January 15,

1997

Colloquy

1	MORNING PROCEEDINGS
2	(The following occurred on January 15, 1997, at 9:45 a.m.,
3	outside the presence of the jury.)
4	J=1.7
5	THE COURT: Be seated, please.
6	MR. MAJOR: Your Honor, I understood that the rules
7	were that the attorneys in cases were to avoid all contact
8	with the jurors. And this morning I observed Mr. Hagens
9	exchanging pleasantries with Juror No. 16, greeting him,
10	saying good morning, how are you.
11	It puts me in an impossible position. I have to walk by
12	the juror and act like he doesn't exist, like we are supposed
13	to.
14	MR. HAGENS: Your Honor, he said it to me. So I'm
15	not going to ignore the guy. So sounds like I was trying to
16	engage in conversation with him. And these are well, if
17	he wants to make a big deal out of it, I certainly wasn't
18	intending to influence any juror other than just being
19	polite, for heaven's sake, Your Honor.
20	THE COURT: Well, the thing to do, what I try to do
21	is, even if someone initiates and says good morning or hello
22	or whatever, I just sort of nod my head and move along. That
23	is about the most. I would recommend that in the future.
24	And it may seem a bit
25	MR. HAGENS: It seems rude to these people. ¶
1	THE COURT: Other than with this issue having
2	been raised, I'll mention again to the jury that they really
3	need to we would all like to be cordial and so forth and
4	that is our natural inclination, obviously to do that. We
5	all really need to be careful that we don't even do anything
6	that might be perceived by someone else to be
7	MR. HAGENS: I mean this is I tell you
8	THE COURT: It's a point we had raised. I'm not
9	placing fault or anything.
10	MR. HAGENS: I'm just trying to be polite.
11	THE COURT: I understand that. We need to be very
12	circumspect in our contact, just to make sure that no one
13	else is so it doesn't raise any misapprehensions.
14	MR. HAGENS: Doesn't say I was talking to him, for
15	heaven's sake.
16	THE COURT: I understand that. And I think what

17	I'll do, since you have indicated that the juror said good
18	morning to you and hello and he engaged you in conversation
19	
20	MR. HAGENS: I will say I nodded to him and he to
21	me and we did exchange pleasantries. I don't mean to say he
22	was wrong when he described the situation. I was just trying
23	to acknowledge his existence, for heaven's sakes.
24	THE COURT: I'll just encourage the jurors to try
25	not to even I won't point out that incident. Just to ¶
1	remind them again, we really shouldn't even engage in that
2	sort of thing. All right.
3	Anything else?
4	MR. ANDERSON: Not from me, Your Honor.
5	THE COURT: Okay.
6	(The following occurred in the presence of the jury.)
7	
8	THE COURT: Dr. Mutter, if you will return to the
9	stand, please.
10	DOUGLAS G. MUTTER, called as a witness by the plaintiff, being previously
11	duly sworn on oath, testified further as follows:
12	
13	CROSS-EXAMINATION
14	BY MR. SMART:
15	THE COURT: As we always do, I'll simply remind you
16	that you remain under oath. Great. Thank you.
17	Have a seat.
18	Q (By Mr. Smart) Mr. Mutter, as I understand it, you reviewed
19	the history of the diking system that exists in Skagit County
20	and made a computer model, as you testified on direct; is
21	that fair to say?
22	A Yes.
23	Q And part of your review of the history was that you learned
24 25	that the dikes were built by the diking districts back around the turn of the century; is that right? \P
1	MR. HAGENS: Objection as to form. No foundation
1 2 3 4	the diking districts originally built the dikes.
3	MR. SMART: The question was, did he learn that.
	THE COURT: All right.
5	A Um, my review indicated do me that the original construction
6	of the dikes was by by landowners, and they became
7	improved over time by diking districts and others.
8	Q (By Mr. Smart) Handing you your deposition, which was taken
9	on December 19, 1995, I'll ask you if that isn't the sworn
10	testimony that you gave on that day.
11	A Yes, it is.
11 12 13	

14		MR. SMART: 159.
15	0	(By Mr. Smart) Did I ask you on that day what you had
16	2	learned with respect to diking districts and the construction
17		of the dikes? Did I ask you these questions, you give me
18		these answers?
19		Okay. Have you performed any work since
20		your last deposition on the question of
21		flood levels in the Skagit River?
22		Yes, I have. We've completed our hydraulic
23		analysis in the Nookachamps area to
24		determine the effect of levees on surface
25		elevations in the Nookachamps. \P
1		QUESTION: What work did you do since your
2		last deposition?
3		ANSWER: Essentially, we concentrated on
4		computer model runs that would simulate
4		
5		conditions in 1990 without the presence of
6		the levees.
7		QUESTION: Is that without the presence of
8		the levee system as you described it
9		before?
10		ANSWER: No, not entirely. It's without the
11		presence of the levees that have been
12		constructed by the diking districts, but
13		left the other civil works in place.
14		Did you give me those answers on that day?
15	A	
16	0	Your testimony was under oath at that time, was it not?
	-	
17		Yes, it was.
18	Q	All right.
19		Did you learn then that the diking districts had the
20		legal right to have their dikes in the locations that are
21		outlined on this map, Exhibit 975 and 974?
22		MR. HAGENS: Your Honor, I'll object. It calls for
		a conclusion of law on the witness' part.
23		
24		THE COURT: Would you restate the question.
25		MR. SMART: I asked him if he learned that the dike \P
1 2 3 4 5		districts had the legal right to maintain construct and
2		maintain these dikes during his review of the history of the
2		matter.
2	-	
4	A	No, I didn't.
5		MR. HAGENS: Same objection, Your Honor.
6		THE COURT: Counsel, excuse me. There has been an
7		objection with respect to the form of the question, in that
8		it calls for a legal conclusion?
9		MR. HAGENS: Yes, Your Honor.
10		THE COURT: All right. The question was, did he
11		learn.
12		MR. SMART: The question was, did he learn if they
13		had the legal right. In other words, did he learn about the
-		Control and the confidence of the property of

