

POLLUTION CONTROL HEARINGS BOARD  
STATE OF WASHINGTON

WASHINGTON STATE DAIRY FEDERATION, )  
the WASHINGTON FARM BUREAU, PUGET )  
SOUNDKEEPER ALLIANCE, COMMUNITY )  
ASSOCIATION FOR RESTORATION OF THE )  
ENVIRONMENT (CARE), FRIENDS OF ) PCHB No. 17-016(c)  
TOPPENISH CREEK, SIERRA CLUB, )  
WATERKEEPER ALLIANCE, CENTER FOR )  
FOOD SAFETY, and RESOURCES FOR )  
SUSTAINABLE COMMUNITIES, )  
)  
Appellants, )  
)  
vs. )  
)  
STATE OF WASHINGTON, DEPARTMENT OF )  
ECOLOGY, )  
)  
Respondent. )

HEARING  
VOLUME I  
May 21, 2018  
Olympia, Washington  
Pages 1 through 199

Taken Before:

Andrea L. Clevenger, RPR, CCR #3041  
Registered Professional Reporter  
of  
Capitol Pacific Reporting, Inc.  
2401 Bristol Court SW, Suite C-103, Olympia, WA 98502  
Tel (360) 352-2054 Fax (360) 705-6539 Toll Free (800)  
407-0148

Tacoma, WA  
(253) 564-8494

Seattle, WA  
(206) 622-9919

Aberdeen, WA  
(360) 532-7445

Chehalis, WA      Bremerton, WA  
(800) 407-0148      (800) 407-0148

www.capitolpacificreporting.com  
admin@capitolpacificreporting.com

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

APPEARANCES

For the Appellants:

Charles M. Tebbutt  
Dan Snyder  
Sarah Matsumoto  
Law Offices of Charles M. Tebbutt,  
PC  
941 Lawrence Street  
Eugene, Oregon 97401  
541.344.3505  
541.344.3516 Fax  
charlie@tebbuttlaw.com

For the Department of Ecology:

Phyllis J. Barney  
Assistant Attorney General  
2425 Bristol Court SW  
PO Box 40117  
Olympia, Washington 98504  
360.586.4616  
360.586.6760 Fax  
phyllisb@atg.wa.gov

For Washington State Dairy Federation and  
Washington Farm Bureau:

Elizabeth E. Howard  
Virginia Nicholson  
Schwabe Williamson  
1211 SW 5th Avenue  
Suite 1900  
Portland, Oregon 97204  
503.796.2093  
ehoward@schwabe.com

Board Members: Heather C. Francks  
Joan Marchioro  
Kay M. Brown  
Neil L. Wise

1	EXAMINATION INDEX		
2	EXAMINATION OF:		PAGE NO.
3	Jonathan Jennings		
4	Direct by Ms. Barney		45
5	Cross by Ms. Matsumoto		133

7	EXHIBIT INDEX		
8	EXHIBIT NO.	DESCRIPTION	PAGE NO.
9	Exhibit No. R-1	CAFO National Pollutant Discharge Elimination System and State Waste Discharge General Permit issued January 18, 2017.	48
10			
11			
12	Exhibit No. R-2	CAFO State Waste Discharge General Permit issued January 18, 2017.	48
13			
14	Exhibit No. R-3	Fact Sheet for the Draft CAFO NPDES and State Waste Discharge General Permit and CAFO State Waste Discharge General Permit (June 15, 2016) (excluding Appendix C, Response to Comments).	49
15			
16			
17			
18	Exhibit No. R-4	Manure and Groundwater Quality Literature Review, Ecology Publication No. 16-03-026 (June 2016).	87
19			
20			
21	Exhibit No. A-8	Conservation Organization Comments on Combined CAFO Permit, inclusive of appendices, dated 10/2/15.	135
22			
23	Exhibit No. R-10	NRCS Assessment Procedure for Existing Waste Storage Ponds (WSP) (Tech Note 23) NRCS Engineering #23, Spokane, WA (Jan. 2013).	115
24			
25			

1		EXHIBIT INDEX (Continuing)	
2	EXHIBIT NO.	DESCRIPTION	PAGE NO.
3	Exhibit No. A-11	Ex. 15 to Redding Deposition,	174
4		Preliminary Draft CAFO General	
5	Exhibit No. R-18	2006 CAFO National Pollutant	101
6		Discharge Elimination System	
7		and State Waste Discharge	
8	Exhibit No. A-19	General Permit issued June 21,	
9		2006.	
10	Exhibit No. 24-4	Ex. 23 to Redding Deposition,	159
11	Exhibit No. A-53	E-mail chain from Mak Kaufman	
12		to Jon Jennings, 1/22/15.	
13	Exhibit No. A-54	Jon Jennings' Resume.	46
14		Ex. 34 to Moore Deposition,	155
15		"Preliminary CAFO Permit	
16		presentation outline."	
17	Exhibit No. A-69	Ex. 35 to Moore Deposition,	198
18		E-mail chain and attachment	
19		from Mak Kaufman to Jon	
20		Jennings.	
21		August 29, 2016 Comments by	136
22		Environmental Appellants.	
23			
24			
25			

1 BE IT REMEMBERED that on Monday,  
2 May 21, 2018, at 1111 Israel Road SW, Olympia,  
3 Washington, at 9:16 a.m., before ANDREA L. CLEVINGER,  
4 CCR, RPR, the following proceedings were had, to wit:

5

6 <<<<<< >>>>>>

7

8 JUDGE FRANCKS: So let's just -- we're  
9 going to have to do obviously introductions all over  
10 again with the board members here, but let's handle the  
11 motion in limine and then also the -- whatever other  
12 issue Ecology has this morning.

13 So just for the record, I will say, I'm Heather  
14 Francks. I'm the administrative appeals judge, presiding  
15 in this matter today. And we are just doing prehearing  
16 motions with regard to the evidence.

17 Let's have the parties identify themselves just  
18 briefly so that we are clear who's who.

19 For Ecology?

20 MS. BARNEY: Phyllis Barney, assistant  
21 attorney general, representing Ecology.

22 MS. HOWARD: Elizabeth Howard. I'm  
23 here on behalf of the Washington State Dairy Federation  
24 and Washington Farm Bureau, and with me is my co-counsel,  
25 Virginia Nicholson.

1 JUDGE FRANCK: And for PSA.

2 MR. TEBBUTT: I'm Charlie Tebbutt,  
3 representing the seven environmental plaintiffs and the  
4 environmental appellants in this case.

5 And with me today is Sarah Matsumoto from my office;  
6 Dan Snyder, my office; Katelyn Kinn, from Puget  
7 Soundkeeper; and Andrea Rogers, all representing  
8 environmental appellants.

9 JUDGE FRANCK: Okay. All right.  
10 Let's talk about the motion in limine first.

11 Ms. Barney?

12 MS. BARNEY: Yes, Your Honor. Well,  
13 we received the documents proposed as what was described  
14 as demonstrative exhibits on Friday morning. I'm just  
15 concerned that, first of all, the late notice, but,  
16 second of all, the content of the -- of the PDFs, the  
17 PowerPoints, it appears to go beyond what is contained in  
18 Soundkeeper's expert report, brings up issues that were  
19 not discussed in the report and also appears to bring up  
20 new data. I think some of the data is there, and I  
21 believe I discussed that.

22 There are certain illustrations that the  
23 Soundkeeper's expert indicated they were going to update,  
24 and I don't object to those, but there seems to be --  
25 beyond that, there seems to be additional material there.

1           If this was intended as evidence, it should have  
2           been either in the expert report or in an exhibit.  
3           Demonstrative exhibits, of course, aren't evidence, don't  
4           come into evidence, but it seems like it's discussing a  
5           lot of material that potentially should have been in an  
6           evidentiary note as opposed to a demonstrative mode.

7           So that's the reason for our objection to the two  
8           PowerPoints.

9                                 JUDGE FRANCKS: Okay. And,  
10          Mr. Tebbutt, you said you were ready to respond.

11                                MR. TEBBUTT: Yes. All of the slides  
12          that Mr. Erickson has -- that plaintiffs or the  
13          environmental appellants have proposed are really just  
14          background documents for discussion and illustrative  
15          purposes.

16                 They are demonstrative. They are not intended to go  
17                 in as evidence of fact in any particular situation. They  
18                 are duplicative and redundant of information that is in  
19                 the reports. Most -- many of them are part of  
20                 Exhibit A-67, and they're there just for discussion  
21                 purposes.

22                 I don't believe that there is any data that is new  
23                 that is not included in Mr. Erickson's report, either in  
24                 his direct report or in the Cow Palace report, which is  
25                 attached as an exhibit to Mr. Erickson's report. If

1           there are some, we're fine excluding those, but I don't  
2           believe that's the case.

3           The rest of it is just general background. It's  
4           just general discussions and pictures that will help this  
5           board understand the fairly complicated hydrogeology  
6           issues that are at play here and how nitrates and other  
7           contaminants move in the environment.

8           And they're just illustrative. They are not  
9           intended as evidence and should be used.

10                         JUDGE FRANCKS: How many slides are we  
11           talking about?

12                         MR. TEBBUTT: There are approximately  
13           60 total. Two different slides -- two different slide  
14           shows.

15                         JUDGE FRANCKS: Okay. I am going to  
16           take this under advisement, and I'm going to tell you my  
17           response to all of that after lunch.

18                         MR. TEBBUTT: I would also suggest  
19           that it would be difficult to rule on this in a vacuum,  
20           and that we present the slides as they are and they can  
21           be objected to on an individual basis at -- as it comes  
22           in.

23           And, you know, if there's one or two that are in  
24           question, it's not going to matter to us.

25                         JUDGE FRANCKS: Well, and with almost



1 everything in this case, if there's any agreement that  
2 can be made ahead of time, that would be much  
3 appreciated.

4 Okay. So I'm going to decide that one and let you  
5 know what I decide after lunch.

6 And then, Ms. Barney, you had something else?

7 MS. BARNEY: We did, Your Honor. Also  
8 involves one of our witnesses. Unfortunately, Kelly  
9 Susewind won't be available. He's in the hospital,  
10 proving that there are things that people will do to get  
11 out of being in a hearing.

12 He will not be available this week, and Ecology, in  
13 his stead, proposes to substitute Vince McGowan to speak  
14 for the Department of Ecology as -- at the close of  
15 Ecology's case in chief.

16 Mr. McGowan is -- has taken over the position that  
17 Bill Moore held at the Department of Ecology but will be  
18 speaking to the development of the permit because he was  
19 an Ecology employee at that time.

20 But Mr. Moore is retired from Ecology. Mr. McGowan  
21 now has that position and will speak for the agency with  
22 regard to the -- the agency's support of the current  
23 permit as it stands.

24 JUDGE FRANCK: And are there  
25 objections from the other parties about Mr. McGowan's

1 testimony.

2 MR. TEBBUTT: Well, this is the first  
3 time we've ever heard Mr. McGowan's name referenced with  
4 regard in this case.

5 The other problem -- and I certainly understand the  
6 health issues that Mr. Susewind -- because he was named  
7 as a witness by Ecology, we knew we'd be getting some  
8 information in through him, if we needed to, if we  
9 haven't been able to get it in through other witnesses.

10 Mr. Susewind was -- I don't know if critical is the  
11 right word, but he was certainly a first party to a  
12 number of important discussions about groundwater and his  
13 background as an engineer. He made some statements that  
14 I think are critical and adverse to Ecology's position in  
15 this case.

16 So that could present a bit of a problem. I  
17 understand he's sick. In fact, one of our people is sick  
18 too, and -- as I mentioned before, so I understand the  
19 need to -- to move around a little bit, but it could  
20 prejudice a couple of points in the environmental  
21 appellants' case.

22 JUDGE FRANCKS: Okay. Well, I'm going  
23 to also take that one under advisement.

24 MS. BARNEY: If I may respond briefly?

25 JUDGE FRANCKS: Absolutely.

1 MS. BARNEY: I know that Mr. Susewind  
2 was going to address a lot of the policy issues.  
3 Mr. Moore can address those, because he was an Ecology  
4 employee at the time, with regard to the meetings with --  
5 on development of the permit, the policy decisions that  
6 were made, and the choices that Ecology made at that  
7 level when it comes to the permit.

8 It's not that he was -- Mr. Jennings was the permit  
9 writer. Mr. Moore was the senior supervisor over that  
10 and participated in many of the same meetings that  
11 Mr. Susewind participated in as well.

12 JUDGE FRANCKS: Okay.

13 MR. TEBBUTT: So if I may?

14 JUDGE FRANCKS: Well, I think I've got  
15 enough for the moment.

16 MR. TEBBUTT: Well, there's one other  
17 issue. If Mr. Susewind can't be made available, we'd  
18 renew our request for Director Bellon to be made present.

19 JUDGE FRANCKS: Okay. And I've  
20 already denied that, so --

21 MR. TEBBUTT: Well, there's a new  
22 circumstance here.

23 JUDGE FRANCKS: Doesn't sound like it  
24 changes the situation.

25 MR. TEBBUTT: Well, again,

1 Mr. Susewind was the policy person that made the  
2 decisions, and so is Director Bellon.

3 So without him, we should have the person higher up  
4 in the chain of command who actually was involved in the  
5 decisions.

6 JUDGE FRANCKS: Okay.

7 MS. HOWARD: Your Honor, we don't have  
8 any objections to the substitution. Thank you.

9 JUDGE FRANCKS: Great. Thank you.  
10 All right. So I am going to reserve ruling on that, but  
11 that brings me to something else that I wanted to talk  
12 about.

13 So as we talked about on the phone, we have some  
14 days in June that we can reserve if we need to -- if we  
15 can't get this all done this week.

16 And I had asked in my letter that people let Lynn  
17 know if you're available on June 5th, 6th, or 7th. I  
18 think really let Lynn know if you're not available on  
19 those days, and what I was intending at that moment was  
20 closing arguments.

21 So what I'm wondering is: Do we know the answer to  
22 that question now?

23 MR. TEBBUTT: I think everyone has  
24 said they're available the 6th and 7th, but we, of  
25 course, reserve that time if we can't get our case in

1 chief in, in the -- whatever time is allotted.

2 JUDGE FRANCKS: Okay. So --

3 MR. TEBBUTT: I'd like to deal with  
4 that before the board as well.

5 JUDGE FRANCKS: So all parties are  
6 available June 6th and 7th for closing.

7 MS. BARNEY: For closing, yes.

8 JUDGE FRANCKS: Correct.

9 MS. BARNEY: But I believe I  
10 indicated -- we submitted a letter. I believe I  
11 indicated that Mr. Jennings won't be available if the  
12 hearing does spill over in terms of he would be a person  
13 potentially that we would call on rebuttal.

14 JUDGE FRANCKS: Correct. Yes. I did  
15 see that.

16 Mr. Tebbutt, it is news to me that you're all  
17 available on the 6th and 7th. So I didn't get that  
18 information.

19 MR. TEBBUTT: I responded on, I  
20 believe, Friday.

21 JUDGE FRANCKS: Okay. All right. So  
22 that's all our prehearing issues that we need to deal  
23 with. And as I said, I'll come back to you after lunch  
24 and talk about the two things we talked about.

25 So we're ready for the board.

1           And, Mr. Tebbutt, you'll go -- you want to start  
2           with your concern about the time frames that we have?

3                         MR. TEBBUTT: Well, first, we don't  
4           know what the time limits are, if they're still ten hours  
5           per party. Is that the plan?

6                         JUDGE FRANCKS: That is the plan right  
7           now. I will say that -- I believe I said approximately  
8           ten hours, and what I meant by that was, I would like to  
9           reassess after we've gotten started and see where we are,  
10          say, a day or two into it.

11                        So it's not hard and fast, but I think it's helpful  
12          for the parties to focus on what they're -- you know,  
13          making their case and doing it as efficiently as  
14          possible.

15                        So at this moment, it's still approximately ten  
16          hours per party.

17                        MR. TEBBUTT: Well, again, as I said,  
18          I would like to address that when the board is in the  
19          room.

20                        JUDGE FRANCKS: You may.

21                        With respect to the time limit, how long do the  
22          parties expect their openings to be? Because I'm trying  
23          to decide whether to add that into the time or not.

24                        Do we -- do we have a time frame of how long your  
25          openings are?

1           Mr. Tebbutt, I'm going to start with you.

2                           MR. TEBBUTT: Yes. I would expect  
3 we'll be the "opening" opening, as it's our burden to  
4 prove our case. I expect my opening to be approximately  
5 20 minutes.

6                           JUDGE FRANCKS: Okay. And dairy  
7 federation.

8                           MS. NICHOLSON: Our opening should be  
9 about ten minutes, Your Honor.

10                          JUDGE FRANCKS: And Ecology.

11                          MS. BARNEY: Probably seven minutes is  
12 what I'm shooting for.

13                          JUDGE FRANCKS: All right. Then what  
14 I'm going to do is, I'm going to leave that off the chess  
15 clock, and we will start the chess clock after openings.

16                          And so, in general, is that the order that we're  
17 going to go? You're going to go, PSA first, dairy  
18 federation second, and Ecology?

19                          Obviously, you know, just in general, say, assuming  
20 that we're dealing with one of your witnesses.

21                          MR. TEBBUTT: I think that's correct.  
22 Except for the first two witnesses that we've already --

23                          JUDGE FRANCKS: Right.

24                          MR. TEBBUTT: -- decided on and  
25 everyone has agreed upon.

1 MS. HOWARD: Actually, Your Honor,  
2 what we had decided was that for Puget Soundkeepers and  
3 Washington Dairy Federation witnesses, that Ecology would  
4 have the first chance to do cross and then the other  
5 appellant, is how we had discussed it before.

6 JUDGE FRANCKS: Okay.

7 MS. HOWARD: And then with regards to  
8 Ecology's witnesses, Puget Soundkeeper would do the first  
9 cross, then we would do the second cross. So that's what  
10 we had discussed before.

11 I think we may have touched on that in the status  
12 conference, but we covered a lot of things at that point.

13 JUDGE FRANCKS: Okay. I think that's  
14 all I have right now. All right. So I am going to --  
15 oh, no. Let's talk about Wi-Fi.

16 Okay. Has everybody tried the Wi-Fi? And does it  
17 work? Excellent.

18 MR. TEBBUTT: Yes.

19 JUDGE FRANCKS: Then we will not worry  
20 about that anymore.

21 Okay. And so we talked about Dr. Keeney. Do we  
22 have things that are going to be projected onto the  
23 screen? Okay. And has everybody tested and made sure  
24 that the cord that they need is there and -- okay.  
25 Excellent.



1 MR. TEBBUTT: We have at least until  
2 tomorrow before Dr. Keeney will be on.

3 JUDGE FRANCKS: Right. Okay. So all  
4 right. Let's go off the record now. We'll go back on in  
5 just a minute. I'll go collect my board members.

6 (Pause in the proceedings.)

7 (Board members enter.)

8 JUDGE FRANCKS: Good morning. Let's  
9 go on the record.

10 We are here today in the appeal of Pollution Control  
11 Hearings Board Case No. 17-016C, which is a consolidated  
12 case involving as appellants the Washington State Dairy  
13 Federation, Washington Farm Bureau, Puget Soundkeeper  
14 Alliance, Community Association for Restoration of the  
15 Environment, Friends of Toppenish Creek, Sierra Club  
16 Waterkeeper Alliance, Center for Food Safety, and  
17 Resources for Sustainable Communities versus the State of  
18 Washington Department of Ecology.

19 I am Heather Francks, administrative appeals judge,  
20 and I will be presiding today. I will be ensuring that  
21 the hearing runs smoothly and making the procedural and  
22 evidentiary rulings.

23 With me today to my left is board chair Joan  
24 Marchioro. To my right, board members Kay Brown and Neil  
25 Wise, and the board will be making all of the legal

1 decisions.

2 Our court reporter today is Andrea Clevenger. She  
3 will be taking everything down, so it's important that  
4 one person speak at a time. We're also recording, so be  
5 aware of the microphones.

6 The court reporter will swear the witnesses in.

7 And I'd like to take appearances for the parties  
8 now. I'm going to start with PSA on this side.

9 MR. TEBBUTT: Thank you. I'm Charlie  
10 Tebbutt, and I'm representing the seven environmental  
11 appellants in this case.

12 Would you like each person to state for the record,  
13 or shall I introduce them?

14 JUDGE FRANCKS: I think you can  
15 introduce them.

16 MR. TEBBUTT: Okay. And on my right  
17 is Sarah Matsumoto; she works in my office. And to my  
18 left is Dan Snyder who also works in my office.

19 Behind me is Andrea Rodgers, and to her right is  
20 Katelyn Kinn, of Puget Soundkeeper, all representing the  
21 environmental appellants.

22 JUDGE FRANCKS: And then Dairy  
23 Federation appellants.

24 MS. NICHOLSON: Good morning. My name  
25 is Virginia Nicholson, and to my left is co-counsel

1 Elizabeth Howard, representing the Dairy Federation and  
2 Washington Farm Bureau.

3 JUDGE FRANCKS: Thank you. And then  
4 for Ecology.

5 MS. BARNEY: Good morning. Phyllis  
6 Barney, assistant attorney general, representing  
7 Department of Ecology. With me at counsel table is Tanya  
8 Rose-Johnston, also from the attorney general's office;  
9 Ms. Redding and Mr. Jennings, from the Department of  
10 Ecology.

11 JUDGE FRANCKS: Thank you. So as we  
12 discussed earlier, I am allotting the parties -- we have  
13 five days scheduled for this hearing right now. And I'm  
14 allotting the parties approximately ten hours each for  
15 their presentations.

16 We'll keep track of that by the chess clock, and  
17 everyone has had a chance to work with the chess clock.  
18 I'm going to rely on the counsel to ensure the transition  
19 goes smoothly.

20 The one thing I didn't tell you earlier, the chess  
21 clocks reset every day. So at the end of the day, I will  
22 write down and keep track of how many hours each party's  
23 group has taken in that day.

24 So that's just one thing to -- if you want to check  
25 me, you are welcome to do that.

1           In general, we will be starting each morning at  
2           9:00. We'll take a midmorning break. Today it might be  
3           a little bit later -- usually I do it about 10:30 -- and  
4           then an hour for lunch whenever a good break appears, and  
5           then a midafternoon break.

6           We'll wrap up between 4:30, 4:45, because you need  
7           to give back your visitor badges at the end of the day in  
8           general. We can stay late if we have to, but it causes  
9           problems sometimes.

10          If anyone needs a break at any other time, just let  
11          me know.

12          Last week Mr. Tebbutt sent me a letter, raising  
13          concerns about the time limitations that we have. So I'm  
14          going to let him raise his objection on the record.

15          I just want to say, before we -- before he starts  
16          that, that we have reserved June 6th and 7th. And so far  
17          what will happen those days is simply closing arguments.

18          In my earlier conversation with counsel on the  
19          phone, everyone wanted to do a closing argument, and so  
20          that's how we're going to possibly handle that.

21          If we can get it all done this week, that, I think,  
22          is better, but that's certainly -- we've reserved those  
23          days, and the board is available for that time.

24          And as I also indicated, as we work through the  
25          week, we will revisit our time frames and see how we're

1 proceeding, but I want to focus everyone's mind on doing  
2 this as efficiently as possible.

3 Mr. Tebbutt?

4 MR. TEBBUTT: Yes. Thank you. My --  
5 first of all, just housekeeping matter. I thought it was  
6 June 5th, 6th, and 7th that were available, not just the  
7 6th and 7th. Is it just the 6th and 7th now?

8 JUDGE FRANCK: And I thought you just  
9 told me that June 6th and 7th is when the parties were  
10 available.

11 MR. TEBBUTT: No. Everyone agreed  
12 that 5th through the 7th were available.

13 JUDGE FRANCK: Okay. Then we have  
14 the 5th through the 7th.

15 MR. TEBBUTT: Secondly, as a matter of  
16 procedural due process, it's the environmental appellants  
17 here who have the largest burden before this board.

18 We have nine live issues, three of which have  
19 already been ruled against, three additional issues which  
20 have already been ruled against at the summary judgment,  
21 but it's our need -- my clients' need to be heard fully  
22 in this case.

23 This is a matter of justice, environmental justice,  
24 and doing the right thing. There is a tremendous amount  
25 of evidence that needs to come in. There are witnesses

1 that need to be heard.

2 And I do not think it is fair that the industry be  
3 allotted the same amount of time when they only have  
4 three peripheral issues in this case. We have the lion's  
5 share of the burden. And we need to be heard, and we  
6 need to have the time.

7 The last time we appeared before this board in 2006,  
8 we were put on the clock, and we were thwarted in our  
9 ability to put on our full case, and we were prejudiced  
10 because of that.

11 We don't want that to happen this time. There is a  
12 tremendous amount of evidence. There's a tremendous  
13 amount of harm that's being caused in the state of  
14 Washington.

15 And it's our right to be heard, and we need to be  
16 heard before this board so that, at the very least, we  
17 can create the proper record as this matter is very  
18 likely to go up on appeal.

19 JUDGE FRANCKS: Thank you. Okay. So  
20 you have raised that objection on the record, and I have  
21 discussed how we're going to handle that going forward.

22 So let's turn to opening statements.

23 Mr. Tebbutt, would you like to proceed?

24 MR. TEBBUTT: Good morning, Board  
25 Members Marchioro, Brown, Wise, and Judge Francks.

1           I'm Charlie Tebbutt, and I represent the  
2           environmental appellants in this case. I won't repeat  
3           all their names, but they represent tens of thousands of  
4           members in the state of Washington and hundreds of  
5           thousands, even millions, of members nationwide.

6           Those include the Sierra Club, the Waterkeeper  
7           Alliance, Center for Food Safety that are all national  
8           organizations; Puget Soundkeeper, which, of course, is  
9           devoted to protecting the Salish Sea; Resources for  
10          Sustainable Communities, which is in the Bellingham area;  
11          Friends of Toppenish Creek, which is based in Toppenish,  
12          Washington, Lower Yakima Valley; and last, but not least,  
13          the Community Association for Restoration of the  
14          Environment, the true champion in these issues and has  
15          been fighting these issues for over 20 years in the  
16          courts before this panel or a different iteration of this  
17          panel and has really been the keeper of the issue in  
18          making this one to try to hold the state and federal  
19          agencies accountable for their failure to protect the  
20          people of the state of Washington.

21          Twelve years ago we were here before this board on  
22          many of the same matters on a permit that took 11 years  
23          to reissue. This one has taken 12 years from its date of  
24          inception to re-issuance. That, by itself, is not fair.

25          But here, this case is about common sense, logic,

1 science, and the law most important. So we understand  
2 that this board gives deference to the agency, but there  
3 is no opportunity for deference when common sense, logic,  
4 science, and the law are not applied by Ecology.

5 Justice demands that this board take action to stop  
6 Ecology's failure to protect the people of the state of  
7 Washington and the environment.

