John Day reservoir, that they can have even larger
14 fluctuations. In fact, overall for them -- even within
15 the criteria which the corps uses to manage things, they
16 can change these reservoirs up to anywhere from 12 to
17 almost 20 feet in elevation change. And they can
18 actually change the -- change the reservoir levels
19 fairly quickly. You can see changes in reservoirs where
20 the water can go up and down several feet in a day
21 easily. And these happen throughout the years,
22 throughout the -- during different days of the week and
23 then during different times of the years.

24 And it's quite apparent because, as I mentioned,
25 I fly over the river quite often and since a lot of the

CARTER / ELLIS

1 river is riprapped along the reservoir, so there's, you
2 know, big rocks and cobble and things along the edge of
3 the railroad tracks and freeways, you can actually see
4 water marks going up and down so you can tell which way
5 in effect the tide is going during that period. So it's
6 quite apparent. And that has the effect -- I mentioned
7 that many of the tribal nets are anchored to points out
8 on the river. And if the reservoir makes a sudden and
9 large change in elevation, nets could even break free or
10 move around so they're not fishing as well.

11 **Q. So would you say it's similar to an ocean tide?**

12 A. It can have the appearance much like an ocean
13 tide.

14 **Q. So switching a little bit, can you describe**
15 **issues with wind?**

16 A. So wind is also a significant factor that
17 affects fishing. Most fishers -- well, at least from
18 what fishers tell me, they tend to like a little bit of
19 wind. It actually helps them catch fish. For whatever
20 reason it makes fishing a little better. But the winds
21 can be quite high.

22 The organization I work for, we employ a
23 hydrologist/meteorologist who -- he monitors winds. He
24 sends out e-mails to an e-mail list of fishers to warn
25 them of -- if it's going to be windy. He provided me

CARTER / ELLIS

1 with some data compiled from National Weather Service
2 reports that shows that in the summer months in --
3 around Hood River, the average peak daily winds are up
4 around 13 miles an hour, but the peak winds during this
5 time in the summer months when it can get quite windy
6 can be sustained winds for over a minute of 60 miles an
7 hour. So you get very high gusts at some times. We
8 typically fly in the wee hours of the morning, basically
9 at daybreak because it's a little calmer then. It can
10 be simply too rough to fly at low elevations in the
11 afternoon in the summertime.

12 In the winter it can also be bad -- the winds
13 can occur any time day or night because of storm events
14 and things. In Hood River, again, the weather service
15 has data that can be compiled into curves showing
16 probability of certain winds and, again, the wind in the
17 January, February kind of months at Hood River, there's
18 roughly a 50 percent -- or about -- excuse me, about a
19 40 percent probability that winds will be over 15 miles
20 an hour, peak winds, during the day. And so it -- wind
21 is a big deal and it can create a lot of headaches for
22 fishermen trying to manage their gear and fishing out on
23 the river.

24 **Q. So can you describe some of the issues the**
25 **fisheries have with aquatic vegetation.**

CARTER / ELLIS

1 A. So aquatic vegetation, there's a number of
2 species of aquatic plants, we call them macrophytes
3 because they're big, as well as algae growth, some of
4 which is these filamentous types of algae that grows in
5 the river. Some of these are native species. There's
6 some introduced species in the Columbia. But during the
7 summer, these vegetation -- as the river temperatures
8 warm, this vegetation can grow into very large mats that
9 can be seen from the air. These mats of vegetation
10 can -- they grow and they break loose and they float
11 downstream. They can clog fishing nets quite easily.
12 I've seen over the years a number of nets that just in
13 the course of a day or so, if a fisher has had trouble
14 getting out to them, can look like they're about to
15 break free, practically, from the amount of vegetation
16 that collects in them.

17 And then also for a set net that stays out, in
18 some areas, this filamentous algae will grow just kind
19 of on a daily basis. In many cases fishers actually
20 have to remove their nets from the river sometimes on a
21 daily basis to clean them. Sometimes you can clean it
22 off with a garden hose, but I've heard many people often
23 have to resort to things like pressure washers to clean
24 their nets; otherwise, they just don't fish effectively.

25 MS. CARTER: Thank you. I have no further

JOHNSON / ELLIS

1 questions.

2 JUDGE NOBLE: Cross-examination of
3 Mr. Ellis?

4 CROSS-EXAMINATION

5 BY MR. JOHNSON:

6 Q. Mr. Ellis, I'm Dale Johnson. I'm one of the
7 attorneys for the applicant.

8 MR. JOHNSON: Ms. Mastro, could you pull up
9 Exhibit 185, page 8, please.

10 BY MR. JOHNSON:

11 Q. I'm sorry, it takes us a minute sometimes to get
12 these things up. Here we go. Takes us a minute to get
13 these exhibits up.

14 MR. JOHNSON: Okay. Thank you. Could you
15 just blow that up a little bit so we could see the
16 graphic there.

17 BY MR. JOHNSON:

18 Q. And once the exhibit's displayed here,
19 Mr. Ellis, I just want to ask if you recognize it and
20 what it predicts. There we go. So do you recognize
21 this exhibit?

22 A. Yes -- well, I certainly recognize the map.
23 It's a fairly commonly produced map or ones very much
24 similar to it.

25 Q. And my specific question relates to treaty tribe

JOHNSON / ELLIS

1 commercial fisheries. And based on this map, it's my
2 understanding that those commercial fishery sites are
3 upriver of the Bonneville Dam; is that correct?

4 A. Primarily. The tribes do have a small bank
5 fishery just below Bonneville Dam which at times can be
6 used for commercial purposes.

7 **Q. Okay.**

8 A. The Yakama Nation further does some commercial
9 fishing in some of its tributaries in this area on the
10 Washington side, and occasionally the Nez Perce tribe
11 has done a little bit of commercial fishing in the Snake
12 basin in the Snake River.

13 **Q. But all of those locations are upriver of the**
14 **proposed Vancouver Energy terminal, correct?**

15 A. Yes.

16 **Q. Okay.**

17 MR. JOHNSON: Thank you. Nothing further.

18 JUDGE NOBLE: Any cross -- any redirect?

19 MS. CARTER: No, I don't have any.

20 JUDGE NOBLE: Council questions?

21 Mr. Snodgrass?

22 MR. SNODGRASS: Just a question making sure
23 I heard the wind speed on the river right. Did I hear
24 in August the average peak of the 24 -- of a day is
25 13 miles an hour; is that right?

1 THE WITNESS: Yeah, both -- in late June and
2 then the winds tend to -- it's June, July and then
3 into -- yeah, into August as well, the peak daily winds
4 are about 13 miles an hour.

5 MR. SNODGRASS: How would that compare to
6 say Vancouver or here?

7 THE WITNESS: They would be substantially
8 higher because the -- there's a lot of -- there's a lot
9 of calmer days that go into that average in an area like
10 right around here. So those -- the daily peak winds,
11 you know, are more likely, at least in the Portland
12 area, to be, you know, on average they'll be down closer
13 to, you know, in the 5 to 10 range more likely.

14 MR. SNODGRASS: What would the average daily
15 peak be at Hood River in January or February?

16 THE WITNESS: The average -- the average
17 daily peak during that time is going to be -- I'm
18 thinking back to the charts that I got these from. I
19 said it's about a 40 percent chance of winds about
20 15 miles an hour. And so if an average is right about
21 that, 50 percent, it will be a little less, in probably
22 the 12-to-14 miles an hour range, something like that.

23 MR. SNODGRASS: Thank you.

24 JUDGE NOBLE: Mr. Stohr?

25 MR. STOHR: Good morning, Mr. Ellis. A

1 couple of questions. First I wanted to follow up on
2 Mr. Johnson's question in terms of the river and
3 tribal -- tribal rights. Would the tribes assume or
4 have the courts given any direction in terms of tribal
5 treaty rights for below Bonneville?

6 THE WITNESS: Again, not being an attorney,
7 I'll give you my non-attorney answer, is that our tribes
8 do not have adjudicated boundaries to their usual and
9 accustomed fishing areas, but our tribes do claim
10 substantial rights -- or substantial -- they claim
11 rights to a substantial area of the lower Columbia River
12 and maintain that they do, in fact, have rights to fish
13 in these areas. You know, as part of the comanagement
14 process, it's been more efficient to work out management
15 agreements that get people to fisheries they desire, and
16 so that's kind of been the way the tribes have gone with
17 that.

18 MR. STOHR: Another question having to do
19 with the Endangered Species Act. I didn't hear you talk
20 about that too much. How many endangered stocks do we
21 have in the river and where do they -- where do they go?
22 Where do they live?

23 THE WITNESS: We have -- I believe it's 12
24 different listed stocks of salmon and steelhead plus
25 smelt are listed as a threatened species. Green

1 sturgeon in the lower Columbia River are listed as a
2 threatened species. And so there's quite a number.

3 Some of these populations are quite small.
4 Some of them have actually fairly -- some of our -- some
5 of the individual groups of listed spring Chinook can
6 have actually very -- not only small population size,
7 but very narrow timing. So their timing in the spring
8 pretty much -- you know, most all those fishermen go
9 through in just a few weeks. And so they -- with these
10 very small groups of fish, anything that affects those
11 fish could affect a large portion of them in a small
12 amount of time. So, yes, the ESA concerns are a
13 significant concern that we all try and work around to,
14 you know, work on recovering these fish and -- while
15 still providing harvest opportunity on more abundant
16 groups, and so we have to work hard to control our
17 impacts on any of these listed groups.

18 MR. STOHR: Thank you.

19 JUDGE NOBLE: Mr. -- excuse me. Mr. Shafer
20 has a question.

21 MR. SHAFER: Mr. Ellis, thank you very much
22 for your testimony today.

23 One question, and I'm going to need to ask
24 for your forgiveness of my ignorance on this, but as a
25 source of income to the tribes, the fishing as a source

1 of income, is it the primary source of income, is it one
2 of several primary sources of income or would you say
3 it's a secondary source of income?

4 THE WITNESS: Of course not every single
5 tribal member fishes. But of our tribal -- but a
6 substantial portion of the tribal members do fish. And
7 of those -- of the tribal members who fish, most fishers
8 would gain a significant portion of their annual income
9 from fishing. Other jobs that they might do in the
10 offseason, oh, some of them, you know, like drive a
11 truck or -- you know, work in the logging industry or
12 things like that, those would be generally secondary
13 jobs, so fishing would be their main source of income.
14 And for many of our fishers it is their sole source of
15 income. And so we have, you know, a large number of
16 fishers who that's about it. If they don't get to do
17 commercial fishing, they don't make any money. And so
18 it's a big deal, especially for tribal communities which
19 historically have had very high unemployment rates and
20 very high levels of poverty.

21 MR. SHAFER: Thank you.

22 JUDGE NOBLE: Mr. Lynch?

23 MR. LYNCH: Good morning. Thanks for your
24 testimony.

25 I was interested in a response you gave to

1 Councilmember Stohr's question, and you said that
2 there's, for example, small spring Chinook run that have
3 small numbers and also a narrow window. We had some
4 testimony earlier in this proceeding where a witness
5 said, well, if there, in fact, is an incident that
6 impacts fish, it probably wouldn't affect the
7 population, and besides that, there are mitigation
8 measures that could be taken to help fish re-establish.
9 What are your thoughts if there was an incident on the
10 river that would, in fact, affect this run of small
11 spring Chinook?

12 THE WITNESS: So, again, depending on the
13 timing and the location, I would say that that -- that
14 that testimony would have been a very optimistic outlook
15 potentially because of the fact that -- one of the ways
16 we monitor this is with these small electronic tags.
17 They're RFID tags that put out an electronic signal and
18 we have monitoring projects for many wild populations of
19 fish. So you can look at their timing at the different
20 hydropower projects where these signals are picked up.
21 And in many cases, some of these very small upper
22 Columbia wild populations, the upper Columbia spring
23 Chinook, for instance, they're actually listed as an
24 endangered species, not simply a threatened species, as
25 Snake River Sockeye are. These fish can -- the large

1 majority of these fish can pass Bonneville and other
2 projects within just a couple of weeks. And some of
3 these -- some of the spawning populations of some of
4 these very small tributary groups number sometimes in
5 the hundreds of fish. So you could have, under certain
6 scenarios, a -- really, a substantial portion of certain
7 spawning aggregates of fish in a very short time in a
8 very short -- in a narrow geographic area.

9 MR. LYNCH: What about the concept that
10 habitat improvements as mitigation could help
11 re-establish the population?

12 THE WITNESS: So habitat improvements are
13 something -- well, that the tribes are huge believers in
14 the benefits of doing these things, but the reality is
15 that the benefits of habitat improvements are very long
16 term and unfortunately sometimes kind of uncertain on
17 outlook. It takes an enormous effort to fix a habitat
18 to where it's fully functioning as a good ecosystem
19 again. It's very expensive. The benefits pay out over
20 decades sometimes, rather than right away. So it's --
21 and for some of these populations of fish or small
22 groups of fish, subpopulations, you know, the risks of
23 low abundance in the short term could -- it might not
24 match up with the benefits of simply rushing to do more
25 habitat restoration than we're already doing right now.

1 MR. LYNCH: And my last question, you
2 haven't mentioned bull trout, and I was just curious if
3 you could give us your thoughts about the populations of
4 bull trout on the Columbia and where they might be
5 located.

6 THE WITNESS: Yeah. So bull trout are a
7 species of -- it's a rather large trout generally. They
8 spawn and rear generally in high mountain areas. They
9 really prefer pristine habitats, but they -- they have a
10 lifecycle sort of like salmon but not quite, in that
11 they migrate downstream and often rear in larger rivers,
12 including the mainstem of the Columbia, and then migrate
13 back up into the tributaries to spawn and stuff. So
14 there are not large numbers of bull trout in the
15 Columbia mainstem, but they do occur there, and they are
16 a listed species as well, and they could also be
17 impacted on these things because in the Columbia, they
18 are more -- when they are there, they're more of a
19 resident-type fish that are going to just be living and
20 rearing in the Columbia.

21 MR. LYNCH: Thank you.

22 JUDGE NOBLE: To my left, questions?

23 Mr. Siemann?

24 MR. SIEMANN: Good morning. You mentioned
25 that the smolts' survival is increased by the speed of

1 the river; is that correct?

2 THE WITNESS: That's one of the factors,
3 yes. It's a -- travel time is generally considered an
4 important factor in the smolts' survival.