- permits, things like that. I'm just trying to find out what investigation he made.
- THE COURT: Okay. As stated, I'll sustain the objection. The actual form of the question -- does call
- 18 -- but I think you can get there easily enough.
- 19 Q (By Mr Smart) Did you learn that the diking districts had 20 received permits from the State of Washington to have their 21 dikes in these locations, sir?
- 22 A No.
- 23 Q Did you investigate whether or not the diking districts had received permits to have their dikes in these locations?
- 25 A I didn't, no. ¶
- 1 Q Did you ever investigate what the permitting of the dikes had been in any regard?
- 3 A No.
- 4 Q All right.

So whatever historical investigation you performed, it did not include the statutes or the permits or the relationship between the diking districts and the counties, any of that sort of information; is that right?

- 9 A Um, well, it would have included the relationship -- not the 10 legal relationship between the diking districts and the 11 county, but certainly how they worked together. That's all.
- 12 Q Okay.
- And you do a lot of work with municipalities and state agencies, correct?
- 15 A Yes, we do.
- 16 Q And many times in a complicated situation such as having a diking system running through a county, there are
- intergovernmental interests where one governmental agency
- relates to another in respect to the civil works, for instance, that you even design; isn't that correct?
- 21 A Which works are we discussing?
- 22 Q Civil works that you have -- You have designed dikes, have you not?
- 24 A Yes.
- 25 Q And sometimes it's necessary for one governmental entity to ¶
- be consulted or to pass off on a project planned by another
 governmental entity; isn't that correct?
- A Are you asking about my specific experience? I don't recall offhand a project involving levees where I worked with more than one agency.
- Would it be your testimony then, sir, that you're unaware of what the relationship between the entity that you are working for when you're designing a levee and any other governmental entity who might occupy some sort of jurisdictional or
- 9 entity who might occupy some sort of jurisdictional or 10 supervisory role?
- 11 A I think in the case of the levee design work I've done that is the case.
- 13 Q You don't know what those relationships are; is that correct?

- 14 A That's correct.
 15 Q Now, your computer model took data -- it took data from two locations: number one, it took data from the -- three locations: Army Corps of Engineers. USGS, and then actual observed water levels that were reported by residents; is that correct?
- 20 A I believe that's correct, yes.
- Q Okay. And in fact, your partner Mr. Regan has earlier identified what the observed levels were for the 1990 flood, and he created this document, Exhibit 979A, where he highlighted the specific observed observations. You're
- 25 familiar with this document, are you not, sir? ¶
- 1 A Somewhat hard to make out from here, but I think so.
 - Q What I would like you to do, sir, if you would please, is come down on --

THE COURT: Mr. Smart, obviously I don't know how to run that machine. Does it help if you have the lights on on that thing?

MR. SMART: Did I fail to turn the light on? There we go. That is the wrong light.

Some reason my lights aren't working, Your Honor.

THE COURT: They are not. MR. SMART: There we go.

THE COURT: I don't know that that really helps.

MR. SMART: I can zoom it in for the particular

elevation we are talking about.

- 15 Q (By Mr Smart) What I would like you to do, Mr. Mutter, if
 16 you would, please, is come down here and with this marker put
 17 the observed water levels on 991A, which was the chart of
 18 your 1990 water surface elevations with existing conditions.
 19 Because you don't have these handwritten observed elevations
 20 on this particular document, correct?
- 21 A That's correct.

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- 22 Q So if you would do that, please, sir. And I can hand you the document.
- 24 THE COURT: And Mr. Smart, I think for the jurors 25 on the far end of the jury box, if you could swing the ¶
- exhibit around a bit more. You could go, if you would like, to go past Mr. Hagens' location, if you would like. Get it up clear and that gets a better angle. Then we can optimize the jury's view by Mr. Hagens moving to the side.

 That's it.
- 6 Q (By Mr Smart) If you would, write in the observed flood levels which are the actual flood levels -- the actual points observed by the residents and then measured by your survey crew prior to making your computer model.
- 10 A (Witness complying.) Let me clarify that these are not all
 11 high watermarks that we observed or that we surveyed. I
 12 believe some of these are, perhaps -- the majority are from

13 the Corps of Engineers.