8 Lower Yakima Valley is a mess. The aquifer is  
9 contaminated significantly. Thousands of people have  
10 been impacted. They're drinking contaminated water.

11 Same is true of the Sumas-Blaine Aquifer in Whatcom  
12 County. The shellfish beds in Whatcom County are closed.  
13 This is not fair.

14 Ecology, what does Ecology do? While all these  
15 problems are going on, Ecology fiddles. In 2006 Ecology  
16 knew what to do. They knew the right thing, but because  
17 of policy decisions, policy decisions, not application of  
18 the law, they chose to do the wrong thing. This board  
19 rubber-stamped it. This board should not rubber-stamp  
20 what Ecology is doing again.

21 Exhibit 68, you will see, Mr. Tebb, former director  
22 of the central region of Washington that dealt with the  
23 Yakima Valley crisis, said in regard to the 2009 court of  
24 appeals decision affirming this board's decision on the  
25 2006 permit that Ecology was just kicking the can down



1 the road more.

2 And it was because of policy choices that they chose  
3 not to do things. They cannot do that. These are  
4 applications of law.

5 In 2006 only about ten of the 2006 permit of more  
6 than 500 concentrated animal feeding operations -- I'll  
7 call them CAFOs throughout this hearing -- are covered by  
8 the permit.

9 This new permit is going to run into the same  
10 problem right now. I think only 16 of the 500 CAFOs are  
11 covered.

12 Ecology has made policy choices that are not  
13 consistent with the law. But this is not a question of  
14 policy. This is a question of application of the law.  
15 It is Ecology's responsibility to protect the waters of  
16 this state.

17 RCW 90.48.080 requires that, "The discharge of  
18 polluting matters in waters is prohibited. It shall be  
19 unlawful for any person to throw, drain, run, or  
20 otherwise discharge into any of the waters of this state  
21 or to cause, permit, or suffer to be thrown, run,  
22 drained, allowed to seep" -- which will be important in  
23 this case -- "or otherwise discharge into such waters any  
24 organic or inorganic matter that shall cause or tend to  
25 cause" -- another important phrase in RCW 90.48 --

1 "pollution of such waters according to the determination  
2 of the department as provided for in this chapter."

3 Ecology is reading its statutory authority pursuant  
4 to RCW 90.48 with blinders on.

5 The Washington court of appeals has made clear that  
6 when Ecology implements its authority under 90.48, it  
7 must do so in a manner that is consistent with its other  
8 statutory responsibilities. That's Puget Soundkeeper  
9 Alliance versus State Pollution Control Hearings Board,  
10 356 P.3d 753.

11 Finding Ecology's interpretation of RCW 90.48, this  
12 court, the appellate court, in its implementing  
13 regulation, stated, "It is also inconsistent with its  
14 responsibility under the State Environmental Policy Act,  
15 Chapter 43.21C RCW, which recognizes that the  
16 responsibilities of each generation as trustee of the  
17 environment for succeeding generations speaks with an  
18 insistent voice to the Department of Ecology."

19 Department of Ecology has failed utterly in its  
20 responsibilities in this case thus far.

21 Washington has a long legal history of prohibiting  
22 the discharge of pollutants in the state. The waters of  
23 the state, by the way, include groundwater.

24 Public's interest in clean water is explicitly  
25 clear, and I quote, All waters within the state belong to

1 the public.

2 The state's Water Pollution Control Act RCW 90.48  
3 declares the following public policy: "It is declared to  
4 be the public policy of the state of Washington to  
5 maintain the highest possible standards to ensure the  
6 purity of all waters of the state consistent with public  
7 health and public enjoyment thereof, the propagation and  
8 protection of wildlife, birds, game, fish, and other  
9 aquatic life, and the industrial development of the state  
10 and, to that end, require the use of all known,  
11 available, and reasonable methods by industries and  
12 others to prevent and control the pollution of the waters  
13 of the state of Washington."

14 It's important to recognize that in this -- in  
15 RCW 90.48, when it says, "promote the industrial  
16 development of the state," that's to provide clean water  
17 for the industrial development of the state, not to allow  
18 dirty water by the industries.

19 In 1984 the Washington Superior Court recognized  
20 that, quote, The provisions of RCW 90.48 have for many  
21 years required permits for the discharge of pollutants  
22 into waters of the state. That's the Moitke versus City  
23 of Spokane case.

24 The Water Resources Act of 1971 declares the quality  
25 of the natural environment shall be protected and, where

1 possible, enhanced as follows, and there are a number of  
2 different provisions, but the one that applies here is,  
3 "Waters of the state shall be of high quality.  
4 Regardless of the quality of the waters of the state, all  
5 waste and other materials and substances proposed for  
6 entry into said waters shall be provided with all known,  
7 available, and reasonable methods of treatment prior to  
8 entry.

9 "Notwithstanding the standards of quality  
10 established for the waters of the state would not be  
11 violated, wastes and other materials and substances shall  
12 not be allowed to enter such waters, which will reduce  
13 the existing water quality thereof except in those  
14 situations where it's clear that overriding  
15 considerations of public interest will be served."

16 There is no overriding interest in polluting our  
17 waters, and there will be no evidence that comes in to  
18 show that there is some overriding interest in polluting  
19 our waters. In fact, it's protection of the people that  
20 are required.

21 Ecology is obligated to, quote, maintain the highest  
22 quality of the state's groundwaters and protect existing  
23 and future beneficial uses of the groundwater through the  
24 reduction or elimination of the discharge of contaminant  
25 to the State's groundwaters.

1 Ecology had everything it needed in 2004 for the  
2 2006 permit. Its scientists said groundwater monitoring  
3 was necessary in order to know what's going on. And  
4 we're here again. So what's changed? What has changed  
5 since 2006?

6 The problems have gotten worse. We know them better  
7 than we did before. They've been studied, and the  
8 Sumas-Blaine Aquifer, grossly contaminated. The Yakima  
9 Valley, injustice.

10 Low income individuals are suffering from  
11 contaminated water at the rate of more than 20 percent of  
12 the wells tested in the area.

13 Most people don't know that their water is  
14 contaminated, and the ones that do can't afford to pay  
15 for alternative water.

16 CARE, through the settlements in the Cow Palace  
17 case, which you're going to hear a lot about in this  
18 hearing, has provided clean water to over a hundred homes  
19 but just the sinks in those homes. Not whole water,  
20 whole house systems.

21 So that means kids are still brushing their teeth in  
22 contaminated water and drinking out of the faucets in the  
23 bathrooms.

24 Shellfish beds in the Salish Sea in Northwest  
25 Washington in the Bellingham area closed due to fecal

1 coliform bacteria. The two-and-a-half-year study by EPA  
2 done from 2010 to 2012 testing 330 wells show more than  
3 20 percent of the wells contaminated above the maximum  
4 contaminant level for nitrate, a dangerous substance that  
5 causes hemoglobin anemia in babies and causes immune  
6 problems for people with already immune-compromised  
7 systems.

8 The Ecology's manure literature review from 2016,  
9 which is Exhibit R-4, that, by itself, wins this case.  
10 That's the study done by Melanie Redding, who you'll hear  
11 from, is the second witness in this case.

12 All of the admissions in that particular literature  
13 review done by Ecology's hydrogeologist show that this is  
14 a problem. What does Ecology do? It fiddles.

15 Findings from two federal courts, one in Grant  
16 County, and this was Judge Suko in Eastern Washington in  
17 late 2011 found that the Faria Dairy was causing  
18 contamination of the local groundwater from  
19 overapplication of manure to its fields.

20 And the most significant finding in the CARE versus  
21 Cow Palace case by Judge Rice, again, in the Eastern  
22 District of Washington, hardly a liberal crazy venue by  
23 any means, finding that the dairies -- and this is Cow  
24 Palace in particular who was the lead plaintiff in the  
25 case, the very lead defendant rather. There were three

1 different ones. There was the Cow Palace Farm, the Bosma  
2 Liberty Farm, and the DeRuyter Farms.

3 Cow Palace went first. Their operations were the  
4 best of the three, and they were found to be causing an  
5 imminent and substantial endangerment to public health  
6 and the environment. Ecology has been made fully aware  
7 of this all along.

8 In fact, on July 15, 2013, many of the people for  
9 the environmental appellants were in a meeting with a  
10 number of Ecology people, including Director Bellon. And  
11 in that meeting, Director Bellon was asked to do  
12 something to protect the people of the state of  
13 Washington.

14 And she said specifically, "If you want me to take  
15 on this industry, you got to give me a big fucking  
16 stick."

17 That's her quote. It's not my language. And I  
18 don't say this to sensationalize, but I do this -- I say  
19 this because so far her testimony has been denied in this  
20 case, and it's an important piece because Ecology is  
21 afraid. They are -- pardon the pun -- cowed by the  
22 industry.

23 They're afraid to take on this industry. They're  
24 afraid to apply the law because their budgets will get  
25 cut by the legislature and so forth.

1           But this is not a theoretical problem. This is a  
2           real ongoing public health threat. So what do we need to  
3           do here to fix this problem?

4           We need surface water monitoring. There's no  
5           surface water monitoring here. Surface water monitoring  
6           is required because this permit allows emergency winter  
7           applications both on the west side and the east side.

8           On the west side, we know how wet it is. We have  
9           materials going to leach right through the soil into the  
10          groundwater or it's going to run off into the surface  
11          waters, causing further contamination and closure of the  
12          shellfish beds in the Northwest.

13          On the east side, you're going to have contamination  
14          both for continued percolation into the groundwater and  
15          runoff into surface waters.

16          Manure Pollution Prevention Plan is not available to  
17          the public. That's a direct violation of the Waterkeeper  
18          case from the second circuit, and it's a direct violation  
19          of the New York case that just came out a couple weeks  
20          ago that's cited in the trial brief.

21          AKART -- what's AKART? All known available and  
22          reasonable methods of prevention, control, and treatment.  
23          Ecology relies on a 2004 paper for its AKART  
24          determinations.

25          That -- in 2004 that wasn't really worth much, but



1 in 2018 it's worth absolutely nothing. Science shows  
2 that that paper is completely flawed.

3 So what are the major problems here? There are four  
4 major sources coming from the concentrated animal feeding  
5 operations. I've been doing this work now for 20 years  
6 on behalf of CARE, and I've been the lawyer for all of  
7 those cases that CARE has brought.

8 And so this tribunal should give some deference not  
9 to Ecology, but give the proper deference to the federal  
10 courts who have gone through extensive findings of fact  
11 and litigation to get to these points.

12 So what do we have? Field application. Permit does  
13 nothing to limit applications that Ecology's own  
14 witnesses will say are likely to cause contamination of  
15 the groundwater.

16 Environmental appellants' witness Dr. Keeney will  
17 talk about how the application rates will continue --  
18 that are allowed under the permit will continue to cause  
19 groundwater contamination.

20 Lagoons, no one disputes that lagoons leak. No one.  
21 The only dispute, if it's legitimate at all, is how much  
22 the lagoons leak.

23 And we will show that, even if the lagoons are built  
24 to the NRCS guidance -- and that's guidance, not  
25 regulations. It hasn't gone through the scrutiny of a

1 regulation -- that guidance fails, as Judge Rice found.

2 Even if built to NRCS guidance, lagoons at Cow  
3 Palace leak, at a minimum, over 3 million gallons a year.  
4 Cow Palace is one and one of the better dairies in the  
5 state. I shudder to think about the damage that the rest  
6 are causing.

7 In fact, we know what they're causing because of the  
8 studies that have been done in Sumas-Blaine and Yakima,  
9 and Ecology agrees with all of this. Yet they do  
10 nothing.

11 Compost areas, not addressed at all in the permit.  
12 Thousand -- hundreds, perhaps thousands, of acres of  
13 compost area where the manure is just laid on the ground  
14 is another major source of contamination to groundwater  
15 and another potential source for surface water runoff.

16 They're not addressed whatsoever. And you will hear  
17 Mr. Erickson discuss that in detail because we spent a  
18 week on these three facilities, doing the sampling that  
19 showed that the compost areas were a significant source,  
20 and Judge Rice found that the compost areas are a  
21 significant source of contamination.

22 Animal pens are also another major source. We have  
23 thousands of animals in tight corrals, and when they  
24 defecate and urinate and when precipitation hits that,  
25 that manure reaches the groundwater, has nowhere to go

1 but down.

2 Principles of science apply. Darcy's law, you're  
3 going to hear about. You'll hear about Bernoulli's  
4 principle, a strange principle called gravity. Water  
5 flows downhill, and it goes down into the soil.

6 It doesn't just magically disappear once it bleeds  
7 below the lagoons and below the field applications. It  
8 doesn't disappear. It goes down to groundwater because  
9 that's the only place it has to go. There is no such  
10 thing as denitrification in this state. If it is, it's  
11 very, very minimal.

12 You'll also see that the Ecology does not limit  
13 phosphorus applications. Phosphorus is a major nutrient  
14 that causes algal blooms in fresh waters and in our  
15 oceans. Nitrate and nitrogen is another nutrient.

16 These are major problems for ocean acidification,  
17 impacts on climate change that this board has already  
18 denied our ability to put testimony on about the climate  
19 change. They ruled for Ecology on summary judgment.

20 We have nine issues before this board, all of  
21 massive importance to the people of the state of  
22 Washington. Ecology has allowed this practice to  
23 continue. Prior board in the prior directors of Ecology  
24 have allowed this to continue in direct violation of the  
25 law.

1           We're going to put on the evidence that you will  
2           need to make a determination to send this back to Ecology  
3           to do the right thing. And if, at the end of our case,  
4           we haven't put the evidence on that convinces you, then  
5           shame on us.

6           We look forward to presenting the evidence and for a  
7           ruling that will require Ecology to do the right thing  
8           and comply with the law, not make policy choices.

9                           JUDGE FRANCKS: Thank you.

10                          MS. NICHOLSON: Good morning. My name  
11           is Virginia Nicholson, and along with Elizabeth Howard, I  
12           represent the Washington State Dairy Federation and the  
13           Washington Farm Bureau.

14           With us today is one of our client representatives,  
15           Mr. Dan Wood. He's the executive director of the  
16           Washington State Dairy Federation.

17           Evan Sheffels from the Washington Farm Bureau will  
18           attend as his schedule allows.

19           The Washington State Dairy Federation and Washington  
20           Farm Bureau member clients are farmers. Over 95 percent  
21           of the farms in this state are family farms. These  
22           family farmers live near or on the land they work, and  
23           that's where they raise their children.

24           And they are working to maintain or build a viable  
25           farming operation to pass on to those children and their

1 children's children for generations to come.

2 Nobody is more interested in protecting ground and  
3 surface water than these farm families who live right  
4 there and rely on those sources of water.

5 Dairy farmers in this state are interested in the  
6 CAFO permits, not only to work with Ecology and the  
7 Department of Agriculture to protect ground and surface  
8 water, but also to obtain some protections in third-party  
9 lawsuits.

10 However, in order for that to be a viable option for  
11 these producers, all the permit terms need to be  
12 attainable. All the requirements must be reasonable and  
13 attainable. And, in addition, all of the technical  
14 requirements under the permit must reflect AKART.

15 Over this week we will demonstrate that some of the  
16 permit terms are simply not attainable. We will also  
17 demonstrate that a significant change was made only in  
18 the final version of the permit, which did not allow for  
19 the opportunity of public notice and comment as required  
20 under the Administrative Procedure Act and for the  
21 requirement under the Clean Water Act, that the public  
22 have a meaningful opportunity to participate in the  
23 development of an NPDES permit.

24 We do have three issues before the board this week,  
25 and although they are simple, we do not consider them to

1 be peripheral. They are Issues No. 5, 6, and 19, and I  
2 will address each one in turn.

3 Issue 5 regards the soil sampling requirements in  
4 the permit. Testimony by Dr. Joseph Harrison, who is a  
5 nutrient specialist; by David Haggith, who is an  
6 agronomist; and by Ecology, will establish that the soil  
7 sample requirement to have soil sample after harvest by a  
8 date certain is not attainable.

9 The date certain is October 1st, and crop -- annual  
10 crop harvest does not necessarily happen by a certain  
11 date. It depends on the crop, and it depends on the  
12 weather. So that -- that's an example of the terms that  
13 are not attainable.

14 In addition, we live in a big state, and there's a  
15 dry east side and there's a wet west side, and those  
16 climate differences are not taken into account.

17 So some soil samples in the spring that make sense  
18 on the dry east side of the state, simply all those  
19 conditions do not exist on the wet western side of the  
20 state.

21 Also there's some confusion within the literature of  
22 the foundation for the permit terms regarding spring soil  
23 samples because that term is used interchangeably and  
24 equivocally with a PSNT test.

25 Now, PSNT stands for Pre-Sidedress Nitrate Test, and

1 that occurs only for corn, and that happens after the  
2 corn comes up about five or six inches, so it's much  
3 later in the spring.

4 A spring soil sample should be taken prior to  
5 planting the crops. So equivocating those two times  
6 causes confusion and makes the requirements unattainable.

7 Dr. Neiberger will address the economic cost of  
8 unnecessary soil samples to the producers. He's our  
9 economist. I forgot to mention him.

10 Issue 6 regards adaptive management requirements,  
11 and that includes land application of nutrients. Now,  
12 adaptive management is when you get a soil sample result  
13 and you know how much nitrogen or nutrient is in the soil  
14 and you figure out how to best optimize the crop while  
15 protecting ground and surface water.

16 Unfortunately -- and this is reflected in a table in  
17 the permits -- Ecology forgot to accommodate or plan for  
18 the usual and common cropping methods used by farmers in  
19 this state. In other words, there's no accommodation for  
20 double cropping or perennial use or cover crop. That's  
21 simply not there, and that makes those requirements  
22 unattainable.

23 Our last issue is Issue 19, and Issue 19 regards  
24 newer lagoon design requirements and assessments that go  
25 beyond what the NRCS guidelines require. NRCS stands for

1 the Natural Resource Conservation Service, and their  
2 guidelines have been used in this state prior to this  
3 permit.

4 Mr. William Reck, who has been with NRCS for 30  
5 years and is personally responsible for the manure lagoon  
6 design requirements for NRCS, will testify that those  
7 standards are used nationwide and that those standards  
8 are protective of both ground and surface water.

9 Mr. Reck and Ecology will establish that the  
10 additional requirements found in the permit are not more  
11 protective of surface and groundwater.

12 In addition, Mr. Dan Woods will testify that that  
13 additional requirement that we see in the permit that  
14 goes beyond what NRCS requires was only put in the final  
15 version of the permit, and neither he nor any dairy  
16 farmer in this state had the opportunity to comment on  
17 it.

18 Dr. Shannon Neibergs will establish enormous cost to  
19 producers of complying with the additional requirements  
20 of manure and lagoon design.

21 Allowing for unattainable requirements to remain in  
22 the permit could have severe consequences for a producer.  
23 The noncompliance with the permit term leaves a permit  
24 producer open to a third-party lawsuit.

25 So at the end of this week, we are going to ask this



1 board to remand back to Ecology for revision those  
2 unlawful and unattainable terms that are in the permit  
3 related to our Issues 5, 6, and 19.

4 We thank you for your time, and we thank you for the  
5 opportunity to present our case this week.

6 JUDGE FRANCKS: Thank you.

7 MS. BARNEY: Good morning, board  
8 members. Again, my name is Phyllis Barney, representing  
9 the Department of Ecology in this matter.

10 What is under appeal here are the terms of the  
11 permit, not the dairy industry and the CAFO industry in  
12 the state of Washington. The conditions of the permit  
13 are what are before you, and, in fact, here, only certain  
14 areas of the permit are left for deliberation.

15 Those would be Condition S3, which discusses the  
16 discharge limitations of the permit; S4, the manure  
17 prevention provisions of the permit; S5, the monitoring  
18 conditions; and S7, which encompass for our purposes two  
19 reports, the Manure Prevention Pollution Plan, and Tech  
20 Note 23, which you'll be hearing more about as we go  
21 through.

22 Ecology issued these general permits to control  
23 discharges from defined concentrated animal feeding  
24 operations in the state of Washington. The authority to  
25 do so flows from state law 90.48 to 60 -- federal law

1 90.48.216, state law 90.48.160.

2 The permit conditions here are science based.  
3 Ecology's deliberations were extensive. Ecology's public  
4 engagement on these permits were extensive, including a  
5 preliminary draft permit, as well as a formal draft  
6 permit and stakeholder meetings and input from  
7 environmental groups, from dairy groups, and from across  
8 the state on the east side and the west side.

9 That said, even though I've called out particular  
10 portions of the permit we'll be looking at in great  
11 detail here, it's important to remember, and I think in  
12 some of our preliminary briefing has got lost sometimes,  
13 is that no individual provision of the permit is, by  
14 itself, protective.

15 The permit as a whole is protective, and the  
16 individual conditions in the permit work together to  
17 actually form the basis for the protective aspects of the  
18 permit.

19 Can't excise one particular condition away from this  
20 permit and have the remainder be the full comprehensive  
21 protective document that it's intended to be.

22 So Ecology's presentation today will review the  
23 provisions that are of paramount interest to the board  
24 and the issues remaining here but always trying to remind  
25 all of us that the other provisions of the permit also

1 apply at the same time.

2 Nothing is being examined in a vacuum here. The  
3 permit works together to be protective of the waters of  
4 the state of Washington.

5 The petitioner's burden here is not to demonstrate  
6 the larger picture of the concentrated animal feeding  
7 operation industry in the state. They must demonstrate  
8 that the individual conditions in the permit are not  
9 protective of the water quality of the state of  
10 Washington.

11 That's their burden. Because Ecology's permit was  
12 crafted, again, with a strong scientific base that you'll  
13 hear about, at the close of this permit, Ecology will be  
14 asking this board to affirm the permit in whole.

15 Thank you.

16 JUDGE FRANCKS: Thank you. Does  
17 anyone want additional quick time on this or has everyone  
18 covered everything?

19 I'm thinking that this might be a good time for a  
20 ten-minute break. It's a little earlier than usual, but  
21 it's a good break in time. So let's come back in ten  
22 minutes. Let's go off the record.

23 (Pause in the proceedings.)

24 JUDGE FRANCKS: Please have a seat.

25 Let's go back on the record.

1           You've rearranged the room. I assume everyone  
2           agreed with that?

3                         MR. TEBBUTT: We'll do a little more  
4           rearranging at the appropriate times.

5                         MS. HOWARD: That was us. We did that  
6           so we could actually see the witness while he was  
7           speaking this morning. Is that --

8                         JUDGE FRANCKS: Okay.

9                         MS. HOWARD: Thank you.

10                        JUDGE FRANCKS: All right. So -- and  
11           we have started the chess clock or will as soon as we  
12           have a witness.

13                        Okay. Great. So, Ms. Barney, I understand you have  
14           a witness for us.

15                        MS. BARNEY: Yes, I do. The  
16           Department of Ecology calls Jonathan Jennings.

17                        JUDGE FRANCKS: Mr. Jennings, come on  
18           over here, and the court reporter will swear you in.

19

20           JONATHAN JENNINGS,           having been first duly sworn  
21    by the Certified Court  
22    Reporter, testified as follows:

23

24           /////

25           /////

1 DIRECT EXAMINATION

2 BY MS. BARNEY:

3 Q Good morning, Mr. Jennings. Would you please say and  
4 spell your name for the court reporter.

5 A My name is Jonathan Jennings, J-o-n-a-t-h-a-n, last name  
6 Jennings, J-e-n-n-i-n-g-s. I usually go by Jon, J-o-n.

7 Q And where are you currently employed?

8 A I'm currently employed in the water quality program at  
9 Department of Ecology.

10 Q How long have you been employed at the Department of  
11 Ecology?

12 A It's a little over 11 years now.

13 Q And could you tell us the positions that you have held at  
14 the department?

15 A I have been an intern when I originally started, and then  
16 I moved into permit work as a permanent administrator and  
17 then eventually as a permit writer.

18 Q What was the first permit that you administrated?

19 A The first permit that I administered was probably in  
20 2007. I started as the permit administrator for the CAFO  
21 permit.

22 Q Thank you. Could you look behind you in those green  
23 binders and look for Exhibit R-24.

24 Do you recognize this document?

25 A Yes, I do. It's my current resume.

1 MS. BARNEY: Ecology moves for entry  
2 of Mr. Jennings' resume, R-24.

3 JUDGE FRANCKS: Any objections?

4 MS. MATSUMOTO: No objection.

5 JUDGE FRANCKS: R-24 is admitted.

6 (Exhibit No. R-24 admitted.)

7 Q (By Ms. Barney) And what is your educational background,  
8 Mr. Jennings?

9 A I currently have a bachelor of science degree in  
10 chemistry and then also a bachelor of science degree in  
11 information systems, which is computer programming.

12 Q And I heard you say that in 2007 you became the  
13 administrator for the CAFO permit?

14 A Yes. That's what I would consider it. I basically  
15 administered the daily functions of the permit, doing the  
16 paperwork for issuing permit coverages, getting reports,  
17 those sorts of things.

18 Q Is the title "permit manager" another title for that  
19 particular job responsibility?

20 A It is roughly equivalent. Permit manager is usually used  
21 with individual permit writers in the regions, but permit  
22 writer, permit manager are usually used interchangeably.

23 Q And what were your responsibilities regarding the CAFO  
24 permits currently under appeal?

25 A The CAFO permits -- you're referring to the actual

1 permits themselves, not the coverages?

2 Q Correct. The permits.

3 A Okay. For the CAFO permits, I was the primary permit  
4 writer, so I was the one that put the words on paper.

5 Q And why are there two permits?

6 A So there are two permits to deal with the differences  
7 between state and federal law. Federal law, the Clean  
8 Water Act, only covers surface water discharges. State  
9 law RCW 90.48 covers surface water and groundwater  
10 discharges.

11 Because, when you incorporate state-only discharges  
12 into a combined state and federal permit, those  
13 state-only portions of the permit also become subject to  
14 third-party enforcement under the -- under federal law.

15 During Ecology's deliberations and discussions about  
16 the permit, we felt it was appropriate to separate the  
17 permit to make it clear that for operations for CAFOs  
18 that only have groundwater discharges, and, therefore,  
19 only liable under state law, to create a separate permit  
20 for those -- those operations versus the operations that  
21 may have a surface water discharge and are, therefore,  
22 covered under the federal Clean Water Act laws.

23 Q I'm going to have you pull out the notebook that says  
24 Exhibits 1 through 4, please. That -- we'll be done with  
25 your resume for now, so -- and would you please look at

1 Exhibit R-1.

2 A Okay.

3 Q Can you tell us what this document is?

4 A This is the concentrated animal feeding operation NPDES,  
5 national pollutant discharge elimination system, and  
6 state waste discharge general permit.

7 Q So is that the combination permit that you spoke about  
8 that covers both surface and groundwater?

9 A Yes. This is generally what we refer to as the combined  
10 permit.

11 MS. BARNEY: Ecology moves for the  
12 entry of Exhibit R-1.

13 JUDGE FRANCKS: R-1 is admitted.

14 (Exhibit No. R-1 admitted.)