5 MR. SIEMANN: Are there efforts to increase
6 the flow in the river that would increase the speed of
7 the river?

8 THE WITNESS: One of the management
9 practices that has helped generally increase travel time
10 is the spring and summer spill program that's required
11 in the Columbia River. So spilling water over the dams
12 can help increase travel time. And then simply managing
13 the overall -- you know, we've got reservoirs that go
14 clear up into Canada. And so there's an abundant --
15 well, there's -- it's not as much water as people want,
16 but there is -- there's a large number of, shall we say,
17 levers that you could pull at different reservoirs to
18 funnel more water down during the time when smolts are
19 in the water. So it's a factor of several different
20 management practices, but certainly the spill program is
21 associated with improved travel times and better smolts
22 survival.

23 MR. SIEMANN: And what I'm trying to get at
24 is, this is sort of in some ways unrelated to your
25 testimony, but the speed of the river at the Vancouver

1 Energy terminal, there's been some discussion about
2 booms. And so I'm sort of curious, does this translate
3 into the speed of the river at that site and efforts --
4 what I'm wondering about is are efforts to increase flow
5 for salmon likely to increase the speed of the river at
6 the Vancouver Energy site?

7 THE WITNESS: You know, I'm afraid I'm not a
8 hydrologist, and so that question is probably a little
9 bit beyond my level of expertise.

10 MR. SIEMANN: Fair enough. All right.

11 Well, thank you very much.

12 JUDGE NOBLE: Other questions, to my left?

13 MR. MOSS: I do.

14 JUDGE NOBLE: Mr. Moss?

15 MR. MOSS: Good morning. We heard some
16 testimony earlier in this proceeding to the effect that
17 were a tribal fishery disrupted by the event of an oil
18 spill, that the tribal fishers could simply move to
19 another location. I would like to hear what you think
20 of that testimony.

21 THE WITNESS: So I -- again, I would say
22 that that is a simplification of the reality. So, you
23 know, clearly in the map shown on the screen, there's,
24 you know, 150-some miles of river that the tribes are
25 fishing in. So, yeah, in theory you could, you know,

1 fish someplace else. But the reality, again, is that
2 with the systems that the tribes have in place,
3 certainly you can't readily pick up your fishing
4 platform and move it without a great deal of work. But
5 with our system of registered sites and if not
6 registered at least they are kind of considered family
7 property at these geographic locations. So if I were a
8 tribal fisher, I couldn't just readily pack up and move
9 someplace else because I would likely be in somebody
10 else's spot or I would be in a spot that would simply
11 not be -- have the same quality of fishing as the spot
12 that I was in.

13 So the risk of displacement is -- it is --
14 it is real, and depending again on where an event would
15 happen and possibly when, it would not be a really easy
16 thing for fishers just to pack up and move to some other
17 place.

18 And the other, you know, aspect of this is
19 if we had a big spill, it could really seriously damage
20 our ability to market commercial fish. The public
21 perception of fish from a -- you know, from, you know,
22 an area that they're looking at the news footage of, you
23 know, oil leaking out of something, could be quite
24 devastating to the ability to actually -- you know, even
25 if you had a -- had a place to fish, you might not be

1 able to sell the fish you caught.

2 MR. MOSS: Thank you.

3 JUDGE NOBLE: Any other questions from the
4 council?

5 With regard, Mr. Ellis, to your last answer
6 and in a previous answer where you talked about usual
7 and accustomed places, do you know if the tribes that
8 you work with consider the family locations that are
9 customary as any limitation on tribal ideas about usual
10 and accustomed places?

11 THE WITNESS: No, not really. Because
12 the -- while, again, an individual family may claim a
13 certain site or group of sites for their particular --
14 their family, you know, the tribes, of course, have lots
15 and lots of families, and in many of these families, you
16 know, their oral histories had them migrating around in
17 much wider areas than they currently kind of are. You
18 know, they -- historically, the tribes had access to all
19 kinds of areas where different family groups or at
20 different times of the year they'd be able to access,
21 but -- but, yeah, they -- it wouldn't really be the same
22 thing to say that just because a family only has access
23 to certain sites right now, that their tribe as an
24 ancestral group didn't have and doesn't still have
25 access to a very large area.

CARTER / ELLIS

1 JUDGE NOBLE: Thank you.
2 Any questions based upon council questions?
3 MR. JOHNSON: No, Your Honor.
4 MS. CARTER: Yes, actually, I have quite a
5 few.

6 REDIRECT EXAMINATION

7 BY MS. CARTER:

8 Q. First, I wanted to clarify something. You said
9 that spill increases travel time, but you meant
10 decreases travel time, correct?

11 A. Yeah. No, I meant to -- yeah. I meant to say
12 it increases the speed at which they get downstream.
13 So, yeah, decreased travel time.

14 Q. I just wanted to clear that for the record.

15 A. Thank you.

16 Q. Based on your response to Mr. Lynch, you were
17 talking about different populations that could be
18 detrimentally affected. Would that also apply to
19 lamprey?

20 A. Yes. So we have extremely depressed populations
21 of lamprey, especially in the upriver areas. There's
22 very small populations in the Snake Basin, the Umatilla,
23 the Yakima and Deschutes, but the lamprey don't -- they
24 don't -- they don't key in on their home area quite to
25 the same degree of -- that salmon do. Salmon have a

CARTER / ELLIS

1 fairly high degree of fidelity to their -- the stream
2 where they were born. Lamprey less so. But just simply
3 due to the very small numbers of fish going back to
4 certain areas, you know, it -- a spill could be very
5 problematic. With the lamprey in the Deschutes, you
6 have railroad tracks going into the Deschutes and to my
7 understanding they do haul oil up and down the Deschutes
8 River, and if there were a spill in the Deschutes,
9 there's just a very, very small number of lamprey in the
10 Deschutes, and they could be really severely affected.

11 **Q. Well, on that question -- elaborating question,**
12 **in this map, would -- from your understanding would unit**
13 **trains full of crude transit along this Zone 6 fishery**
14 **area?**

15 A. Yes. I -- well, I -- from the air, I have seen
16 what I believe to be oil trains on both sides of the
17 river on a fairly regular basis. They seem to be fairly
18 easy to spot from the air because, at least my
19 understanding is the oil trains -- it's pretty much just
20 oil cars, the engine usually is separated from the car
21 by a -- they usually put a hopper car or two between the
22 engines and the tanker cars, but there are long strings
23 of black cars. I've seen them on both sides of the
24 river, you know, on a fairly regular basis.

25 **Q. So if there was a spill, would it be possible to**

CARTER / ELLIS

1 lose a generation of fish from a spill?

2 MR. JOHNSON: Objection. Your Honor, first
3 of all, this is going beyond the scope of the council's
4 questions. And secondly, it's getting beyond the scope
5 of this witness' qualifications as an expert.

6 JUDGE NOBLE: Overruled.

7 You may answer.

8 A. So because most salmon species have a
9 wide-ranging lifecycle in that they're -- the adult
10 returns come from a series of ages, they don't all
11 return at the same age, coho less so, but the other
12 species tend to have a variety of age classes, it's
13 unlikely that you would wipe out a -- an entire
14 population. But, again, since some of these -- some of
15 these populations are small, if a certain age class of
16 fish were heavily impacted, it could -- it could take a
17 population group quite a while to recover from that
18 disruption and that could be a real negative thing.

19 BY MS. CARTER:

20 **Q. And finally, Mr. Stohr asked about the ESA list**
21 **of species. Do all of these species on the ESA list of**
22 **species, do they transit down through the lower river**
23 **past this facility that would be located in Vancouver?**

24 A. Yes. Well, so they're -- some of the listed
25 groups have populations in tributaries downstream from

CARTER / ELLIS

1 the proposed terminal site. And so those ones, you
2 know, they would just be in the downstream areas, but
3 all of the rest of them would have to migrate down -- up
4 and down past this terminal.

5 MS. CARTER: Thank you. No further
6 questions.

7 JUDGE NOBLE: Thank you, Mr. Ellis, for your
8 testimony. You are excused as a witness.

9 THE WITNESS: Thank you.

10 JUDGE NOBLE: We have just 15 minutes until
11 noontime. Can I ask about the next witness, whether we
12 could get started with that witness?

13 MR. HALL: Your Honor, Brent Hall on behalf
14 of the Confederated Tribes of the Umatilla Indian
15 Reservation. Our next witness is Ms. Kat Brigham. I do
16 not believe her testimony will be that long. I think we
17 could get most of the way through optimistically.

18 JUDGE NOBLE: Good. Let's start it.

19 MR. HALL: So the tribe will call Ms. Kat
20 Brigham. There she is.

21 JUDGE NOBLE: Ms. Brigham, could you raise
22 your right hand, please.

23 (Witness sworn.)

24 JUDGE NOBLE: Thank you. Please be seated.
25

HALL / BRIGHAM

1 KATHRYN BRIGHAM,
2 having been first duly sworn,
3 testified as follows:

4 DIRECT EXAMINATION

5 BY MR. HALL:

6 Q. Ms. Brigham, could you state your name and spell
7 it for the record.

8 A. My name is Kathryn Brigham, K-a-t-h-r-y-n,
9 Brigham, B-r-i-g-h-a-m.

10 Q. Thank you, Kat. I'm going to start with the
11 same comment we start with every witness in this
12 proceeding. We have a court reporter taking down your
13 testimony. So to the extent you can speak slowly, I
14 think that will help all of us.

15 A. Okay.

16 Q. Kat, did you file written direct testimony in
17 this proceeding?

18 A. Yes, I did.

19 Q. And do you adopt that testimony under oath
20 today?

21 A. Yes, I do.

22 Q. Can you briefly summarize your qualifications?

23 A. Well, I was appointed to the Confederated Tribes
24 of the Umatilla Indian Reservation's Fish and Wildlife
25 Commission in August of 1976. Slow down. Okay. All

HALL / BRIGHAM

1 right.

2 I have been involved in fish issues up until
3 December of 2015. I was a Fish and Wildlife Commission
4 member and an elected official for the Confederated
5 Tribes. I attended a number of fish issue meetings,
6 such as the Columbia River Inter-Tribal Fish Commission,
7 the Pacific Salmon Commission, the North Falcon
8 Fisheries Management Council meetings that occurred, and
9 I was a policy member to the US v Oregon process.

10 And during that time frame, I met a lot of
11 people. One of the ones I really -- we really enjoyed
12 working together with was Billy Frank, Jr. He was the
13 chairman of the Northwest Indian Fish Commission. And
14 one of the things we talked about and how we need to be
15 working together was because we all agreed that this was
16 all Indian country at one time. But we still have a
17 place in the Pacific Northwest for Pacific salmon. And
18 so we got together in 2008 and we developed a brochure
19 that was brought back to Washington, D.C. to educate and
20 to let federal agencies know how important salmon is to
21 the Pacific Northwest.

22 We were really pleased with that brochure, and
23 so in 2012 we did the same thing, only this time we were
24 able to bring in three additional commissions from the
25 Great Lakes area. So we had five commissions who were

HALL / BRIGHAM

1 talking about the importance of salmon to our way of
2 life, our future and our history.

3 So salmon is important and it's part of our
4 culture, part of today and part of the next seven
5 generations and beyond. And as tribal leaders and
6 tribal people, we have been taught more than once to
7 talk about and think about our next seven generations.
8 One of the things that my grandfather said was that you
9 fight real hard for today, but not at the expense of
10 your children, your children's children and their
11 children. That's why we talk about the next seven
12 generations and beyond.

13 And as part of this process we went to
14 Washington, D.C. I would say more than one -- it
15 averaged out about once a year, where we would go to
16 Washington, D.C. to talk about the importance of salmon,
17 what the tribes were doing and testified at a number of
18 different hearings.

19 **Q. Thank you, Kat. That's once a year going back**
20 **to D.C. for the last 40 years?**

21 A. Yes.

22 **Q. Thank you. Now, you mentioned you've been**
23 **involved on fish issues since December 2015. You didn't**
24 **stop fishing in December 2015?**

25 A. No, those are -- that was as an elected

HALL / BRIGHAM

1 official. I married my husband in 1965, and he's a
2 commercial fisherman on the Columbia River, and I have
3 been fishing on the Columbia River since then. In the
4 beginning I fished on a regular basis, but once I got on
5 as an elected official, it was off and on, but I was
6 very lucky I was able to go fishing last week on the
7 Columbia River. And so it's something we still do as a
8 family and it keeps us together. And I think it's also
9 important for you to know -- I know you were asking
10 questions about families.

11 The Brigham family and many other tribal
12 families have been fishing on the Columbia River from
13 generation to generation. And as our family, we have
14 currently four generations in our family who are
15 fishing. My great-grandson was able to go fishing last
16 year and is looking forward to fishing this year and
17 next year. And one of the questions he asked me was, is
18 my children going to be able to fish? I said,
19 hopefully, yes, so you'll be able to teach your children
20 and their children that this is something we've been
21 doing from generation to generation.

22 **Q. Thank you, Kat. I would like to move into the**
23 **rebuttal portion of your testimony today. Have you had**
24 **the opportunity to review the prefiled testimony of**
25 **Brian Carrico?**

HALL / BRIGHAM

1 A. Yes, I have. And I have three concerns. One is
2 the timing in which we started fishing, the second is
3 the area in which we were fishing and the third is the
4 safety risks. So I'll go to the first one, to the
5 timing. It kind of sounds like we started in 1977
6 fishing in the Columbia River. Actually we've been
7 fishing on the Columbia River since time immemorial.
8 Like I said earlier, this is four generations -- not
9 counting, you know, my father -- my husband, my
10 daughter, my grandson and my great-grandson. That's
11 just four generations. And before then there was
12 several generations before then. And so we've been
13 fishing on the Columbia River for a very long time, for
14 generations.

15 The other one is the area in which we fish.
16 There was some discussion about the Zone 6 area. Yes,
17 that's a Zone 6 area which we have a commercial fishery,
18 but at the same time, like I said earlier, when Billy
19 Frank and I were talking about it, this was all Indian
20 country at one time and we used to travel and fish all
21 over the Pacific Northwest. We have fishing rights that
22 go down to the mouth and up into the tributaries of the
23 Columbia River. Right now we are even having annual
24 trips up to Montana to go hunting for Buffalo. So our
25 travel as tribal people has been over the Pacific

HALL / BRIGHAM

1 Northwest quite a bit. So to say that we were just
2 fishing in Zone 6 is not accurate at all.

3 **Q. I think the third one was the potential impacts**
4 **from rail traffic.**

5 A. Yes, the third impact was safety risk. I read
6 that and my thought is, you know, he's identified some
7 crossing areas. Well, I'm just going to give myself as
8 an example. My daughter and I were fishing, and we went
9 and drove up I -- Highway 14, we pulled off the road, we
10 parked our pickup and we walked over the tracks.
11 There's no path. The path across that is one we made.
12 And so it's -- and we went down to fish off of our
13 platform. And I know for a fact that we are one example
14 of people going over tracks, and it's not because
15 there's a road there or a path there; it's because
16 that's where we're going to go cross to go to our
17 fishing platforms along the side of the river. So
18 there's a lot of areas that are not necessarily on the
19 map that shows where we have been going across the
20 tracks to go fishing along the Columbia River.