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14
    Q
        Okay.
15
              But they are actual observed levels, in other words,
16
         what actually existed where people took it from a measurement
17
         on the ground, correct?
18
         I believe so.
     A
19
         All right.
     0
20
              Now, if you would just copy those onto Exhibit No. 991A
21
         for me, please.
22
                                       (Defendant's Exhibit No. 991A
                                      identified.)
23
24
         Land markings, this is going to have to be approximate.
     Q (By Mr. Smart) Do the best you can. ¶
 1
         (Witness complying.)
 2
         Now, if you would please highlight them the way they are on
 3
         979A, please.
 4
         (Witness complying.)
     A
5
         And also, if you would please, sir, identify that those are
     0
6
         the -- just write "1990 observed" or "1990" by each one of
 7
         those particular numbers.
8
     A
         (Witness complying.)
 9
     0
         Okay.
10
              Thank you.
11
              Now, this number here in the lower right-hand corner,
12
         that is an observation taken at the Austin residence, is it
13
         not?
         I couldn't tell you today.
14
         Do you remember where the Austin residence was?
15
16
        Not specifically, no. I understand it's in the Clear Lake
17
         area.
18
     Q
        So you couldn't tell us then whether or not this number 41.2
19
         is at the Austin residence?
20
     A
        Not today, I couldn't.
21
        Now, if you would please, sir, I would like you to take
22
         980A. These are the observed elevations for the 1975 flood,
23
         are they not, that you also had for the purpose of
24
         calibrating your computer model?
25
     A I believe that's correct. ¶
        All right.
 2
              And would you take -- still have my marker?
 3
        I do.
        Would you take those and in the same fashion write in the
4
 5
         observed elevation for the 1975 flood in the location that
 6
         they exist on 980A.
 7
     A
        (Witness complying.)
 8
        And then if you would label them for 1975.
 9
              The record should reflect that these are observed
10
        levels, correct?
11 A
        That's correct.
12
        Okay.
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13 And if you would highlight them, please, sir. 14 A (Witness complying.) 15 MR. SMART: Do you have a different color, by 16 chance? 17 THE COURT: We had an entire set. Nothing is 18 there? 19 MR. SMART: I don't want to highlight them in too 20 dark a color. Then they will be obliterated. 21 THE COURT: So what would you like to have? Be 22 specific and see if Aaron can find it for us. 23 MR. SMART: A light pink highlighter. 24 THE COURT: Is that sufficient? 25 (Witness complying.) ¶ 1 (By Mr Smart) Maybe just to make the document complete, if you do a little legend out there. You can put a pink 1975 3 and yellow 1990. 4 MR. HAGENS: Put "observation," Your Honor. 5 MR. SMART: Sure. 6 THE COURT: All right. 7 MR. HAGENS: These aren't computer deriven. 8 MR. SMART: Exactly right. 9 (By Mr. Smart) Now, before you retake your seat, let's talk just a little bit about these numbers. 10 11 First of all, this is a 42-foot contour line as 12 generated by your --13 THE COURT: I'm sorry. Apparently the jurors on 14 this end are having a hard time. 15 MR. SMART: Let me do it this way. 16 (By Mr Smart) Okay. Now, this line here is a 42-foot contour line, is it 17 18 19 Yes, that's correct. And that was generated by your computer model? 20 21 A 22 So that means that everything on the downstream side of the 42-foot contour line would be less than 42 feet and more than 23 41.5 feet as determined by your computer model, correct? 24 That's correct. ¶ 25 And yet we have an actual observed level in this area in 1990 1 of 42.5 feet, or approximately one foot higher than your 2 3 computer model suggests, correct? 4 Yes. A And down here we have a 39-foot contour model, correct? 5 Um-hum. Excuse me. I think I misspoke myself. We have a 39-foot 7 contour line, and that was generated by your computer model, 8 correct? 9 Correct. 10 And we have an elevation from 1990 in that area of 37.17 11 feet, approximately two feet lower than your computer model 12

13 suggests, correct? Well, we also have a 38-foot contour here, which is about a 15 foot different. So placement --16 Okay. 17 In any event, the point is that you have approximately one to two feet of difference between the actually observed 18 19 level and what your computer model suggests, correct? 20 We have about a foot here, as I see it. 21 Well --22 A 37, 38. 23 37, 38. Your 37.17 marker falls exactly in between, so it's 24 about a foot and a half, isn't it. You agree? 38 contour ends right there. 37 number is adjacent to it. I ¶ 25 see that as about a foot. It's approximate, I grant you. 1 All right. 3 Well, I don't want to quibble with you, sir. In any event, there is at least a foot difference 5 between the observed levels and the levels that you show 6 based upon your computer model, correct? 7 Yes. A 8 All right. Now, the purpose of the -- and that exists in other 9 10 places as well, does it not? For instance, over here you 11 have a 41-foot contour line and you have an observed level of 12 just actually over 41 feet on the downstream side, correct? 13 Yes. 14 All right. 0 15 And so the purpose of these observed levels was actually 16 to provide input into the computer model, right? 17 That's correct. A 18 So you had to start with the actual observed levels in order 19 to create the model itself, because a computer model is like any function, it's subject to the garbage-in garbage-out kind 20 21 of problem that any other function would be, wouldn't it? 22 Um, these numbers weren't used as input in the same sense the topographic information was. These represent the -- the 23 24 solutions surface that we were trying to simulate in the 25 model. ¶ 1 So would it be correct to say then that for the computer 2 model you never actually input the actual elevations for 3 water surface elevation at all? 4 MR. HAGENS: Objection as to form, Your Honor. 5 These are observed. He is talking about observed levels. 6 MR. SMART: I'll rephrase the question. 7 (By Mr Smart) Would it be correct, sir, to say that for the 8 computer model that you constructed you never put in the 9 actual observed water surface elevations at all? 10 That's correct. A 11 So you had the observed data as to what the actual water 12 surface elevation was for the 1990 flood, but in your