15 Q (By Ms. Barney) Could you look, please, at R-2.

16 A Okay.

17 Q Can you tell us what this document is.

18 A This is the concentrated animal feeding operations state  
19 waste discharge general permit. This is the state-only  
20 permit.

21 MS. BARNEY: Ecology moves for the  
22 entry of Exhibit R-2.

23 MS. HOWARD: No objections.

24 JUDGE FRANCKS: R-2 is admitted.

25 (Exhibit No. R-2 admitted.)



1 Q (By Ms. Barney) And could you please turn to  
2 Exhibit R-3.

3 A Okay.

4 Q Can you tell us what this document is.

5 A This is the draft fact sheet for both the combined  
6 permit, the NPDES, and state waste discharge and the  
7 state-only permit.

8 Q And what is the purpose of the fact sheet?

9 A The fact sheet is a document that is developed by a  
10 permit writer, which lays out the legal and technical  
11 basis for the terms and conditions in a general permit.

12 Q And did you author the fact sheet?

13 A Yes, I did.

14 Q And what is the -- when is the fact sheet published?

15 A The fact sheet is published with what we call a formal  
16 draft permit that goes out for public comment.

17 MS. BARNEY: Ecology moves for the  
18 entry of Exhibit R-3.

19 JUDGE FRANCKS: R-3 is admitted.

20 (Exhibit No. R-3 admitted.)

21 Q (By Ms. Barney) So let's go back again to what your  
22 responsibilities were regarding the CAFO permits.

23 When did you begin work on this current iteration of  
24 the CAFO permits?

25 A The first work I started doing on this was probably late

1           2014, started thinking about what the permit may look  
2           like and meeting with interested parties.

3    Q    Could you tell us more about that process, the meetings  
4           you held.

5    A    So as part of our process here, there was a lot of  
6           interest by various parties about what CAFO permits may  
7           look like and the conditions that may be included in a  
8           permit.

9                 So what Ecology did was to go out and hold what we  
10                called the listening sessions, either with small groups  
11                of individuals, one-on-one, or even a few large public  
12                meetings, to go out and hear, you know, what the concerns  
13                were, you know, by -- from the public point of view,  
14                industry, as well as environmental groups, and just get  
15                the lay of the land, see -- see what was out there.

16   Q    And you mentioned that Ecology published a preliminary  
17           draft permit?

18   A    Yes. So at times, when we expect a fairly contentious  
19           permit, Ecology will do a preliminary draft, which is  
20           basically a draft of a draft, and that will start to put  
21           words on paper to basically get a reaction from all the  
22           interested parties as to what -- what they're thinking  
23           about Ecology's potential permit conditions and where we  
24           may need to continue doing work.

25   Q    And approximately when did you publish that preliminary

1 draft?

2 A I believe that was in early -- that would have been very  
3 early in 2015.

4 Q And then there was also a formal draft published?

5 A Yes. So after Ecology issued the preliminary draft and  
6 took comment on that, we went back, reviewed the  
7 comments, and then developed our formal draft that we put  
8 out later in 2015 for formal public -- or for formal  
9 public comment.

10 Q And Ecology did receive comments on that formal draft  
11 permit?

12 A Yes. Ecology received approximately 4,600 comments on  
13 the formal draft.

14 Q Okay. In looking at the two permits you described for  
15 us, the two different authorities, under those two  
16 permits, are the conditions similar between the two  
17 permits?

18 A Yes. Because the -- because both permits cover very  
19 similar activities, the permit conditions between the two  
20 permits are largely the same, though there's some  
21 differences.

22 Q What would some of those differences be?

23 A So this mostly relates to surface water discharges  
24 because the state-only permit does not authorize any  
25 surface water discharges.

1           There are some conditions, like field practices to  
2 prevent runoff and discharges, that are different between  
3 the two permits.

4           So under federal rules, there's some minimum  
5 practices that are required because there is some runoff  
6 that takes place. Under the state-only permit, no runoff  
7 is allowed, so the condition is different.

8 Q    Could -- I'd like to direct you in the fact sheet, R-3,  
9 to Page 10.

10           What does this section of the fact sheet describe?

11 A    So Page 10, there are two different sections here,  
12 description of animal agricultural industry and effluent  
13 characterization.

14 Q    Let's look at the second section, effluent  
15 characterization.

16           What does this section describe?

17 A    So this section describes, in general, the types of  
18 pollutants and discharges that would take place from a  
19 CAFO as well as the estimated ranges of the amounts of  
20 various pollutants generated by the industry as a whole  
21 over the course of the year.

22 Q    And what pollutants are particular concern at CAFOs?

23 A    So particular concern would be nutrients such as nitrogen  
24 or phosphorous. We focus on nitrate with the nitrogen,  
25 as well as in some areas fecal coliform bacteria.

1 Q And what is the source of those pollutants at a CAFO?

2 A So generally the source of those pollutants is manure  
3 generated by the animals, as well as any potentially  
4 feedstocks or other sources of organic nutrients, like,  
5 say there's a few CAFOs, they have digesters across the  
6 state that generate -- that take outside feedstocks and  
7 generate a mixed product in the end.

8 Q And how is manure stored at a facility?

9 A So manure -- there's generally a couple types of storage  
10 that take place on the production area, which is where  
11 animals are housed and where manure is stored, and that  
12 includes lagoons or other storage structures like upright  
13 tanks.

14 Sometimes there's also, if they're separating out  
15 the solids of manure, there will be dry stack piles or  
16 drying areas, sometimes composting areas, but that's all  
17 part of the production area.

18 Q And does that -- does the manure continue to accumulate  
19 at a facility?

20 A So generally, manure will accumulate over the nongrowing  
21 season, which generally think of that as the winter, and  
22 that's when manure is stored. And then once the  
23 appropriate time is reached during the spring and crops  
24 are starting to grow, that stored manure will then be  
25 applied to treat it as part of a crop system.

1 Q When you say "to treat it," are you speaking of to treat  
2 the manure?

3 A Well, to basically -- the manure has lots of nutrients in  
4 it and also, you know, fecal coliform bacteria, so the  
5 idea is that the manure is land applied, and the crops  
6 treat the manure, if you will, to take up nutrients that  
7 are provided by the -- provided by the material.

8 Q So I believe I've heard you say that Ecology is concerned  
9 with the nitrate generated in the manure, but you also  
10 mentioned that phosphorus was in the manure.

11 Is Ecology concerned about the phosphorus in the  
12 manure as well?

13 A Yes. Phosphorus is a concern. As I think was mentioned  
14 in opening, phosphorus can have detrimental impacts on  
15 surface water quality.

16 So as part of the permit, we do actually limit the  
17 amount of phosphorus that can be applied as part of land  
18 applying manures, crop nutrients.

19 Q And how is phosphorus limited by the conditions of the  
20 permit?

21 And you can turn to the permit condition. Just let  
22 us know what page you'll be on.

23 A Okay. Let me find that quick.

24 Q We can use the combination permit, R-1, for the easiest  
25 reference, and we'll talk about when there's differences

1 between R-1 and R-2.

2 A So in the combined permit, on Page 19, there is a section  
3 there, a special condition, S4.J is land application.  
4 This section, in part, deals with the requirement for an  
5 operation develop- -- what we call a nutrient budget  
6 prior to land application taking place at the beginning  
7 of the cropping season.

8 And the nutrient budget basically looks at the  
9 nutrients that are in a field, the nutrients that the  
10 proposed crop is going to require during the growing  
11 season.

12 And then basically, if you look at Page 20, there's  
13 a number of different factors here under 1, A through L,  
14 that have to be taken into account as part of looking at  
15 the nutrients that may be applied to a field growing  
16 season.

17 So the outcome of developing this nutrient budget  
18 is, there will be an amount of nitrogen that's required  
19 on a field during a year and an amount of phosphorus, and  
20 those are the maximum amount of those nutrients that can  
21 be applied to that crop field during a year.

22 Q Does the permit also regulate the rate at which these  
23 nutrients are applied?

24 A Yes. It does have some regulation on the rate that  
25 nutrients are applied, so once the total amount of

1        nutrients that a crop needs is determined, then, during  
2        the cropping season, those nutrients will be applied at  
3        various times. We call it the land application rates.

4            And that's -- the land application rates are going  
5        to be the amount of manure that's applied per unit area  
6        or per unit time on a field.

7            And that -- on Page 20, No. 2, starts discussing  
8        application rates and the fact that the amount of manure  
9        applied at any one time must be -- must not be above what  
10       the crop can use at that time.

11           And that's based on a -- the most current analysis  
12       of the manure, other source of nutrients that's going to  
13       be land applied.

14    Q    In terms of how this particular section of the permit  
15       regulates phosphorus, again, could you be specific to  
16       phosphorus with regard to the two sections you just  
17       described, the yearly budget and the application rate?

18    A    Okay. So -- so starting with the field specific budget,  
19       a permittee would -- using these conditions under 1, A  
20       through L, would develop a nutrient budget for their  
21       A crop during the cropping season.

22           That nutrient budget, you would end up with a total  
23       amount of nitrogen and a total amount of phosphorus that  
24       is required to grow that crop for the season.

25           Then for both of those, but focusing on phosphorus,



1           that's the maximum amount of that nutrient that may be  
2           land applied to that field during the cropping season.

3    Q    So I think I heard you say that the -- that this budget  
4           applies also to nitrates?

5    A    Yes.

6    Q    So --

7    A    Well, nitrogen and --

8    Q    So tell us about the nitrogen.  What form is the nitrogen  
9           in?

10   A    So in this case the nitrogen would be in the form of  
11          ammonia, nitrate, and nitrite.

12   Q    Is that considered total nitrogen for a field?

13   A    I believe so.  The other piece of the nitrogen that you  
14          have to take into account is organic nitrogen.  That's  
15          nitrogen bound up in organic matter that later becomes  
16          crop available as ammonia or nitrate.

17   Q    Okay.  So these budgets limit both -- I just want to make  
18          sure I get your testimony correct -- both nitrogen and  
19          phosphorus in the same way with regard to these budgets?

20   A    Yes.  So the budget will calculate the total amount of  
21          nitrogen and the total amount of phosphorus.  Then when  
22          the permittee goes to land apply, if they reach one of  
23          those numbers for nitrogen or phosphorus, they can no  
24          longer land apply a nutrient source that has more of that  
25          nutrient in it.

1           So if they have a nutrient source that has both  
2           nitrogen and phosphorus, and they've already reached the  
3           phosphorus limit based on the nutrient budget, then they  
4           can no longer apply that nutrient source because it still  
5           has phosphorus in it and you would be applying phosphorus  
6           above the limit that's set by the nutrient budget.

7    Q    I see. Thank you very much.

8           Can I have you turn, please, to Page 12 in R-1.

9           In looking at Condition S3, what does this condition  
10          address?

11   A    So S3 is the discharge limits for a permitted operation  
12          and accounting for discharges, depending on whether  
13          surface water discharge in a combined permit here and if  
14          the facility is located in an area with a TMBL or an  
15          impaired water body and then also later getting into the  
16          discharges allowed from production area and land  
17          application fields since there are differences.

18   Q    And what discharges are authorized by this permit?

19   A    So the discharges authorized by the permit are going to  
20          depend on whether the discharge takes place from the  
21          production area or the land application field.

22                 The production area again is the areas where the  
23                 animals are confined, also where feed is stored, manure  
24                 is stored, those sorts of things.

25                 And this permit only allows a discharge if the

1 production area is designed, operated, and maintained  
2 such that it will contain all the manure plus any water  
3 that comes in contact with contaminants on-site except  
4 during a 25-year 24-hour storm event or larger.

5 The discharges from a land application field, land  
6 application, or the crop fields where crops are actually  
7 grown and manure is land applied --

8 Q Actually, Mr. Jennings, before you go on to land  
9 application, I want to stay in the production area for  
10 just a minute, please.

11 A Okay.

12 Q So could you tell us a little bit more about this storm  
13 event.

14 A So the storm event is 25-year, 24-hour storm event. It  
15 is basically a storm event that, you know, happens --  
16 has -- well, anyways, it's a storm event of a certain  
17 size.

18 And so the -- their main -- a CAFO may not have a  
19 discharge from a production area unless a storm event of  
20 that size occurs, so --

21 Q And where does that requirement come from?

22 A That requirement comes from the federal CAFO regulations.

23 Q Okay. Is that a discharge to groundwater?

24 A No, that is not. That is a discharge to surface water.

25 Q Okay. So are there other surface water discharges that

1 are authorized by the permit, by the combined permit?

2 A So there are -- there are discharges that are outside of  
3 the control or outside of the realm of what the permit is  
4 authorized to control that takes place on land  
5 application fields.

6 Q And what would those -- what -- what would those  
7 discharges be?

8 A So from land application fields, there can be a type of  
9 discharge that's called agricultural stormwater.

10 Q And is that discussed on Page 13 of the permit?

11 A Yes. That takes -- that's on Page 13, S -- under  
12 No. D -- letter D.

13 Q And so what is agricultural stormwater?

14 A So in the federal Clean Water Act, in the definition of  
15 point source, agricultural stormwater is a type of  
16 stormwater that is called out as being exempt from being  
17 a point source under the Clean Water Act.

18 That means that it's not a type of discharge that we  
19 can control under -- under this permit, but in order for  
20 a discharge from a field to be agricultural stormwater,  
21 there's a number of conditions that must be met first.

22 And those -- some of those come from the federal  
23 CAFO rules that we've incorporated into the permit.

24 And so what that basically boils down to is that, if  
25 an operation is in compliance with the permit and that

1 means they've, you know, done their soil sampling,  
2 they've done their nutrient budgets, they've land applied  
3 appropriately, according to the other conditions in the  
4 permit and then they've done all that correctly and then  
5 a rain event happens and there's some runoff from a  
6 field, that runoff from the field would be agricultural  
7 stormwater and would be outside the control of the  
8 permit.

9 Q So could -- to review that then, does any rainstorm lead  
10 to agricultural stormwater?

11 A No, it does not.

12 Q So you mentioned a few specifics of the permit conditions  
13 that need to be -- that a facility needs to be in  
14 compliance with the nutrient budgets and so forth.

15 Are there other aspects of the permit that a  
16 facility needs to be in compliance with?

17 A Yes. Generally, looking at the table of contents on the  
18 permit may be the easiest to summarize the various  
19 conditions that a facility needs to be in compliance  
20 with.

21 Q And what would those be?

22 A So, as I said, the -- a facility has to be in compliance  
23 with the permit, but when you're talking land application  
24 fields, to summarize, basically you're looking at --  
25 let's see here -- Permit Conditions S4.H, S4.I, S4.J,

1 S4.K, as it applies to nutrient budgets, and then S4.L,  
2 and S4.M.

3 Q Could I have you turn to Page 21 in the permit.

4 Can you tell us what section of the permit this is,  
5 what condition -- permit condition this part of the  
6 permit is in?

7 A Okay. So there's two, starting on this page. One is --  
8 3 is application restrictions. That's land application  
9 restrictions for when -- for when manure and other  
10 organic sources of nutrients may not be land applied.

11 Q But this is in Condition S4.J; is that right?

12 A That is correct.

13 Q Okay. If we look under application restrictions, we look  
14 at Section D, what are those little I through little VII,  
15 what do those conditions there refer to?

16 A So those Conditions D, I through VII, are conditions  
17 which tell a permittee when they may not land apply  
18 manure or other organic nutrients.

19 Basically, these are conditions in which this  
20 creates a high risk of discharge, and so they are  
21 conditions which limit activities.

22 And so in regards to the agricultural stormwater  
23 piece we were discussing, if a permittee isn't following  
24 one of these conditions, let's say, you know, the field  
25 is frozen and they go and the permittee land applies

1 manure that day and there's runoff, that's not  
2 agricultural stormwater. That's a field discharge.  
3 That's not allowed by the permit.

4 Q So when I see here, D, No. 3, to fields with saturated  
5 soil, what does that mean?

6 A Basically that means that the soil cannot hold any more  
7 water within the core space. It would -- if you put more  
8 water on the surface, it would -- it would run off.

9 Q So if manure had been applied to the field with saturated  
10 soil and there was a rain event, would the agricultural  
11 stormwater exemption apply?

12 A No, it would not.

13 Q Okay. And I see No. 5 there. If precipitation is  
14 forecast within 24 hours, there should also not be an  
15 application?

16 A That is correct.

17 Q And, again, would the stormwater exemption apply --  
18 agricultural stormwater exemption apply in this case?

19 A If manure had been land applied and a storm event was  
20 predicted within the next 24 hours, then, no,  
21 agricultural stormwater would not apply.

22 Q Could we also look, please, at Page 25 at Condition S4.M.

23 A Okay. Field discharge management practices?

24 Q Yes. What does this section of the permit address?

25 A So this section discusses the requirements that a

1 permittee must implement at the edge of a field basically  
2 when doing land application and there's, say, a ditch or  
3 a stream or something next to the edge of a field, even  
4 some sort of water, then a permittee must implement a  
5 field discharge management practice, a buffer, in short,  
6 to prevent discharges from reaching that surface water.

7 And these are -- what we've included in the combined  
8 permit are three alternatives that are required as the  
9 minimums in the federal CAFO rule, a 100-foot manure  
10 application setback, a 35-foot vegetative buffer, like  
11 perennial grasses, or a compliance alternative that's  
12 equivalent to the 100-foot setback.

13 We've also included a fourth option here because,  
14 during our discussions about the permit, we determined  
15 that we believe it's equivalent to the 100-foot  
16 application setback, and that's the berm, which, if  
17 installed correctly, would prevent runoff from a field.

18 Q So this is -- is this another section of the permit that  
19 a permittee would have to be in compliance with in order  
20 to try to invoke the agricultural stormwater exemption?

21 A Yes. A permittee would have to implement the appropriate  
22 edge of field practices and have them operating and being  
23 maintained appropriately in order for this -- them to be  
24 in compliance if we're considering a discharge in  
25 agricultural stormwater discharge.



1 Q So in terms of surface water discharges, we've discussed  
2 two. One is the discharge from the production area in  
3 that 25-year 24-hour storm event and the exemption that  
4 exists for agricultural stormwater.

5 Are there other surface discharges that are allowed  
6 under the combination permit?

7 A I don't believe so, no.

8 Q Are there surface discharges that are permissible under  
9 the state-only permit?

10 A No surface water discharges are allowed under the  
11 state-only permit.

12 Q And why is that different?

13 A The state-only permit is -- only authorizes discharges  
14 under state law, so we can only authorize groundwater  
15 discharges under state law.

16 We would have to have the overlay of the federal  
17 Clean Water Act in order to authorize a surface water  
18 discharge.

19 And since the state-only permit is only issued under  
20 state authorities, we only authorize groundwater  
21 discharges.

22 Q So no surface water discharges from the state permit?

23 A Correct.

24 Q Okay. What groundwater discharges are permissible under  
25 the combination permit?

1 A So groundwater discharges would be some seepage from  
2 manure storage lagoons and also from infiltration on land  
3 application fields.

4 Q Are those -- do those discharges have any numeric  
5 requirements on them?

6 A Just the -- just the state groundwater standards.

7 Q Could you explain a little bit more about that.

8 A So the permit effluent limits are narrative with the  
9 backstop of the state groundwater quality standards,  
10 which would include numeric limits on what's allowed in  
11 to be discharged in the groundwater, depending on where  
12 in the state the facility is located.

13 Q Okay. Thank you.

14 So, Mr. Jennings, what's a tile drain?

15 A To my knowledge, a tile drain is a -- is a perforated  
16 pipe that is -- or series of pipes actually below a field  
17 that's intended to lower the water table so that -- a  
18 field is actually cropable, farmable.

19 Q And where does a tile drain discharge?

20 A Generally, tile drains -- they will discharge into  
21 surface waters or some other drainage ditch that's a  
22 conduit to a surface water.

23 Q Are some tile drains part of a CAFO?

24 A Yes, I believe so.

25 Q Would they be covered by the permit?

1 A Yes, they would.

2 Q Does that include the agricultural stormwater exemption  
3 under the combined permit?

4 A Generally, I would say no, they would not be considered  
5 agricultural stormwater.

6 Q Unless the conditions of agricultural stormwater would  
7 apply?

8 A No. Because generally the tile drain would bypass the  
9 edge of field practices intended to help filter any  
10 runoff from a field.

11 Q So that would mean the permittee would not be in  
12 compliance with the permit with regard to that?

13 A Yes.

14 Q Okay. Thank you.

15 If we were to turn to Page 31 and look at  
16 Condition S5, can you tell us, just in a general way,  
17 what this condition of the permit regulates.

18 A So S- -- so S5, in general, is monitoring, and it covers  
19 visual inspections to ensure that the practices that an  
20 operation is implementing are operating appropriately and  
21 that they're maintained appropriately.

22 And then it also covers the requirements for how an  
23 operation must have their soil sample both spring and  
24 fall, as well as the manure and other organic sources of  
25 nutrients that are going to be land applied.

1 Q Okay. We'll get into more detail on those in a bit.

2 If you'll turn to Page 34 and, in general,  
3 Condition S6, what does that require of a permittee?

4 A So, in general, S6 is recordkeeping for the permit, and  
5 these are conditions -- these are pieces of information  
6 that a permittee must keep in order to show that they are  
7 in compliance with permit conditions.

8 Q And then on Page 35, S7.

9 A So Condition S7 contains the required reports that a  
10 permittee must submit as part of holding coverage under  
11 the permit.

12 And those include submittal of what we call a Manure  
13 Pollution Prevention Plan or just shorten to manure plan,  
14 as well as an existing lagoon assessment, which is an  
15 assessment of -- for existing lagoons, an assessment of  
16 the risk of -- the risk that lagoon poses to the  
17 environment through discharge.

18 And then also we've got a yearly annual report  
19 that's due at the end of each year, in general, just  
20 showing what has been done on-site, as well as our  
21 standard noncompliance notification, that spills  
22 reporting.

23 Q Okay. Thank you.

24 I'm going to circle back to your experience with the  
25 2006 permit. Again, could you review some of your

1 responsibilities with that permit.

2 A So for the 2006 permit, as part of administering that  
3 permit, my responsibilities were to answer questions  
4 about that permit for permit interpretation, as well as  
5 to guide permit applicants through the permit application  
6 process, which included reviewing the application  
7 documents we received.

8 So the permit application at the time was called a  
9 nutrient management plan, which needed to be reviewed and  
10 determined to be acceptable by Ecology prior to permit  
11 coverage being issued for the facility.

12 Q And what was contained in the nutrient management plan?

13 A So the nutrient management plan is a -- is an artifact of  
14 the federal CAFO rules. And the way the federal CAFO  
15 rules are set up, the nutrient management plan written by  
16 the permittee and their technical assistants generally  
17 contained once -- once found acceptable by Ecology and  
18 then approved through permit coverage being issued, the  
19 site-specific effluent limitations for that operation.

20 So essentially it was the -- it became site-specific  
21 permit conditions for an operation once coverage is  
22 issued.

23 Q Did the CAFO -- the 2006 CAFO permit contain the  
24 conditions that are currently in for manure pollution  
25 prevention currently in this permit in S4? We can look

1 at it.

2 If you want to pull Exhibit R-18, the 2006 permit.

3 A Okay. So just looking at the table of contents on Page 2  
4 of the 2006 permit, the 2006 permit included the elements  
5 of a nutrient management plan that are required by the  
6 federal CAFO rule, but it only required that those  
7 elements be addressed in some fashion in the nutrient  
8 management plan submitted as part of a permit  
9 application.

10 Q Is the current permits, the 2017 permits, is that the  
11 same for the 2017 permits?

12 A That is actually different in the 2017 permits. So the  
13 federal CAFO rule has these minimum elements, these nine  
14 minimum elements, that are required to be incorporated as  
15 part of a nutrient management plan.

16 The 2006 CAFO permit followed that concept of  
17 there's these minimum elements that must be included.  
18 That's different than the 2017 CAFO permit where instead  
19 of elements to be included in a plan, Ecology has taken  
20 those nine measures, if you will, and incorporated them  
21 into the general permit itself as performance standards.

22 Q And we'll look at those nine individual -- those nine  
23 elements a little more specifically in a minute, but I  
24 wanted to find out why it is that the -- that Ecology  
25 changed its strategy with regard to those elements.

1 A Okay. So in the 2006 permit, my experience was that,  
2 when Ecology receives a new permit application and  
3 reviews a nutrient management plan, which was a fairly  
4 thick document, there were oftentimes changes that needed  
5 to be made to that nutrient management plan before  
6 Ecology could determine it to be acceptable.

7 Now, those changes resulted in oftentimes a lot of  
8 back-and-forth with the permit applicant, which sometimes  
9 took years to finish.

10 And that -- general permits are not meant to operate  
11 in that fashion. General permits are meant to be  
12 efficient. We receive a permit application, and we issue  
13 permit coverage, assuming that the applicant meets  
14 general permit requirements.

15 The 2006 permit, as it was implemented, they -- it  
16 created a do loop, if you will, Ecology would receive a  
17 permit application. We'd have to review the nutrient  
18 management plan, send it back for updates by the  
19 permittee and their technical assistants, and then once  
20 we got that updated plan back, we would have to review it  
21 again.

22 And so oftentimes there were several iterations of  
23 this that took place, and so Ecology wanted to bring the  
24 CAFO permits back to being true general permits where  
25 everybody has the same permitting conditions. Permit

1 conditions aren't developed on a site-by-site basis.

2 Q During the time that you were in what you call -- I  
3 believe you called the do loop, were the -- were the  
4 provisions in the dairy nutrient plans enforceable by  
5 Ecology?

6 A So be careful on terminology here. The nutrient  
7 management plans as they were being developed by permit  
8 applicants, since they were not yet permit conditions,  
9 they were not enforceable until permit coverage was  
10 actually issued.

11 That's different than the 2017 permits. 2017  
12 permits -- the permit conditions which include those same  
13 elements are enforceable conditions as they exist in the  
14 permit.

15 The Manure Pollution Prevention Plan, which we  
16 touched on a little bit earlier, just calling it the  
17 manure plan, that contains the description of how an  
18 operation is meeting the permit conditions in the 2017  
19 permit.

20 Q Let's look at those nine elements. If you look in the  
21 fact sheet at Page 41 --

22 A That's Exhibit 3?

23 Q Exhibit 3, yes. I'm sorry.

24 A Page 41?

25 Q Yes. There's a table on the bottom half of that page.



1 A Yes.

2 Q What does that table describe?

3 A So this table describes -- it's the EPA CAFO rule and  
4 CAFO permit cross -- permit section cross-reference.

5 So as part of developing the draft fact sheet here,  
6 we developed this table which lists the elements of the  
7 federal CAFO rule that need to be included as part of a  
8 nutrient management plan and then crosswalked those to  
9 the permit conditions in the draft permits.