21 The other thing is the safety. I guess just
22 within my family alone -- I didn't think I would cry.

23 **Q. Take your time, Kat.**

24 A. I'm sorry. Just within my family alone, I've
25 lost three members to the railroad crossing and all of

HALL / BRIGHAM

1 them were fishermen and it was in the spring of each
2 year. I lost a nephew. He was a very young man and he
3 was coming back to the in-lieu site after fishing, and
4 later lost his sister, and that was in 2006. And then
5 in 2008, lost my niece, who was also fishing along the
6 Columbia River. Then in 2010, I lost my cousin, who was
7 fishing up at Alderdale, and he was crossing the tracks
8 with his boat and trailer and he got hit by the train as
9 well.

10 And so when you talk about the safety risks
11 of -- to tribal people, I think it's much higher than
12 what is actually stated there. Because we cross those
13 tracks on a regular basis to get to those fishing sites.
14 And the other thing too is we have talked to each other
15 about saying why didn't you hear the trains, and it's
16 because of the wind and, you know, things like that,
17 that you don't -- and the train coming around the bend
18 that you don't necessarily hear those things. So the
19 risk is high. It's not something that is -- that just
20 because we've got a guard that keeps us from crossing
21 the tracks doesn't mean that's where we're going to
22 cross.

23 **Q. Kat, I'm sorry to ask you one more question on**
24 **this topic. Can you tell the council whether the cousin**
25 **you lost in 2010 near Alderdale was crossing at a grade**

HALL / BRIGHAM

1 or somewhere off the road?

2 A. He was crossing on Alderdale. He was going
3 across the area -- I don't think they had a crossing at
4 that time, and so he was just crossing the tracks to
5 go -- bring his fish home. Because I think it was the
6 end of the season.

7 **Q. And, Kat, when you say "Alderdale," that's the**
8 **Alderdale in-lieu site?**

9 A. Yes, it's up there on the John Lake Pool.

10 **Q. Thank you. Kat, let's move on.**

11 A. Okay.

12 **Q. Let's talk about the testimony of Dr. Elliott**
13 **Taylor. Have you had a chance to review that testimony?**

14 A. Yes, I have. And, again, I have two concerns.
15 One was that the -- I mean, if water were to spill -- it
16 was more likely to spill on land than in water. And so
17 out of curiosity yesterday, I drove from -- I'm from
18 Pendleton, Oregon. And so I drove across the river just
19 below McNary Dam, and I came down into Vancouver. And
20 in coming down here, I identified three different -- 23
21 sites where a railroad is actually crossing the water or
22 the railroad track is -- has water on both sides because
23 of a pond or -- you know, that's been created by the
24 railroad tracks going along the Columbia River. And so
25 the tracks are right along the Columbia River and

HALL / BRIGHAM

1 they're -- if you get -- the sand didn't make them stay
2 there. These are huge rocks that were brought there.
3 So if the oils were to occur -- spill were to occur, the
4 rocks will not absorb them. They would go into the
5 water.

6 And then the other thing would be the water
7 itself, a long time ago, when my husband and I first
8 started fishing, we were able to put our nets in on
9 Monday and pull them out on Friday without a lot of
10 vegetation on it. And as Stuart was talking about, now
11 we have to take our nets out and some places we're lucky
12 that we can leave them in. It's not -- we can shake
13 them out, the nets out, and remove the vegetation. But
14 in other places, we have to take the nets out every
15 morning while we're pulling our gear, bring them to
16 shore and use the power wash to clean those nets out so
17 they're fishable so that we can catch fish in the
18 evening.

19 **Q. And, Kat, what do you think this vegetation**
20 **means for some of the conclusions Dr. Taylor drew about**
21 **oil and water?**

22 A. I don't think it's going to move very fast. I
23 think, you know, the vegetation in the Columbia River
24 has grown substantially. I can tell you from some of
25 the fishing experiences, sometimes we've caught more

HALL / BRIGHAM

1 seaweed than fish. We've got a boat load of seaweed and
2 very few fish. So the vegetation in the Columbia River
3 has grown considerably.

4 **Q. Kat, I think you mentioned you went fishing last**
5 **week.**

6 A. Yes, I did.

7 **Q. And did you see vegetation in the water at that**
8 **time?**

9 A. Yes, I did.

10 **Q. And --**

11 MR. HALL: I'm laying a foundation, Your
12 Honor.

13 BY MR. HALL:

14 **Q. And did you take pictures?**

15 A. Yes, I did.

16 **Q. Thank you.**

17 MR. HALL: Ms. Mastro, could you bring up
18 Exhibit 5330-1 TRB, please. Thank you, Ms. Mastro.

19 BY MR. HALL:

20 **Q. Kat, do you recognize this picture?**

21 A. This is a picture of my daughter putting out the
22 net after we've washed it, power washed it. It's going
23 out in the evening so we can run it the following day.

24 **Q. Thank you.**

25 MR. HALL: Your Honor, the tribes would move

HALL / BRIGHAM

1 to enter Exhibit 5330-1 into evidence.

2 JUDGE NOBLE: Is there any objection?

3 MR. JOHNSON: No objection.

4 JUDGE NOBLE: 5331 [sic] will be admitted.

5 MR. HALL: Thank you. Ms. Mastro, can you
6 go to 5330-2, please.

7 BY MR. HALL:

8 **Q. Kat, do you recognize this photo?**

9 A. Yes, I do. This is a picture, again, of my
10 daughter Terry and then my grandson Brigham. They're
11 running the gear. And this is one of the nets that
12 we're able to keep out at night, but at the same time
13 while we're running the gear -- you can't see it, my
14 grandson has his hand up like this, but in his hand is a
15 stick that he's weeding the net with to clean the net.
16 And then my daughter -- and then you'll see on the side
17 of the boat, the black marks, that's where the algae's
18 falling from his shaking and moving the net, and then my
19 daughter Terry is also shaking the net as it's going
20 out, to try to remove the vegetation from the net so it
21 can be fishable in the evening.

22 **Q. And, Kat, does this activity they are doing with**
23 **the net always clean the net so that you can keep**
24 **fishing it?**

25 A. Always. This is -- I don't have an all-girl

HALL / BRIGHAM

1 crew anymore, but I used to. I was -- as they said --
2 not the chief, but I was the head of the crew and I had
3 my daughters. I have three daughters and my sister, and
4 all of us were fishing on the Columbia River. But one
5 of the things we always made sure that happened was when
6 these nets were pulled, we pulled out all of the
7 vegetation that we could. And one of my daughters
8 says -- used to tell me, we had to pull every morsel.
9 That was just to be able to get the nets clean so that
10 they would be able to catch fish.

11 **Q. Kat, I'm going to try one more time. Do you**
12 **ever have to do anything else than what they're doing to**
13 **get the nets cleaned?**

14 A. Power wash them. Yes. We have power washed our
15 nets to keep them clean. And like I said earlier, when
16 we power wash them, we pull nets and the fish in at the
17 same time, and then we take the nets out and bring them
18 to shore and get a power washer to wash them. And we
19 pull -- as we're pulling the net out of the boat, we'll
20 pull the net out and somebody will stand there and power
21 wash the net as it's being pulled out and then it
22 will -- the net will fall onto the ground, and then once
23 we've got it ready to go out, then we put the clean net
24 back onto the boat so that it can go back out onto the
25 river.

HALL / BRIGHAM

1 JUDGE NOBLE: Mr. Hall, I think -- I'm not
2 sure, but it seems like there's a numbering issue with
3 these exhibits. I think it's 5530, photograph 1 and
4 photograph 2.

5 MR. HALL: You are right, Your Honor, and I
6 just realized -- I didn't remember that's the numbering
7 protocol being used in this proceeding. So I think
8 having -- have Ms. Brigham talk about these two photos,
9 now I'll offer Exhibit 5330 into evidence.

10 JUDGE NOBLE: Correct. 5330 is admitted and
11 it consists of two photographs. So I don't think there
12 is a 5331?

13 MR. HALL: That is correct, Your Honor.

14 JUDGE NOBLE: Change that.

15 MR. HALL: I have one more question of
16 Ms. Brigham, Your Honor.

17 BY MR. HALL:

18 **Q. How many generations are on this boat?**

19 A. Four. My husband, our three -- my husband, my
20 daughter and my grandson.

21 MR. HALL: Thank you. No further questions
22 at this time, Your Honor.

23 JUDGE NOBLE: Cross-examination of
24 Ms. Brigham?

25 MR. JOHNSON: No questions from me.

BRIGHAM

1 JUDGE NOBLE: Council questions?

2 Mr. Stohr?

3 MR. STOHR: Thank you, Ms. Brigham. We've
4 talked quite a bit about harvests, and a little bit
5 about comanagement, et cetera, but I'm interested in
6 your view as a tribal leader on the habitat issue and
7 how you think that issue might relate to our decision
8 about this facility.

9 THE WITNESS: Well, as Stuart stated, you
10 know, we view habitat as a very important part of
11 rebuilding salmon. And he's right, in that it takes a
12 while for salmon to rebuild there, but there's also many
13 other benefits for the habitat. When we rebuild,
14 protect and restore the habitat, not only are we
15 rebuilding that habitat for salmon, but we're also
16 creating cleaner water, cooler water. We're also
17 creating the habitat for the trees to have the air, you
18 know, cleaner.

19 So we view the habitat as something that is
20 very important. In fact, one of the things that we have
21 been taught prior to the treaty, is that we have to take
22 care of the land so the land can take care of you. If
23 you don't take care of the land, where are you going to
24 go?

25 And so we have been working on rebuilding

BRIGHAM

1 the habitat for generations so that we can have the land
2 in which we live on that we love and want our future
3 children -- future generations to live on. Because I
4 don't think any of us are going away. I do know that,
5 you know, on the Hanford, this was an area that was a
6 tribal area, but we had to move from there. But I also
7 know that non-Indians lived there, and nobody can live
8 there now. And so that's what we're trying to prevent.

9 MR. STOHR: Thank you.

10 JUDGE NOBLE: Any other questions, to my
11 right? To my left?

12 Mr. Rossman.

13 MR. ROSSMAN: Thank you for traveling and
14 for your testimony today.

15 You had mentioned in your testimony most
16 recently working with tribes in the Great Lakes area on
17 the salmon brochure; is that right?

18 THE WITNESS: Yes.

19 MR. ROSSMAN: Do you know if those tribes
20 have a similar reservation of rights to take fish at
21 their usual and accustomed places?

22 THE WITNESS: Some of them do. And it's
23 just like what Stuart was talking about, some tribe --
24 well, there are over 500 tribes in the United States.
25 And some of them have a treaty where the treaty

BRIGHAM

1 guarantees us the right to go fishing, hunting, all of
2 those types of things. Some of them have executive
3 orders and some terms have been terminated and then
4 restored. But all of the -- our first foods, our
5 traditional foods, are something that we all work to
6 protect and restore.

7 MR. ROSSMAN: Thank you.

8 THE WITNESS: You're welcome.

9 JUDGE NOBLE: Before we go, Ms. Brigham, I
10 have a question. Could you tell the council what -- of
11 what importance -- the salmon and other fish that you
12 take, of what importance are they to you, your family
13 and your tribal members?

14 THE WITNESS: The importance of salmon is
15 part of our history. I mean, we have stories about how
16 we have fished on the Columbia River. So it's part of
17 our history, part of our future today -- operations
18 today. I mean, it's our way of life. I mean -- and
19 just -- just like I said, I'm one example of a family
20 that fishes. But out of our family, all of us fish, all
21 of us take care of the fish, all of us are planning for
22 the future and all of us live off of that fishing
23 income.

24 In fact, because of the tribes working with
25 the states to rebuild salmon runs, we -- we're one of

BRIGHAM

1 the successful families, and we have just opened up what
2 we call Brigham Fish Market in Cascade Locks two years
3 ago. If we hadn't had fish as part of our income or
4 part of our livelihood, this would not be possible; but
5 at the same time we are also like some of the fishermen
6 that Stuart talked about, over the bank sets. That's
7 how we made our living. And the process is that we have
8 ceremonial fish first, where we have our traditional
9 gatherings to share the salmon, and then the subsistence
10 fish, where we catch fish for ourselves and for our
11 families and for other tribal people, and then the
12 commercial.

13 So subsistence is generally in the spring,
14 and then the summer -- or ceremonial is generally in the
15 spring where we catch all our fish to put it away for
16 traditional reasons. And then for -- then the summer is
17 subsistence and then the fall is the commercial. And
18 that's when we -- that's why the big difference in the
19 nets, but it's a very important part of our livelihood.

20 JUDGE NOBLE: You mentioned the ceremonial
21 importance as well. Could you explain to the council
22 briefly about the cultural importance of salmon annual
23 fish.

24 THE WITNESS: Annually, we have ceremonies
25 for salmon. I mean, each tribe has what we'd call a --

BRIGHAM

1 well, there's a Salmon Feast on the Columbia River which
2 is held, we like to say, generally the first weekend in
3 April, but it's when the salmon come. And then it's the
4 Root Feast and the Huckleberries -- oh, I forgot our
5 Celery Feast is in February, but all of those feasts are
6 where we are giving thanks to our food returning, but we
7 also are sharing that food with our community for it
8 coming back.

9 But ceremonial is not only for the first
10 foods returning, but ceremonies are for weddings, for
11 namegivings, tribal members receiving their Indian name,
12 and then also for services and rejoinings. Because once
13 you've lost a family member, you're not supposed to
14 participate in activities for a year, and then generally
15 within a year, or up to a year, people will rejoin so
16 they can participate in traditional activities again.

17 JUDGE NOBLE: And are you familiar with the
18 term "first foods," I think it is?

19 THE WITNESS: Yeah, yeah.

20 JUDGE NOBLE: Could you -- is salmon part of
21 that concept?

22 THE WITNESS: It is very much. Our first
23 foods are water, salmon, big game, roots and berries.
24 For the Umatilla tribe, we've taken a whole different
25 approach on planning for our first foods, in that we are

BRIGHAM

1 now looking at our Department of Natural Resources,
2 where when they look at land management for grazing, for
3 hunting, they look at what impacts it has to our salmon
4 and to our big game.

5 And then for our planning department, which
6 is the zoning part and for grazing, those types of
7 things, they look at the impacts to our salmon and our
8 big game and our roots and berries.

9 So our first foods are things that are very
10 important to us. In fact, our treaty of 1855 would not
11 have been signed if it hadn't been guaranteed access to
12 our first foods so that we can practice our culture,
13 continue our way of life and plan for the future.