13 computer model you never input it into the --14 MR. HAGENS: Objection. Repetitious, Your Honor. 15 Same question. 16 THE COURT: Overruled. 17 (By Mr. Smart) Isn't that correct? 18 Well, I'll repeat that the observed water surface elevation 19 are not input through the model. 20 And then you put other information in, including 21 topographical information, and you came out with some 22 predictions as to what the levels ought to be, correct? 23 That's correct. A 24 And then you used these numbers to try to calibrate the model 25 that you created, correct? ¶ 1 A Yes. All right. 3 And why is it if you calibrated the actual observations 4 -- Strike that. 5 Why is it if you calibrate the model with the actual 6 observed observations you couldn't make it accurate? 7 I'm glad you asked that guestion. 8 In fact, I believe the model is quite accurate. 9 Engineering experience tells me that I shouldn't expect to 10 have perfect agreement at all places where I'm simulating --11 that I should expect some variability in the comparison of my 12 model predictions with what's been observed in nature. And 13 we've used, as I indicated before, some judgment as to which 14 high watermarks were most significant and we should try to 15 come closest to. 16 For example, we know that there were no plaintiffs in 17 this area, so we didn't make any heroic efforts to force the 18 model to match high watermarks in that vicinity. Okay. 19 20 So what you're telling us then, is that the computer model that you created could be inaccurate at least to the 21 22 degree of one-and-a-half feet on the places where you have 23 observed levels taken from actual observations by people on 24 the ground, correct? With respect to the absolute prediction of water surface ¶ 25 elevations for one scenario, but not with respect to the 1 differences between the with- and without-levee case. 2 So even for a condition where you know the actual water 3 surface elevations in locations here, what you're telling us 5 is this computer model can't simulate it exactly? MR. HAGENS: Objection as to form, Your Honor. 6 These are observed elevations. He has phrased the question 7 as if they know an exact location. So I will object to the 8 form of the question. 9 THE COURT: That's overruled. 10 (By Mr. Smart) You can go ahead and answer the question.

Well, two responses: One is that these high watermarks don't

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represent "truth" with a capital T. They represent something 13 that is representative of what the high water was at those 14 15 locations. 16

There are a number of reasons why what was surveyed might be different from what actually occurred.

Well, did you ever make an investigation?

18 MR. HAGENS: Let him finish his answer. He asked 19 him for an explanation and he interrupted him for the second 20 21 one.

MR. SMART: He wasn't answering my question. My question was simply about the computer model.

THE COURT: I think he was attempting to answer 24

25 it. ¶

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You have another portion of that answer? 1

I have to ask for the question to be repeated. I'm sorry. 2

(By Mr. Smart) The question, sir, was: What you're telling 3 0 us, that even for the places where you know what the observed 4 high watermarks were, you can't create a computer model that 5 exactly replicates that situation. That was the question.

No. Well, we could. We could in fact work our prediction to 7 fit virtually every point. 8

But you didn't do that? 9

It's pointless to do that given that we were not -- the end 10 A result of our work was not to produce a perfect prediction of 11 high watermarks but rather to have a reasonable prediction of 12 the high water levels for 19 -- with levees, 1990, with 13 levees, and another one without levees and to determine the 14 difference in those levels. 15

Well, this one is the before condition. This is water 16 surface elevation at existing conditions in 1990, correct? 17

18 That's correct.

And what you're telling us, then, is that you didn't try to 19 20 replicate the exact water surface elevation that existed in 21 1990.

We attempted to replicate them within a reasonable 22 23 tolerance. In my experience, this is actually a very good 24 fit.

25 How much -- ¶

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1 MR. HAGENS: I think he ought to allow the witness to finish.

> MR. SMART: I thought he was finished, Your Honor. THE COURT: Go ahead, sir.

Well, as I indicated, perhaps I didn't, we were fortunate to have some -- a dense number of high watermarks in this levee case. They were observed by the Corps of Engineers and by others. We are not often so fortunate to have this many. We expected variability. You can see high watermarks that are observed right next to each other that are different. They are not -- one is not right and the other wrong. There is probably some reasonable explanation for those differences.

13 So we simply attempted to have the model predict with 14 some reasonable representation of the high watermarks knowing 15 that there is variability. 16 (By Mr. Smart) Okay. 17 And that is acceptable. A 18 Now, if you would answer my question, sir. 19 What is the degree of variability that you find 20 acceptable between the actual conditions and the model? Is 21 it a foot and a half, is it a foot, two feet? 22 Um, it depends on the circumstances. For these depths of 23 flow and for the purpose to which we were going to put these 24 results, I would say a foot or even two feet is acceptable, 25 providing that we're consistent between the two predictions ¶ 1 with and without levees, as we were. No other changes to the 2 model between those two cases. 3 Well, this document does not show anything about without 4 levees, correct? 5 A That's correct. This only shows the condition with the levees. And what you 7 are telling us is that you find acceptable up to a two-foot 8 variation between your computer model and the actual observed 9 observations; is that correct? In terms of calibrating this case, yes, I do. 10 11 Let me have you retake the stand, sir. I may have you get 12 down here again in a second. 13 Now, if the model comes up with --14 THE COURT: Mr. Smart, can you move it just another 15 foot or so back, so I can --16 MR. SMART: You bet. The problem is I run into --17 THE COURT: I understand. 18 MR. SMART: Run into the cords, Your Honor. I'm 19 fearful of upsetting the apple cart. 20 THE COURT: Thank you. 21 (By Mr Smart) If your model comes up with solutions that do 22 not match the actual observed water surface elevation, you 23 know that the model was at least to some degree inaccurate, 24 correct? Well, um, there is always a tolerance of precision in the ¶ 25 work that we do. Nothing is perfectly accurate. And I 2 expect there are inaccuracies in this case also. 3 Let me point out that again our objective here was to determine the difference in water surface elevation between 5 the with- and without-levee case. And there is even a name for this kind of analysis in hydraulic engineering. It's 6 7 called sensitivity analysis. We want to determine the sensitivity of the drop-off 8 9 in -- the sensitivity of the change in water surface elevations to the removal of the levee. This kind of 10

analysis is often performed without the benefit of any

11 12

calibration.