10 Q When you described the nine minimum elements, what are  
11 those elements?

12 A So those -- those nine minimum elements are elements that  
13 EPA included for various I'll call it areas of activities  
14 on a CAFO for preventing and controlling pollution.

15 And so those are things like are listed here in the  
16 table, ensuring adequate storage, proper management of  
17 mortalities, diverting clean water from the production  
18 area so it's not commingled with water that comes in  
19 contact with the pollutants, preventing confined animals  
20 from coming in contact with surface waters, handling  
21 chemicals appropriately, you know, pharmaceuticals and  
22 sanitizers, those sorts of things.

23 Also EPA calls them site-specific conservation  
24 practices, but these are the edge of field practices, the  
25 buffers, and then ensuring that manure is land applied

1           appropriately so that crops can appropriately utilize the  
2           nutrients in the manure, other sources of nutrients.

3    Q    Can you take a look at that large table behind you.

4           Does that look familiar?

5    A    Yes, it does.  It's a summary of the crosswalk.

6    Q    Can you walk us through a few examples of -- and I  
7           actually have a copy of the federal regulations if you  
8           need to refer to them, or if you can just use a couple of  
9           examples from that chart to tell us how this works with  
10          regard to these elements being incorporated into the  
11          permit.

12   A    Okay.  I'll have to reference the permit -- the federal  
13          rules would be helpful as well.  So I'll use the combined  
14          permit.

15                            JUDGE FRANCKS:  Ms. Barney, is that an  
16          exhibit.

17                           MS. BARNEY:  That is a demonstrative  
18          exhibit.

19                           JUDGE FRANCKS:  So it's not one of our  
20          exhibits.

21                           MS. BARNEY:  It is not.  This chart  
22          was in the summary judgment briefing.

23                           If I may, Ms. Francks, Judge Francks, may I pass  
24          these to the board?

25                           JUDGE FRANCKS:  Yes, you may.

1 Q (By Ms. Barney) Go ahead, Mr. Jennings.

2 A Okay. So in terms of how this works, on the second page  
3 on -- that's 262, the second column is -- second letter  
4 there is E, concentrate animal feeding operations.

5 And then under No. 1 there, there's a list of Roman  
6 numerals, which are the nine minimum elements I've  
7 mentioned previously.

8 So just to kind of take some of the shorter ones to  
9 discuss here, if you look at combined permit on the table  
10 of contents, let's say S4.D, diversion of clean water,  
11 I'll talking about that one, and then we can get on to  
12 some others.

13 But let's see. That is -- that is Roman numeral III  
14 on Page 262 there. So if you can see in the federal  
15 rule, the nine minimum elements basically are general  
16 statements of things that must be considered as part of a  
17 nutrient management plan, in this case, ensure that clean  
18 water is diverted as appropriate from the production  
19 area.

20 That's fairly vague and leaves a lot of room for  
21 interpretation. So looking at S4.D in the permit, which  
22 is -- let's see -- which is on Page 16, what Ecology has  
23 done is taken and -- that general statement and added  
24 requirements to the permit to basically turn it into a  
25 performance standard.

1           The -- you know, in this case, okay, the facility  
2           has to -- the facility has to divert the clean water, but  
3           how do they have to do it?

4           Previously how they would -- how they had to do that  
5           was located in the nutrient management plan to review  
6           under the 2006 permit.

7           Now we've said that, okay, you have to divert the  
8           clean water. We've clarified that that water is water  
9           that hasn't come into contact with pollutants, you know,  
10          even spilled feed, manure, those sorts of things, and  
11          then basically put other parameters around that in terms  
12          of, if you're going to divert clean water, yes, it may go  
13          to a ditch, but you can't cause other environmental  
14          problems associated with diverting that water.

15          So we've actually basically set parameters around  
16          how that activity may take place, which is, again,  
17          different than the federal rule and different than the  
18          2006 permit, which just listed that something must be  
19          done to address that.

20          So then what the -- what the permittee would do is,  
21          they have to meet this permit condition as soon as they  
22          have permit coverage.

23          As part of how they meet that condition, they have  
24          to describe the activities that they are -- or, you know,  
25          say technologies, if you want to think of gutters as

1 technologies, that they are implementing on-site, they  
2 have to describe those in the Manure Pollution Prevention  
3 Plan or how they're meeting this permit condition.

4 Q Could you run through another example?

5 A Sure. Another short one, let's take S4.F, which is  
6 chemical handling. So that is -- that is on Page 262 of  
7 the handout that Phyllis provided -- is Roman numeral V.  
8 Basically to paraphrase the statement there, the federal  
9 requirement of that element is that chemicals must be  
10 handled appropriately on-site.

11 That's quite -- doesn't provide much bounds. So  
12 what Ecology did is, we took and we said, okay, how  
13 should chemicals be handled appropriately on-site to  
14 prevent discharges?

15 And that's things like including a provision that,  
16 you know, if the chemical is a pesticide, that it has to  
17 follow the FIFRA label, which is Federal Insecticide,  
18 Fungicide, and Rodenticide Act, but basically is the --  
19 is the legal document governing how that chemical is  
20 used.

21 The same thing with, you know, ensuring that there  
22 is -- the chemicals are stored and has -- so that those  
23 chemicals don't come in contact with other water,  
24 basically things like having a special place for those  
25 chemicals to be stored as well as having emergency

1 procedures for, well, what happens if they do get  
2 spilled?

3 So, again, we put performance standards in the  
4 permit that a permittee has to comply with as soon as  
5 they have permit coverage and then the permittee in the  
6 Manure Pollution Prevention Plan would tell us how  
7 they're doing that.

8 So in the case of, say, you know, chemical handling,  
9 they may say, "Well, we have a special, you know,  
10 chemical storage location that, you know, has -- that has  
11 floors, which prevent runoff to other areas of the  
12 facilities and are impermeable." So some descriptive  
13 statement of what they are doing to meet that permit  
14 condition.

15 Q In terms of Manure Pollution Prevention Plan, what  
16 condition of the permit governs what the contents of that  
17 plan are?

18 A Let me look here. Okay. So there's actually two  
19 conditions. One is S4.Q on Page 28. At least the  
20 combined permit, that contains the information  
21 requirements for the manure prevention plan, and then  
22 Special Condition S7.A on Page 35 is where we talk about  
23 when the manure prevention plan must be submitted.

24 Q Let's look at Condition S4.Q on Page 28. So I think  
25 you've been describing what needs -- in your examples,

1           you described what needed to be in this with regard to  
2           those two particular elements of the nine required  
3           elements.

4                     Does that type of information appear in the Manure  
5           Pollution Prevention Plan for all of the rest of the  
6           elements as well?

7   A    Yes.

8   Q    Is there anything else in the Manure Pollution Prevention  
9           Plan?

10   A   Well, the Manure Pollution Prevention Plan is intended to  
11       be a living document that the permittee keeps up to date.  
12       There are some requirements in the permit for that, but  
13       they keep it up to date.

14                     As their operation may change, they're expected to  
15       keep the plan up to date with those changes and their  
16       operations.

17                     And so the permit is -- or excuse me. The plan is  
18       intended to include other information about pollution  
19       prevention, so, you know, maps of their facility and  
20       facility information that may help somebody looking at  
21       that facility, looking for permit to determine that the  
22       facility is actually complying with the permit conditions  
23       and the performance standards there.

24   Q    Does Ecology review the manure plan?

25   A    Ecology will review the plan, if necessary, to ensure

1           that, you know, it's meeting the permit conditions or,  
2           say, a compliance situation, we would look to the most  
3           recent plan as a source of information as to what the  
4           facility is doing on-site currently.

5   Q    What if that plan is inadequate?

6   A    If that plan is inadequate, then there are conditions --  
7           there is a condition -- I'd have to look for it -- that  
8           the permittee has a certain time frame by which they have  
9           to have that plan updated to not only reflect what they  
10          need to do but also a timeline for what they're doing to  
11          fix the noted problem and getting the plan updated.

12   Q    Are they required to implement the plan?

13   A    Yes, they are.

14   Q    And do you know where that's located?

15   A    Well, that's under S4.Q here on Page 28.  It's the  
16          first -- it's the first sentence, "The permittee must  
17          prepare, keep up to date, and implement a Manure  
18          Pollution Prevention Plan for their CAFO."

19   Q    And once submitted, is the manure plan a public document?

20   A    Yes, it is.

21   Q    And how does Ecology make that document public?

22   A    So currently that document is available if someone  
23          requests, say, a public disclosure request.

24                 What we're working on is hopefully sometime soon an  
25          update to our PARIS database, which is our permitting



1 database that contains all of the permits and documents  
2 that are associated with those permits that Ecology has  
3 issued.

4 Once a home is built for the CAFO permits in that  
5 database, those -- all those submittal documents will be  
6 available there. There's an online Web portal that  
7 anybody can use to look for them.

8 Currently there's only placeholders for the  
9 permitting CAFO facilities in there, but that would allow  
10 somebody to look at that list of facilities and request  
11 the Manure Pollution Prevention Plans we have right now.

12 Q Would any updates submitted to Ecology be posted there as  
13 well?

14 A Once a home is built, yes.

15 Q Is the manure plan required by the state-only permit?

16 A Yes. The manure plan is required by the state-only  
17 permit. It has -- other than, off the top of my head,  
18 the edge of field practices, it has the same requirements  
19 as the combined permit.

20 Q Under RCW 90.64, the Dairy Nutrient Management Act, is  
21 there a nutrient management plan -- dairy nutrient  
22 management plan required under that regulation?

23 A Yes. RCW 90.64 does require that a facility have a dairy  
24 nutrient management plan.

25 Q Does the manure prevention plan replace that?

1 A I would say that, for a permitted facility, a  
2 well-written and implemented dairy nutrient management  
3 plan could form the basis for a Manure Pollution  
4 Prevention Plan.

5 So it wouldn't completely replace the Manure  
6 Pollution Prevention Plan. I think would add on to it.

7 Q So there might be some elements in common?

8 A Yes.

9 Q Okay. And, again, just to be clear, the permit  
10 conditions that the manure plan is required to address,  
11 those become enforceable under permit coverage right  
12 away; correct?

13 A Yes. So as soon as an operation has permit coverage,  
14 permit conditions are enforceable, and then once they've  
15 developed their Manure Pollution Prevention Plan to  
16 address the permit conditions, that's also enforceable.

17 Q So they're required -- to use one of your examples, a  
18 facility would be required to properly manage their  
19 chemicals even before their manure plan is complete?

20 A That's correct.

21 Q Okay. Thank you.

22 All right. Let's talk about soil sampling. And the  
23 first place I'd like to look for that is in R-1, the  
24 combined permit, at Page 18, Condition S4.1.

25 What does this condition address?

1 A So S -- under S4.I, soil sample?

2 Q I. Sorry.

3 A No worries. S4.I is soil sampling and nutrient analysis,  
4 and this section talks about the soil sampling that a  
5 permitted operation must do both in spring and in fall  
6 for permit compliance.

7 Q And why does Ecology require spring soil sampling?

8 A So spring soil sampling is soil samples taken before  
9 cropping and land application in the spring in order to  
10 determine the nutrients that are currently available in a  
11 land application field.

12 That spring soil sample, the nutrients in there form  
13 one of the bases for the nutrient budgets that a  
14 permittee is required to follow each year.

15 Q So does it also form a basis for the application rates?

16 A Through the nutrient budgets, yes.

17 Q Okay. I see in this first paragraph, each year prior to  
18 starting land application after T-sum 200.

19 What is T-sum 200?

20 A T-sum 200 is a tool that is used to determine when to  
21 start land application. Basically it's a measure of  
22 daily heat units starting January 1st each year.

23 And once 200 heat units are reached, then the land  
24 application processes can start. And that 200 heat units  
25 is going to vary across the state and year to year,

1           depending on the location of the facility.

2    Q    And why is this incorporated into the permit?

3    A    So initially Ecology in the draft permits was looking for  
4           a way to create a start date for when land application  
5           was appropriate.

6           And so in doing that, in the draft version of the  
7           permits, we were trying to use descriptive methods like  
8           "spring green up" or some other method of saying, "Well,  
9           now the crop is growing or now it's ready to go."

10          But because of the comment we received on the  
11          descriptor approach, we looked for a tool that was  
12          available already on the landscape for determining when  
13          to start land application.

14          And so based on the comments we received, T-sum 200  
15          was suggested as the tool to use for judging when land  
16          application could start each year.

17    Q    Did Ecology look at other models for that same analysis?

18    A    Other than in the draft permit, looking -- trying to  
19           develop the descriptive approach, we looked at the  
20           comments and said, "Well, there's a tool there that's  
21           available. Generally folks accept T-sum 200 as a good  
22           place to start."

23          And so we chose that -- we chose to include that in  
24          the permit.

25    Q    Okay. Thank you.

1           So Section 2, under S4.I, what does that section  
2           address?

3    A    So S4, No. 2 there addresses fall soil sampling. This is  
4           generally what we refer to as a report card sample. It's  
5           taken at the end of the year after -- after a crop has  
6           been harvested, if you're talking about a single crop,  
7           and it looks at basically how well were nutrients managed  
8           on that field over the course of a year.

9           It says, you know, did the crop take up the  
10          nutrients?

11          And so, you know, there's -- they were managed well  
12          or are the nutrients high, and it forms -- it forms a  
13          basis for adaptively managing crop fields the next year.

14    Q    And in that second paragraph there, the permit states,  
15           "Fall soil samples must be taken by October 1st after  
16           harvest of annual crops and before heavy rain begins in  
17           the fall or before any irrigation water is used on the  
18           field after harvest."

19          Where -- why is there an October 1st date in the  
20          permit?

21    A    So as part of permit development, we were looking for a  
22           cutoff date for generally when we would expect heavy  
23           rains to start.

24          And the reason being is that we want soil samples  
25          to -- the fall soil samples to accurately reflect what's

1 in a land application field after harvest.

2 Because once you start adding lots of rainfall or  
3 irrigation water in certain areas, that's going to flush  
4 existing nutrients, primarily nitrate, out of the soil  
5 profile.

6 And so October 1st was a general date that we came  
7 through the manure groundwater literature review to say,  
8 okay, here's -- here's generally a date that we can use  
9 that samples should be taken before, but we included  
10 provisions to deal with what happens if a sample is taken  
11 after as well.

12 Q Okay. I think you just introduced a new document called  
13 the manure groundwater literature review.

14 What is that?

15 A So the manure groundwater literature review was a review  
16 of the current literature related to manure and basically  
17 interaction with groundwater through the various  
18 practices like land application, lagoons, so basically  
19 looking at the science around various aspects of manure  
20 storage and the handling and land application.

21 Q And did that document inform some of your decision-making  
22 with regard to developing the permit?

23 A Yes, it did.

24 Q Could you turn, please, to Exhibit R-4. And can you tell  
25 us what this document is?

1 A So Exhibit -- this is the manure and groundwater quality  
2 literature review, Ecology publication that was done by  
3 Melanie Redding.

4 Q Is this the document you just described to us?

5 A Yes, it is.

6 MS. BARNEY: Ecology moves for the  
7 entry of R-4.

8 JUDGE FRANCKS: R-4 is admitted.

9 (Exhibit No. R-4 admitted.)

10 Q (By Ms. Barney) So I think you alluded to what might  
11 happen if a producer does not harvest a crop until  
12 October 1st.

13 Is harvesting a crop after October 1st a permit  
14 violation?

15 A No, it is not.

16 Q So what does a producer do if they're harvesting after  
17 October 1st?

18 A So if a harvest takes place after October 1st, the permit  
19 is set up such that they still have to take their fall  
20 report card soil samples.

21 They just have to take additional samples at a  
22 deeper depth to account for any leaching from rainfall or  
23 irrigation water that's been applied to the field.

24 Q Okay. And where is that in the permit?

25 A So that would -- those conditions would be in S4.I,

1 Nos. 3 and 4.

2 Q Is that on Page 19?

3 A Yes. Excuse me. Page 19. Those are conditions that --  
4 there's a separate condition for the -- basically the wet  
5 and the dry sides of the state to account for the  
6 differences in climate.

7 Q So in terms of looking at the fall soil sampling, what  
8 are the differences between the wet and dry sides of the  
9 state?

10 A So for fall soil sampling, the difference is the depth of  
11 the sample. For the wet side of the state, generally  
12 Western Washington, because we get so much more rainfall,  
13 the depth of the sample is taken in the first foot.

14 We felt in our discussions that requiring adaptive  
15 management practices based on that first foot are more  
16 protective because it's not going to allow -- well, the  
17 permittee has to manage those nutrients higher in the  
18 soil profile than they need to on the drier side of the  
19 state.

20 Q Before you move on, when you say in the higher part of  
21 the soil profile, what do you mean?

22 A So what I mean is, they manage the nutrients in the  
23 zero-to-12-inch portion of the soil profile, so higher  
24 towards the surface.

25 Q Thank you.



1 A So in the areas where -- the drier side of the state,  
2 where -- less precipitation, the soil samples need to be  
3 taken at the two-foot depth, and we've allowed that  
4 deeper depth because there's less precipitation, less  
5 driver, for those nutrients to move down in the soil  
6 profile, so down deeper.

7 Also generally my understanding is that the crop  
8 rooting depths on the west side and east side of the  
9 state are different. The rooting depths are shallower on  
10 the west side because of more moisture and sometimes  
11 higher water tables.

12 And so we want -- we want those nutrients to remain  
13 where the crop roots are so they can be taken up by the  
14 crop.

15 Q So is that -- is there a differential in the 2006 permit?  
16 Did that same differential exist between sampling depths  
17 between the east side and the west side?

18 A Yes. I believe -- let me look here, but in the 2006  
19 permit, those same sampling depths were required.

20 Q If you want to look in 2006 on Page 20.

21 A So on Page 20 of the 2006 permit under Condition C1.C  
22 there, the soil samples in that permit were approximately  
23 one-foot depth for locations west of the crest of the  
24 Cascade Mountains and approximately two feet depth for  
25 locations east of the crest in the Cascade Mountains.

1 Q So is that similar to this permit then?

2 A Yes.

3 Q Okay. So would you think that changing the depth on the  
4 east side, would that be backsliding for this permit?

5 A To manage at a shallower depth? Yes.

6 Q Why?

7 A Well, we've already -- in the 2006 permit, the depth of  
8 the soil samples was established in order to manage those  
9 nutrients at a deeper -- deeper level to account for, you  
10 know, deeper rooting of the crops.

11 And so to manage at a shallower depth, the one-foot  
12 depth only, we wouldn't be -- we wouldn't be looking at  
13 what I would call the risk area for nitrate, especially  
14 because that's getting towards the area where once the --  
15 once the nutrients nitrate moves beyond that crop rooting  
16 depth, there's really less opportunity to recapture those  
17 nutrients through cropping.

18 Q So you said earlier that the spring soil sampling was  
19 used to create the nutrient budgets, the annual field  
20 specific nutrient budgets.

21 How is the fall soil information used in the permit?

22 A So the fall soil sampling, as I've alluded to a little  
23 bit, drives what we call the adaptive management of a  
24 land application field.

25 And that is basically, in a nutshell, you've managed

1 a field during a cropping season, and you have a report  
2 card that says, "How well did I do?"

3 That then feeds back into the next season's nutrient  
4 budgeting and management to say, "What do I need to do  
5 differently to better manage that field?"

6 And so we handle that permit through our summary  
7 required adaptive management actions to -- when we get to  
8 nutrient concentrations we consider high risk of leaching  
9 to groundwater, there are required actions that  
10 permittees must take to the following year reduce  
11 their -- improve their management to reduce their next  
12 report card's nutrient concentrations.

13 MS. BARNEY: Judge Francks, at this  
14 point I want to check in to dive into the adaptive  
15 management matrix, which would be our next topic will  
16 take a little while. I wanted to check in with you on  
17 time.

18 JUDGE FRANCKS: I would be happy to  
19 take the lunch break now and then resume when we get  
20 back.

21 MS. BARNEY: Okay.

22 JUDGE FRANCKS: So let's take a lunch  
23 break now. Come back at 1:00 and -- but if counsel can  
24 come back a few minutes early and we'll -- I'll give you  
25 the answers to our things that we discussed before we got

1 started. So say if you come back at 12:55.

2 And we can go off the record now.

3 MS. BARNEY: May I raise just one  
4 housekeeping issue to think about over lunch?

5 JUDGE FRANCKS: Absolutely.

6 MR. TEBBUTT: And that is how we  
7 introduced the deposition testimony of Tom Tebb, how the  
8 board wants to do that as an exhibit. Do you want it  
9 read into the record?

10 JUDGE FRANCKS: I would prefer if a  
11 witness would talk about it, so --

12 MR. TEBBUTT: That's not the way it  
13 works, though. The whole idea of having deposition  
14 testimony is so that you don't have to have the witness.  
15 The whole purpose of that is so that you submit the  
16 testimony in lieu of witness testimony.

17 JUDGE FRANCKS: Okay. That's another  
18 thing I'll talk about at 12:55.

19 MR. TEBBUTT: All right. Thank you.

20 MS. HOWARD: I'm sorry. We sort of  
21 have a similar issue, as you know, with -- I apologize.  
22 I hit my eye early this morning, so I'm having a little  
23 trouble seeing very well.

24 But we have this similar issue with Bill Reck's  
25 testimony, and we were intending to introduce it through

1 discussions with the witnesses as well.

2 We're happy to do that. I just I guess want to give  
3 the forewarning, it will be a little bit cumbersome, so  
4 we're happy to accommodate that, but just as you're  
5 thinking about that request, I just -- it does intertwine  
6 with our situation as well.

7 JUDGE FRANCKS: Yes. Whatever I say  
8 will apply to both of them.

9 MS. HOWARD: Okay. Thank you, Your  
10 Honor.

11 JUDGE FRANCKS: All right. Thank you.  
12 We are off the record.

13 (Recess from 11:51 a.m. to  
14 12:59 p.m.)

15 JUDGE FRANCKS: Okay. Let's go back  
16 on the record. And we're going to deal with our various  
17 motions in limine and issues related to exhibits.

18 MS. NICHOLSON: We're still missing  
19 one attorney.

20 JUDGE FRANCKS: Okay. Then we'll just  
21 wait.

22 I understand that you guys tested the TV thing, but  
23 it caused some reverb or something.

24 MR. SNYDER: I don't know if that was  
25 our equipment or something else.

1 JUDGE FRANCKS: Well, your equipment  
2 is the only new thing that was introduced, so I just  
3 don't know.

4 MR. SNYDER: There was an occasional  
5 popping that was going on.

6 JUDGE FRANCKS: Yes. So Lynn had to  
7 reboot the -- our recording equipment. So I'm just  
8 throwing that out there as something that might happen  
9 when we get to that.

10 MR. SNYDER: I would be happy to try  
11 one more time after we get done today just to see if we  
12 can try to re-create the problem, if we can try to track  
13 it down before it happens.

14 JUDGE FRANCKS: We can do that. Let's  
15 see how our time goes.

16 All right. Are we ready to begin? Do we have  
17 everyone?

18 MS. NICHOLSON: Yes.

19 JUDGE FRANCKS: All right. Good. So  
20 according to my notes, we have three different issues.  
21 We have Ecology's motion in limine on the new  
22 demonstrative exhibits, the PowerPoints, and then also  
23 the substitution of Ecology witnesses because of  
24 hospitalization, and then the question of the  
25 depositions.

1           So I'm going take them in that order.

2           On the PowerPoints, as I read the motion in limine,  
3 Ecology is not objecting to the video, the short video in  
4 the email?

5                         MS. BARNEY: Correct.

6                         JUDGE FRANCKS: So I'm going to allow  
7 that. I've watched all of it, and I -- in the  
8 PowerPoints, it was not clear to me why they couldn't  
9 have been more timely exchanged.

10           So I'm going to exclude those because I think you've  
11 got enough information, and they don't seem to be new and  
12 different.

13                         MR. TEBBUTT: No, they're not. But  
14 they're helpful devices for the board. That's the whole  
15 point.

16                         JUDGE FRANCKS: Okay. Well, then, you  
17 should have shown them to the other side earlier,  
18 followed the rules.

19           Okay. So witnesses, I am going to allow Ecology to  
20 substitute Vince McGowan for Kelly Susewind due to the  
21 hospitalization. And in response to that, Mr. Tebbutt,  
22 renewed his request that Ms. Bellen testify. That ruling  
23 on her not testifying will stand for the same reasons.

24           And then let's talk about Reck and Tebb deposition  
25 excerpts. Yes. You may go ahead and use your deposition

1 transcripts as exhibits. I've seen and I've read all of  
2 these too.

3 The Tebb one I see has been highlighted by several  
4 of the parties, and the question about that and the  
5 deposition is: Are there any outstanding objections that  
6 were raised in the deposition that we need to deal with?

7 MS. HOWARD: Your Honor, on the Reck  
8 deposition, there was one related to an exhibit that  
9 Ecology objected to. I will double-check at our next  
10 break.

11 I don't think we ended up designating that portion.  
12 If we did, we're not planning on bringing that particular  
13 piece in of the deposition, so we can skip that.

14 JUDGE FRANCKS: Okay. Because if we  
15 need to revisit the depositions and talk about the  
16 exhibits or the objections that were raised, then we need  
17 to do that.

18 MS. HOWARD: And I can confer with  
19 Ms. Barney on our next break and make sure we've got that  
20 straight between the two of us.

21 JUDGE FRANCKS: Okay. That would be  
22 good.

23 MR. TEBBUTT: Again, for the record,  
24 we've objected to the entire deposition for a number of  
25 reasons.



1 JUDGE FRANCKS: I've already ruled on  
2 that.

3 MR. TEBBUTT: Okay. But now you've  
4 ruled that it was timely on their part when they violated  
5 the rules, but when we hand something in a little bit  
6 late, we get excluded. Seems like a double-edged sword.  
7 We're getting refused in both directions.

8 JUDGE FRANCKS: Well --

9 MR. TEBBUTT: Because that deposition  
10 was only noted three days before it happened, and that is  
11 direct violation of the rules.

12 JUDGE FRANCKS: But I --

13 MR. TEBBUTT: And, furthermore, if I  
14 may, if I may, this substantive part has not been  
15 discussed. Mr. Reck's deposition goes far beyond what  
16 NRCS said he could testify about. It goes into expert  
17 testimony.

18 And so for that reason and a procedural due process  
19 question, we object on the record in its entirety that it  
20 come in. And if any of it comes in, then -- well, it  
21 shouldn't. It just can't. That's our position, and  
22 that's a reversible error.

23 JUDGE FRANCKS: And I've ruled that it  
24 is relevant. He's outside of subpoena range, and it's  
25 relevant to an issue raised by the dairy federation with

1 respect to what the NRCS standard is.

2 MR. TEBBUTT: Do you realize, though,  
3 that in July of 2017, the defendants had all this before  
4 them and they waited until the very last second to put it  
5 up? That's not right. That's dilatory tactics, and it's  
6 playing the system.