14 JUDGE NOBLE: Thank you, Ms. Brigham.

15 Questions based upon council questions?

16 MR. JOHNSON: None, Your Honor.

17 MR. HALL: No further questions, Your Honor.

18 Thank you.

19 JUDGE NOBLE: Ms. Brigham, thank you very
20 much for your testimony. You are excused as a witness.

21 THE WITNESS: Thank you. And I apologize
22 for being emotional, but I didn't expect it.

23 JUDGE NOBLE: Not necessary. Thank you.

24 All right. Am I understanding correct that
25 we have a 1:00 phone call?

GIBBS

1 MR. JOHNSON: Correct, Your Honor.

2 JUDGE NOBLE: All right. So we will be in a
3 short recess for lunch until 1:00. Thank you.

4 (Recess taken from 12:15 p.m. to 1:03 p.m.)

5 JUDGE NOBLE: We're ready.

6 MR. JOHNSON: Your Honor, the applicant
7 would call Mr. Russ Gibbs. This is a telephonic
8 testimony.

9 JUDGE NOBLE: Mr. --

10 MR. JOHNSON: And, Mr. Gibbs, I'm going to
11 take the phone now -- I'm going to take the phone up to
12 the judge and then she can pass it to the council
13 members that have questions. Okay? So just bear with
14 us.

15 JUDGE NOBLE: Mr. Gibbs, can you hear me?

16 THE WITNESS: I can.

17 JUDGE NOBLE: All right. This is Judge
18 Noble.

19 (Witness sworn.)

20 JUDGE NOBLE: Councilmember Rossman wants to
21 ask you a question or two. So I'll turn you over to
22 him.

23 THE WITNESS: Thank you.

24 MR. ROSSMAN: Thank you, Mr. Gibbs, for
25 making yourself available today.

GIBBS

1 THE WITNESS: Absolutely.

2 MR. ROSSMAN: I have a couple of questions
3 pertaining to the design of the storage tanks. And I am
4 first wanting to confirm, my understanding is that the
5 applicable building code in Washington is the
6 International Building Code 2012 or 2015 version. Is
7 that your understanding?

8 THE WITNESS: Yes. I'm not sure what the
9 current one for that particular area that's been adopted
10 off the top of my head here.

11 MR. ROSSMAN: And we have -- we've heard
12 from prior witnesses that -- as to some design
13 standards, that code relies on the ASCE 7-10. Is that
14 your understanding too?

15 THE WITNESS: That is correct.

16 MR. ROSSMAN: Okay. What risk category are
17 the tanks designed to?

18 THE WITNESS: They are currently, for ASCE,
19 designed to a risk category of 2.

20 MR. ROSSMAN: What would be different in
21 terms of their design if they were designed to a risk
22 Category 3?

23 THE WITNESS: What it does is it changes
24 the -- what they call the importance factor from a
25 factor of 1 to a factor of 1.25.

GIBBS

1 MR. ROSSMAN: What does that mean in lay
2 terms?

3 THE WITNESS: Well, it's -- it has to do
4 with the added, I guess, impact on the design for
5 changing it to a greater factor. So it basically is
6 part of the calculation when you're using the design
7 standards to typically use this 1, and obviously, if you
8 change it to a 1.25, just like about any type of
9 calculation you do, it's going to have impacts on it,
10 potentially change thickness requirements and so forth.

11 MR. ROSSMAN: And we can infer from that the
12 tank would be thicker, supported differently, perhaps?

13 THE WITNESS: The minimum thicknesses would
14 be thicker, yes. It doesn't mean that the tank would be
15 required to be thicker, though. These tanks are already
16 designed heavier than what's required. And so without,
17 you know, going through the specific calculations, we
18 wouldn't know for sure, but a great chance is the tank's
19 current design would remain the same.

20 MR. ROSSMAN: Okay. So the tanks are
21 oversized for Category 2; you're not entirely sure
22 how they would stack up against Category 3. Is that
23 right?

24 THE WITNESS: Correct.

25 JUDGE NOBLE: Mr. Rossman, could you --

GIBBS

1 THE WITNESS: That has to do with what the
2 client has asked us to do to increase the strength of
3 these tanks.

4 JUDGE NOBLE: Could you have the witness
5 repeat his last answer, if possible. I don't think the
6 court reporter was able to get it.

7 THE WITNESS: I'm not -- I'm not able --
8 it's echo chamber now, so I'm not able to hear the
9 question.

10 MR. ROSSMAN: The judge was wanting you to
11 repeat your answer to the previous question. And I'm
12 not sure which question.

13 But is it -- I think it was perhaps the
14 question that, am I right, that the tanks are overbuilt
15 to Category 2 and you're not sure how that would stack
16 up relative to Category 3.

17 THE WITNESS: Right. The tanks are
18 currently designed as stated to the ASCE Group 2, and if
19 you change it to a 3, it would have a potential impact
20 to the thickness of the shell readings, the shell
21 thicknesses.

22 MR. ROSSMAN: And I believe you also said
23 this was the parameters that were given to you. Who
24 would have made the determination as to whether it's
25 Category 2 or 3?

GIBBS

1 THE WITNESS: That is, you know, in the ASCE
2 guideline, that you have to design it to a minimum
3 standard. The owner can design it to higher if he
4 wants, but he has to design it to the ASCE 2, which is
5 the import standard of 1.0.

6 MR. ROSSMAN: All right. Thanks. Those are
7 my questions.

8 JUDGE NOBLE: Are there any other council
9 questions?

10 Mr. Gibbs, can you hear me?

11 THE WITNESS: I can.

12 JUDGE NOBLE: Thank you for your testimony.
13 Is there a question based upon his --

14 MR. JOHNSON: No, Your Honor.

15 MS. BRIMMER: No, Your Honor.

16 JUDGE NOBLE: Thank you. You are excused as
17 a witness, Mr. Gibbs. Thank you very much for making
18 yourself available today.

19 THE WITNESS: Absolutely. Thank you.

20 JUDGE NOBLE: Good-bye.

21 Do we have another witness from the
22 opponents?

23 MR. HALL: We do, Your Honor. The tribes
24 would call Audie Huber to the stand.

25 JUDGE NOBLE: Mr. Huber, would you raise

HALL / HUBER

1 your right hand, please.

2 (Witness sworn.)

3 JUDGE NOBLE: Thank you. Please proceed,
4 Mr. Hall.

5 MR. HALL: Thank you, Your Honor.

6 AUDIE HUBER,

7 having been first duly sworn,

8 testified as follows:

9 DIRECT EXAMINATION

10 BY MR. HALL:

11 Q. Audie, could you state your name and spell it
12 for the record, please.

13 A. My name is Audie Huber, A-u-d-i-e H-u-b-e-r.

14 Q. Thank you. And, Audie, I've known you for a
15 number of years. You are the fastest speaker I have
16 ever met. And so for this proceeding, we're going to
17 work -- and we might need you to slow down for the court
18 reporter. Thank you.

19 A. Glad to see that the person with the
20 tranquilizer dart in the back of the room is not
21 necessary.

22 Q. Audie, did you file written direct testimony in
23 this proceeding?

24 A. Yes, I did.

25 Q. Thank you. And do you have any clarification to

HALL / HUBER

1 that testimony?

2 A. Yes. I would like to clarify that in my
3 testimony I identified that there was an incident where
4 a rock had rolled down a hill and struck a train causing
5 a diesel leak. Further review of documents indicate
6 that the rock had rolled down the hill, was on the
7 tracks and struck by the train causing the diesel spill.
8 The remainder of the facts were -- remain the same. The
9 train drove on and spilled over several miles.

10 **Q. Thank you. So with that clarification, do you**
11 **adopt your testimony under oath today?**

12 A. Yes, I do.

13 **Q. Thank you. Audie, are you an enrolled tribal**
14 **member?**

15 A. Yes. I'm a member -- an enrolled member of the
16 Quinault Indian Nation.

17 **Q. Thank you. Could you briefly outline your**
18 **qualifications.**

19 A. I am currently -- I should start over. I began
20 work in -- at the Confederated Tribes of the Umatilla
21 Indian Reservation after my first year of law school in
22 the summer of 1995. At that time, I interned in the
23 cultural resources protection program as a policy
24 analyst. I worked closely with the archaeological
25 staff. I worked there the following two summers, the

HALL / HUBER

1 summer of '96 and the summer of '97. After I graduated
2 law school in 1998, I began work as a policy analyst in
3 cultural resources program. I -- shortly thereafter, I
4 assumed the position of acting deputy director of DNR,
5 and two years after that, I became intergovernmental
6 affairs manager, where I work closely with our
7 ecological resource staff on cultural resources and
8 treaty rights protection issues.

9 **Q. Thank you, Audie. How has your work with the**
10 **tribes for the last almost 20 years dealt with**
11 **archaeological cultural resource and treaty rights**
12 **issues?**

13 A. Well, I work with a number of federal agencies,
14 making sure that the tribes' treaty rights and cultural
15 resources are protected. I review projects with
16 federal, state and private entities and evaluate whether
17 treaty rights and cultural resources will be impacted
18 and then work on ways to mitigate those impacts.

19 **Q. Thank you. Are cultural resource and treaty**
20 **right issues closely interconnected?**

21 A. Yes. Treaty rights are the exercise of rights
22 that the tribes have had since time immemorial.
23 Cultural resources, the archaeological sites, are
24 associated with those archaeological -- with those
25 treaty rights.

HALL / HUBER

1 The archaeological sites are usually associated
2 with the gathering of food because people need to eat.
3 So you'll find a lot of archaeological sites -- sorry, I
4 will slow down. So you'll find a lot of archaeological
5 sites associated with hunting, fishing and gathering
6 locations, as well as other cultural uses.

7 **Q. Thank you, Audie. Have you had much interaction**
8 **with the railroads that have tracks along both sides of**
9 **the Columbia River?**

10 A. Yes. I've worked extensively with Union Pacific
11 Railroad, as well as working with Burlington Northern,
12 on -- to a lesser extent. I've worked on a variety of
13 permit review projects of railroad developments, both on
14 the Columbia and on reservations. I've worked on
15 habitat restoration projects, treaty right access
16 issues, spill response and spill response planning.
17 Let's see. I think that more or less covers it.

18 **Q. Okay. Thank you.**

19 A. Oh, actually I also worked with the Federal
20 Railroad Administration, meeting with them and
21 corresponding with them regarding regulation of
22 railroads.

23 **Q. Thank you. Audie, have you reviewed anyone**
24 **else's testimony in this proceeding?**

25 A. Yes. I reviewed Jo Reese's testimony.

HALL / HUBER

1 **Q. And do you have any observations about her**
2 **testimony you would like to share with the council?**

3 A. Yes. In reviewing her testimony, I was struck
4 at how little mention there was of archaeological
5 resources along the Columbia River. The testimony
6 itself made a distinction between archaeological
7 resources and historic resources. It mentioned twice
8 that she had reviewed historical resources in Washington
9 but had reviewed historic and archaeological resources
10 in Oregon. This struck me because along the river,
11 along the Columbia, is some of the most dense
12 archaeological sites in Washington and in Oregon,
13 specifically, Celilo and Wishram are one of the most --
14 longest, continuously occupied sites in the northwest in
15 America at over 10,000 years.

16 **Q. Thank you. Do these archaeological sites extend**
17 **beyond Wishram and Celilo along the Columbia River?**

18 A. Yes. This was a -- this was --

19 MR. JOHNSON: Objection, Your Honor. I'm
20 sorry. Your Honor, the scope of this testimony goes
21 beyond -- certainly beyond the scope of Mr. Huber's
22 testimony in his prefiled testimony, as well as the
23 statement of his qualifications regarding archaeological
24 resources, to which there was no foundation for his
25 expertise provided related to archaeological resources.

HALL / HUBER

1 MR. HALL: Your Honor, may I respond?

2 JUDGE NOBLE: Yes, please respond.

3 MR. HALL: Thank you, Your Honor. If I
4 heard Mr. Audie -- Mr. Huber correct, and we can have it
5 read back, I think he's testified that for the last
6 almost 20 years, he's worked with the archaeological
7 staff at the Columbia River regarding projects --
8 regarding protecting treaty right resources, cultural
9 resources, from impacts of projects that might disturb
10 these archaeological sites.

11 And this is -- as far as going beyond the
12 scope of his prefiled testimony, I'm sorry if this
13 wasn't clear, this is rebuttal testimony to the prefiled
14 direct testimony of Ms. Jo Reese.

15 JUDGE NOBLE: I will allow the testimony.
16 And as far as foundation, I find that this witness has
17 sufficient foundation, based upon his experience and
18 education, to testify in accordance with the questions
19 that have been asked so far.

20 MR. JOHNSON: Your Honor, if I may, just to
21 preserve, again, latitude in our rebuttal case to call
22 witnesses now in response to this testimony. We decided
23 not to call our witness related to this because there
24 was no prefiled testimony from the other side. And so
25 now that they're presenting testimony with regard to

HALL / HUBER

1 these issues, we would ask for latitude in our rebuttal
2 case to respond.

3 JUDGE NOBLE: Thank you, Mr. Johnson.
4 Latitude is in the nature of rebuttal testimony because
5 it's necessary to be able to respond. So, yes, you'll
6 have such latitude. Hopefully it won't take up too much
7 time.

8 MR. JOHNSON: Well, we know we have two days
9 to get it done.

10 JUDGE NOBLE: Thank you.

11 Please proceed, Mr. Hall.

12 MR. HALL: Thank you, Your Honor.

13 BY MR. HALL:

14 **Q. So, Audie, how many of these recorded**
15 **archaeological sites are there along the Columbia River**
16 **near the rail lines?**

17 A. There are thousands of sites up and down the
18 Columbia River. For instance, in Klickitat County,
19 there are over 500 sites that have been recorded within
20 a half mile of the Burlington Northern line.

21 **Q. Audie, in paragraph 11 of her testimony,**
22 **Ms. Reese discusses her company's effort to compile map**
23 **books of archaeological and historic resources for the**
24 **rail transportation corridor. Do you have any comment**
25 **on those map books?**

HALL / HUBER

1 A. Yes. I reviewed those maps. Those maps have a
2 half-mile buffer around the Burlington Northern line,
3 yet only identified 44 sites within a half mile of the
4 BNSF line. Additionally, they reference historic
5 resources, once again creating uncertainty about whether
6 they considered archaeological resources.

7 My own research and work with our staff have
8 identified on an order of magnitude more archaeological
9 sites in that particular area. Like I said, Klickitat
10 County area -- the area along here contains Silo
11 Village, one of the most -- longest most continuously
12 occupied sites in North America. It's 10,000 years of
13 occupancy. You would expect to find much more
14 archaeological materials and recorded sites in
15 association with that.