13 (By Mr. Smart) Would you agree, sir, that the gradient of 14 the water surface elevation in the Nookachamps area does not 15 change depending on which flood you have, at least it doesn't 16 change dramatically? 17 A That's a reasonable statement. 18 THE COURT: I'm sorry. For all of our -- my 19 benefit. Speak to myself. Gradient? 20 MR. SMART: Your Honor may recall --THE COURT: I think we've discussed it and so 21 22 forth. Could you refresh me? 23 MR. SMART: I'm going to get there right now. 24 (By Mr. Smart) And the gradient, sir, is the slope of the 25 water surface elevation, correct? ¶ 1 Well, it's actually the slope of the energy grade line, but it's representative of the water surface level. 3 Q Energy grade line is how the water slides downhill towards the ocean, right? 5 A That's close enough. Q Let's put it in terms that people are likely to understand, 7 Energy grade line is not something that I'm particularly 8 familiar with. 9 But we're talking about a slope, right, the difference 10 between the height of the water at one point and the height 11 of the water on the surface at another point, correct? That doesn't represent the energy grade line. 12 A 13 0 I'm talking about the gradient. 14 A So am I. 15 Okay. 16 A The gradient of the energy grade line -- how can I put this? 17 You talking about two points. The gradient between two 18 points and the sum of the energy at any point is the depth of 19 water or the water surface elevation which is the potential 20 energy plus an allowance for some energy of motion, some 21 kinetic energy. So if we add those two together at one point 22 and add them together at another point, the difference is the 23 change in gradient. Which gives you the slope. 24 Well, Mr. Regan testified that the gradient that he used to 25 perform his rough calculations was basically the same ¶ 1 gradient or slope that was the average slope for the land as 2 it -- as it varied from a point, say, on the Highway 99 3 bridge and then a point downstream at, say, the Burlington 4 Northern bridge. 5 Depending on what kind of analysis you're trying to do, 6 that's appropriate. 7 Okay. Q

So would you say that generally the water surface

elevation matched the gradient that was -- that is reflected

Okay. And Mr. Regan said that was an acceptable way of

by the changing elevation to those two points?

Again, for certain circumstances, it would, yes.

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approaching the calculation if he weren't going to do a 13 14 computer model. Would you agree with that? 15 Depending on what we were trying to analyze. 16 The only purpose -- reason I'm trying to ask these questions, 17 sir, is that, wouldn't you agree that the gradient slopes 18 downstream? Isn't that a matter of common sense? 19 A Yes. 20 O So that the water surface elevations upstream from any 21 particular point would be expected to be greater than the 22 water surface elevation downstream from any particular 23 point. 24 A In general. But there can be exceptions. 25 Okay. ¶ Generally, for the floods that have been experienced in 1 2 the Nookachamps area, isn't the general rule applicable that 3 the higher you go up on the river, the higher the water surface elevation? And isn't that exactly what is shown by 4 5 your document here? 6 A Generally, that's correct. 7 Okay. 8 So that if you have a water surface elevation in 1951 of 9 41.7 feet, you would expect that the water surface elevations in 1951 for points other than where it was 41.7 feet to be 10 11 greater upstream and lower downstream; wouldn't that be true? 12 A Generally. 13 Q Okay. THE CLERK: Exhibit 994. 14 Q (By Mr Smart) I'm handing you a grid, sir, and what it is, 15 it's a blank grid which says "Water Surface Elevation" at the 16 top. And I've listed various properties. Then I've listed 17 18 floods down on the left-hand side of the grid. Did you determine water surface elevations at the 19 20 plaintiffs' properties that are shown on this document for the floods between 1815 and 1990? 21 22 We determined water surface elevations at those locations, certainly, for 1990, and perhaps in some cases for 1975. But 23 24 not for any others. Would you write in then the water surface elevations for 1975 \P 25 and 1990 for those properties that you determined. 1 2 May I refer to the --A 3 Oh. Absolutely. 4 And do you need your list? 5 I do. All right. That is 211, correct? Yes. But I'll require the older list. 7 Okay. I don't think I have the older list. I'm not sure 8 what the older list was at this point. 9 MR. SMART: Incidently, Your Honor, while he is 10 getting the list, I would like to offer 991A. 11

MR. HAGENS: No objection.