7 JUDGE FRANCKS: Okay. Mr. Tebbutt,  
8 I've already ruled, so we'll move on.

9 Okay. So those deposition transcripts can go ahead  
10 and be admitted as exhibits. I think they're both listed  
11 already; is that correct?

12 MR. TEBBUTT: They are.

13 JUDGE FRANCKS: Okay. So you can go  
14 ahead and do that in the normal course. All right.

15 MR. TEBBUTT: But how do you want them  
16 in the record? Just as exhibits? They're in already.  
17 We don't have to read them in the record?

18 JUDGE FRANCKS: No. I would much  
19 prefer that you did not read them because, as we know,  
20 time is of the essence.

21 MR. TEBBUTT: That's why we did it.

22 JUDGE FRANCKS: No. So go ahead and  
23 admit them -- I suppose you've already filed them, so --

24 MR. TEBBUTT: We've offered them. Can  
25 we just say we've both offered them and they're admitted?

1 JUDGE FRANCKS: Let's do that in the  
2 normal course of your testimony. So wherever you listed  
3 them as a witness, just start off and say, "I move for  
4 admission."

5 MR. TEBBUTT: Okay. Then we'll object  
6 on the record again to the Reck's deposition coming in at  
7 all. Just for the record.

8 JUDGE FRANCKS: It's already on the  
9 record.

10 MR. TEBBUTT: When it comes in, we  
11 have an obligation to have it at the time as well.

12 JUDGE FRANCKS: Anything else that we  
13 should deal with?

14 MS. HOWARD: Your Honor, I just want  
15 to clarify for our purposes with Mr. Reck, we were  
16 planning on using that in advance of when we would bring  
17 in his testimony, so just sort of as a heads-up, and  
18 we'll obviously keep it --

19 JUDGE FRANCKS: You're going to refer  
20 to it with a different witness.

21 MS. HOWARD: Yes. Exactly.

22 JUDGE FRANCKS: That's fine. That  
23 could be the time that you move for its admission.

24 MS. HOWARD: Okay. Thank you. Sorry  
25 to make this complicated.

1 JUDGE FRANCKS: All right.

2 MR. TEBBUTT: One other housekeeping  
3 matter. Helen Reddout, the president of CARE, also  
4 yesterday had to visit the emergency room and will be  
5 unable to attend in person.

6 JUDGE FRANCKS: Right.

7 MR. TEBBUTT: I'd like to try to  
8 figure out a time to get her to testify by telephone, if  
9 that's all right.

10 JUDGE FRANCKS: Can we not do it by  
11 video the way we're doing the other one.

12 MR. TEBBUTT: She's 82 years old. She  
13 doesn't really have the technological capability --  
14 ability to make that happen. So the only way she can  
15 really do it is by telephone.

16 JUDGE FRANCKS: Okay. We have a  
17 speakerphone somewhere in this room.

18 MR. TEBBUTT: Okay.

19 JUDGE FRANCKS: Probably way back  
20 there somewhere.

21 MR. TEBBUTT: And we can fit that in  
22 at an appropriate place.

23 JUDGE FRANCKS: Okay. Yeah. That's  
24 fine.

25 All right. Anything else? All right. Let me go

1 find the board members, and I'll be back. Go ahead and  
2 take a five-minute break because I'm not sure that  
3 they're all ready to go. So we're off the record.

4 (Pause in the proceedings.)

5 (Board members enter.)

6 JUDGE FRANCKS: Please have a seat.

7 Let's go back on the record. We're here after lunch.

8 And, Ms. Barney, I believe you're still doing direct  
9 of Mr. Jennings.

10 MS. BARNEY: Yes. As Mr. Jennings is  
11 getting seated, I realize I think I have neglected to  
12 move for the entry of R-18, which is the 2006 CAFO permit  
13 that we have been discussing. So at this time it's been  
14 previously identified and used in testimony at this time.  
15 Ecology would move for the admission of the 2006 CAFO  
16 permit, R-18.

17 JUDGE FRANCKS: R-18 is admitted.

18 (Exhibit No. R-18 admitted.)

19 JUDGE FRANCKS: You may proceed.

20 MS. BARNEY: Thank you.

21 DIRECT EXAMINATION (Continuing)

22 BY MS. BARNEY:

23 Q Right before the lunch break, we were discussing the  
24 purpose and the use of the fall soil sample, and you had  
25 referred to something called adaptive management.

1           Can you explain to us what that is.

2   A    Okay.  So for reference, I'm going to look at the  
3        combined permit.  There's a section in there.  Let me  
4        pull it up.

5   Q    Which is Exhibit R-1?

6   A    Yes.  So on Page 22 of the combined permit of the Special  
7        Condition S4.K, addresses and management adaptive  
8        management.

9           So I'm -- I believe we talked about -- I briefly  
10        summarized before lunch that adaptive management was the  
11        outcome of -- this is based on the fall soil sample  
12        leading to changes in management on a land application  
13        field for next season.

14           In order to -- Ecology's goal with this was to -- we  
15        want to see nutrient levels on those fields be reduced in  
16        order to be protective of groundwater.  With the -- so  
17        what we've done is developed what we call some adaptive  
18        management actions and required their use as part of  
19        developing a nutrient budget each spring.

20           So based on a fall soil sample, there is -- the  
21        nitrate analysis of that sample will result in a  
22        concentration of nitrate on the field, and that  
23        concentration will fall within what we call a field risk  
24        level.

25           If you look at Page 24 or the exploded view behind

1 me, there is a Table 3 adaptive management actions, and  
2 in the far left-hand column is the field risk level that  
3 I was referring to. And these are ranges of -- these  
4 rows are broken into ranges of nitrate by -- based on the  
5 fall soil test.

6 Those ranges, depending on which risk level the soil  
7 sample falls within for the field, then have required  
8 actions in the second column.

9 So these required actions are the actions that a  
10 permittee takes each year that a field falls in a  
11 specific risk level that -- so they take their soil  
12 samples.

13 Those samples fall in a risk level, and then the  
14 permittee takes the actions in the required actions  
15 column the following season when they're developing their  
16 nutrient budgets, and that impacts how much nutrients  
17 that they can then apply to the field the following  
18 season.

19 Q So is the required action column -- that's an annual  
20 action based on the field risk level?

21 A That is correct.

22 Q So every year they have to accomplish those actions if  
23 their field is within those risk brackets?

24 A That is correct.

25 Q And then what is the third column, "Required Actions

1 Based on Trends"?

2 A So the third column is if a permittee has -- let's say  
3 they've had trouble managing the nutrients on their  
4 field. In the required action, they're not causing a  
5 reduction in fall report card soil sample results.

6 Then, based on a trend of three years of high  
7 results or very high, depending on which row we're in,  
8 there's additional required actions that the permittee  
9 must take based on that trend.

10 And those are in addition to the yearly required  
11 actions that are being taken.

12 Q Does Ecology have a goal to move every field at a covered  
13 facility into a particular category -- risk category?

14 A So ideally we would like to see fields moved down into  
15 the medium and low categories because our -- our look at  
16 it with the manure literature review was that, when you  
17 start getting into the high and very high risk  
18 categories, then your risk to groundwater increases. So  
19 we want to reduce that risk of risk to groundwater.

20 Q And did you derive the ranges for the various risk  
21 categories?

22 A So the risk categories, this is one area where Ecology  
23 was looking for tools that might already be available  
24 when developing this table.

25 Department of Agriculture -- Washington State



1 Department of Agriculture has been using these risk  
2 categories -- the ranges for these risk categories as  
3 part of their program for a number of years.

4 So it is already -- it was already a known quantity  
5 on the landscape. And then also through the manure  
6 literature groundwater review, the ranges here fell  
7 within what the literature was saying were acceptable  
8 ranges.

9 So based on those two pieces, we decided that these  
10 ranges seemed acceptable.

11 Q What types of actions are included in this table?

12 A So the actions are going to depend on the risk level, but  
13 generally you'll see increasing -- increasing actions  
14 that have to be taken to -- so things like, if the fields  
15 are generally okay, reviewing the permittee, reviewing  
16 their existing documentation to make sure they're  
17 maintaining that field.

18 And then if -- when you start getting into higher,  
19 very high levels, there are cutbacks on how much  
20 nutrients can actually be applied to a field each year.

21 Q Does the matrix ever require someone to stop applying to  
22 their field altogether?

23 A So in particular circumstances, when there is a very high  
24 trend for three years, the permittee has two options:  
25 One option is, permittee can completely stop applying

1           nutrients; that's -- or they have the option of going to  
2           groundwater monitoring for that particular field.

3    Q    So what was Ecology's purpose with developing this  
4           adaptive management matrix?

5    A    Well, our purpose was to -- well, looking at the land  
6           application fields as an area of higher risk for  
7           groundwater leaching because of all the manure that is  
8           land applied, what we wanted to do is provide a feedback  
9           loop so that there was continual improvement in the  
10          management of those fields to over time reduce risk.

11   Q    And why are the trends -- why is that column triggered  
12          with three years?

13   A    Well, land application fields, crop fields are subject to  
14          the changes in conditions each year.  So -- and so some  
15          years, you know, maybe a permittee has a crop failure or,  
16          you know, there's a drought or something like that, which  
17          causes the crop not to take up the nutrients that it was  
18          intended to take up and that's already been applied.

19                 So what we wanted to do is give permittees an  
20          opportunity to manage that field back down based on, say,  
21          one year getting into the higher -- very high level and  
22          then coming back down to a medium level.

23   Q    The field where the sampling indicates that it's in the  
24          very high risk level is being -- is that field being in  
25          that high risk level a permit violation?

1 A Being in the risk level is not a permit violation.

2 Q What would be a violation related to the field being in  
3 that risk level?

4 A So a permit violation in this case would be failing to  
5 take the required adaptive management actions based on  
6 the risk level that the field is in.

7 Q So if you had a field that, say, that was very high one  
8 year and then was high the next year, then very high the  
9 third year, is that considered a three-year trend?

10 A The way the language is written, no.

11 Q What would you anticipate that facility doing then,  
12 responding in which one of those two columns?

13 A So in that particular instance, that facility would be  
14 taking the required actions for the high or very high  
15 category.

16 Q So why is -- this adaptive management matrix seems to be  
17 triggered on nitrate.

18 Why is it not triggered on phosphorus?

19 A Well, phosphorus, at least based on my understanding,  
20 is, it binds tightly to the soils, and so it doesn't move  
21 around very much. Whereas, nitrate moves quite readily  
22 with water moving down the soil profile.

23 So we weren't concerned about phosphorus moving to  
24 groundwater and also with the field management practices,  
25 the buffers to control runoff, we weren't concerned with

1 the surface water.

2 Q Okay. Did the 2006 permit require soil monitoring?

3 A Yes.

4 Q Did that permit require actions when a field had a high  
5 level of nitrate?

6 A No, it did not.

7 Q If I can have you turn to Page 21 in Exhibit R-1, please.  
8 We've been on this page before. At the very bottom,  
9 there's a No. 4, says "Double Cropping, Winter Cover  
10 Crops, and Perennial Crops."

11 Do you see that?

12 A Yes.

13 Q Can you tell us what this section refers to?

14 A So this section refers to how the permit handles cropping  
15 systems where, instead of a single crop per year, a  
16 permittee may follow that up with a second over winter  
17 crop or they've have a perennial-type crop, like hay.

18 Q So what is -- what is double cropping?

19 A So double cropping would be basically two crops during a  
20 season. The first crop is put in I'll just say roughly,  
21 you know, spring to fall and harvested, and then  
22 immediately following that, the permittee puts in a  
23 second crop that usually overwinters.

24 Q And how does the permit allow for a land application in  
25 that case?

1 A So in a case with a double crop, what the permittee is  
2 required to do is actually develop a second nutrient  
3 budget for the year.

4 They've -- the permittee would have already  
5 developed an initial nutrient budget for their first  
6 crop, taken their fall report card soil sample, and then  
7 like that first nutrient budget, they would need to go  
8 back and develop a second nutrient budget for their  
9 second crop to see what, if any, nutrients are necessary.

10 Q And is that permissible under the permit?

11 A Is what permissible?

12 Q The development of the second nutrient budget and the use  
13 of a double cropping.

14 A Yes.

15 Q And then what about winter cover crops?

16 A So winter cover crops would follow the same model.

17 Q And if you turn the page to Page 22, No. 5 there, it  
18 says, "Emergency Winter Land Application"?

19 A Yes.

20 Q And what does that regulate in the permit?

21 A So this regulates situations where a permittee may have a  
22 lagoon or other storage structure that's at risk of  
23 failing and causing, you know, public health or safety  
24 problems and an allowance we've made it the permit to  
25 land apply during the winter, assuming that they meet the

1 other land application restrictions, in order to prevent  
2 basically failure of the infrastructure, which, as we  
3 were looking at this, may have a greater impact than land  
4 applying would.

5 Q So in looking at the first paragraph here, I'll just read  
6 this, "Land application of manure, litter, process water,  
7 or other organic byproducts outside the limits set by  
8 Special Conditions S4.J.1 through S4.J.4 or in amounts  
9 greater than the permittee's yearly field nutrient  
10 budgets."

11 If I can have you go back and look at S4.J.1 through  
12 4, see exactly what that entails. So that'll start on  
13 Page 19.

14 A Okay.

15 Q So what does this allow then the permittee to do with  
16 regard to land application?

17 A So with regard to land application, this would be -- this  
18 would be outside the normal land application done for  
19 crop nutrients.

20 What this does is allow -- allow the permittee to do  
21 some land application basically in order to protect their  
22 infrastructure. It's not -- it's not land application  
23 for crop needs.

24 Q Is the -- are the rest of the requirements of the permits  
25 still enforced?

1 A Yes.

2 Q So -- and would that include Section S4.M, the field  
3 discharge management practices?

4 A Yes. The field discharge management practices would  
5 still be required.

6 Q Okay. What does -- would a permittee have to demonstrate  
7 in order to use the emergency winter land application  
8 provision?

9 A So in order to use this provision, the permittee would  
10 have to demonstrate, as it states here, "The land  
11 application must be due to the need to protect public  
12 health and safety."

13 The example given is prevent a lagoon from  
14 overtopping due to being filled too much.

15 Q Okay. Thank you. Let's turn to Page 31 of the permit.  
16 And in looking at Provision S5.B, what does this  
17 condition of the permit regulate -- or require, I guess,  
18 is a better word?

19 A So this condition describes how the permittee must have  
20 their manure or other materials sampled for nutrient  
21 content and what sample parameters must be tested for.

22 Q Why is that useful?

23 A Well, this is -- knowing what the nutrient content of  
24 manure of the other materials that are going to be land  
25 applied is necessary to apply appropriate -- appropriate

1 rates for what the crop will use nutrient-wise.

2 Q And how is that put to use in the permit, that  
3 information?

4 A So this is put to use in two ways. One is -- let's see  
5 here. It's back in Section S4.J, the application rates,  
6 No. 2 on Page 20.

7 The nutrient content from that sample is, the  
8 permittee is required to base their application rates off  
9 that nutrient content.

10 And then the second location is, the permittee is  
11 required to provide that nutrient analysis if they're  
12 going to transfer any manure.

13 Q Is it just done once a year?

14 A I'm looking in here. I'm trying to remember. There's a  
15 section -- there's a different section where the timing  
16 is discussed.

17 Okay. So Special Condition S4.H on Page 18  
18 discusses the timing of when manure or other -- other  
19 materials must be sampled.

20 And so let's see. They have, the permittee has to  
21 sample prior to beginning land application in the spring  
22 after T-sum 200 and then evenly space two more sampling  
23 events throughout the year.

24 Q Thank you.

25 Is surface water monitoring required in the permit?



1 A No, it is not.

2 Q Why not?

3 A Basically the surface water monitoring isn't required  
4 because of the limited nature of the discharges and how  
5 they may take place.

6 Discharges are only allowed if -- from the  
7 production area if a storm event of a 25-year 24-hour  
8 size or greater happens.

9 And so knowing the location of that potential  
10 discharge is a problem beforehand. Also predicting those  
11 storm events is a problem. So it wasn't deemed to really  
12 be feasible to do surface water monitoring.

13 Q Is groundwater monitoring required in the permit?

14 A Groundwater monitoring is required in two instances: one  
15 in the adaptive management if they have a trend of very  
16 high fall report card samples and the permittee decides  
17 not to stop land applying; the other instance is as the  
18 result of an existing lagoon assessment.

19 Q Why did Ecology not require more groundwater monitoring  
20 around land application fields?

21 A Land application fields, as we've learned, there's a  
22 couple reasons. One is, as required with land  
23 application, fields can actually trade hands quite often  
24 on a yearly basis, especially if the field is leased. So  
25 that made requiring the investment in groundwater

1 monitoring on a particular field problematic.

2 The other piece is that groundwater monitoring is  
3 backwards looking. Due to generally the lag time between  
4 what happens on the surface and what we see in the  
5 groundwater as a response, it -- groundwater monitoring  
6 doesn't provide a fast enough feedback loop in order to  
7 in effect surface activities in a timely manner.

8 Q And why doesn't Ecology require groundwater monitoring  
9 around lagoons?

10 A Well, groundwater monitoring may be required around a  
11 lagoon as part of a lagoon assessment. So it's not --  
12 it's not completely left out.

13 Q But other instances of groundwater monitoring outside of  
14 that?

15 A No, there are not.

16 Q Okay. You mentioned the lagoon assessment. Let's take a  
17 look at that, if you turn to Page 36.

18 And what does this condition require?

19 A So this condition requires that permittees assess their  
20 existing lagoons with -- basically to see what their risk  
21 to the environment is.

22 And this is -- this is based on a Tech Note 23 tool  
23 to inspect the lagoon and assess its risk.

24 Q Could you turn to Exhibit R-10. Can you tell us what  
25 this document is?

1 A So this is an NRCS, Natural Resource Concentration  
2 Service, Technical Note 23. It's an NRCS assessment  
3 procedure for existing waste storage ponds.

4 Q Is that the document that you just were describing a  
5 minute earlier?

6 A Yes.

7 MS. BARNEY: Ecology would move for  
8 the entry of R-10.

9 JUDGE FRANCKS: R-10 is admitted.

10 (Exhibit No. R-10 admitted.)

11 Q (By Ms. Barney) So is compliance with the conditions in  
12 Tech Note 23 required by the permit?

13 A So do you mean the data requirements in the tech note?

14 Q Let me ask a better question.

15 How is Tech Note 23 used in the permit?

16 A So Technical Note 23 is used to assess the condition of  
17 the lagoon and the risk that the lagoon poses basically  
18 to the environment.

19 Q So what's contained within Tech Note 23?

20 A So Tech Note 23 has a lot of data elements that capture  
21 the lagoon parameters, like the condition of the lagoon,  
22 condition of the clay liner, condition of the outside the  
23 lagoon, those sorts of things.

24 So there's some data elements that must be gathered  
25 as part of this assessment about each particular lagoon.

1 Q And when was the use of Tech Note 23 incorporated into  
2 the permit?

3 A So I believe that was incorporated -- I believe it was  
4 into the final permit based on comments we received on  
5 the draft permit.

6 Q And what was the tenor of those comments?

7 A So in the final draft permit, we had an engineering  
8 report, and that received comments which were -- had some  
9 concerns about that report and its feasibility.

10 And so Ecology was -- Ecology was looking for a tool  
11 to use to replace the final permit.

12 Q So who is to conduct the assessment using Tech Note 23?

13 A So responsibility for ensuring the assessment is  
14 completed falls to the permittee, but the permittee could  
15 hire a consultant or their local conservation district or  
16 other technical assistance or complete it themselves.

17 Q How did Ecology learn of Tech Note 23 in the first place?

18 A For myself, I learned of Tech Note 23 due to some  
19 previous work with Washington State Department of  
20 Agriculture who piloted assessing lagoons with this  
21 particular -- with Tech Note 23 for NRCS.

22 Q And what did Ecology feel the need was that requires  
23 these lagoon assessments to be conducted?

24 A So this assessment is to help Ecology get the lay of the  
25 land in terms of there's lots of lagoons out there.

1 We've heard that they're in good shape during our  
2 discussions.

3 But, you know, we needed to basically triage the  
4 lagoons out there to see, you know, which ones are at  
5 high risk of causing environmental problems versus which  
6 ones aren't.

7 Q Okay. So what if there's missing information that  
8 perhaps an operator doesn't even have about their own  
9 lagoon? What happens then? Is that a permit violation?

10 A The permittee would need to get the information.  
11 Otherwise, yes, I believe it would be a permit violation  
12 because the assessment would not be complete.

13 Q Okay. Can someone fail a Tech Note 23 evaluation and  
14 that be a permit violation?

15 A I don't believe -- if by "failing" you mean the outcome  
16 of the inspection being a high risk category, no, that  
17 would not be a permit violation. It would just trigger  
18 other actions taken.

19 Q So what are the possible outcomes from the evaluation?

20 A So Tech Note 23 contains, well, to summarize, four risk  
21 categories, 1 through 4.

22 Q Can you point to where in the document that would be?

23 A Okay.

24 Q What page?

25 A Okay. So on Page 7, there is a list of categories from

1 1A to 4. Those are categories that this would basically  
2 be outcomes of a Tech Note 23 assessment.

3 And those categories recommend whether the lagoon is  
4 fit to continue using or if it has problems that may need  
5 to be fixed or even that the structure shouldn't be fixed  
6 until -- or the structure shouldn't be used until the  
7 problems are fixed.

8 Q And does the permit give direction on these various  
9 categories?

10 A Yes. So as an outcome of the lagoon assessment in the  
11 permit, if a lagoon falls within the Category 1s or  
12 Category 2s, that lagoon, at least for this permit, is  
13 okay. The permittee doesn't have to do anything else.

14 If the category -- if the result is one of the  
15 Category 3s or Category 4, then the permittee must --  
16 there's some conditions I can look up here, but, in  
17 summary, the permittee must basically work on fixing the  
18 deficiencies noted in the -- in the assessment.

19 Q Well, let's look at some of those particulars.

20 Are those on Page 36 of the permit?

21 A Yes.

22 Q So the plan that's required for an assessment that puts  
23 the lagoon in these higher risk categories, what must it  
24 include?

25 A So the plan -- the plan must include the steps that the

1 permittee will take in order to get the lagoon back to a  
2 Category 1 assessment outcome because the Category 1s in  
3 Tech Note 23 are the -- are basically the categories that  
4 are considered to have no deficiencies.

5 And then if, as part of the assessment, groundwater  
6 is determined to be less than two feet of vertical  
7 separation from the bottom of the lagoon, then the  
8 permittee must also include groundwater monitoring in  
9 that plan.

10 Q How does Ecology define the bottom of the lagoon?

11 A So the bottom of the lagoon for what we're generally  
12 referring to here is earthen lagoons with clay or  
13 clay/amended soil liner. The -- we would measure from  
14 the outside of that liner to groundwater.

15 Q So from the bottom of the liner? Not the bottom of the  
16 liquid?

17 A Correct.

18 Q Okay. And what is the timeline for accomplishing  
19 assessment?

20 A So for the assessment, the completed assessment for each  
21 lagoon must be submitted to Ecology within two years of  
22 permit coverage.

23 Q And do the -- what are the corrective actions required to  
24 start?

25 A So let's see. I'm looking for that condition here. Here

1 we go. So the permittee has 18 months from completion of  
2 the lagoon assessment to begin implementing their plan to  
3 fix it if they need to.

4 Q So that is -- that's within a single permit cycle?

5 A Yes, I believe so.

6 Q Okay. Do these permits contain technology-based effluent  
7 limitations?

8 A Yes, they do.

9 Q And what would those permit conditions be that you  
10 consider technology-based effluent limitations?

11 A I'm going to use the table of contents just to call out  
12 generally which ones are -- which permit conditions are.

13 Q Okay. Let's sort of do these by category.

14 For land applications?

15 A So for land applications --

16 Q Let me stop you first.

17 What is a technology-based permit effluent  
18 limitation?

19 A So technology-based effluent limitation are those -- are  
20 those limitations that can be implemented through  
21 technology as basically can -- can the -- can technology  
22 be used to implement a discharge control.

23 Q When you say "technology," does that -- is that -- does  
24 that have to be a built constructed technology  
25 infrastructure?



1 A Generally, technology-based are infrastructure, but I  
2 would think monitoring also is technology based.

3 Q Okay. So then going back to the list, what would you  
4 consider the technology-based effluent limitations for  
5 land applications?

6 A So I probably won't get these in order here, but for land  
7 application, S4.M, which is the field discharge  
8 management practices and then S4.L irrigation water  
9 management.

10 Then you've got S4.H, which is the manure and other  
11 materials sampling, as well as S4.I, which is the soil  
12 sampling, and then also I would say some of S4.J is also  
13 technology-based.

14 Q Would you consider some of the adaptive management  
15 strategies to be technology-based?

16 A To a degree because they rely on implementing  
17 technologies in order to appropriately apply manure.

18 Q And what would you consider technology-based effluent  
19 limitations for lagoons that are in these permits?

20 A So for lagoons specifically, I believe that's going to be  
21 S4.B, which is your manure and other materials storage.  
22 So, yeah, that should be the primary.

23 Q And we haven't yet talked about a couple of different  
24 areas that might occur on CAFO. One would be an area for  
25 composting.

1           Can you tell us what that is?

2    A    So a composting area on a CAFO is part of the production  
3           area, so the discharge limitations apply, the 25-year,  
4           24-hour storm event, but these are generally areas where  
5           solid manure is stacked to compost or to dry it out and  
6           turn it into a saleable product.

7    Q    And what are the technology-based effluent limitations  
8           that relate to composting that are in the permits?

9    A    So as part of the production area, a lot of the same  
10          runoff controls and things would apply, so Special  
11          Condition S4.A, Special Condition S4.D, and then  
12          potentially S4.G, but those are the primary ones.

13   Q    Okay. And I think you may have mentioned the pen and  
14          corral area.

15                Could you describe a little more what that area of a  
16          CAFO in general would be.

17   A    So a CAFO is confined to -- or concentrated animal  
18          feeding operation. Generally, the animals are housed in  
19          barns or pens, which are, you know, compacted areas,  
20          vegetation.

21                Animals are housed in there primarily most of the  
22          time. That's where, you know, manure is generated and  
23          either scraped or moved into storage or land application  
24          from there.

25   Q    And do the permits contain technology-based effluent

1 limitations for the pen and corral areas?

2 A Yes. As part of the production area, the same conditions  
3 would apply.

4 Q So, again, those were --

5 A So those were S4.A, S4.B, probably some of S4.C, S4.D,  
6 S4.E, and probably some of S4.F and G as well.

7 Q Okay. What are water-quality-based permit effluent  
8 limitations?

9 A So water-quality-based effluent limitations are those  
10 that are required. Basically the permittee has to do --  
11 has to take whatever actions are necessary to protect  
12 water quality. It's not just some level of technology,  
13 but it's whatever is necessary to protect water quality.