16 **Q. So, Audie, just for clarity's sake, when you say**
17 **the report only identified -- when you say Ms. Reese's**
18 **work only identified 44 sites, are you talking about a**
19 **specific county?**

20 A. Yes. In Klickitat County.

21 **Q. And --**

22 A. I just used that word.

23 **Q. Okay. And can you remind us how many sites**
24 **you've identified in Klickitat County?**

25 A. Around 550 within a half mile of the Burlington

HALL / HUBER

1 Northern line.

2 **Q. Do you have any thoughts on the difference**
3 **between the numbers?**

4 A. I really can't tell. Like I said, in her
5 prefiled testimony, she indicated that she looked at
6 historic resources on the Washington side and historic
7 and archaeological resources on the Oregon side. Did I
8 say that backwards?

9 **Q. No.**

10 A. Okay. There are various possibilities of why
11 only -- there are only 44 sites, including only looking
12 at eligible sites in Klickitat County, there are only
13 about 40 sites that have been determined formally
14 eligible for the National Register of Historic Places in
15 the Washington Heritage Register, but I can only
16 speculate. All I have are the numbers that were in the
17 report. The methodology was extremely unclear.

18 **Q. Thank you, Audie. Do you have any other**
19 **observations regarding Ms. Reese's testimony?**

20 A. Yes. In paragraph 16, I believe it was, the
21 last paragraph in her prefiled testimony, it indicated
22 that she believed that normal operations of the railroad
23 would not impact archaeological or historic resources
24 along the corridor, and she believed that in the
25 event -- unlikely event of a spill, that the railroad

HALL / HUBER

1 had engineering instructions that could mitigate
2 impact -- any impacts to archaeological sites along the
3 route. I don't know of any burning train that will
4 respond to an engineering instruction or a stop-work
5 order.

6 **Q. Thank you, Audie.**

7 MR. HALL: Your Honor, with your indulgence,
8 I would like to use two demonstrative exhibits with
9 Mr. Huber for him to display some of these resources and
10 their location along the rail track. They have been
11 shown to opposing counsel and at the time they were
12 shown I understood there was no objection.

13 MR. JOHNSON: No objection.

14 JUDGE NOBLE: I would like to have them
15 marked as exhibits, unless they're something that can't
16 be left with the council.

17 MR. HALL: I'll lay a foundation and then
18 asked for them to be marked.

19 Can we do that quickly?

20 Ms. Mastro, could you put on screen Huber
21 petroglyph map, please.

22 JUDGE NOBLE: Could I ask one other
23 question?

24 MR. HALL: Yes.

25 JUDGE NOBLE: This isn't something that

HALL / HUBER

1 needs to be kept confidential?

2 MR. HALL: This one is not, Your Honor.

3 JUDGE NOBLE: Thank you.

4 MR. HALL: I appreciate the question.

5 BY MR. HALL:

6 **Q. So, Audie, does this map look familiar to you?**

7 A. Yes, it does.

8 **Q. Did you participate in the creation of it?**

9 A. Yes.

10 **Q. Okay. Can you describe for us what it displays?**

11 A. This map displays various resources along the
12 Columbia. This is specifically in Klickitat County.
13 Right here is the Dalles Dam, shortly upstream from
14 there is Horsethief Lake State Park. At Horsethief Lake
15 State Park is She Who Watches, a rock image on -- at the
16 park. Shortly further upriver is KL77. I gave a broad
17 border around this site as to not identify it
18 specifically so as not -- the risk release itself.

19 **Q. And, Audie, what is KL77?**

20 A. KL77 is an archaeological site that was
21 discovered when it was impacted by the operations of
22 Burlington Northern Railroad when they were grading
23 their right-of-way a few years back. Specifically, it's
24 several burials in association with the Wishram Village
25 which is around Celilo. It was impacted by railroad

HALL / HUBER

1 crews. It was identified by a property -- nearby
2 landowner, and was subject to a damage assessment for
3 cultural reasons.

4 MR. HALL: Ms. Mastro, can you put on the
5 screen Huber photo, please.

6 JUDGE NOBLE: We will have to give these
7 numbers and Ms. Mastro will be able to tell you what
8 number will be appropriate.

9 MR. HALL: Thank you, Your Honor.

10 BY MR. HALL:

11 **Q. Audie, do you recognize this photo?**

12 A. Yes. This is the photo of She Who Watches, a
13 rock image that is at Horsethief Lake State Park. This
14 area is within about 120 feet of the Burlington Northern
15 line and is in association with several other rock
16 images along that assault outcrop, as well as other rock
17 images that have been placed there in the park by the
18 corps of engineers that have been moved from along the
19 river prior to inundation of the Dalles Dam.

20 **Q. Are some of the other rock images closer to the**
21 **railroad?**

22 A. Yes. They're approximately a hundred feet and a
23 little bit less.

24 MR. HALL: At this point I will stop, and I
25 would move to offer this exhibit into evidence.

HALL / HUBER

1 Ms. Mastro, I think the next number is 5331.
2 Does that sound right?

3 MS. MASTRO: That's correct.

4 MR. HALL: And the exhibit will consist of
5 the two pages, the map and the photo.

6 JUDGE NOBLE: Just one number. 5331, is
7 there an objection to 5331?

8 MR. JOHNSON: No objection.

9 JUDGE NOBLE: 5331 is admitted.

10 BY MR. HALL:

11 **Q. Audie, what is the importance of cultural**
12 **resources, such as rock images, to the tribes?**

13 A. Cultural resources represent the concrete,
14 physical evidence of the tribes' presence and
15 relationship to their tribal ancestors here. These are
16 the sites that represent the cultural record of the
17 tribes being here since time immemorial. These are the
18 tribal members' sensitive place. This is where they've
19 been. This is where their ancestors did the same things
20 they did; gathering food, hunting, providing for their
21 families. Rock images, specifically, often convey a
22 sacred nature to members, but archaeological sites
23 themselves are that physical connection to the land that
24 they can see where their ancestors were and what they
25 did.

HALL / HUBER

1 **Q. Thank you, Audie. So we've talked about the**
2 **number of archaeological sites along the rails and**
3 **you've given us two specific examples with this exhibit.**
4 **You haven't talked about the types of risks that**
5 **derailments and spills pose to these types of cultural**
6 **and archaeological resources. Can you share with the**
7 **resource -- some information about that?**

8 **A. Yes. Spills, particularly of crude oil, can**
9 **result in contamination of materials, contamination of**
10 **the ground, and often spills require excavation and**
11 **removal of the contaminated soil. Most archaeological**
12 **sites are underground and previously undisturbed, many**
13 **of them are undisturbed. In the event that there's a**
14 **spill and a removal action, that has the strong**
15 **potential to impact archaeological sites.**

16 **Also, contamination of the archaeological**
17 **material, such as wood and other type of materials, can**
18 **prevent the site from being analyzed, making it**
19 **hazardous to both the archaeologists and contaminating**
20 **the cultural resources themselves making them incapable**
21 **of being, say, carbon dated.**

22 **Q. And how about fires, Audie? Do you have any**
23 **thoughts on fires?**

24 **A. Yes. Fires are particularly damaging to surface**
25 **deposits of archaeological materials. They can damage**

HALL / HUBER

1 even the salt. Oil fires, with their intensity and
2 duration, pose a particular problem and will have a
3 strong potential of impacting archaeological resources,
4 including resources such as She Who Watches.

5 **Q. I have one question about identification of**
6 **these sites along the rails. I think you used the word**
7 **"recorded," but I'm not sure. Did you use the word**
8 **"recorded sites"?**

9 A. I may not have. But those 550 sites -- or over
10 500 sites I referenced in Klickitat County, those are
11 sites that have been recorded and are on the database
12 maintained by Washington Department of Archaeology &
13 Historic Preservation. And I would also like to mention
14 something that I forgot to mention, and that is, I
15 discussed how important cultural resources are to tribal
16 members about their -- the reference to their history,
17 their connection to the place. But these are -- these
18 are unique resources that are priceless and
19 irreplaceable. They cannot be restored in the event
20 that that site is excavated. The best they can do is
21 data recovery, and that takes away that -- the materials
22 in the ground, the in situ presence that tribal members
23 can feel and see when it comes to their connection to
24 this spot.

25 **Q. Thank you, Audie. One last question. At**

HUBER

1 paragraph 8 of her testimony, Ms. Reese talks about
2 contacting and coordinating with tribes. To your
3 knowledge, did she ever contact the Umatilla tribe?

4 A. No.

5 MR. HALL: Thank you. No further questions
6 at this time, Your Honor.

7 JUDGE NOBLE: Thank you.

8 Cross-examination?

9 MR. JOHNSON: No questions.

10 JUDGE NOBLE: Council questions?

11 Mr. Shafer?

12 MR. SHAFER: Mr. Huber, thank you very much
13 for your testimony today.

14 Much has been said in our hearings here on
15 the Mosier event. Were there any archaeological sites
16 that were damaged as a result of that event, the
17 derailment in Mosier, or if not damaged, are there any
18 at risk or even any in close proximity?

19 THE WITNESS: I understand that there was a
20 village site that had been identified, but I don't think
21 that -- or actually, I didn't -- didn't get all the
22 information on it. I was unable to respond to that
23 spill because I was off in DC at the time, but I was
24 monitoring it through the calls and the Yakama Nation
25 had cultural resource staff on the scene. I believe

HUBER

1 they recently identified groundwater contamination, and
2 I think that has the potential to impact archaeological
3 sites that are nearby. There are -- as far as I know, I
4 believe there are archaeological sites near that scene.

5 MR. SHAFER: Okay. Last question, and given
6 the significant amount of rail traffic up and down the
7 Gorge, does the DNR track or keep inventory of damage to
8 sites as a result of train traffic?

9 THE WITNESS: In the event -- like KL77, it
10 was identified as being impacted. There was a damage
11 assessment, and those reports are on file with
12 Washington Department of Archaeology & Historic
13 Preservation. There was another spill of hydraulic fuel
14 by UPRR around the Cascade Locks; it was earlier this
15 year, late last year. In the event there is an impact
16 to an archaeological site, they do do damage
17 assessments, or they tend to.

18 MR. SHAFER: And since records have been
19 kept, I mean, how -- could you give us an approximate
20 idea of how many incidents have occurred that have
21 affected archaeological sites?

22 THE WITNESS: I can't give you a good
23 number, but I do know that the railroad -- their
24 operations are not subject to Section 106 of the
25 National Historic Preservation Act. So they -- they're

HUBER

1 not under an obligation to survey their land for
2 archaeological resources. It's typically, projects will
3 result in requirements of surveys, but the railroad
4 themselves do not typically survey their -- the entirety
5 of their lands for these resources.

6 MR. SHAFER: Thank you.

7 JUDGE NOBLE: Any further questions, to my
8 right? To my left?

9 Could I just ask you, Mr. Huber, if you
10 could just describe the kinds of things that are
11 typically found at these archaeological sites.

12 THE WITNESS: Most often they're lithic
13 scatters. I mean, there's lots of burials along the
14 river, but lithic scatters are -- the technology they
15 were using was spear points and made out of obsidian and
16 other salt, and that tends to stick around, unlike bone
17 which tends to decay. So a lot of archaeological
18 materials are -- when you get past a thousand years,
19 tend to be stone tools.

20 JUDGE NOBLE: Thank you.

21 THE WITNESS: Sorry. But, yes, a lot of
22 stone tools, but there's also -- they'll find
23 fire-cracked rock, which indicates a house pit where
24 people were living and cooking. You could find char
25 from fires for cooking, and any nature of stone tools

HUBER

1 that were used for nets, weights and spear points, a
2 variety of materials.

3 JUDGE NOBLE: Can you -- what can you learn
4 from the placement -- you mentioned that the placement
5 of these archaeological resources is important. Could
6 you explain that?

7 THE WITNESS: Well, their existence in situ
8 I believe is -- pertains to a connection between tribal
9 members and their history. This is where their
10 ancestors lived, died, gathered food, supported
11 families, raised families. Is that your question, or
12 was it more about what can we learn from these in situ?

13 JUDGE NOBLE: You were saying that when they
14 are moved that their value has been diminished or
15 destroyed, something to that effect.

16 THE WITNESS: Yes. When -- a lot -- one of
17 the ways that archaeologists typically mitigate impacts
18 to sites is data collection. They dig up the site and
19 take everything off and then curate it. That diminishes
20 the value to the tribal members by removing that --
21 those materials that are a physical connection to the
22 site of their ancestors. Similar in a way -- I've been
23 involved in the Kennewick Man case now for 20 years next
24 month, and -- where we've spent many years and many
25 resources trying to get these remains and artifacts back

HUBER

1 to where they were from in order to restore to the
2 tribes that identity, those -- their ancestors get back
3 in the ground where they were from.

4 JUDGE NOBLE: And what did you mean by
5 "adjacent to the railroad"?

6 THE WITNESS: Oh, regarding the presence of
7 archaeological sites or --

8 JUDGE NOBLE: Yes.

9 THE WITNESS: -- the number of
10 archaeological sites?

11 JUDGE NOBLE: I'm talking about distance.
12 What would you consider adjacent?

13 THE WITNESS: Adjacent, the -- take She Who
14 Watches, for instance. She's about 120 feet from the
15 railroad tracks. The numbers of archaeological sites I
16 discussed earlier were within a buffer that was in the
17 maps of Reese. The 500 artifacts was within a buffer of
18 a half mile.

19 JUDGE NOBLE: Thank you.

20 Questions based upon council questions?

21 MR. JOHNSON: None, Your Honor.

22 JUDGE NOBLE: Mr. Hall?

23 MR. HALL: None, Your Honor.

24 JUDGE NOBLE: All right. Thanks very much,
25 Mr. Huber. You are excused as a witness. Thank you

LOTHROP / PARKER

1 very much for your testimony today.

2 THE WITNESS: Thank you.

3 JUDGE NOBLE: Do we have another witness?

4 MR. LOTHROP: Yes, Your Honor. Your Honor,
5 I would like to call Mr. Blaine L. Parker to the stand.

6 JUDGE NOBLE: Mr. Parker, would you raise
7 your right hand, please.

8 (Witness sworn.)

9 JUDGE NOBLE: Thank you. Please be seated.
10 You may proceed.

11 MR. LOTHROP: Thank you.

12 BLAINE L. PARKER,
13 having been first duly sworn,
14 testified as follows:

15 DIRECT EXAMINATION

16 BY MR. LOTHROP:

17 **Q. Blaine, can you spell your first and last name**
18 **for the court.**

19 A. Yes. B-l-a-i-n-e, Parker, P-a-r-k-e-r.

20 JUDGE NOBLE: Mr. Lothrop, you probably want
21 to identify yourself.

22 MR. LOTHROP: I'm sorry. Thank you, Your
23 Honor. My name is Robert Lothrop. I am an attorney
24 representing the Columbia River Inter-Tribal Fish
25 Commission.