13		MR. ANDERSON: No objection, Your Honor.
14		THE COURT: 991A will be admitted.
15		(Defendant's Exhibit No. 991A
		admitted into evidence.)
16		
17		MR. HAGENS: Your Honor, before we go through this,
18		he has the name of some nonplaintiffs in his chart, and I'm
19		going to object to it. It really doesn't relate to this case
20		unless he has some other point he is trying to demonstrate.
21		MR. SMART: Well, Your Honor, they are residents in
22		the Nookachamps valley, certainly flood levels that were
23		experienced anywhere in the valley would be relevant to the
24		inquiry here, whether they are plaintiffs or not.
25		THE COURT: I agree. ¶
1	A	There are two Mr. DeVries' properties I don't have all
2		the contours marked on this that we had on the working
3		drawing, so I'm going to have to do a little interpolation
4		here.
2 3 4 5 6	Q	(By Mr Smart) All right. Do your best.
6	A	Which part is this?
7	Q	Madison Parker.
8		Last column is the Mount Vernon gauge.
9		Now, you have done 1990. Can you do 1975 for me? You
10		said you determined those elevations as well?
11	A	I don't think we have an exhibit that indicates those
12		results.
13	Q	Okay.
14		And I take it you can't get there from this document.
15	A	That's correct.
16	Q	Can you do it from Exhibit 980A, which showed the the
17		computer model run with the flow for the 1975 flood?
18	A	Um, well, no, frankly. I think this is a working
19		drawing. It's got very little detail on it. Simply a draft
20	2	to record the high watermarks.
21	Q	I take it then you haven't prepared anything to show what the
22		1975 flood elevations were except as identified here; is that
23		correct?
24	A	To show the old high watermarks?
25	Q	No. To show what the flood elevations were for particular \P
1		properties. For instance, the plaintiffs' properties during
2		the 1975 flood.
3	A	I'm sure that we created working drawings, had something of
4		this sort to show you the predictions in contour form. But I
5		don't recall picking off elevation at plaintiffs' property,
6	- 2	individual properties.
5 6 7 8	Q	Now, never figured out then what the flood water surface
8		elevation would be for any of the plaintiffs' properties in
9		1975; is that right?
10	A	I'm sorry. Would you repeat the question?
11	Q	You never determined what the water surface elevation for

12 particular plaintiffs' properties were in 1975; is that 13 correct? 14 Well, we might have, in that we used high watermarks of 15 plaintiffs' properties for the '75 simulation or verification 16 runs, we would have looked at the model predictions and 17 compared them to high watermarks in individual plaintiffs' 18 properties. 19 But you didn't go through and, say, for Madison Parker here 20 is the water surface elevation to his, that his property had 21 in 1975. 22 We didn't do it for the entire list, no. A 23 okay. 24 So the best information that you generated for us is the 25 high water observed marks in the vicinity of where the \P 1 plaintiffs' properties are; is that right? 2 That's all I was out here to do, that's correct. 3 Okay. That's fine. 4 So we can't fill in exactly then what the water surface 5 elevations were for 1975, correct? 6 That's right. 7 These properties? 0 8 A 9 Perhaps you can retake the stand. 10 Let me ask you one other question. 11 For all these other floods, would the answer be the 12 same? In other words, the flood 1815 and 1951, you did not 13 determine what the water surface elevation was for any of the 14 plaintiff properties? 15 That's correct. 16 And similarly, you didn't determine what the water surface 17 elevation was at the Burlington Northern bridge or the Mount 18 Vernon gauge; is that correct? 19 Um, we might have looked at the Mount Vernon gauge for 20 historical floods, but nowhere else's, I don't think. 21 Q Okay. 22 Would it be -- in order to fill in this document then, 23 if we put a line through it -- I'll do it this way. This 24 would mean that you didn't determine those water surface 25 elevations for any of those properties for any of the floods ¶ 1 between 1815 and 1951. 2 MR. HAGENS: Your Honor, I'll object to the lack of 3 foundation as to whether it could be determined. But I'm not 4 sure there was any data that existed that could allow 5 somebody to determine the water surface elevation at that 6 particular point. That was the problem Mr. Regan made. They 7 didn't have a gauge anywhere until it was, like, 1940 or

MR. SMART: The question is simply: Did he do it?
MR. HAGENS: Question needs some foundation whether

it could be done, Your Honor. And so that is my objection.

8

9

10

something like that.

```
12
        Could it have been done?
13
                   THE COURT: You can follow up on that. The
14
         question itself is fine.
15
         (By Mr. Smart) I'm correct that you did not do it, correct?
16
   A
         I'm sorry. Would you repeat the question?
17
    Q You did not determine the water surface elevation at the
18
        Burlington Northern bridge or for any of the plaintiffs'
         properties identified on 994 for any of the floods between
19
20
         1815 and 1951, correct?
21
                                      (Defendant's Exhibit No. 994
                                     identified.)
22
23
     A That's correct.
   0
         (By Mr. Smart) And you also didn't do it for 1975.
25
         Well, I mentioned that we did -- ¶
 1
         Gave us these elevations?
   Q
2
    A
 3
    0
         You could determine that?
4
    A
         Yes, I believe we did, in terms of verifying our model.
5
         Well, I'll leave those items open. Perhaps if Mr. Hagens can
6
         get us those figures during redirect, we can fill them in.
 7
                  MR. SMART: But otherwise, Your Honor, I would
8
         offer 994.
9
                  MR. HAGENS: Wait, Your Honor. He is showing it to
10
         the jury and I would like to see it first.
11
                  MR. SMART: Sure. Absolutely.
12
                  MR. HAGENS: Am I correct, there is only, one, Mr.
13
        Halverson, two, Alice DeVries, three, Stakkeland, Parker and
14
        Earl Jones are the only current plaintiffs in the case; is
15
        that correct?. This is a chart that only leads to five of
16
        the plaintiffs? Do you know the answer to that?
17
     A I'm not sure I understand your question.
18
                  MR. HAGENS: The question is, shows here Mr.
19
         Johnson, he is a current plaintiff?
20
    A No, he is not.
21
                  MR. HAGENS: And Mrs. Austin, she a current
22
         plaintiff?
23
        Um, if I could have the latest --
24
                  MR. HAGENS: The list that you had. I think you're
25
         not going to find her name on there. ¶
1
   A Okay.
2
                  MR. HAGENS: So to your knowledge, neither of those
3
         are plaintiffs.
4
                  MR. SMART: We concede that they are not
5
        plaintiffs, Your Honor.
    A
        That's my understanding.
7
                  MR. HAGENS: That's all I had.
8
                  THE COURT: Mr. Anderson?
9
                  MR. ANDERSON: No objection.
10
                  MR. SMART: Before it's entered, Your Honor, I
```