14 Q And does -- do these permits contain water quality  
15 effluent limitations?

16 A Yes.

17 Q And what would they be?

18 A So those are the adaptive management and -- which is  
19 S4.K, as well as I would also say part of S4.G or J --  
20 excuse me -- which is land application.

21 Q Are water-quality-based effluent limitations sometimes  
22 in -- in the form of numeric limits? Not necessarily  
23 this permit, but in general.

24 A In general, yes.

25 Q Are there any numeric limits for specific nutrients in

1           this permit -- these permits?

2    A    So generally, no, there's not numeric limits.  There's  
3           narrative.  However, Permit Condition S3 references our  
4           state water quality standards, both surface and  
5           groundwater, as being kind of the numeric backstop, if  
6           you will, for discharges.

7    Q    So why are there not numeric limits for specific  
8           nutrients in these permits?

9    A    Basically, when Ecology was looking at this and the  
10           complexity of land application nutrient budgeting, we --  
11           and the difficulty that environmental conditions play in  
12           that we can't control them, we didn't feel that a numeric  
13           limit was something that was reasonably achievable as a  
14           whole because there's too many variables there that a  
15           permittee can't control themselves.

16   Q    Could you explain a little bit more about what those  
17           variables might be.

18   A    So variables like the amount of rainfall during the year,  
19           how much irrigation water, especially on the east side,  
20           sometimes a permittee might not get as much irrigation  
21           water as they're expecting.

22           There could be a disease or a drought or something  
23           like that, which causes a crop failure, you know, a  
24           hotter than normal year or colder than normal year,  
25           things like that, which just can't be controlled for.

1 Q Okay. Thank you.

2 Changing topics a little bit, but sort of in the  
3 same vein, what is AKART?

4 A AKART is all known available and reasonable methods of  
5 prevention, control, and treatment as it relates to  
6 technology-based control of discharges.

7 Q And is AKART required for permits in Washington?

8 A Yes, it is.

9 Q Do these permits contain conditions that are AKART for  
10 some of the areas that we've been discussing?

11 A Yes.

12 Q So what conditions are AKART for composting areas?

13 A So as part of the production area, things like S4.A, the  
14 production area runoff controls, and S4.B, the storage,  
15 as well as S4.C, the other infrastructure, Permit  
16 Condition S4.D and E, those are all going to be -- well,  
17 E is for animals, but D, and then I would say those ones  
18 I've listed.

19 Q And does the permit contain conditions that are AKART for  
20 pen and corrals?

21 A Yes. Basically a lot of the same ones I've listed in  
22 terms of S4.A, you know, controlling -- controlling  
23 runoff and then diversion of clean water, S4.D, as well  
24 as S4.E, preventing animal contact with surface waters.

25 Q And are there permit conditions that are AKART for land

1 application?

2 A Yes. So those -- you're looking at Permit Condition S4.H  
3 and I, the sampling and nutrient analysis, some of S4.J,  
4 the land application, as well as S4.L and M.

5 Q In looking at AKART for -- we'll talk about lagoons in a  
6 minute, but in terms of looking at AKART for CAFOs, what  
7 kind of evaluation did you do to determine which one of  
8 these either practices or infrastructure or limitations  
9 were AKART? What process did you follow?

10 A Well, this is a largely qualitative assessment that was  
11 an outcome of partially our listening sessions and site  
12 visits to facilities to see what, you know,  
13 infrastructure was already in place and being used by  
14 this industry category, as well as, you know, just  
15 looking at the economics of the industry.

16 Q When you say "the economics of the industry," what do you  
17 mean by that?

18 A So dealing with dairy, since that's the -- I'll say the  
19 largest portion of the industry category in Washington,  
20 just looking at the economics of the industry in general,  
21 most -- I'd say a large portion of the industry is losing  
22 money on production.

23 And so in terms of being economically reasonable for  
24 implementing new technologies and those sorts of things,  
25 it was hard -- our calculus, if you will, is that, if the

1 industry is already losing money, then it's not -- it's  
2 not really reasonable to require a whole lot of extra  
3 installation of infrastructure.

4 Q So Ecology's -- when Ecology looks at developing AKART,  
5 is the -- are the economics part of -- which part of that  
6 definition?

7 A So as part of AKART, Ecology looks include economic  
8 component or reasonability essentially as part of the  
9 AKART.

10 Q Does AKART require Ecology to use the most recent  
11 technology on the horizon?

12 A Not the most recent, but basically what's known and  
13 available on the landscape that is reasonable.

14 Q Does AKART address only treatment technology?

15 A No. No.

16 Q Because I think I heard you also say prevention and  
17 control.

18 Does Ecology consider those three equally important?

19 A Yes.

20 Q Does the permit contain conditions that are AKART for new  
21 lagoons?

22 A Yes, it does. I can look those up. So on Page 13 of the  
23 combined permit special condition S4.B, second paragraph  
24 there discusses.

25 Q So the paragraph that begins, "Lagoons and other liquid

1 storage structures built, expanded, or having major  
2 refurbishments"?

3 A That's correct.

4 Q And so what is AKART for new storage lagoons?

5 A So AKART would be a facility that -- or a lagoon that, as  
6 it's built, when it's finished, it has a permeability of  
7 ten to the minus six centimeters a second and then  
8 from -- assuming a clay liner or clay/amended, two feet  
9 of vertical separation from the outside of that liner at  
10 the bottom of it to groundwater.

11 Q And what does "permeability" mean?

12 A Permeability is basically how quickly and easily liquid  
13 will move through a material.

14 Q Does the permit have AKART for existing lagoons?

15 A That was part of the reason for using the existing lagoon  
16 assessment as Tech Note 23 to figure out what the  
17 existing landscape is for lagoons out there.

18 Q Is a double synthetically lined lagoon AKART for lagoons  
19 for CAFOs?

20 A For CAFOs, no.

21 Q Why not?

22 A That, again, comes down to the reasonability portion of  
23 AKART. For an industry that's already generally losing  
24 money on production -- talking about the dairy portions  
25 since it's the largest one -- a double lined lagoon with



1 leak detection is extremely expensive.

2 And so the economic burden of trying to have all  
3 permittees install such lagoons just was not reasonable  
4 in our analysis.

5 Q Are they used at all in Washington for CAFOs?

6 A For CAFOs? No.

7 Q No place?

8 A Not that I'm aware of.

9 Q Okay. Could a facility install such a liner if they  
10 chose to?

11 A Yes.

12 Q Can -- so can you tell us what the NRCS is?

13 A NRCS is the Natural Resource Conservation Service.

14 Q And do they publish documents that people refer to as  
15 NRCS standards?

16 A Yes. They're practiced standards.

17 Q And can you tell us a little bit about those standards.

18 A So those standards are -- well, they're guidance  
19 documents. They're voluntary guidance documents that  
20 NRCS develops for working with various CAFOs but also  
21 other producers in the agricultural industry for  
22 implementing different technologies and activities  
23 on-site.

24 Q So why would Ecology not use NRCS standards as permit  
25 conditions?

1 A So NRCS practices -- primarily because NRCS practices are  
2 voluntary.

3 Q Can a producer use or cite to a NRCS standard as part of  
4 their manure plan?

5 A They could so long as they are meeting the permit  
6 condition that they are -- the permit conditions that  
7 they need to.

8 Q Well, for instance, we just talked about the permit  
9 condition for new storage lagoons meeting the  
10 permeability of one times ten to the minus six.

11 If a facility were to use an NRCS standard that  
12 related to new manure lagoons that did meet that  
13 permeability, would that be acceptable to Ecology?

14 A Yes, it would.

15 Q Okay. So if an operator were in compliance with each of  
16 their permit conditions, would Ecology consider that  
17 operator to be applying AKART for CAFOs in Washington?

18 A Yes, I would.

19 Q And as you sit here today, do you believe this permit is  
20 protective of the water quality of the waters of the  
21 state?

22 A I do.

23 MS. BARNEY: So subject to reserving  
24 redirect and the right to recall Mr. Jennings as  
25 necessary for rebuttal, this is all I have.

1 JUDGE FRANCKS: Okay. That reminds me  
2 that I didn't walk through how the questioning goes.

3 So obviously we have direct, but then I understand  
4 we have two parties who will do cross. Then we'll have  
5 redirect. Then the board can have questions and then the  
6 parties will each have a chance to ask questions based  
7 solely on the board's questions. So that's our basic  
8 plan here.

9 So, Mr. Tebbutt, are you next on cross?

10 MR. TEBBUTT: Well, actually, as a  
11 technical matter, Mr. Jennings was both on our list as  
12 well as a witness in chief in our case as well as  
13 Ms. Redding coming up next.

14 So we both -- we get the joy of doing both direct  
15 and cross at the same time.

16 JUDGE FRANCKS: Okay. So explain to  
17 me how that's going to work.

18 MR. TEBBUTT: Well, we're going to ask  
19 questions, and you can decide how that works, but there  
20 are issues that clearly will -- we will cross  
21 Mr. Jennings on, but there are other issues that we're  
22 going to ask him about that might be outside the scope of  
23 what Ms. Barney asked.

24 And if that's the case, then those should be  
25 permitted as well as part of our direct as our case in

1 chief. And that's why we put these witnesses up now so  
2 we only call them once.

3 JUDGE FRANCKS: Right. But are we  
4 going around six times or only --

5 MR. TEBBUTT: We're going to try to be  
6 as efficient as we possibly can.

7 JUDGE FRANCKS: All right. So it  
8 sounds like we need to play it by ear, but you are up  
9 next.

10 MR. TEBBUTT: Ms. Matsumoto will  
11 handle Mr. Jennings.

12 May we have the podium, please.

13 JUDGE FRANCKS: Sure. Where did it  
14 go?

15 MR. TEBBUTT: I don't know.

16 JUDGE FRANCKS: All right. Let's take  
17 a five-minute break and rearrange the room. We're off  
18 the record.

19 (Pause in the proceedings.)

20 JUDGE FRANCKS: Have a seat. And we  
21 are back on the record. Ms. Matsumoto.

22 MS. MATSUMOTO: Thank you. I just  
23 want to confirm that I'm now starting the clock, and so  
24 is it this side starts --

25 JUDGE FRANCKS: It's the opposite side

1 of where it says your name.

2 MS. MATSUMOTO: Yes. The numbers are  
3 a little bit light here. Okay. Looks like we're going.

4 JUDGE FRANCKS: Okay.

5 CROSS-EXAMINATION

6 BY MS. MATSUMOTO:

7 Q Hi, Mr. Jennings. How are you?

8 A I'm doing okay. Thank you.

9 Q Okay. You testified earlier, at the beginning of the  
10 day, a little bit about your process and your role as the  
11 permit writer, and I believe you said you reviewed some  
12 4,600 comments; is that correct?

13 A Approximately that number.

14 Q How many did you personally read? Did you personally  
15 read all of them?

16 A I believe I did. The large majority of those -- I will  
17 say about 4,300 of them were a form letter that were the  
18 same for each comment.

19 Q Mm-hm. But you received some that were not form letters  
20 then; correct?

21 A Correct.

22 Q Okay. And if you reach behind you, we'll be using those  
23 two binders behind you to the right. If you just don't  
24 mind having those handy, that would be great.

25 And I believe you testified that you received some

1 comment letters from various types of organizations;  
2 correct?

3 A Yes.

4 Q Does that include the environmental appellants that are  
5 here today?

6 A Yes, I believe so.

7 Q Okay. Could you turn to Exhibit A-8, please.

8 A Okay.

9 Q All right. And do you recognize that document?

10 A Yes, I believe I do.

11 Q Could you tell us what it is, please.

12 A This is conservation organization comments on Washington  
13 Department of Ecology's preliminary draft of concentrated  
14 animal feeding operation general permit comments dated  
15 October 2nd, 2015.

16 Q Did you read this comment letter?

17 A I believe I did.

18 Q And does that include its appendices?

19 A Yes, I believe so.

20 Q Did you have any meetings with any of the signatories  
21 that submitted this comment letter?

22 A Let me look. I'm just referencing the list of  
23 signatories on the last page, 59. And, yes, I believe we  
24 did have meetings with a number of these parties.

25 Q And did they make any recommendations about what should

1 be included in the permit?

2 A Generally, if I recall right, there were recommendations  
3 for or what the groups were asking for was a couple  
4 things: one, that all -- all facilities above a certain  
5 size automatically be required to get permit coverage.  
6 And let's see. The other one was required groundwater  
7 monitoring on all land application fields. Those are the  
8 two I recall off the top of my head.

9 Q So there may have been others?

10 A Yes.

11 Q And did either of those recommendations that you just  
12 listed get incorporated into the permit?

13 A No.

14 Q Okay. Could you turn to A-69, please.

15 MS. MATSUMOTO: Actually, before we do  
16 that, I'd like to move to admit Exhibit A-8.

17 JUDGE FRANCKS: A-8 is admitted.

18 (Exhibit No. A-8 admitted.)

19 A 69; correct?

20 Q (By Ms. Matsumoto) Yes. And do you recognize that  
21 document?

22 A I believe I do, yes.

23 Q Could you tell us what it is, please.

24 A This was comments -- conservation organization comments  
25 on the draft Washington CAFO permit dated August 29th,

1 2016.

2 Q And so are those some of the same organizations on the  
3 Exhibit A-8 that we had just looked at?

4 A Do you have a page of the signatories in here?

5 Q I don't actually recall if there is a specific list, but  
6 at the end -- or sorry -- in the front -- I believe on  
7 the first paragraph.

8 A Oh, yes. Sorry. Yes. So these are some of the same  
9 organizations we met with -- or some of the organizations  
10 in here are ones we met with.

11 Q And so you read this comment letter?

12 A Yes, I believe so.

13 MS. MATSUMOTO: Okay. I'd like to  
14 move to admit Exhibit A-69.

15 JUDGE FRANCKS: A-69 is admitted.

16 (Exhibit No. A-69 admitted.)

17 Q (By Ms. Matsumoto) Could we turn to R-1, I believe, the  
18 combined permit section S3.

19 A Is this in yours or the other ones?

20 Q It's in the Ecology exhibits. And we may be referring to  
21 it a little bit, so --

22 A Okay.

23 Q -- might be a good idea to just keep it on the table.

24 A Okay.

25 Q So could you turn to Section S3, please.



1 A Okay.

2 Q And you described some of this earlier, but in that  
3 opening paragraph, it references discharges that are  
4 conditionally authorized by the permit, and you had  
5 described a number of areas where those discharges --  
6 source areas where those conditionally authorized  
7 discharges may stem from.

8 Could you list those again?

9 A So conditionally authorized discharges in the CAFO permit  
10 would be from the production area where the -- where the  
11 facility is designed, operated, and maintained such that  
12 it -- it will contain all contaminated runoff up to a  
13 25-year, 24-hour storm event.

14 So discharges based on storm events larger than that  
15 would be conditionally authorized.

16 Q And were there any others -- any other areas of the  
17 facility that would have conditionally authorized  
18 discharges?

19 A Conditionally authorized discharges would be to  
20 groundwater lagoons or land application fields.

21 Q And Ms. Barney had asked you some questions about AKART,  
22 and you -- we left off on that subject -- had testified  
23 about what is AKART for some of these various areas in  
24 the permit.

25 So I just want to talk about compost areas for a

1 little bit, and I believe you mentioned those are  
2 considered part of the production area; is that correct?

3 A That's correct.

4 Q Okay. And so for composting Sections S4.A through E, you  
5 had testified were AKART; correct?

6 A For composting areas, I believe I stated afterwards that  
7 E was -- preventing direct animal contact with water was  
8 not part of what I was discussing for composting areas.

9 Q Okay. Who at Ecology made the determination for what  
10 AKART is with respect to compost areas?

11 A So that would have been -- those of us working on  
12 developing the permit would have made recommendations for  
13 what should be included in the permit, but then the final  
14 decision for if those things are going to be included  
15 only occur once the final permit was signed by our  
16 program manager.

17 Q And who is that?

18 A That's Heather Bartlett.

19 Q So you said the group of us or we who were working on the  
20 permit.

21 Was it a team of people at Ecology?

22 A So that would be myself primarily as the permit writer  
23 and then the individuals I had assisting me with that as  
24 part of the development team.

25 Q How many people are part of that team?

1 A Let's see. So there would have been, I believe, six  
2 staff plus my manager at the time, Bill Moore.

3 Q And you said the final decision to -- as to what is AKART  
4 occurs when the permit was signed off on by Heather  
5 Bartlett; is that correct?

6 A That's correct.

7 Q And so did Heather Bartlett actually make the  
8 determination?

9 A So we would have briefed Heather prior to her signing the  
10 permit as to what is in the permit, but I don't -- I  
11 don't believe she sat down and read the permit line by  
12 line.

13 Q Did she have any -- did you have any conversations with  
14 her about specific elements or conditions in the permit?

15 A Yes. Throughout the development, we did have  
16 conversations. You know, we -- as part of development,  
17 we keep the program management team apprised of our  
18 progress and get them to weigh in at times.

19 Q Okay. So who was it at Ecology that made the decision on  
20 AKART for compost areas?

21 A So I think I answered that the decision was made -- we  
22 put -- when we develop a permit, we put forward the  
23 recommendations of what we think should be in the permit,  
24 and then once we put that forward to our program manager  
25 to be signed and generally we've gone over with our

1 program, you know, our management, what is in the permit,  
2 and then if they're okay with that, they sign it off, and  
3 then we issue the permit.

4 Q But who decides initially, when you're working on the  
5 draft before it goes to Ms. Bartlett, who makes the  
6 decision on what to write that is your recommendation to  
7 her for final signing and approval?

8 A Okay. So that would be myself as -- primarily as the  
9 permit writer and then the folks on the development team.

10 Q And those people are who?

11 A So the staff were Derek Rockett, Ralph Svrjcek, David  
12 Bowen, Sean Thompson, Mak Kaufman, and Melanie Redding,  
13 and then Bill Moore as my supervisor.

14 Q And so in drafting the permit, would this team of people  
15 kind of sit down together or what was that process for  
16 kind of deciding what would be included in the initial  
17 draft as your AKART recommendation?

18 A So generally the process that we followed with this  
19 permit was to -- I would get started with some language  
20 and bring -- bring topics to the group to discuss.

21 And then out of that discussion -- and I would then  
22 take the results of that back and either modify the  
23 language or create new language to address what we've  
24 discussed.

25 Q With respect to compost areas specifically, did you

1 receive any recommendations either through comment  
2 letters or in your meetings with stakeholders that you  
3 described earlier for other alternative practices or  
4 recommended permit conditions?

5 A I may have, but I do not recall.

6 Q Could you turn back to Exhibit A-8, please, and turn to  
7 Page 31. Do you have that page up?

8 A Yes.

9 Q Okay. Do you see Item K, Composting?

10 A Yes.

11 Q Do you remember reading that in the comment letter?

12 A I couldn't say that I remember it specifically.

13 Q About halfway down, do you see where it describes how  
14 composting areas are -- in the Lower Yakima Valley  
15 groundwater management area are conducted directly on  
16 bare ground without a liner or pad?

17 A Yes, I see that.

18 Q And it looks like that comes from WSDA. See that in the  
19 letter?

20 A Yes.

21 Q Do you have any reason to doubt WSDA's records and  
22 estimates here?

23 A Not based on what's written here.

24 Q Okay. And could we look at Exhibit A-69, Page 19,  
25 please.

1 A Can you repeat the page, please?

2 Q Page 19.

3 A Okay. Thank you.

4 Q Again, there's a section towards the middle of the page  
5 about the commenters are recommending that composting  
6 operations should be required to occur only on areas with  
7 liners.

8 Do you see that?

9 A Are you referring to the fourth paragraph down?

10 Q Yes. And about halfway through that paragraph.

11 A Okay. Yes, I see that.

12 Q Do you remember reading that recommendation?

13 A Not specifically.

14 Q Did you ever have conversations in the, I guess, permit  
15 draft group that you described earlier about conducting  
16 composting operations on some impervious surface or a  
17 lined pad?

18 A I don't recall discussions within the group, no. I --  
19 yeah. I don't recall a discussion with the group.

20 Q Okay. And you agree -- I believe you testified earlier  
21 that a compost area could be a source of discharges  
22 containing pollutants that would pose a risk to  
23 groundwater; correct?

24 A It is a potential source, yes.

25 Q Okay. And the permits do not require groundwater

1 monitoring in compost areas; correct?

2 A That is correct.

3 Q And what was the reason for that decision?

4 A The reason is, by and large, the facilities that we  
5 visited during the development process, composting was  
6 taking place or manure drying, as they call it, was  
7 taking place on the dry part of the state, Eastern  
8 Washington, and that -- that area, looking at it, we  
9 didn't really see a driver.

10 There's a lot less precipitation, so we weren't  
11 seeing a driver for nutrients to move down in the soil  
12 profile.

13 In addition, looking at those areas where you get a  
14 lot of heavy equipment moving, my understanding is that  
15 that soil gets extremely compacted, and so it reduces  
16 permeability and makes it extremely -- well, less prone  
17 to infiltration of the water on -- at that location.

18 Q But it still could be a source of pollution; correct?

19 A It could potentially be a source of discharge.

20 Q And so without groundwater monitoring in the compost  
21 area, how would a CAFO operator know whether their  
22 compost area is impacting groundwater?

23 A They would not.

24 Q And without knowing if they're impacting the groundwater,  
25 doesn't that mean then they're not aware if they're also

1 complying with water quality standards?

2 A If a discharge is occurring, then, yes, they would not  
3 know.

4 Q Thank you.

5 How about animal pens and corrals? We also --  
6 Ms. Barney touched on that as a source area as well, and  
7 I believe you described how animal pens and corrals are  
8 handled in the permit earlier.

9 So I want to ask you some similar questions just  
10 about the decision-making process. So was it a similar  
11 process for who at Ecology decided what was AKART with  
12 respect to animal pens and corrals?

13 A Similar to -- for composting?

14 Q Yes.

15 A Then, yes, we went through a similar process.

16 Q And do you remember if you received any recommendations  
17 for other alternatives with respect to pens?

18 A No, I do not recall.

19 Q But permits -- the permits also do not require  
20 groundwater monitoring for discharges from animal pens;  
21 correct?

22 A That is correct.

23 Q Okay. So doesn't that create some of the same challenges  
24 with respect to compost areas that, if there are  
25 discharges occurring from animal pens and corrals as a



1 practical matter, then a CAFO operator would not know if  
2 their animal pens and corrals were impacting the  
3 groundwater? Correct?

4 A Yes, I believe that's correct.

5 Q And so similarly, wouldn't Ecology not be able to discern  
6 if an operator's -- both compost areas and animal pens  
7 and corrals, Ecology wouldn't know if an operator's  
8 production areas were impacting groundwater quality if  
9 there's no monitoring to tell you the condition of the  
10 groundwater; correct?

11 A Yes, I believe so.

12 Q Okay. I'd like to move on to soil monitoring and our  
13 adaptive management in Table 3.

14 So could you remind us why soil sampling is included  
15 in the permit?

16 A So soil sampling is included for two reasons: One, in  
17 the spring it's included as one of the bases for  
18 developing nutrient budgets which say how much nutrients  
19 can be put on a field that year; and then the fall soil  
20 sampling is for basically a report card, how well was  
21 that -- the -- that field managed during the year.

22 Q Are there areas of Washington where residual fall nitrate  
23 levels in the soil is a consistent problem?

24 A Could you define what you mean by "consistent problem"?

25 Q Are there any geographical areas of this state where year

1 after year those areas tend to have high residual levels  
2 of nitrate in the soil?

3 A There are areas where the data, I have seen, shows that  
4 there are at least some years some high soil nitrates,  
5 but I can't -- I haven't seen enough data to say whether  
6 the soil levels are high every year.

7 Q Which soil -- or what facilities have you seen soil  
8 samples from?

9 A So primarily the facilities that were permitted under the  
10 2006 CAFO permit.

11 Q How many facilities were covered under that permit?

12 A At the time the permit expired, there were ten facilities  
13 covered.

14 Q And when you were working on the current drafts of the  
15 permits, did you review any other soil samples beyond  
16 those from the facilities that were covered by the 2006  
17 permit?

18 A I didn't directly review soil samples. A lot of soil  
19 sampling information came to me through discussions about  
20 manure and groundwater literature review and discussions  
21 with Melanie Redding and her other work.

22 Q Okay. And looking at -- I'm just going back to the 2006  
23 permit. You had said, at the time it expired, there were  
24 about ten facilities.

25 Do you know how many in Washington State would have

1           been eligible for coverage?

2    A    Eligible at the time the permit expired?

3    Q    During the time that it was in place.

4    A    I don't have an exact number. I think there were a  
5           couple other facilities that we were working with at the  
6           time that the permit expired, so we weren't able to cover  
7           them then.

8    Q    Do you know about how many CAFOs are in Washington State?

9    A    Well, I know for sure that there is -- the current  
10           permitted facilities -- there's about 23 current  
11           permitted facilities, but then the facilities that meet  
12           the definition of CAFO, it -- the answer somewhat depends  
13           on if the facilities had a discharge, and I don't know  
14           off the top of my head how many facilities right now have  
15           had discharges that would qualify them for a permit.

16           I think there's roughly ten to fifteen operations  
17           that Ecology is working with to get covered right now,  
18           and those would be the ones we would also consider to be  
19           CAFOs.

20   Q    Setting aside whether they're in the process of getting  
21           permit coverage, aren't there hundreds of CAFOs in  
22           Washington State?

23   A    Well, there are -- there are hundreds of operations, but  
24           using the federal definition of a CAFO, not all of those  
25           operations would be considered to be a CAFO at this

1 point.

2 The federal definition basically -- they have to  
3 confine animals for 45 days or more during a 12-month  
4 period in areas without basically a non-pasture or crop  
5 areas, and then they have to have a discharge.

6 There's a nuance with above a certain number of  
7 animals that facility is defined to have to be a CAFO,  
8 but it's still looking at the permit, not required to  
9 have a permit unless it has a discharge.

10 Q So today there are 23 facilities covered by the permits?

11 A Approximately. I don't know the exact count off the top  
12 of my head.

13 Q And those permits were issued, remind me, in early 2017?  
14 Was it March?

15 A So we have the -- we have some of the operations that  
16 rolled over from the 2006 permit. They were extended and  
17 then reissued coverage for 2017, and then we've had a  
18 number of facilities that have applied and gotten  
19 coverage since then. So March would be when we started  
20 issuing coverages.

21 Q So if some of those rolled over, you haven't had all that  
22 many applications then; correct?

23 A I think we've had somewhere in the neighborhood of 12 to  
24 15, I believe.

25 Q And you expect to receive more applications?

1 A As time goes on, I believe so, yes.

2 Q Going back to Table 3, you talked a little bit about how  
3 the decision was made to have the required actions based  
4 on trends via a three-year period.