LOTHROP / PARKER

1 BY MR. LOTHROP:

2 Q. Blaine, you and I have known each other for a
3 long time, but I've got to ask you some questions about
4 your background.

5 A. Ages.

6 Q. Where are you employed and in what capacity?

7 A. Rob, I work at the Columbia River Inter-Tribal
8 Fish Commission in Portland, Oregon. I am employed as a
9 fisheries biologist and I've been there since 1991.

10 Q. Thank you. What materials did you review in
11 preparing for your testimony today?

12 A. I reviewed the draft EIS, the Challenger written
13 testimony and video, as well as Dr. Taylor's video and
14 written testimony.

15 Q. Were you present for Mr. Bayer's testimony?

16 A. Yes, I was.

17 Q. Thank you. Do you have any corrections to make
18 to your testimony, which is Exhibit 5207, that you would
19 like to make?

20 A. Yes, I would. On page 7 of the testimony -- of
21 my written testimony, there was a clerical error that
22 starts on sentence 10 and ends on sentence 12. Starts
23 out, "Some estimates." It's that sentence. What it
24 should say is that the increase in shipping from the
25 proposed activity would approximately 50 percent --

LOTHROP / PARKER

1 would increase -- excuse me -- would be approximately
2 50 percent of the total ballast discharge that currently
3 occurs in the Columbia River downstream of Bonneville
4 Dam, not the volume of the river.

5 **Q. Thank you, Mr. Parker. With that change in**
6 **Exhibit 5207, do you adopt that testimony under oath?**

7 A. Yes, I do.

8 JUDGE NOBLE: Mr. Lothrop. You might not
9 have been here, but the testimony -- the prefiled
10 testimony is being handled the same as the transcript.
11 Although this has been given an exhibit number
12 previously, it won't be an exhibit, it will be part of
13 the testimony.

14 MR. LOTHROP: Thank you, Your Honor.

15 JUDGE NOBLE: So we will withdraw it as 5207
16 and put it in the pile with testimony.

17 MR. LOTHROP: Okay.

18 JUDGE NOBLE: Thank you.

19 BY MR. LOTHROP:

20 **Q. And, Blaine, you still adopt this testimony --**

21 A. Yes, I do.

22 **Q. -- with the correction? Thank you.**

23 **Please describe your professional experiences at**
24 **the Columbia River Inter-Tribal Fish Commission.**

25 A. I began at the commission in 1991. Initially, I

LOTHROP / PARKER

1 worked on a predator-prey project, also commonly known
2 as the Northern pikeminnow project. I supervised -- or
3 assisted in supervising eight different crews that
4 fished at mainstem projects throughout the Columbia and
5 Snake Rivers to remove pikeminnow, which were eating
6 juvenile salmon near the dams. Soon after that,
7 about -- I did that for about three or four years. And
8 after that, I transferred and began working on white
9 sturgeon, and have worked actively on white sturgeon
10 research and management, habitat, disease investigations
11 and a variety of other things with white sturgeon since
12 1994.

13 In addition to that, I have worked on Pacific
14 lamprey in the mid to late '90s, with regard to
15 movements, tracking studies, data collection and
16 overall -- just increase in the knowledge about Pacific
17 lamprey as it relates to tribal and cultural aspects of
18 the use of that fish for the tribes that I work for. We
19 worked with other comanagers on maintaining and actually
20 enhancing productions for the Pacific lamprey at that
21 time.

22 In the late 1990s, I began working on invasive
23 species. It was fairly uncommon at that time, but it
24 was becoming an issue on the radar, primarily because of
25 aquatic zebra mussels that had been introduced to the

LOTHROP / PARKER

1 Great Lakes complex by an inland -- shipping from
2 overseas in Europe and parts of the Middle East.

3 I became active within that arena on behalf of
4 the tribes that I worked for via the commission. I
5 participated and still participate in regional forums,
6 such as the Columbia Basin 100th Meridian working group
7 that's based in the Portland area.

8 I served on the Oregon invasive species council
9 for a couple years in the early 2000s when it was
10 created. I currently sit on ISAC, which is Invasive
11 Species Advisory Committee. This is located in
12 Washington, D.C., and it is a subgroup of NISC, which is
13 National Invasive Species Council. During these times,
14 I was still working on white sturgeon.

15 Within the last four or five years, I became
16 active in working with tribal and state comanagers on
17 addressing the issues of perseverate predation on
18 juvenile salmonids from birds, primarily Caspian terns
19 and double-crested cormorants. So that's an overview of
20 what I've been active in in the last 20 years.

21 **Q. Thank you, Blaine. Can you describe some of the**
22 **field research activities that you have conducted and,**
23 **in particular, that your -- those activities and your**
24 **experiences on the Columbia River.**

25 A. As I mentioned earlier, I worked on the

LOTHROP / PARKER

1 predation project. Those activities occurred on the
2 Columbia River but on the mainstem dams proper. We had
3 field crews out there from the spring through the summer
4 and the fall. We worked days and nights in a variety of
5 weather and conditions. A lot of the sturgeon work that
6 I participated in the past has been directly on the
7 river, utilizing boats and fishing gear to either sample
8 or collect sturgeon. Generally speaking, we would
9 work -- we work year-round with white sturgeon. We
10 conduct winter surveys with tribal fishing crews for
11 population assessments, as well as overall species
12 composition of what's out there in the river system
13 along with white sturgeon utilizing gillnets, set lines
14 and a variety of other methods and gears.

15 We've been out there when boats were freezing
16 up. We've also been out there when the wind's blowing
17 60 miles an hour and 100 degrees. So I've kind of seen
18 and done it all. I've worked on the Columbia from the
19 estuary all the way up to the Rock Island Reservoir,
20 which is near the town of Wenatchee, Washington, and up
21 the Snake River to the confluence of the Snake and the
22 Salmon River in Idaho.

23 **Q. Blaine, from your personal experience, what is**
24 **the Columbia River like when the wind is blowing**
25 **60 miles an hour?**

LOTHROP / PARKER

1 A. It's like the North Sea. It's blowing. The
2 waves are really being ripped apart by the wind. It's
3 very, very difficult to even keep your footing in the
4 boat. We try not to be out there, but every so often,
5 we were out there and the wind comes up. We know it's
6 coming, but we have to get our gear out of the water.
7 It can be bitterly cold in the wintertime; ice formation
8 on equipment as well as boats. Again, not something we
9 advocate or -- we normally try not to be out there, but
10 sometimes we have to get out there to remove equipment.

11 And it can be very, very hot and still, at which
12 time you can see all sorts of different conditions in
13 the river. You can see clear down to the bottom, in
14 some places, and you can see weed mats and fish
15 swimming. It's always -- it's always a new scene every
16 time you go out on the river.

17 **Q. Thank you. I would like to ask you some**
18 **questions about invasive species and ballast water**
19 **discharges. Why would you generally be concerned about**
20 **invasive species in the Columbia River ecosystem?**

21 A. The Columbia River is currently an ecosystem in
22 peril. Mainstem -- hydro development has taken a once
23 free flowing system and created a series of lakes and
24 reservoirs. Many of the hydrologic features that
25 created the Columbia and also the species that were

LOTHROP / PARKER

1 involved with it, no longer exist.

2 In addition, it's made it a habitat for invasive
3 species, anything from zooplankton to invertebrates and
4 even invertebrate fishes. Plants, other animals, such
5 as nutria, Spartina grass, millfoil in the water, all
6 these -- all these animals, plants and microorganisms
7 change and further reduce the overall vitality of the
8 Columbia River. We don't need any more.

9 **Q. So the testimony of Bayer, Gunderson and Roscoe**
10 **describe measures used to address organisms found in**
11 **ballast water. Can you summarize those types of**
12 **measures?**

13 A. The two types of measures either consist of
14 mechanical or chemical treatments in the ballast. The
15 ballast is water, of course, that is taken on -- if a
16 ship is going to come into port and pick up a load of
17 grain or other cargo, it needs that ballast to maintain
18 the equilibrium of the ship. So they pull that water
19 from the port of origin, and they can either treat that
20 water with chemicals or some sort of filtration or, more
21 commonly, they do what's called open water exchange or
22 ballast water exchange, generally done 50 miles
23 offshore, in which the tanks that contain ballast are
24 opened and water is exchanged with the open ocean for
25 the original port-of-origin ballast water, which may be

LOTHROP / PARKER

1 salt or it may be freshwater or it may be a combination
2 thereof. The goal of this is to flush out as many of
3 the microorganisms and/or other -- and other organisms
4 that are in the water of the water of origin. By
5 transferring that water out, you change the salinity and
6 other chemical factors of the water and most of the
7 organisms, if they're of a freshwater, brackish water
8 nature, most likely will die or be washed out to sea.

9 JUDGE NOBLE: Mr. Parker, you need to slow
10 down.

11 THE WITNESS: Sorry about that. It's that
12 Coke I had at lunch, I guess.

13 BY MR. LOTHROP:

14 Q. So, Blaine, is this -- are these methods
15 perfect?

16 A. They're pretty good, but they're not perfect.
17 There's numerous reports and information, samplings,
18 just that animals do survive this exchange and federal
19 regulations allow a minimum of 10 organisms per cubic
20 meter to survive, but at the same time having evidence
21 that it was actually exchanged.

22 Q. Blaine, you said "minimum." Did you mean
23 maximum?

24 A. Minimum of 10 organisms per cubic meter.

25 Q. A residual of 10 --

LOTHROP / PARKER

1 A. Residual per cubic meter. So large ships will
2 have many thousands of cubic meters of water.

3 **Q. Shifting topics a little bit -- well, let me ask**
4 **one more question about invasive species. Are there**
5 **other river and estuary systems on the West Coast that**
6 **have had significant problems with invasive species?**

7 A. Yes. The one that comes to mind is the
8 San Francisco Bay system with the San Joaquin and
9 Sacramento Rivers that flow into the bay. At last
10 count, there was over 280 non-native organisms that are
11 currently found in the San Francisco Bay and surrounding
12 waters.

13 **Q. Okay. Shifting subject matter a little bit.**
14 **Mr. Challenger offered examples in his written and oral**
15 **testimony about salmonid fish species and potential**
16 **effects. Your testimony addressed non-salmonid species.**
17 **Could you go into your concerns for some of the**
18 **non-salmonid species that might be affected by an**
19 **accidental oil release?**

20 A. Well, three groups are -- three species of fish
21 come to mind. That would be Pacific lamprey, white
22 sturgeons, as well as eulachon, or often called smelt.
23 Those three species, they're all either resident or
24 anadromous fish and all have varying degrees of
25 residents in the river, but all would be very subject to

LOTHROP / PARKER

1 impacts from oil.

2 **Q. So let's take eulachon or smelt as a first**
3 **example. Can you describe the life history of smelt for**
4 **the council and address what life stages might be**
5 **particularly sensitive to an oil spill?**

6 A. Eulachon are a fairly small marine fish. They
7 are anadromous, meaning they spawn in freshwater. But
8 they spend about 95 to 98 percent of their time in the
9 ocean. But when they do come into freshwater, it's to
10 spawn. The juveniles -- the eggs are laid over gravels
11 in large rivers, such as the Cowlitz River. They're
12 fertilized and they hatch in a fairly rapid manner,
13 within a few days, depending on the temperature, and
14 then they drift to sea. Were some accident to occur
15 during the smelt -- the smelts' spawning period of time,
16 it would impact both adults that had returned of several
17 year classes, as well as the outgoing juveniles that
18 were resulting from that particular spawning event of
19 that year.

20 **Q. Thank you. I think this has been discussed**
21 **previously, but are eulachon listed under the Endangered**
22 **Species Act?**

23 A. They are.

24 **Q. You mentioned lamprey. Can you please describe**
25 **the life cycle of lamprey and the status of lamprey in**

LOTHROP / PARKER

1 the basin?

2 A. Pacific lamprey are the second most longest
3 species of fish in the Columbia River. They'll live up
4 to approximately 11 years, the bulk of which is spent in
5 freshwater. Their life cycle is actually very similar
6 to salmon. Adult returning lamprey enter the river
7 systems in the spring. They will move to their spawning
8 areas and overwinter and spawn the following spring,
9 digging redds that are smaller and more cylindrical than
10 you would see from the salmon. Both the adults, soon
11 after spawning, die. The juveniles, upon hatching, tend
12 to drift down into quiet areas that have very fine silts
13 and sediments and that's where they spend the next five
14 to seven years of their life, depending upon the
15 location, actually living in the sediments. They filter
16 feed on drifting organic material that comes downstream,
17 using a fleshy fold at their head. They're blind. They
18 look more like a leech at that age, at that stage of
19 life. Upon -- and as they tend to grow larger in size,
20 every year as they move downstream and into a larger
21 more dynamic habitat as cobble and larger substrate
22 size, they outlie great in the late winter, early
23 spring. They go through a process where they've
24 actually -- they metamorphose into an organism that now
25 looks like a juvenile lamprey, going from what looks

LOTHROP / PARKER

1 like a leech or a worm into an animal that actually has
2 gill pores and eyes and a functional disk. They become
3 very silvery, like a juvenile salmon, and they tend to
4 follow the river current downstream like juvenile
5 salmon. They don't actively swim downstream. They just
6 kind of drift downstream. They tend to drift deeper in
7 the water column and make their way out to the ocean,
8 where they will rear for several years, parasitizing
9 fish and other organisms in the ocean, before then
10 returning to spawn and dying, completing the life cycle.

11 **Q. So a few more questions about lamprey. What**
12 **life stages of lamprey might be particularly sensitive**
13 **to an oil spill?**

14 A. All freshwater life stages would be very
15 sensitive to an oil spill. The juveniles, of course, as
16 I just mentioned, are actually living in substrate.
17 They could be subject to complete coverage of, you know,
18 oil that has, you know, settled in or is aggregated and
19 covered their rearing areas. They could physically
20 ingest the oil in their feeding processes. Adult
21 lamprey, either in their migration stage or their
22 overwintering stage, they tend to spend a lot of time in
23 nooks and crannies in the rocks, resting and waiting for
24 their spawning in the spring, would also be subject to
25 impaction and -- just through basic respiration of water

LOTHROP / PARKER

1 if the oil was to be moving downstream to wherever the
2 animals were living. They don't tend to actively move
3 out of those areas. They tend to settle in those areas
4 for long periods. So contact -- direct contact would be
5 one of the concerns.