11		would like to put a litt.	le legend in the left-hand corner
12		that the scribbles through	gh the various years indicates they
13		were not determined.	A STATE OF THE PROPERTY OF THE
14		THE COURT: Al	1 right.
15		1112 0001111 112	(Defendant's Exhibit No. 994
10			
4.6			admitted into evidence.)
16		New York Colored Bullet Ex-	
17	Q		w, put it on the screen here if we
18		could. It's admitted, i	s it not?
19	A	Yes.	
20		MR. SMART: Th	ank you, Your Honor.
21	Q	(By Mr Smart) All right	. So what we've got is we've got a
22	100		that shows Mutter water surface
23			r surface elevation that you have
24			been presented here are simply the
			tions for these properties and the ¶
25		1990 Water Surface eleva	tions for these properties and the 1
1			ge and the Mount Vernon gauge, but
2		that you haven't determi	ned water surface elevations for any
3		of the plaintiffs' prope	rties for any of the floods between
4		1815 and 1951. That's w	hat the document shows, correct?
5	A		
6	11	그리아 아이들이 그렇게 그렇게 그리다면 하게 하고 있어요? 아이트 아름다.	ay. Thank you, sir. You may retake
7			ay. Indik you, sir. for may recake
		the stand.	111.11.2005
8		THE CLERK: Ex	
9			tually, counsel, just for this
10		morning, before you begin	n to start a new chart or grid or
11		whatever you have, by ju	dicial fiat, we'll take our recess
12		early this morning, if w	e could. Just take it now and we'll
13			e all about and ready to go by eleven
14		o'clock.	
15			
		Thank you.	/mba fallowing accurred in
16			(The following occurred in
			the presence of the jury,
17			subsequent to morning
			recess.)
18			
19		DOUGLAS G. MUTTER,	called as a witness by the
		200000000000000000000000000000000000000	plaintiff, being previously
20			duly sworn on oath, testified
20			further as follows:
			fulcher as follows.
21		tanto a la	
22			XAMINATION
23			ank you, Your Honor. Just one matter
24		to tie up what Mr. Major	pointed out. And I think it's a
25		good idea. ¶	
		Section and the section of	
1	0	/Dr. Mr. Cmant Ack was	to identify 996, Mr. Mutter, please.
1	Q	(by Mr. Small) Ask you	tiffe as of a year ago and their
2	A	That was a list of plain	tiffs as of a year ago and their
		locations on that Exhibi	
4			(Defendant's Exhibit No. 996
			identified.)

5 Q (By Mr. Smart) 991A. 7 So what you did, is you took this list of individuals and their location, property owners, and had matched this up 9 with the numbers of the properties on here in order to give 10 us the water surface elevations for 994, correct? 11 A Yes, that's correct. 12 MR. SMART: All right. 13 Just so the record is clear, Your Honor. Witness used 14 996 to locate the property on 991A and then used the water 15 surface elevation on 991A to fill in the 1990 section of 994. 16 (By Mr. Smart) Would that be correct, sir? 17 A Yes. 18 MR. SMART: Offer 996. 19 MR. HAGENS: No objection. 20 MR. ANDERSON: No objection. 21 THE COURT: 996 will enter. 22 (Defendant's Exhibit No. 996 admitted into evidence.) 23 24 25 9 1 (By Mr. Smart) Thank you, Mr. Mutter. 2 As I understand it, sir, what you did was you compared 3 in your computer model the water surface elevations that were 4 shown in the 1990 condition, which would be this map, 991A, 5 and the water surface elevation that have been highlighted in 6 yellow with a condition that existed back at the turn of the 7 century where no dikes existed; is that correct?? That was 8 the purpose of your exercise? 9 A Um, the principal focus of our work was to compare the results shown on 991A with a similar presentation for the 10 11 case of no levee present. 12 Yes. And the purpose of that no levee present was to 13 replicate a situation that existed back in the turn of the 14 century prior to the time dikes had been built; isn't that 15 correct? 16 A No, it's not correct. 17 Well, handing you your deposition, sir, Volume two, would you 18 turn to page 160? 19 THE COURT: Actually, on that point, just technical 20 picky thing. But I don't know that you actually moved to publish that deposition. You've been using it. I have no 21 22 objection. No one objected, just for the record. 23 MR. HAGENS: No objection. 24 MR. SMART: It was my understanding we need simply, 25 under the new rules, to file it with the clerk. ¶ 1 THE COURT: We've been following that procedure and 2 I wanted to make sure that no one had a problem with the procedure we follow. Apparently there isn't any.