5 Who was it that made that decision?

6 A I believe that primarily came out of discussions with  
7 myself, my supervisor at the time Bill Moore, and Melanie  
8 Redding.

9 Q And we talked -- or Ms. Barney asked you some questions  
10 in particular about some of the risk levels listed in  
11 Table 3.

12 You look at the very high risk level in the required  
13 actions based upon trends columns. So that bottom  
14 right-hand corner, I believe it provides two options;  
15 correct?

16 A Correct.

17 Q So groundwater monitoring isn't a requirement in this  
18 case; is that correct?

19 A Correct. That's one of the options.

20 Q Okay. Do you expect that any permittees would choose  
21 that option?

22 A I really don't know. They may if they still need space  
23 to do land application.

24 Q But the decision rests with the permittee; correct? Is  
25 there ever a point where Ecology would step in and

1 mandate groundwater monitoring for a permittee that found  
2 themselves in a very high category for three consecutive  
3 years?

4 A So based on the permit, the permittee has the choice of  
5 stopping application or going to groundwater monitoring.

6 Outside of the permit, external in terms of  
7 enforcement, Ecology does have the ability to do  
8 enforcement actions if we felt that there was a situation  
9 that required it.

10 Q But as you described earlier that the benchmark levels --  
11 seating of benchmark isn't something that would trigger a  
12 violation of the permit; correct?

13 A Yes.

14 Q And so can you explain to me a little bit about how that  
15 works, that a permittee could be exceeding a benchmark  
16 that's listed here under the permit and still be in  
17 compliance with the permit somehow?

18 A Okay. So benchmarks, in and of themselves, are not a  
19 numeric effluent limit, which is, if you're talking  
20 effluent limit, a number that you should not go above.

21 A benchmark is a number that's used to trigger  
22 actions. It's basically a -- for lack of a better term  
23 at the moment, a warning or a heads-up that you need to  
24 take some actions to do a better job in the future.

25 And so just, in itself, having a permittee exceed a

1 benchmark is not a permit violation, but if the permittee  
2 exceeds the benchmark and then fails to take the required  
3 adaptive management actions, then that becomes a permit  
4 violation because those two pieces together, the  
5 benchmark and the resulting actions from the benchmark,  
6 are a narrative effluent limit.

7 Q So is there any soil limit contained in the permit that  
8 would result in some type of -- or that would result in a  
9 violation of the permit?

10 A No, there is not.

11 Q And what happens if a permittee is in the high or very  
12 high category, let's say, for all years of the permit  
13 cycle? Did you say earlier -- I believe you said it was  
14 five years?

15 A The permit -- a permit cycle is generally five years.  
16 That's the maximum we can issue a permit for.

17 Q Okay. So if a permittee is in the high or very high  
18 category for all five years of the permit cycle, I mean,  
19 first, you agree that's something that theoretically is  
20 possible?

21 A Theoretically, yes, it is -- it is possible. However,  
22 the -- if the permittee is following the permitting  
23 compliance, they would have been doing the required  
24 actions and the required actions based upon trends.

25 Q But it's possible that the numbers may not necessarily

1 decrease; isn't that correct? It's a possibility?

2 A It is a possibility.

3 Q And so would any enforcement action, for example,  
4 commence if a permittee was in the high or very high  
5 category for all five years of the permit cycle?

6 A An enforcement action is a possibility. It's going to  
7 depend on the circumstances that are at that particular  
8 facility.

9 Q Would that be considered a violation of the permit?

10 A As long as the permittee is taking the required actions,  
11 no, it would not.

12 Q And what about if a permittee -- Ms. Barney was asking  
13 you before a bit about the trends, and during the five  
14 years of the permit cycle, if a permittee had very high  
15 levels for two years, dropped for the third year, and was  
16 back up for two years.

17 Again, that's not considered a violation of the  
18 permit, is it?

19 A No. In that particular instance would not be.

20 Q And that still doesn't bump them into the three  
21 consecutive year category either, does it?

22 A That's correct.

23 Q Even though four out of the five years of the permit  
24 cycle, they have had levels that are at or above 45 parts  
25 per million in the very high risk level?



1 A Yes.

2 Q Could we turn to Exhibit A-53, please.

3 Mr. Jennings, do you recognize this document?

4 A Yes. Vaguely, I do.

5 Q Could you tell us what it is.

6 A It looks -- this looks to be a presentation outline for  
7 the preliminary -- the draft of a draft CAFO permit  
8 presentation.

9 Q And it looks like it's a tracked changes document in  
10 Word? Do you see those comment bubbles on the side?

11 A Yes.

12 Q And it looks like the commenter is JJ. Is that you, Jon  
13 Jennings?

14 A Yes. It should be.

15 Q Okay. Okay. So looking at Page 4, please, at the top of  
16 the page, so right at the top of the page, it looks like  
17 there are some residual nitrate levels in bullet points.

18 Could you just tell us what those are, please.

19 A So at the top of the slide, the bullet points, the soil  
20 nitrate concentrations are broken into categories with  
21 low being less than or equal to 10 parts per million,  
22 medium is 11 to 20 parts per million, high is 21 to 30  
23 parts per million, and then very high is greater than  
24 30 parts per million.

25 Q Who -- do you know who wrote this document that you

1 commented on?

2 A I believe I initially drafted it.

3 Q Okay. So this was a subsequent version that you provided  
4 additional commentary on?

5 A Yes. I believe, after I drafted it, I discussed it with  
6 others, and these are comments associated with that.

7 Q Okay. Did you select the matrix of numbers to be used in  
8 those top bullet points for the soil levels or did  
9 someone else do that?

10 A I believe those were an initial -- an initial take, if  
11 you will, during discussion with the rest of the permit  
12 development group.

13 Q So who determined that the very high soil level in this  
14 document should be over 30 parts per million?

15 A So what I recall is that we had discussions about this as  
16 we were looking for tools to use as part of the permit at  
17 that -- we were looking for tools.

18 And as I recall, the -- there was some discussions  
19 about whether these numbers could be realistically  
20 achieved on the field.

21 Q Were those internal discussions at Ecology?

22 A I think some of that was discussion with Department of  
23 Agriculture.

24 Q And so in the final Table 3, those levels that we're  
25 looking at in A-53 are not the same levels that appear as

1 the risk levels in Table 3; correct?

2 A That is correct.

3 Q And so why did the numbers change?

4 A As I said, I recall out of our discussions the initial  
5 numbers we had discussed in the preliminary draft were  
6 not something that could initially be achieved on the  
7 field. At least -- at least that's what I understand.

8 So we went back to the drawing board, looking for,  
9 okay, what numbers are generally protective of  
10 groundwater quality and that's -- and then what's already  
11 out on the landscape that we could use?

12 And so that's where Department of Ag's ranges were  
13 already in use as well as then we had Melanie assess  
14 those numbers to see whether they fell within what the  
15 literature was saying would generally be protective.

16 MS. MATSUMOTO: I'd like to move to  
17 admit Exhibit A-53.

18 JUDGE FRANCK: A-53 is admitted.

19 (Exhibit No. A-53 admitted.)

20 Q (By Ms. Matsumoto) Mr. Jennings, did you have  
21 conversations with anyone at Ecology about whether  
22 45 parts per million was too high?

23 A I don't think we had conversations about whether it was  
24 too high. Our discussions were, "Is 45 parts per million  
25 going to be protective of groundwater?"

1 Q Did anyone at Ecology ever specifically express concerns  
2 to you about using 45 parts per million?

3 A Not that I recall.

4 Q Would you turn to Exhibit A-19, please.

5 And do you recognize this document?

6 A Only vaguely.

7 Q Could you tell us what it is.

8 A So this appears to be a series of emails between myself  
9 and Mak Kaufman, who is another Ecology staff, and some  
10 others about various levels of soil nitrate.

11 Q And if you turn back sort of towards the end of the  
12 email, I know it appears to be a series of forwards; is  
13 that correct?

14 A Okay. Yeah. It's a series here.

15 Q And on Page 4 -- do you have Page 4 up in front of you?

16 A Okay.

17 Q Okay. Do you see where it's the initial message from  
18 Andrea Rodgers to Barb Carey?

19 A Yes.

20 Q Okay. So when you received this message, had you read  
21 the chain of correspondence before that starting kind of  
22 with this initial message?

23 And then I believe there's another one from Charles  
24 Pitz on Page 2 or 3 there.

25 A I assume I would have read the message.

1 Q Okay. So you would have had context for understanding  
2 what Mr. Kaufman was sending you?

3 A I believe so.

4 Q Okay. And you have mentioned his name before. He was  
5 part of the team that was involved in drafting the  
6 permit?

7 A Yes, he was.

8 Q Okay. And what's his role at Ecology? Do you know what  
9 his job title is?

10 A Currently I don't know. At the time we were developing  
11 the permit, I believe he was one of the Clean Samish  
12 Initiative inspectors. I don't know if his role was  
13 actually called the non-point inspector or not.

14 Q Okay. Is he familiar with CAFO operations?

15 A Yes. I believe he has familiarity with some of them.

16 Q And how about water quality issues?

17 A Yes, I believe so.

18 Q Do you consider him generally knowledgeable and trust his  
19 judgment?

20 A I consider him knowledgeable, and, in general, I would  
21 say, though we may not always agree, yes, I do trust his  
22 judgment.

23 Q If you look on the first page of this exhibit, A-19, it  
24 looks like there's a response from you to Mr. Kaufman?

25 A So are you referring to -- let's see -- would be the

1 second message on that page?

2 Q Yes. That's correct. Could you just read your -- it  
3 looks like just a short sentence or two. Could you read  
4 that for us.

5 A Okay. "Hi, Mak. I expect this to be one of many long  
6 discussions related to developing the CAFO permit. I  
7 think there is a general understanding that 45 parts per  
8 million is too high. The challenge will be getting to a  
9 number considering all the pressures that are out there."

10 Q Do you still agree that there's a general understanding  
11 that 45 parts per million is too high?

12 A Based on what I understand from the manure and  
13 groundwater literature review, I think since that was  
14 that -- the numbers in the permit were reviewed and  
15 generally protective, assuming that the permittee is also  
16 in compliance with the rest of the permit, I think that I  
17 would have to revise my statement from what's in this  
18 email, that 45 parts per million is acceptable, as I  
19 said, assuming compliance with the rest of the permit.

20 Q But it seems like Mr. Kaufman wouldn't agree with that;  
21 isn't that correct?

22 A That appears to be his opinion in this email.

23 Q And have you heard from any other commenters or  
24 stakeholders about whether that number is too high?

25 A I don't remember specific comments, but I do believe we

1 received comments about the soil -- the proposed soil  
2 benchmarks.

3 Q So what kind of changed your mind then? You said you  
4 would have to kind of revise your statement.

5 Was there something in either your conversations  
6 with your permit team or in Ms. Redding's literature  
7 review that made you change your mind that 45 is  
8 acceptable?

9 A Basically during the discussions with the outcome of  
10 Melanie's review and the manure groundwater literature  
11 review, that generally 45 was okay assuming compliance  
12 with the permit. I had to trust her judgment.

13 Q So you trust her judgment?

14 A Yes.

15 MS. MATSUMOTO: Okay. Can we take a  
16 look at her literature review, which is -- actually,  
17 before we go there, I'd like to move to admit  
18 Exhibit A-19.

19 JUDGE FRANCKS: A-19 is admitted.

20 (Exhibit No. A-19 admitted.)

21 Q (By Ms. Matsumoto) Could you turn to Page 43. It's up  
22 there on the screen.

23 A Which exhibit?

24 Q Oh, my apologies. The manure and groundwater literature  
25 review, which is R-4. 42 and 43. Excuse me.

1 A Okay. Page 42, 43.

2 Q Okay. Have you seen this document before? I know it's  
3 been referenced earlier, so --

4 A Yes.

5 Q Okay. Are you pretty familiar with the contents?

6 A Generally, though it's been a while since I've read the  
7 entire document.

8 Q Okay. Let's look at Page 41. And could you tell us  
9 generally what's depicted on that page.

10 A So primarily on this page is Table 7, which is a summary  
11 of soil nitrate threshold limits determined from  
12 literature, and it's a table summarizing looks like a lot  
13 of literature that Melanie reviewed.

14 Q Okay. Looking at this chart, could you tell me where it  
15 says that 45 parts per million is protective of  
16 groundwater?

17 A Well, 45 is not listed on here, and this is just a  
18 summary of the soil nitrate thresholds.

19 Q So why do you think 45 is not listed there?

20 A So it was -- let's see. Since this is -- this is a  
21 summary from the literature, I'm assuming that 45 was not  
22 listed in the literature.

23 Q So wouldn't you agree that your earlier statement about  
24 what the general understanding is with respect to whether  
25 45 parts per million is too high would be supported by



1 what's in Ms. Redding's literature review?

2 MS. HOWARD: Objection, Your Honor.

3 We're going to object to this. I don't think the  
4 foundation has been laid for that question.

5 JUDGE FRANCKS: And I'm -- I'm going  
6 to sustain that objection. I think we've looked at one  
7 table in the entire thing. So you can carry on. Ask him  
8 some more questions.

9 MS. MATSUMOTO: All right.

10 Q (By Ms. Matsumoto) Mr. Jennings, could we go back to  
11 Exhibit A-19, please.

12 A Okay.

13 Q And in the section you read to us, you referenced -- in  
14 general, you described the difficulty of reaching a  
15 number due to the phrase you used was "all the pressures  
16 that are out there."

17 Do you see that?

18 A Yes, I see that.

19 Q What did you mean by that?

20 A So I don't remember exactly what I was referring to when  
21 I wrote this email, but from development of -- from the  
22 development process, there are -- there's kind of --  
23 there's pressure to reduce soil nitrate levels, but  
24 there's also -- there's also the difficulty with getting  
25 to those numbers based on land application, meaning that

1 my understanding is that getting to a lot of those  
2 numbers is very difficult with -- in a cropping system.

3 Q What makes it difficult?

4 A Well, a lot of it is that while plans, you know -- a plan  
5 is made for how to manage a field, you know, not  
6 everything goes according to plan.

7 And, you know, crops may not uptake the amount of  
8 nutrients that are expected. Climactic conditions that  
9 year may not be as, you know -- what are hoped for.

10 So there's a lot of variability out there, which  
11 leads to it being difficult to achieve low soil nitrate  
12 numbers in the fall.

13 Q And what happens if the crop is not able to uptake all  
14 the nutrients as expected?

15 A Well, assuming that the crop doesn't take up all those  
16 nutrients or is not able to, then those nutrients are  
17 left in the soil for either another crop or, depending on  
18 location in the state, it is at risk of leaching to  
19 groundwater.

20 Q Looking back at Table 3 -- and, again, it's R-1.

21 A Okay.

22 Q So in the very high risk category for three consecutive  
23 years, would Ecology or the producer know if a discharge  
24 was occurring to groundwater, how much pollution is  
25 reaching the groundwater?

1 A How this is -- so would we know -- I'm sorry. Can you  
2 repeat that, please?

3 Q Yeah. So if a permittee finds themselves in the very  
4 high risk category for three consecutive years, if they  
5 were impacting the groundwater, would they know the  
6 quantity of pollution -- pollutants reaching the  
7 groundwater?

8 Groundwater monitoring is just optional there;  
9 correct?

10 A Right. So if they've -- if they've chosen to -- well, if  
11 they have that trend and they have to choose between  
12 stopping land application or going to groundwater  
13 monitoring, if they chose to stop land application, then  
14 they would not know how much.

15 Q And Ecology wouldn't know either; correct?

16 A Correct.

17 Q Because that information isn't being collected since no  
18 monitoring is taking place?

19 A Correct.

20 MS. MATSUMOTO: We've been going for  
21 just over an hour. I'm about to move into a different  
22 subject area. Should we take a break?

23 JUDGE FRANCK: Yes. Let's take a  
24 break. Let's take ten minutes and be back at 3:33.

25 And we're off the record.

1 (Pause in the proceedings.)

2 JUDGE FRANCKS: Have a seat. Let's go  
3 back on the record.

4 Ms. Matsumoto, you may proceed.

5 Q (By Ms. Matsumoto) All right. I would like to go back  
6 to R-4, please, and this is the maneuver and groundwater  
7 literature review.

8 Mr. Jennings, didn't you testify earlier that you  
9 used this as a tool to inform decision-making during the  
10 permit writing process?

11 A That's correct.

12 Q Okay. Looking at Page 41, Table 7 in the middle of the  
13 page, could you just tell us what it's called.

14 A Table 7 is listed as "Summary of Soil Nitrate Threshold  
15 Limits Determined from the Literature."

16 Q And so do you remember using this to inform your  
17 decision-making to draft the permit?

18 A So most likely, I would have discussed this with Melanie  
19 as part of working on the draft permit, not just use this  
20 by myself.

21 Q Okay. In the left-hand column -- well, could you tell us  
22 just what each of the columns are titled in this Table 7.

23 A So from left to right, the columns are "Soil Threshold,"  
24 "Notes," and "Reference."

25 Q Okay. Do you see 45 parts per million in the left-hand

1 column under "Soil Threshold" anywhere?

2 A It is not listed.

3 Q And earlier, again, you testified that you relied on this  
4 document and Ms. Redding's scientific knowledge to inform  
5 your drafting of the permit; correct?

6 A Yes.

7 Q Okay. Can we look at the next page, and the chart about  
8 halfway down is Table 8.

9 Could you tell us what that's called?

10 A So Table 8 is listed as "Manure Management Based on Soil  
11 Nitrate from Western Washington."

12 Q And, again, could you just briefly describe what's in  
13 this table, the components.

14 A So the columns listed here from left to right are "Post  
15 Harvest Soil Nitrate, 0 to 1 Foot Depth Corn," and last  
16 column is "Grass For Hay Or Silage."

17 Q And under the middle column where it says "corn" in  
18 both -- let's see -- the third row and the fifth row,  
19 those have 45 parts per million referenced in the far  
20 left.

21 Do you see that?

22 A For the third row?

23 Q Yes. And for the fifth; correct?

24 A Oh, yes. Excuse me.

25 Q And there are recommended actions to be taken at those

1 soil nitrate levels; correct?

2 A I don't know if they are recommended actions. They're  
3 listed there, but Melanie would be the one to speak to  
4 whether they're recommended or not.

5 Q Based on your understanding of this tool that you use  
6 when you were drafting the permit, wouldn't it reflect  
7 what the literature spoke to?

8 A This would be what is listed in the literature there.

9 Q Okay. And could we turn to the next page. And could you  
10 describe Table 9 for us, please.

11 A So Table 9 is listed as "Manure Management Based on Soil  
12 Nitrate at the One and Two Foot Depths."

13 Q And this appears to have similar risk levels of low,  
14 medium, high, and very high is what appears in the final  
15 Table 3; correct?

16 A The risk levels appear to be the same.

17 Q And so looking at these three pages, I'm going to ask you  
18 again: Where in this literature reviewed does it say  
19 that 45 parts per million is protective of groundwater?

20 A So my answer is, I relied on Melanie's interpretation of  
21 this as -- though I reviewed this, I relied on her  
22 interpretation for what is meant in the document for use  
23 in the permit.

24 Q So you're not aware whether anywhere in this document if  
25 it actually says that 45 parts per million is protective

1 of groundwater?

2 A I don't know that off the top of my head.

3 Q And when you were writing the permit, did you have  
4 conversations with stakeholders that you specifically  
5 recall about whether 45 parts per million was protective  
6 of groundwater?

7 A I don't recall specific conversations. I believe soil  
8 thresholds did come up at some of the listening sessions  
9 and later meetings with various stakeholders.

10 Q Where did you get the idea -- let's turn back to  
11 Exhibit A-19, please.

12 A Okay.

13 Q So at the time you wrote that message, you had a general  
14 understanding that 45 parts per million was too high.

15 Would you agree that that would not be protective of  
16 groundwater?

17 A My understanding -- my understanding is that still, you  
18 know, if a permittee is in compliance with a permit, then  
19 45 would be protective.

20 Q Would you be surprised if Ms. Redding's literature review  
21 had a different conclusion?

22 A Yes, I believe so.

23 Q Okay. I'd like to talk about the lagoon assessment. So  
24 if you could -- actually, before we get there, you  
25 mentioned earlier that lagoons were a potential source of

1 discharges containing pollutants; correct?

2 A Yes. That's correct.

3 Q Okay. And can we look at Exhibit A-11, please.

4 Do you recognize this document?

5 A Generally, yes.

6 Q Could you tell us what it is?

7 A This is the preliminary draft concentrate animal feeding  
8 operation general permit.

9 Q Could you turn to Page 5, and I'm looking at S2.A. It's  
10 the second from the bottom paragraph.

11 Could you read that for us, please.

12 A Okay. "For existing operations that are required to  
13 apply for permit coverage, application for coverage must  
14 be submitted no longer -- submitted no later than 90 days  
15 after the issuance of this permit."

16 Q I'm sorry. I'm talking about the second to last  
17 paragraph, beginning with "The owner operator."

18 A Oh, owner operator. Excuse me.

19 So you wanted the last line of that paragraph or --

20 Q No. Starting from the beginning, please.

21 A Okay. "The owner or operator of a CAFO is required to  
22 apply for coverage under this permit if the CAFO has or  
23 had a discharge to surface water or groundwater from its  
24 production area or land application area that is not  
25 agricultural stormwater.



1           "Ecology has determined that if the CAFO has a  
2           lagoon that does not have a double geomembrane liner or  
3           leak detection system between the layers, that it is  
4           discharging to groundwater."

5    Q    What was the basis for that finding?

6    A    The basis was, this was an initial assumption based on  
7           the -- looking at the NRCS practice for earthen lined  
8           lagoons, which is -- shows that, you know, even, you  
9           know, lagoons that are constructed based on that practice  
10          standard, they have a seepage rate and under a load in a  
11          lagoon or a head pressure from the liquid, that there  
12          will be seepage which eventually reaches groundwater.

13                 That was the initial assumption that Ecology made in  
14                 the preliminary draft.

15   Q    Do you still believe that to be true?

16   A    I think that there are situations where the seepage may  
17          not reach groundwater and so may not be a discharge.  
18          It's a potential possibility.

19   Q    What are the situations?

20   A    So a situation where a lagoon is built in a high clay  
21          content soil, that that soil would have a very low  
22          permeability and so the seepage would be slowed or let's  
23          say a very dry area of the state where the depth to  
24          groundwater is -- there's a very deep depth to  
25          groundwater.

1           And so, yeah, in a couple of instances like that,  
2           there may not be an actual discharge from lagoon seepage.

3   Q   How would Ecology know that?

4   A   How would Ecology know that there's actually a discharge  
5           taking place?

6   Q   Yes. In the situation you described where, you know,  
7           Ecology has made this finding that any lagoon that  
8           doesn't have the double synthetic liners with the leak  
9           detection system is discharging to groundwater, how would  
10          you know whether or not a lagoon is discharging to  
11          groundwater?

12   A   So other -- this is our initial assumption. To really  
13          know if a discharge is taking place, you would have to  
14          look at -- well, groundwater monitoring is one option.  
15          The other might be predominance of the evidence of  
16          looking at citing characteristics and other known data.

17   Q   But if you want to know whether the groundwater is being  
18          impacted, isn't groundwater monitoring the only thing  
19          that can tell you that definitively?

20   A   To actually know what's in the groundwater, yes, you  
21          would need groundwater monitoring.

22   Q   And, again, as you've mentioned, groundwater monitoring  
23          is only required mandatory in one limited instance in the  
24          entire department; correct?

25   A   Groundwater monitoring is -- yes. It's required as one

1 outcome of a lagoon assessment, and it's an option in  
2 another case.

3 Q So not all unlined lagoons will have to install  
4 groundwater monitoring networks; correct?

5 A That is correct.

6 Q Does Ecology have the authority to require lagoons to be  
7 lined?

8 A I believe Ecology does in the right circumstances.

9 Q And Ecology also has the authority -- you could have  
10 chosen to include groundwater monitoring in the permit;  
11 is that correct?

12 A Yes. We could have chosen to include it.

13 Q And yet, without including groundwater monitoring in the  
14 permit, as you said, for the majority of instances for  
15 unlined lagoons -- and you've also testified that it's  
16 not required for pens, not required for compost areas; it  
17 is only optional in a limited circumstances for field  
18 application levels -- how will Ecology ever have  
19 information about the impacts to groundwater quality such  
20 that necessary enforcement action could take place?

21 A Well, I think some of that comes down to implementation  
22 of the permit and ensuring that the facility is complying  
23 with the requirements in the permit.

24 I think, you know, in a -- in a situation where a  
25 facility is complying with the permit, just based on

1 everything we discussed during permit development, our  
2 conclusion was that, you know, the -- if a discharge was  
3 occurring from -- to groundwater from the production  
4 area, that wasn't to be a concern.

5 However, that, again, is based off permit  
6 compliance, and if we have a facility that is not  
7 complying with the permit, we believe that there are  
8 problems with that facility, then we have enforcement  
9 options outside the permit, which we could, if we see  
10 problems, take the appropriate actions, one of which  
11 could be groundwater monitoring.

12 Q But groundwater monitoring only comes into play, as  
13 you've mentioned many times, in two limited circumstances  
14 under the permit; correct?

15 A Under the permit, yes.

16 Q And as you described earlier, there's a number of areas  
17 where there's some gaps, you could say, with respect to  
18 knowledge about the direct impact to the groundwater  
19 quality?

20 MS. HOWARD: Objection. Your Honor, I  
21 think that misstates his prior testimony.

22 JUDGE FRANCKS: I'm going to overrule  
23 that. I'm not sure that she was referring to his prior  
24 testimony. I think she was describing it herself.

25 So go ahead.

1 Q (By Ms. Matsumoto) So as you mentioned earlier with --  
2 you know, we've talked about these areas of the CAFO  
3 facility that you have testified could be potential  
4 sources of pollution and for compost areas and pens.

5 Earlier you talked about how the only way to know if  
6 groundwater is being impacted would be from monitoring;  
7 correct?

8 A To actually know what's in the groundwater, yes.

9 Q And there is none that's required; correct?

10 A Not unless it's the outcome of the lagoon assessment or  
11 the optional piece in the adaptive management.

12 Q And just a few moments ago, you were saying that there  
13 may be an instance where, if you believed a facility to  
14 be a problem -- again, how would you have the information  
15 to form that belief if you didn't know the quality of the  
16 groundwater?

17 A Well, so when I say if we believe a facility to be a  
18 problem, that's going to be based on inspections of that  
19 facility and how that facility is being operated and  
20 maintained.

21 Q But there could be discharges occurring from a facility  
22 either authorized or not that Ecology wouldn't be aware  
23 of because it's not conducting direct groundwater  
24 monitoring; isn't that correct?

25 A It's possible, I think.

1 Q And are you aware of the Cow Palace decision?

2 A Yes, I am.

3 Q Earlier, when Ms. Barney was asking you about AKART for  
4 lagoons, did you testify that you weren't aware of any  
5 facilities that were installing double synthetic liners  
6 in their lagoons?