6 **Q. So in his testimony, Mr. Challenger mentioned**
7 **that he worked on remediating the effects of a herbicide**
8 **spill on Fifteenmile Creek. Are you familiar with where**
9 **Fifteenmile Creek is?**

10 A. Yes, I am.

11 **Q. And where is that?**

12 A. Just on the eastern edge of the Dalles. So you
13 have the Dalles in Portland.

14 **Q. And it's a tributary flowing --**

15 A. Flowing into the Columbia River.

16 JUDGE NOBLE: Mr. Parker, could you talk a
17 little slower, please, for the court reporter.

18 THE WITNESS: Thank you.

19 JUDGE NOBLE: And he would also like you to
20 speak a bit louder.

21 THE WITNESS: Okay.

22 BY MR. LOTHROP:

23 **Q. Are lamprey present in Fifteenmile Creek?**

24 A. Yes, they are.

25 **Q. Can you describe the remediation that was done**

LOTHROP / PARKER

1 in Fifteenmile Creek and whether that was intended to
2 address lamprey?

3 A. The remediation that was done was done primarily
4 to address issues for steelhead passage and spawning.
5 The remediation specifically consists of removing an old
6 weir that was downstream of the existing fish ladder
7 which is still there today. The weir had fallen in
8 disuse; it was more of a blockage. And it was removed
9 as part of the remediation process for the impacts of
10 the pesticide spill that occurred in the creek. And at
11 that point, it was completed in the fall of the same
12 year, which is fall 2000, and -- but no work was
13 specifically done for Pacific lamprey. It was only for
14 salmons.

15 **Q. Was the chemical found in lamprey in subsequent**
16 **years?**

17 A. Yes, it was. A recent survey of a number of
18 tributaries in the Columbia Basin for juvenile lamprey
19 and pesticides that may or may not be occurring in those
20 habitats was conducted, and they did do sampling in the
21 lower area of Fifteenmile Creek and found the same
22 chemical, oxyfluorfen, I believe is what it's called,
23 and that was present 12, 13 years after the area had
24 been remediated and cleaned, and it was found both in
25 the substrates and the sediments as well as the juvenile

LOTHROP / PARKER

1 lamprey that were found in that same area.

2 **Q. Thank you. Let's talk a little bit about the**
3 **life history of sturgeon in the Columbia River. Can you**
4 **describe the sturgeon life history, please.**

5 A. Sturgeon are the largest and oldest, longest
6 living fish in the Columbia River system. They're
7 endemic to the Pacific Coast of the US and Canada.
8 Sturgeon may live to be in excess of 100 years of age
9 and grow over 13 or 14 feet in length and weigh over
10 1,000 pounds. They are the iconic fish of the
11 Northwest, from my perspective, because I work with
12 them, I guess. But they're an amazing animal. But
13 they're an animal that has a very long timespan.
14 Juvenile sturgeon -- or in order to become an -- adult
15 fish tend to -- or mature males at about age 15 to 20
16 and females tend not to spawn until they're at least 25
17 or 30 years of age before their first spawn. A female
18 may only spawn on an average of every two to five years
19 for their life. Spawning occurs generally in large,
20 high-velocity turbulent areas. Historically, that
21 would've been downstream of like Celilo Falls or other
22 near gorge areas in the Columbia River and Snake River
23 systems. Today it often occurs primarily downstream of
24 mainstem projects in the spring.

25 They spawn in water temperatures that range from

LOTHROP / PARKER

1 the lows -- I'm -- in centigrade, 12 to up to maybe 17
2 to 18 degrees C, which is mid 50s to the low 60s
3 Fahrenheit. Spawning is a -- somewhat of a communal
4 affair. Females will be followed around by a number of
5 males and as she releases her eggs, those eggs are
6 fertilized by the males. The eggs, upon contacting
7 freshwater, become very, very sticky and adhesive. And
8 as they drift down to the milt, they're fertilized.
9 These fertile sticky eggs will then drift down to the
10 bottom of the river and stick to logs, rocks, whatever
11 they contact. They incubate for a week to ten days,
12 depending on water temperatures. The juvenile sturgeon
13 then hatch, not looking like a sturgeon, but looking
14 like little tadpoles. And similar to lamprey, they go
15 through a metamorphosis over the next six weeks where
16 they will gain -- grow fins, their mouth will develop
17 and they will begin feeding. At about six weeks of age,
18 they're about an inch long and look like a miniature
19 adult sturgeon. And they will spend the bulk of their
20 life rearing right on the river's bed, feeding on a
21 variety of organisms of which changes as they grow
22 larger. They'll start on very small silk plankton and
23 other critters and as they get large, they'll transfer
24 over to small clams, crayfish, other fishes. And as
25 they become adults, they will feed on large invertebrate

LOTHROP / PARKER

1 fish, clams and a variety of other organisms. The ones
2 in the estuary will feed on shrimp and clams. They
3 pretty much can eat whatever they want. But they don't
4 have any teeth. They just inhale it. But, again,
5 they're feeding on the bottom, and a lot of times you'll
6 catch sturgeon and their mouth area is colored the color
7 of the sediment from them rubbing around in the
8 sediment, feeding on clams or shrimp or whatever other
9 organism they might be feeding on in the location.

10 **Q. So, Blaine, remind you to slow down a little**
11 **bit.**

12 **And can you describe some of the concerns you**
13 **might have about how an oil spill would affect sturgeon**
14 **in its life history?**

15 **JUDGE NOBLE: Mr. Parker, can you do it**
16 **slowly?**

17 **THE WITNESS: We'll try.**

18 A. Juvenile sturgeon or incubating eggs would be
19 impacted from direct contact with oil, potentially being
20 either suffocated or chemically impacted from the oil.
21 Eggs are very, very delicate. I have spawned sturgeon
22 and there's very -- you have to go through a number of
23 protocols to make sure the eggs remain fertile and
24 viable even in a sterile hatchery situation.

25 Eggs in the Columbia are often subject to

LOTHROP / PARKER

1 temperature changes and impaction debris in the water.
2 So eggs would be a concern for direct contact, as well
3 as even aggregations of oil and materials.

4 Juvenile sturgeon are very benthic-orientated.
5 As I mentioned earlier, they're eating stuff off the
6 bottom. But they're not particularly fussy about what
7 they're eating. So they could easily ingest oil and,
8 again, from a culture situation, they're a fairly
9 delicate animal. You can -- they will look like large
10 sharks when they're big. They're still very delicate
11 and very easily lost.

12 At a small size, they're -- you know, the
13 chemicals in oil would be a very difficult thing for
14 their metabolism and their digestive systems to
15 assimilate, although I've never fed oil to them. They
16 didn't evolve with oil.

17 The larger fish foraging in the benthos, eating
18 clams, other organisms that -- living in there would
19 also be ingesting oil and having direct contact with
20 those as well. They also feed in the water column, so
21 they will feed on fishes, particularly near dams. So
22 again, contact and ingestion would be my concerns.

23 BY MR. LOTHROP:

24 **Q. Would sturgeon -- if oil persisted in the**
25 **environment, would sturgeon be persistently exposed to**

LOTHROP / PARKER

1 that oil?

2 A. Potentially they would be. Sturgeon do move
3 around. They have home areas. They tend to spend large
4 amounts of time in favored habitats. And if oil was in
5 that area, they most likely would be -- they probably
6 wouldn't leave that area unless it was really, really
7 bad. But if there was settled amounts of it in the
8 area, they would probably stay there.

9 JUDGE NOBLE: Mr. Lothrop, we're going to
10 try something else this afternoon. We're going to try
11 two short breaks.

12 MR. LOTHROP: Okay.

13 JUDGE NOBLE: And so I didn't want to
14 interrupt your testimony, but I think we need to go off
15 the record for ten minutes. We will come back at 2:15.

16 MR. LOTHROP: Okay.

17 JUDGE NOBLE: Thank you.

18 (Recess taken from 2:06 p.m. to 2:19 p.m.)

19 JUDGE NOBLE: We're ready to go back on the
20 record.

21 Mr. Lothrop?

22 MR. LOTHROP: Thank you.

23 BY MR. LOTHROP:

24 Q. Blaine, also if you would speak with the
25 microphone closer, I think that might be helpful to the

LOTHROP / PARKER

1 reporter.

2 A. I'll try.

3 Q. So, Blaine, Dr. Elliott Taylor, at paragraphs 46
4 to 49 of his testimony, talks about oil particulate
5 aggregates. Do you recall what types of particulates
6 form these aggregates when oil is present in the water?

7 A. I'll just go with my memory as far as trying to
8 find it.

9 Q. That would be fine.

10 A. Yeah. Both organic and inorganic particulates,
11 meaning small pieces of material, would be the basis for
12 forming those oil particulate aggregates -- or
13 particles, excuse me. So bits of sediment, sticks,
14 rocks, twigs, bits of organic plant material, all would
15 help to form those particles.

16 Q. So you were here for the testimony of Kathryn
17 Brigham?

18 A. Yes, I was.

19 Q. And she talked about aquatic vegetation. Are
20 you familiar with aquatic vegetation in the Columbia
21 River?

22 A. Yes, I am very familiar with aquatic vegetation
23 in the Columbia River.

24 Q. Can you describe some of your experiences with
25 regards to aquatic vegetation?

LOTHROP / PARKER

1 A. During our sturgeon sampling when we set out
2 gillnets for juvenile sturgeon -- it's a process we call
3 indexing where we go to the same site every year -- the
4 nets have fairly small mesh, probably about -- maybe two
5 inches, about half what you'd see in a chain link fence.
6 And many times we will start to pull the net after it's
7 been sitting in the river overnight and it's like it's
8 locked to the bottom of the river because there's so
9 much material that has been swept into that net.

10 As we pull it on the boat, the float line that
11 has the corks, the bottom line which is weighted, or
12 called the lead line, they tend to come together so they
13 bag all that material. And as we bring that on board
14 the boat, we're -- similar to what Kathryn Brigham was
15 talking about, they were knocking the material out. We
16 do the best we can, but we don't want to lose the fish
17 and other organisms that we were trying to catch in the
18 first place. So we bring the whole thing in the boat.
19 And we're working on boats that are close to 30 feet in
20 length, six or seven feet across, have sides that are
21 several feet high, and we will fill the front half of
22 that boat with aquatic material time and time again.
23 Yeah, it's phenomenal how much material is out in that
24 river.

25 **Q. Does it vary seasonally? Could you just**

LOTHROP / PARKER

1 describe the seasonal variation, if it does.

2 A. Yeah, it varies seasonally. Most of the plants
3 tend to grow in the spring and summer and die back or
4 senescence in the fall and through the winter to the
5 root material that is in the sediments. In some places
6 the plant material, particularly if it's millfoil, which
7 also is an invasive species by the way, can reach 20 or
8 30 feet in length, particularly if the water is clear,
9 and large concentrations will form away from the main
10 channel where it's a little -- where the river is slower
11 and it's a little bit warmer. But then as that stuff
12 dies and breaks loose in the fall, it tends to kind of,
13 you know, drift downstream or sink and almost roll
14 underwater, you know, kind of like waves, I guess,
15 because that's what it looks like when it gets into the
16 nets. You can get boats' motors wrapped up in it. It's
17 a big problem.

18 **Q. So based on your research -- or based on -- I'm**
19 **sorry -- Dr. Taylor's testimony and your own research,**
20 **do you think that oil could get bound up with this**
21 **aquatic vegetation?**

22 A. Yeah. I don't see how it would avoid it,
23 because there's so much material out there. Any bend in
24 the river or a wide spot where there isn't a lot of
25 current, there's a bed of weeds, aquatic macrophytes,

LOTHROP / PARKER

1 and the oil, depending on where it drifted, would drift
2 either through or right over the top of this material
3 and pretty much just kind of wad up right there, I would
4 think. It's almost like an underwater fence.

5 **Q. So you said this -- the aquatic vegetation dies.**
6 **What happens when it dies? Does it -- where does it go?**

7 A. It generally just sinks to the river bottom. It
8 doesn't -- it decays eventually, but initially it just
9 sinks to the river bottom versus floating on top.

10 **Q. So if it was contaminated with oil, would you**
11 **expect that oil would also go to the river bottom?**

12 A. Yeah, if the oil and the weeds were together, I
13 would expect they would go to the river bottom. I'm not
14 totally familiar with how that would look, but you don't
15 see weeds floating on the top in the wintertime.

16 **Q. And I would like to talk a little bit about the**
17 **ecosystem of the bottom of the river. Earlier you used**
18 **the term "benthos." Can you describe in a little more**
19 **detail for the council what you mean by benthos?**

20 A. It's a term we learned in limnology. It's the
21 benthic, or the bottom of the river. Things that are
22 benthically oriented live at the bottom of the river.
23 And as such -- it's just a term we use on a regular
24 basis to describe things either that live or are in
25 contact with the substrate of the bottom of the river.

LOTHROP / PARKER

1 **Q. Can you describe the ecology -- what's happening**
2 **in the ecosystem in the benthos?**

3 A. It's a very dynamic area, depending in large
4 part on what type of substrate is there, "substrate"
5 being is it sand? Is it clay? Is it large boulders?
6 That somewhat -- that and the current dictates what sort
7 of life is there. The current really will dictate the
8 bottom.

9 If you have strong currents through an area, it
10 will scour out the fine stuff, the sand, the silt, the
11 clays, to where there's just large rock or bedrock or
12 cobble. These are all specific terms that are used by
13 stream researchers. They refer to different sizes of
14 particles.

15 So if you were to look in an area of the
16 Columbia, for example, the Hanford Reach, which is
17 upstream of McNary Dam, it's the last free-flowing
18 section of the Columbia River. That's where all the --
19 Stuart Ellis mentioned the fall Chinook are spawning up
20 there. It's primarily cobble, which is rock about the
21 size of, say, a grapefruit up to a basketball. The
22 animals and the organisms that live there are very
23 different than organisms that you would find in, say,
24 Bonneville Reservoir, in areas where it's fairly silty
25 or clay-like.

LOTHROP / PARKER

1 **Q. And what kind of organisms do you think you**
2 **would fall in the benthos, and would they be little or**
3 **big or both?**

4 A. Again, it goes back to particle size. If you
5 have fine material, sand, silt, you could have juvenile
6 lamprey living in it; you would have a variety of what
7 are called macroinvertebrates. For anybody who's a fly
8 fisherman, that's your nymphs. It's small worms, maybe
9 little clams.

10 As you transform into systems that have more
11 gravel and rock, you would get crayfish. You will still
12 have some clams, but you'll have different kinds of
13 macroinvertebrates, all of which are the basis of the
14 food chain for the rest of the organ -- the larger
15 organisms in the river. Sturgeon, for example, will
16 feed in a variety of areas. They'll feed on mudflats
17 and they'll be eating clams in those areas. They will
18 move into areas where there's more cobble and rock and
19 they'll root around in there and get crayfish.