7 A I believe I testified I wasn't aware of any that had  
8 installed double liners. I haven't heard that any have  
9 actually been installed at this point.

10 Q Have you heard that there are some that may be installing  
11 them?

12 A Yes. I believe one of the outcomes of the Cow Palace  
13 settlement was that those facilities would double line  
14 their lagoons.

15 Q And when Ms. Barney was asking you about AKART, you  
16 described S4.B as the section for new lagoons; is that  
17 correct?

18 A Let me check.

19 MS. MATSUMOTO: If you're turning back  
20 to the permit, before you do that, I would just move for  
21 entry of Exhibit A-11.

22 JUDGE FRANCKS: A-11 is admitted.

23 (Exhibit No. A-11 admitted.)

24 A So yes, S4.B does have that new lagoon requirements in  
25 there.

1 Q (By Ms. Matsumoto) And when Ms. Barney asked you about  
2 AKART for existing lagoons, I wasn't clear on your  
3 response. I believe you said part of the reason was  
4 using the lagoon assessment.

5 Could you clarify what AKART is for existing  
6 lagoons?

7 A So AKART for existing lagoons is generally an earthen  
8 lined lagoon. There are lots of such lagoons that are in  
9 place currently. They're commonly used by the CAFO part  
10 of the industry, and they've been used for many years.

11 I said that though those earthen lagoons would be, I  
12 think, AKART, the lagoon assessment I referenced there  
13 was okay. These facilities have been in place for a long  
14 time. We want to assess which ones are a high risk to  
15 the environment to see -- well, at least this permit  
16 cycle, see which ones are high risk and start dealing  
17 with those high risk ones.

18 Q Could you turn to the lagoon assessment in Section S7.B  
19 of Exhibit R-1. So I just want to clarify the timeline  
20 with you. So the lagoon assessment has to be completed  
21 within two years of permit coverage.

22 Is that what you testified?

23 A That's correct.

24 Q Okay. And then how long do they have before they have to  
25 begin implementing a plan to address any deficiencies

1 that were discovered in the assessment?

2 A So if the -- if the assessment results in basically a  
3 high risk category, those -- Category 3 or 4 from the  
4 assessment, what's here is the permittee has six months  
5 to develop a plan to address the deficiencies and then  
6 18 months to begin implementing the plan.

7 Q So is that a total of four years from the time of permit  
8 coverage?

9 A I believe it's three and a half, looking at the language  
10 here.

11 Q Is that because the six and the eighteen overlap?

12 A Yes.

13 Q Okay. So three and a half years from the time of permit  
14 coverage, a permittee who identifies deficiencies as a  
15 result of the lagoon assessment has to begin implementing  
16 a plan to correct them; is that --

17 A Correct.

18 Q Okay. Does that mean that they -- the facility would  
19 actually have to start collecting groundwater monitoring  
20 data at that point?

21 A No. They would not have to start monitoring groundwater  
22 at that point.

23 Q And the permit doesn't actually even require that any  
24 groundwater monitoring wells are installed by that point;  
25 is that correct?



- 1 A Correct. Groundwater -- that -- developing the  
2 groundwater monitoring is part of developing their plan.
- 3 Q And so you testified earlier a permit cycle is about five  
4 years; correct?
- 5 A Five years is the maximum, yes.
- 6 Q And so if, even at the three-and-a-half-year point,  
7 there's no requirement to even have one groundwater  
8 monitoring well in the ground, it's possible they could  
9 go the entire permit cycle without collecting any  
10 groundwater monitoring data; isn't that correct?
- 11 A It is possible.
- 12 Q And this is the only area of the permit where groundwater  
13 monitoring is mandatory; isn't that correct?
- 14 A Yes.
- 15 Q And even where it's mandatory, it would still be allowed  
16 under the permit for no groundwater monitoring data to  
17 actually be collected; right? It wouldn't be a violation  
18 of the permit?
- 19 A Yes. It would not be a violation of the permit until  
20 they've -- until they've started implementing their plan.
- 21 Q Does Ecology determine whether the timeline is  
22 reasonable?
- 23 A Yes. That's part of our permit development discussions.
- 24 Q So does it seem reasonable to you that a permittee who  
25 has deficiencies in their lagoons could potentially go

1 the entire permit cycle without actually collecting  
2 groundwater monitoring data?

3 A So our reasonableness discussion was centered around how  
4 much is it actually going to cost to bring the lagoon  
5 back up to the required condition and -- well, how long  
6 is it going to take to do the assessment?

7 How long -- you know, the cost it's going to take to  
8 bring the lagoon back to up to standard, if you will, and  
9 cost of groundwater monitoring.

10 And we tried to provide a timeline we felt was  
11 reasonable for all the planning and -- to take place and  
12 the cost to be spread out over that time.

13 Q But it's true, is it not, that, for the duration of the  
14 permit cycle, a permittee could be discharging to  
15 groundwater, imparting more pollutants to the  
16 groundwater, and without any monitoring actually required  
17 to be installed and data collected during that five-year  
18 cycle, they wouldn't know; correct?

19 A So it is possible that they would not collect groundwater  
20 monitoring data during the five-year cycle.

21 Q And Ecology also wouldn't have any information about the  
22 impacts to -- potential impacts to groundwater from  
23 deficient lagoons; correct?

24 A Yes, I believe that's correct.

25 Q And so would Ecology be able to take any enforcement

1           action without that information? They can't do it, can  
2           they?

3    A    I believe there are situations where we could take  
4           enforcement actions. Based on inspections, if the  
5           condition of the lagoon was noted such that there were  
6           obvious major problems, that could be a situation where  
7           we take an enforcement action that caused the -- caused  
8           the operation or permittee, if they're permitted, to take  
9           more action sooner.

10   Q    But without that information, discharges could continue  
11           from a deficient lagoon for an entire permit cycle and  
12           not only would the operator not know, Ecology wouldn't  
13           know, and it wouldn't be a violation of the permit;  
14           correct?

15   A    Yes. It is -- it is possible that they would not take  
16           any samples, and so we would not know during the permit  
17           cycle.

18   Q    And as a permit writer and staff member of the Department  
19           of Ecology, aren't you tasked with protecting the quality  
20           of waters of Washington State surface and groundwater?

21   A    My task is to implement the laws.

22   Q    Do you find that to be protective, a situation where  
23           discharges could be occurring to groundwater and no one  
24           has any information about whether the groundwater is  
25           being impacted and Ecology has no information on which to

1 act and potentially take any kind of enforcement  
2 authority, not only because they're missing information,  
3 but because it's not a violation of the permit?

4 A Well, I think, taken as a whole, the permit is  
5 protective.

6 And, again, some of that information would be from  
7 the outcome of inspections, and so we would have some  
8 information to take actions on if, you know, there are  
9 things we could see, which would lead us to believe  
10 there's problems.

11 Q So will Ecology be conducting inspections for permit  
12 compliance?

13 A Department of Agriculture, our sister agency, will be  
14 conducting compliance inspections based on the MOU  
15 between our two agencies.

16 Q And how will they inspect a facility's groundwater to  
17 know if it's being impacted?

18 A Well, they won't be able to inspect the groundwater, but  
19 they will be able to inspect the portions of the facility  
20 that are visible aboveground to see if there's any --  
21 anything they may see that would be a cause for concern.

22 Q But, again, even the entity that's doing the inspecting  
23 of the facility, they're missing a critical piece of  
24 information, aren't they, because there's no groundwater  
25 monitoring to tell them if the groundwater is being

1 impacted? Isn't that correct?

2 A You are correct. There is no groundwater monitoring at  
3 that point, assuming that they have -- the facility  
4 hasn't installed the -- hasn't started implementing their  
5 plan.

6 With that said, I think visual inspections can have  
7 other indicators, potentially that there may be problems  
8 with the facility, which we'd want to follow up on  
9 sooner.

10 Q Could an inspector visually inspect a lagoon and seepage  
11 and discharge to groundwater?

12 A To groundwater, no.

13 Q So, again, conducting this inspection, they won't be able  
14 to see if there are impacts occurring from discharges to  
15 groundwater; correct?

16 A No. They would not be able to see that.

17 Q And doesn't that seem like it's not protective of  
18 groundwater?

19 A Well, I think the permit is protective, but groundwater  
20 monitoring itself is not going to be protective of water  
21 quality. It's the implementation of the permit  
22 requirements that's going to be.

23 Q But, again, how -- how will you be able to know if the  
24 water quality is being impacted just by looking at these  
25 other permit terms that don't include groundwater

1 monitoring?

2 MS. BARNEY: Ecology objects at this  
3 point. This has been asked and answered several times.

4 JUDGE FRANCKS: Objection sustained.

5 Q (By Ms. Matsumoto) In addition to groundwater  
6 monitoring, Mr. Jennings, you discussed surface water  
7 monitoring earlier, and it's not required in the permit;  
8 correct?

9 A That is correct.

10 Q And could you tell us what you base that decision on.

11 A So generally -- generally a CAFO operation is a no  
12 discharge operation. So they aren't going to be having a  
13 routine discharge that would be able to be monitored.

14 And when -- assuming compliance with a permit and a  
15 25-year, 24-hour storm event occurs and a discharge, you  
16 know, does occur, then the location of that discharge and  
17 the timing of that discharge, figuring out when and where  
18 that's going to occur, is not really feasible.

19 So taking -- including surface water monitoring  
20 didn't seem to really be a feasible -- didn't really seem  
21 feasible as part of the permit to get accurate data.

22 Q Are you aware of whether there have been any surface  
23 water discharges from CAFO?

24 A There have been discharges, yes.

25 Q Could we look at Exhibit A-53, please. Okay. And I

1 believe we looked at this document earlier; correct?

2 A Yes, I believe so.

3 Q And you testified that you were the initial author?

4 A Yes.

5 Q Looking at the -- kind of the bottom section, there are  
6 three bullet points where it says "Slide, Environmental  
7 Impacts." Do you see that section?

8 A Yes.

9 Q Could you tell us the top bullet point, please.

10 A Top bullet point is, "There have been several documented  
11 surface water discharges from CAFO since 2011."

12 Q And where did you get that information?

13 A That information would have been provided to us by  
14 Washington State Department of Agriculture, I believe.

15 Q Can we look at Exhibit A-24, please.

16 Do you recognize this document?

17 A Vaguely.

18 Q Could you tell us what it is.

19 A The title is, AFO, slash, CAFO discharge information 2008  
20 to 2010, and then it looks to be a summary of various  
21 discharges from different facilities across the state and  
22 then a discussion of issuing the CAFO permit and what  
23 appears to be problems with it -- problems with getting  
24 the permit issued.

25 Q Okay. The second bullet point, could you read that for

1 us.

2 A Are you talking about the arrow bullet points?

3 Q Yes. Sorry. The little arrow marker.

4 A Discharges to surface water from CAFO, slash, AFOs have  
5 proven to be a significant problem.

6 Q Did you write this document?

7 A I do not know.

8 Q Do you agree with that statement?

9 A I agree that there have been discharges from CAFOs.

10 Q Do you agree that they're a significant problem?

11 A I would say that there are areas where the discharges  
12 have been a problem.

13 Q What are those areas?

14 A So in regards to surface water discharges, the one that  
15 comes to mind is the Samish Bay and the shellfish bed  
16 closures there.

17 Q Why were the shellfish beds closed?

18 A As I recalled, the shellfish beds were conditionally  
19 closed because there were high fecal coliform hits that  
20 were coming into the -- coming into the bay from the  
21 Samish River.

22 Q And fecal coliform is found in animal waste; correct?

23 A Yes.

24 Q And so this document appears to be -- as you said,  
25 includes a list of some discharges from different



1 facilities?

2 A Yes. Includes a list.

3 Q Okay. And earlier you mentioned that that information is  
4 something that could be reported to you by the Department  
5 of Agriculture; is that correct?

6 A Yes. That would be -- that would be one way.

7 Q Does Ecology ever get information about discharges  
8 reported by anyone else?

9 A Yes. I believe through our ERTS, our complaint system,  
10 that others do provide at least reports to us to take a  
11 look at.

12 Q Okay. So you agreed that there are areas where surface  
13 water discharges from CAFOs are a problem; correct?

14 A Yes. Where surface waters have -- where surface water  
15 discharges have caused problems.

16 Q So why does the permit not include surface water  
17 monitoring to address and identify those problems?

18 A Well, a couple reasons. One, as I think I talked about  
19 from the production area, the nature of the -- the permit  
20 is -- or the discharges are that they're not supposed to  
21 be occurring routinely. They're only in a very narrow  
22 range of circumstances.

23 Assuming, you know -- assuming permit compliance,  
24 the only discharge from the production area that would  
25 occur is the 25-year, 24-hour storm event or larger.

1           From land application fields, then discharges that  
2           are occurring from land application fields, again,  
3           assuming compliance with the permit, say the land  
4           application conditions in this case, a discharge is  
5           likely to fall under the agricultural stormwater  
6           exemption, and so that wouldn't be regulated by the  
7           permit.

8    Q    So looking at the next couple pages of Exhibit A-24, just  
9           the list of dates and facilities and the types of  
10          discharges, do you see that list?

11   A    Yes.

12   Q    Are any of those discharges the types that you think  
13          would be -- would qualify as agricultural stormwater?

14   A    There are some here that are listed as land application,  
15          and without further details, I couldn't say on those.

16   Q    What about on Page 3, Item 5, "Application to Snow"?

17                As you described earlier, that's not something that  
18                would fall under the agricultural stormwater exemption;  
19                correct?

20   A    That is correct.

21   Q    Okay. And No. 9, it says, "Dike breached during Nooksack  
22          flooding."

23   A    So that would not be agricultural stormwater either.

24   Q    Okay. So it's possible then that, you know, given this  
25          list, that discharges that are not subject to

1 agricultural stormwater could be occurring with some  
2 frequency. Wouldn't you agree?

3 MS. NICHOLSON: Objection, Your Honor.  
4 We have no foundation on this document. We don't know if  
5 the information here is correct or who authored it.

6 MS. MATSUMOTO: Mr. Jennings said he  
7 was vaguely familiar with it.

8 JUDGE FRANCKS: I'm going to sustain  
9 that objection.

10 Q (By Ms. Matsumoto) Mr. Jennings, could you look at  
11 Exhibit A-51.

12 And do you recognize this document?

13 A I'm not really recognizing it.

14 Q Okay. Could you tell us what it says on the front.

15 A So this is an Ecology document, "Preparing Elements of a  
16 Quality Assurance Monitoring Plan to Conduct Water  
17 Quality Monitoring Near Areas in CAFOs."

18 Q And if you turn to Page 11 -- sorry.

19 Before we go to Page 11, can we just back up towards  
20 the cover. You see some names listed there?

21 JUDGE FRANCKS: What page are you  
22 looking at.

23 MS. MATSUMOTO: Page 4.

24 A Mine is Page 3. It's listed as Page 4, but I guess  
25 you've got the cover page here.

1 Q (By Ms. Matsumoto) Oh, okay. Yes.

2 A Yes. So listed as Page 4.

3 Q Yes. Page 4. So shows the authors' names there, and I  
4 believe you mentioned Robert Plotnikoff. Is that the  
5 correct name earlier?

6 A No.

7 Q Oh, okay.

8 A I don't recognize the name.

9 Q Okay. Do you recognize any of the other authors' names?

10 A I recognize a couple as working at Ecology, but not in  
11 relation to this.

12 Q Who do you recognize?

13 A Paul Pickett and Debby Sargeant.

14 Q And do you know what their roles are at Ecology?

15 A No, I don't.

16 Q Okay. I want to ask you about emergency winter land  
17 applications, turning back to the permit. And if we  
18 could look at Section S4.J.5.

19 A Page 22?

20 Q Yeah. And so you went over this a little bit with  
21 Ms. Barney earlier, but just to revisit the purpose of  
22 restricting land applications in the winter is because of  
23 higher risk, is it not?

24 A Yes.

25 Q And it would be a higher risk of surface water discharges

1 due to field conditions; correct?

2 A Yes.

3 Q And did you testify that a permittee, if they need to  
4 make an emergency winter land application, has to comply  
5 with all of the other required conditions for land  
6 applications in the permit?

7 A So the -- this particular condition -- so, yes, outside  
8 of -- outside of this -- well, the permittee would have  
9 to comply with the other conditions in the permit.

10 Q So what do you mean, "the other conditions"? Are there  
11 some that does not have to comply with during emergency  
12 applications?

13 A Well, the emergency winter application is to basically  
14 account -- account for emergencies, and so while we do  
15 state that applying outside of, you know, the other  
16 permit conditions is a permit violation, we do include  
17 this clause to allow for emergencies.

18 Q So even in winter, can a permittee apply to a field that  
19 is frozen?

20 A Generally no.

21 Q Generally no, or no?

22 A So the answer would be no, except for the winter land  
23 application.

24 Q So if they want to take advantage, I guess you could say,  
25 of this emergency provision, they can apply to a frozen

1 field? Is that what the permit allows?

2 A So in an emergency situation, that would be allowable if,  
3 according to this condition, there's -- the emergency  
4 application has to take place to protect public health or  
5 safety.

6 Q Isn't that just sort of transferring the risk? I think  
7 the example you gave earlier was a lagoon overtopping,  
8 right, due to precipitation or perhaps that's the example  
9 in the permit?

10 A Correct. That's the example in the permit.

11 Q Okay. So if the idea is that you're trying to protect  
12 public health and safety and you want to avoid a lagoon  
13 overtopping but they can apply to a frozen field, which  
14 you've already described is a higher risk condition,  
15 isn't that in a sense just transferring the risk from  
16 lagoon overtopping to surface water runoff from a frozen  
17 field?

18 A It is a calculated risk. Basically including this  
19 condition was to hope in an emergency situation prevent  
20 actual failure of infrastructure, which would then lead  
21 to further problems in the future.

22 Q But in an emergency situation like this, you're also  
23 concerned with protecting public health ; right?

24 A Yes.

25 Q And so if you know that it's a higher risk situation and

1           you are, you know, allowing this explicitly, in part,  
2           because of your concern over public health, why would you  
3           not include a surface water monitoring provision?

4    A    I think that that goes back to, we wouldn't necessarily  
5           know where the land application may take place or where a  
6           potential discharge from that application field might  
7           take place. So it creates a difficulty in figuring out  
8           where monitoring would actually occur to get good data.

9    Q    You talked about tile drains a little bit earlier,  
10           though; right?

11   A    Correct.

12   Q    And aren't those a likely source of surface water  
13           discharge from the field in a situation where there may  
14           be an emergency application, and there's a higher risk of  
15           runoff?

16   A    They could be a source of a discharge.

17   Q    And wouldn't the CAFO operator have the information about  
18           their facility to know where a high risk location or  
19           locations are for potential surface water discharges?  
20           Aren't they supposed to identify those high risk  
21           locations?

22   A    So I'll have to take a look at the new air pollution  
23           prevention plan requirements to answer part of your  
24           question.

25   Q    Okay.

1 A So that's looking at S4.Q, starting on Page 28.

2 So on Page 30, see that the Manure Pollution  
3 Prevention Plan does require documentation about the  
4 permittee's facility must be included in the Manure  
5 Pollution Prevention Plan kept up to date as changes are  
6 made and then about potential surface or groundwater  
7 discharge problem areas, for example, high risk areas.

8 Q Correct. And in addition to already having documented  
9 those high risk areas, the permittee completes yearly  
10 field budgets; correct? You talked about those earlier?

11 A Correct. They're required to develop a yearly field  
12 nutrient budget for each field they're going to land  
13 apply to.

14 Q Right. So they have that information per field?

15 A Correct.

16 Q Okay. And in this emergency winter application  
17 situation, they would still need to comply with all other  
18 conditions; right? Isn't that what you testified?

19 A Yes, they would.

20 Q And so that includes complying with their yearly field  
21 budgets; right? They would have that information?

22 A So -- yes. They would have that information, depending  
23 on if it was a single crop or a double crop system.

24 Q Okay. So between both the nutrient budgets and the MPPP  
25 documenting those high risk areas, wouldn't a permittee



1           have enough information to know where some reasonable  
2           monitoring points would be, such that discharges from  
3           those high risk areas could be captured and monitored --  
4           or documented and monitored, I should say?

5    A    Just -- you're just referring to the emergency winter  
6           application in that case?

7    Q    Correct.

8    A    Potentially I could see that being the case, yes.

9    Q    Did you have internal conversations at Ecology about  
10           whether or not surface water monitoring with respect to  
11           emergency winter land applications would be something to  
12           include in the permit in order to protect surface water  
13           quality?

14   A    So I don't -- I don't recall having conversations about  
15           surface water quality monitoring associated with the  
16           emergency winter land application.

17   Q    Did you hear concerns in general from other Ecology staff  
18           members about how the permit handles risks to surface  
19           water?

20   A    In general, yes. I think some -- I think there were some  
21           discussions about not necessarily the emergency winter  
22           land application, but there were concerns presented about  
23           other field plan application practices.

24   Q    Mm-hm. Could we look at Exhibit A-54, please.

25           Mr. Jennings, do you recognize this document?

1 A Yes, I do.

2 Q Okay. Could you tell us what it is?

3 A So this is an email exchange between Mak Kaufman and  
4 myself about his concerns related to several areas of the  
5 permit as we were working on developing the final -- the  
6 final version of the permit.

7 Q And could you tell us the date that he sent this to you.

8 A This was sent January 13th, 2017.

9 Q Okay. And did you respond to the concerns that  
10 Mr. Kaufman raised?

11 A I believe I did, but it was via conversation.

12 Q Okay. I'd like to look at Page 4 -- oh, sorry -- Page 3  
13 at the very bottom.

14 And could you tell what you say -- the bolded text  
15 says above the highlighted portion.

16 A There's two highlighted sections. Which one?

17 Q At the bottom of the page.

18 A Okay. So "Berms which present surface water discharge  
19 from land application field. Berms must be designed,  
20 installed, and maintained to perform their function  
21 considering the following factors: A, whether  
22 characteristics for the area where the facility is  
23 located such as precipitation, storm events, and volume  
24 runoff."

25 Q And I believe it continues on to the next page.

1 A Yes. Would you like me to continue?

2 Q You don't need to read the whole thing, but if you're  
3 familiar and you recall seeing this email, could you tell  
4 us what Mr. Kaufman's concern was here?

5 A So as I understand Mr. Kaufman's -- Mak's concern, he  
6 was -- he was concerned that berms, which are a field  
7 edge management practice that we included along with the  
8 hundred foot setback and 35-foot vegetative buffer, he  
9 was concerned that individuals -- potentially permittees  
10 are not going to install the berms correctly.

11 Q And did you share that concern?

12 A Did I personally share that concern?

13 Q Yes.

14 A No, I did not. I believe that, you know, taking a permit  
15 as a whole and that is as one condition, and the  
16 conditions we included around what has to go into the  
17 berm design, I believe -- I believe that the berms would  
18 work.

19 Q Berms can fail; correct?

20 A Yes. Berms are a technology that can -- like other  
21 technologies, they can fail.

22 Q Are you aware of any berm failures in Washington?

23 A Yes. There was one that, I believe, occurred -- I'm  
24 trying to remember the date -- towards the end of I want  
25 to say 2017. There was a berm failure.

1 Q And Mr. Kaufman was -- you mentioned that no farmer is  
2 going to hire an engineer to design and properly install  
3 the berm; correct? That was the concern expressed in  
4 that document?

5 A That's what the document states.

6 Q Okay. And that's because he, I guess, felt that it just  
7 wasn't reasonable, even though that's what the permit  
8 required, wasn't reasonable to expect someone to hire a  
9 person to engineer and design a berm?

10 MS. BARNEY: Objection. That calls  
11 for speculation.

12 JUDGE FRANCKS: Sustain that  
13 objection.

14 Q (By Ms. Matsumoto) Have you seen any berm designs?

15 A No, I have not.

16 Q Have you spoken with anyone in Ecology about how a berm  
17 would be engineered or designed?

18 A So just to clarify my last statement, the berms I'm  
19 referring to are field edge berms because oftentimes  
20 lagoon structures -- those walls are called berms, and I  
21 have looked at some of the NRCS documentation around  
22 that.

23 The -- did -- in terms of who I -- who all discussed  
24 the berms, the internal group -- development group did  
25 discuss them at one point, I believe.

1           And then I had another discussion. It was myself --  
2           well, maybe more than one discussion. I don't recall,  
3           but there were discussions between myself and Bill and  
4           maybe some others I don't remember about -- about the  
5           berms and what parameters to include around how a berm  
6           should be built.

7   Q   Does the permit include those parameters?

8   A   I will have to look, but I believe it does.

9   Q   Okay. Let's look at R-1.

10                   JUDGE FRANCKS: Ms. Matsumoto, I'm  
11           going to interject while Mr. Jennings is looking for  
12           something.

13           Do you have a sense of how much longer you have?  
14           It's 4:43 right now.

15                   MS. MATSUMOTO: I do have a couple  
16           more substantial sections.

17                   JUDGE FRANCKS: Well, maybe what we  
18           should do then is wrap up for today and get started again  
19           tomorrow, and obviously he can answer the question  
20           whatever section you're working on right now, but  
21           let's --

22                   MS. MATSUMOTO: Well, if we're going  
23           to take a recess, then maybe I would just move to admit  
24           Exhibit A-54 before we transition to another exhibit.

25                   JUDGE FRANCKS: Okay. A-54 admitted.

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

(Exhibit No. A-54 admitted.)

JUDGE FRANCKS: So how much longer are you going to -- we do need to wrap up, and everybody needs to get down and out the door by five o'clock.

MS. MATSUMOTO: Yes. We can actually stop here for the day.

JUDGE FRANCKS: Okay. All right. Sounds good. So, Mr. Jennings, you will join us again tomorrow, I hope.

THE WITNESS: Yes, I will.

JUDGE FRANCKS: Okay. So we are off the record.

(Proceedings adjourned at  
4:44 p.m.)

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

C E R T I F I C A T E

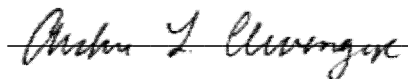
I, ANDREA L. CLEVINGER, a Certified Court Reporter in and for the State of Washington, residing at Olympia, authorized to administer oaths and affirmations pursuant to RCW 5.28.010, do hereby certify;

That the foregoing proceedings were taken stenographically before me and thereafter reduced to a typed format under my direction; that the transcript is a full, true and complete transcript of said proceedings consisting of Pages 1 through 199;

That I am not a relative, employee, attorney or counsel of any party to this action, or relative or employee of any such attorney or counsel, and I am not financially interested in the said action or the outcome thereof;

That upon completion of signature, if required, the original transcript will be securely sealed and the same served upon the appropriate party.

IN WITNESS WHEREOF, I have hereunto set my hand this 18th day of June, 2018.

  
(Court Reporter, CCR No. 3041)