20 A favorite place for them to feed is near the
21 grain elevators because the spilled grain piles up on
22 the river bottom which then attracts fish and crayfish,
23 and the sturgeon will move in there and that's kind of a
24 unique microhabitat, but the fish and the critters are
25 somewhat adaptable to that. So it's a very diverse

LOTHROP / PARKER

1 community down there.

2 **Q. If oil were to contaminate the benthos, can you**
3 **say what effects might occur to the ecosystem, the**
4 **benthic ecosystem?**

5 A. Well, assuming that oil is not a natural part of
6 that ecosystem to begin with, you would probably expect
7 to see some loss of life either through suffocation --
8 they can't -- if they're covered in oil, they can't
9 breathe. It would also potentially cover food.
10 Organisms, I'd say larger fish like sturgeon or other
11 fishes that would eat that, they might continue to
12 forage in those areas because they're adapted to feed in
13 those areas. But oil by itself isn't part of that
14 ecosystem right now. So when you introduce something
15 that's not part of that area, the animals either -- if
16 they can leave, they may leave; if not, their --
17 particularly those that live in the sediment are kind of
18 stuck where they're at. They're not going to get up and
19 leave.

20 **Q. So a couple more questions. Can you**
21 **characterize, broadly speaking, the amount -- the time**
22 **that sturgeon and lamprey have been on this planet?**

23 A. Longer than us. Seriously, they -- in the
24 fossil records, both lamprey and sturgeon go back
25 hundreds of millions of years. They're both very

LOTHROP / PARKER

1 primitive fish. They're both cartilaginous fish,
2 meaning, they're primarily cartilage. They're not a
3 bony fish like, say, a salmon or a bass. The presence
4 on sturgeon of the bony scoots or plates links them
5 evolutionarily to the very primitive fishes. Well
6 before T-Rex walked this earth, there were sturgeon and
7 lamprey in their present form in the waters of the
8 world. That's part of the -- for me, the satisfaction
9 of working with an animal like a white sturgeon.
10 They're very unique and they're very dynamic.

11 **Q. And then, finally, Stuart Ellis talked a little**
12 **bit about the status of lamprey in the basin. Can you**
13 **give us your sense of the status of lamprey?**

14 A. Yeah. Presently -- I'll go back, historically,
15 lamprey -- Pacific lamprey and -- there's other lamprey
16 species as well, but when I talk today, it will be
17 specifically talking about Pacific lamprey -- were
18 incredibly numerous.

19 I read some recent material from an elder of one
20 of our tribes who talked about lamprey so thick in a
21 creek they looked like hair on a rock. So lamprey are
22 this long and about that big around. So imagine a large
23 boulder, maybe the size of this table, and it's
24 literally covered. And I've seen pictures of that, and
25 it's amazing. They were incredibly numerous, millions

LOTHROP / PARKER

1 upon millions.

2 Because they were not a sport fish, they were
3 never really counted. People would just -- you know,
4 for a non-tribal people, they were viewed as a trash
5 fish or potentially even a predator.

6 Sea lamprey in the Great Lakes that were
7 introduced there by the Saint Lawrence Seaway are an
8 exotic predator in that system and they feed on the
9 native fish in the Great Lakes.

10 Pacific lamprey evolved in kind with the fishes
11 of this system, of the Columbia and other coastal
12 rivers. So they do their feeding in the ocean. They
13 don't feed in the river. They simply come up and spawn
14 and reproduce and then they leave.

15 So moving towards present day, as the region was
16 developed, as hydroelectric dams were put into the
17 system, as drainages were diverted, as water was taken
18 away from -- or diverted out into fields, lamprey
19 numbers began to decline. By the late -- mid to late
20 '90s, their numbers had dropped substantially from what
21 they were 20 or 30 years ago. There was initial -- at
22 least some counting down back in the '60s, and then it
23 was curtailed because it was deemed to be too difficult.
24 But there is a precipitous drop in there, and we feel
25 that was likely due to the Snake River dams that were

LOTHROP / PARKER

1 put in place, Ice Harbor, Lower Monumental, Little
2 Goose, and also lower granite dams.

3 A lot of the lamprey habitat was up actually in
4 Idaho. The clear water system, Dworshak Reservoir was
5 created behind Dworshak Dam. That's a 700-foot tall
6 barrier to lamprey. There's hundreds and hundreds of
7 perfectly good miles of lamprey habitat behind that
8 project that were cut off from returning adults. So
9 throughout the system, lamprey are present but in very,
10 very reduced numbers.

11 It's been a focal point of our commission and
12 our member tribes to restore this traditionally
13 important fish to as much of the habitat that it can
14 still survive in to this day. So that's also been a big
15 effort on the part of our commission to bring those
16 animals back. But probably 10 percent of what used to
17 be here is what's here today. They've been petitioned
18 twice for listing. Both times they've been turned down,
19 primarily because there wasn't enough data collected on
20 the distribution and past -- what's the word we're
21 looking for? -- past abundances. A lot of the
22 information is historical but not collected in a format
23 that is more of a scientific-type format; hairs on a
24 rock is what it is. It paints a pretty good picture,
25 but it doesn't give you a count of them.

JOHNSON / PARKER

1 **Q. So, Blaine, when you say "petitioned to be**
2 **listed," can you explain a little bit more about what --**
3 **listed as what?**

4 A. Listed under the Endangered Species Act and the
5 annals were actually -- the Fish and Wildlife Service
6 was the folks -- was the agency that had received the
7 petition. Because they spend most of their life in
8 freshwater, they're technically a ward of the Fish and
9 Wildlife Service versus like salmon, which are managed
10 and overseen by the National Marine Fisheries Service,
11 marine fisheries versus freshwater fish. But both times
12 that petition for listing under the Endangered Species
13 Act has been denied.

14 MR. LOTHROP: I think that's all the
15 questions I have at this time.

16 JUDGE NOBLE: Cross-examination?

17 CROSS-EXAMINATION

18 BY MR. JOHNSON:

19 **Q. Mr. Parker, I'm Dale Johnson. I'm one of the**
20 **counsel for the applicant in this case.**

21 A. Good afternoon.

22 **Q. Good afternoon. First of all, are you familiar**
23 **with the Endangered Species Act consultation with the**
24 **National Marine Fisheries Service and National Fish and**
25 **Wildlife Service related to this project?**

JOHNSON / PARKER

1 A. I haven't seen any information that any
2 consultation has been done at this point.

3 Q. Okay. Turning back to where you started, you
4 corrected your testimony on page 7 of your prefiled
5 testimony where you had previously said that some
6 estimates or that ballast water releases would be
7 approximately 50 percent of the entire flow of the
8 Columbia, or 6 million cubic meters -- says metrics of
9 water. And I believe you changed that to read, will be
10 approximately 50 percent of the total ballast water
11 downriver of the Bonneville Dam; is that right? I was
12 trying to write.

13 A. Yeah. What I had originally written was that if
14 the project was -- went forward, that the shipping that
15 would come in to receive the oil, the volume of that
16 ballast water would be approximately 50 percent of the
17 entire volume of all shipping that currently enters the
18 Columbia River at this time, which is approximately
19 12 million gallons -- 12 -- excuse me, 12 million cubic
20 meters. And it is based upon the stuff that I read in
21 the -- the material I read in the DIS, the shipping that
22 would be entering the system would contribute
23 approximately 6 million cubic meters of ballast water
24 into the Columbia River.

25 Q. Okay. And what's your understanding of the

JOHNSON / PARKER

1 vessel count that that would be based on?

2 A. If I recall correctly, the vessel count was
3 approximately one ship per day, a large one.

4 Q. Okay. Do you know how many vessels -- piloted
5 vessels transited the Columbia River last year?

6 A. No, I do not.

7 Q. Okay. If I told you it was somewhere around
8 1400, would that surprise you?

9 A. It wouldn't surprise me. There's a lot of ships
10 out there.

11 Q. And what size vessels are you assuming when you
12 reached this conclusion about the volume of ballast
13 water?

14 A. It would be the standard size tankers that would
15 be brought in to -- the number was written down some
16 place in one of the materials. I can't recall exactly
17 where it was. But at the time I -- when I wrote my
18 materials, that was something -- I didn't fabricate it.
19 I didn't estimate it. It was written down some place.

20 Q. Okay. And how about were you -- are you taking
21 into consideration the potential additional vessel
22 traffic in the river?

23 A. No, strictly just new shipping just for the
24 project.

25 Q. Okay. All right. You also testified early in

JOHNSON / PARKER

1 your testimony about wind conditions in the river. Were
2 you referring to the conditions in the Gorge or
3 downriver?

4 A. Every place I've worked in the river it's blown.

5 **Q. Okay. And you made an analogy to the North Sea.**
6 **Presumably that wasn't -- you didn't mean that**
7 **literally, did you?**

8 A. Video footage I've seen of the North Sea, yeah.

9 **Q. Video. So you --**

10 A. I haven't been on the North Sea, no. Wouldn't
11 want to be.

12 **Q. Fair enough.**

13 MR. JOHNSON: Nothing further.

14 JUDGE NOBLE: Redirect, Mr. Lothrop?

15 MR. LOTHROP: Nothing at this time.

16 JUDGE NOBLE: Council questions?

17 Mr. Stone?

18 MR. STONE: Good afternoon, Mr. Parker.

19 THE WITNESS: Good afternoon.

20 MR. STONE: Are you aware of any documented
21 cases whereby ballast water has created an infestation
22 of species in the Columbia River Basin?

23 THE WITNESS: There is a number of Asianic
24 copepods that have been introduced by ballast water.

25 MR. STONE: I'm not sure what that means.

PARKER

1 MR. LOTHROP: And you might need to spell it
2 for the court reporter.

3 THE WITNESS: Copepods are a small
4 zooplankton critter, "critter" for, you know, lack of a
5 better -- they're a small zooplankton. A copepod is
6 actually a class of organism. It's c-o-p-e-p-o-d-s, I
7 believe. They have lived their entire life in the water
8 column. They feed on other organisms. And these
9 organisms, having been brought in by a ballast water,
10 likely from San Francisco Bay where they're also very
11 common, this inter-shipping back and forth between, say,
12 San Francisco and Seattle and Portland and British
13 Columbia tends to move things back and forth. They have
14 actually displaced other native copepods, based upon the
15 monitoring work that's been done in the estuary. It's
16 just one example.

17 There's a myriad of organisms that have been
18 brought over via ballast water because there would be no
19 other way for them to have reached the other shore, say
20 from Korea or Africa or some other place. Classic
21 example are Chinese mitten crabs. Native to Asia,
22 China, very popular food source, but they began to show
23 up in San Francisco Bay in the late '80s, early '90s and
24 in a fairly significant population explosion. Actually
25 was clogging up parts of the delta water system that

PARKER

1 feeds both fields, as well as the cities out of the
2 delta. They're catadromous, meaning that they rear --
3 they spawn in saltwater, but they rear in freshwater and
4 they live off detritus, the small organisms, plant
5 material in rivers and large estuary areas. These
6 animals -- there was a lot of concern they were going to
7 start eating salmon eggs, because they were moving up
8 into the San Joaquin and Sacramento Rivers. Since that
9 time their population has declined a little bit, but
10 they're still very present up there.

11 MR. STONE: So if I understand your
12 testimony, if a ship takes on ballast water in
13 San Francisco Bay and transits to the Columbia River,
14 they are not required to do a ballast water exchange in
15 the open ocean before entering the river?

16 THE WITNESS: They are required.

17 MR. STONE: They are required.

18 THE WITNESS: Yes.

19 MR. STONE: So you're saying that any
20 possible transfer of invasive species from San Francisco
21 Bay to Columbia River is just a remnant of a residual --
22 this ton of organisms per cubic meter of water limit
23 that you mentioned earlier in your testimony?

24 THE WITNESS: Not everybody does their
25 ballast water exchange. People have been pretty good

PARKER

1 about it lately, as both Washington and Oregon have
2 increased their ballast water monitoring programs. But
3 not everybody does. Even when they do a ballast water
4 exchange, depending on the complexity of the internal
5 structure of the ship, it doesn't mean that saltwater
6 gets into all those areas. So there's opportunities for
7 organisms to persist and be transported and released.

8 MR. STONE: Thank you.

9 JUDGE NOBLE: Other questions? To my left?

10 All right.

11 Any questions based upon Mr. Stone's
12 question?

13 MR. LOTHROP: None.

14 JUDGE NOBLE: Mr. Parker, thank you for your
15 testimony. You are excused as a witness.

16 THE WITNESS: Thank you.

17 JUDGE NOBLE: Well, when I looked at the
18 witness list -- we can go off the record.

19 (Recess taken from 2:45 p.m. to 2:46 p.m.)

20 JUDGE NOBLE: Back on the record.

21 MS. CARTER: Yes, Your Honor. As of
22 tomorrow -- I apologize for not filling up today. I
23 thought we would go longer. Tomorrow we're going to
24 have Mr. Wilbur Slockish. He's a fact witness, a tribal
25 fisher and he has experience with spills, and he will be

1 rebutting Mr. Challenger.

2 Next we'll have Ms. Elizabeth Sanchey,
3 S-a-n-c-h-e-y. She's also a fact witness. And she will
4 be discussing Mosier and the tribal response to Mosier.

5 Next we'll have Randy Settler, who is also a
6 fact witness and he's a tribal fisher and will also be
7 discussing Mosier. Those three do not have prefiled
8 testimony. They're all fact witnesses.

9 Fourth we will have Mr. Roger Dick. He has
10 prefiled testimony. He has tribal fisher experience and
11 also rail safety, and he will be rebutting the testimony
12 of Mr. Challenger, Mr. Schatzki and Mr. Carrico.

13 Finally, we will have Mr. -- excuse me,
14 Dr. Zachary Penney. He has prefiled testimony. He will
15 be speaking about the oil spill response on salmonids,
16 and he will be rebutting the testimony of
17 Mr. Challenger.

18 JUDGE NOBLE: Is it your belief that
19 tomorrow will be a full day, or do you think that we
20 should ask for additional witnesses to be on deck? I
21 know there's a concern about having enough time for the
22 proponents to complete their witness list.

23 MS. CARTER: So we can have Dr. Stanley
24 Rice, and he has prefiled testimony and he'll be
25 speaking to environmental aquatic impacts from -- oil

1 spill impacts to aquatic resources. Sorry.

2 JUDGE NOBLE: Thank you. I appreciate you
3 making him available. Thank you.

4 Is there anything we need to do on or off
5 the record before we adjourn for today?

6 MR. JOHNSON: No, Your Honor.

7 JUDGE NOBLE: In that case, we are adjourned
8 until tomorrow morning, Friday, the 22nd of January
9 [sic]. Thank you all. July.

10 (Hearing Adjourned at 2:49 p.m.)

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