MR. HAGENS: No general objection. (By Mr. Smart) Turning to page 160, if you would, please, 6 sir. 7 A Um-hum. 8 Did I ask you the question then about the documents that you 9 had prepared and did you answer this way: 10 QUESTION: How many documents have you 11 generated? 12 ANSWER: That's the principal one. We have 13 another one for the condition where there 14 are no highways, railroads, any improvements 15 at all. This is the primary visual that I 16 have. 17 Can I see the other one? 18 Yes. This is the portrayal of the results 19 with the analysis with no civil works. Turn 20 of the century conditions, essentially. 21 Let's mark that one. 22 Did I ask you those questions and did you give me those 23 answers at that time? 24 Yes, that's correct. 25 And then again on page 171, did I ask you a question, What is ¶ Exhibit 12, and you said, answer: 2 This is a portrayal of the differences in 3 water surface elevation between the 1990 4 flood conditions and let's say turn of the 5 century conditions with the 1990 event. 6 Okay. Did I ask you that question and did you give me 7 that answer? 8 Were you reading from my deposition? I'm not sure I see 9 where that is. 10 Q That was on page 171. 11 Um-hum. 12 Answer: This is a portrayal of the 13 differences in water surface elevation 14 between the 1990 flood conditions and let's 15 say the turn-of-the-century conditions with 16 the 1990 flood. 17 That was your answer at that time, correct? 18 A I believe we were talking about a third graphic which showed turn-of-the-century conditions with no improvements of any 19 20 kind. 21 Q Okav. And again, so, did you study then the 22 23 turn-of-the-century conditions? Yes, you could say we did, yes. 24 A And the turn-of-the-century conditions, that didn't have any ¶ 25 levees, right? 1 2 That's correct. A Okay.

4 5		And it didn't have turn of the century didn't have any of the other situations, either. Didn't have I-5.
6		Didn't have any of the modern improvements, correct?
7	A	That's correct.
8	Q	And so when you're taking out if you want to go back to the turn of the century and take out the levees and compare a
10		modern-day situation with what occurred way back when, then
11		that turn-of-the-century condition has to take out I-5, has
12		to take out the Burlington Northern bridge, has to take out
13		all the modern improvements, highway 20, all the things that
14		didn't exist then, right?
15	A	Let me clarify that we made two comparisons. We compared the
16 17		1990 flood event for existing conditions, first for the case where there was no levee system but no other changes; and
18		그 마다 그리고 그리고 그는 그 아이지 그 마다가 되었다면 하는 아니를 하는데 하는데 그 중에 되었다면 하는데 그 아이지도 하는데 그는데 그리고 그리고 있다면 하는데 하는데 하는데 그 모든데 그 그
		secondly, with the case where there were no improvements of
19		any kind, levees, roads, railroads or anything else. They
20		were different comparisons.
21	Q	Okay.
22		So my question: Isn't what you were trying to replicate
23		in terms of comparing the modern situation in 1990 with that
24		which existed back at the turn of the century?
25	A	That was one of two comparisons we made, yes. ¶
1	Q	Okay.
2	×	But you didn't present that into evidence in your direct
3		testimony with Mr. Hagens, did you?
4	A	I don't see how it's relevant to our work. In terms of
5		
	_	drawing a conclusion about the impact of the levees.
6	Q	Showing you Exhibit No. 992, sir. Can you identify that for
7	- 2	me, please?
8	A	This is the companion to 991A, but for the case with no
9		levee. So these are our computer results for the case of the
10		1990 discharge but no levees present.
11		(Defendant's Exhibit No. 992
		identified.)
12		
13		
14		MR. SMART: Offer 992, Your Honor.
15		MR. HAGENS: No objection, Your Honor.
16		MR. ANDERSON: No objection, Your Honor.
17		THE COURT: 992 will enter.
18		
10.		(Defendant's Exhibit No. 992
19		admitted into evidence.)
20	Q	(By Mr. Smart) Would you come down here, sir, please? With
21	×	(By Mr. Smart) Would you come down here, sir, please? With
22		a highlighter, please, sir, can you highlight Now, a
		little more description probably is in order.
23		This document represents your computer model of what the
24 25		flooding conditions would have been with no levees
20		whatsoever, correct? ¶

1 A That's correct.

All right. 3 And what year does Exhibit No. 992 represent? 4 Represents 1990. Less levees. A 5 Okay. 6 So would it be correct to say that 992 does not 7 represent the full conditions that existed in any year? 8 A I guess that would be accurate. 9 Okav. 10 Now, based on your computer model, would you highlight 11 for me what elevation have you shown without levees at the 12 Mount Vernon gauge? 13 A (Witness complying.) Location. 14 And would you write in there what the elevation is, please, 15 sir. Label it Mount Vernon gauge. 16 (Witness complying.) I'm going to have to interpolate. We 17 don't have specific results shown on --18 That is about 29.5 feet, correct? 19 A About that. 20 Okay. 21 And if you will label that "Mount Vernon gauge," please, 22 sir. 23 All right. You can take the stand, please, sir. All right. Now, showing you Exhibit 993, can you tell 24 25 me what that one is; sir? ¶ This is a graphic presentation of our computer results for 1 2 the case of the 1990 flood discharge and no development of 3 any kind, no roads, railroads, levees or any other civil 4 works. 5 So is this the one that represents the turn-of-the-century 6 conditions? 7 (Defendant's Exhibit No. 993 identified.) 8 9 Essentially. A Q (By Mr. Smart) Okay. 10 11 So 993, then, would be -- and this one wasn't presented in any fashion in your presentation on direct examination, 12 13 was it? 14 The one you're holding in your hand? 993, the one that compares the turn-of-the-century conditions 15 16 to the present day. 17 That's correct. A 18 Okay. 19 MR. HAGENS: Your Honor, this is not in evidence. And I'm going to object to this because it's irrelevant. If 20 you took out civil works, Your Honor, then counsel would 21 argue, Well, you haven't accounted for the effect of the 22 Burlington Northern bridge, you haven't accounted for I-5, 23 Highway 20 and the other civil works. So now he is 24 complaining that we go to what the conditions were and leave ¶ 25

1 those in, that we have misled somebody here. 2 What we're doing is leaving in all the other civil 3 works. And this is irrelevant to his opinion. He said so on the stand. 4 5 MR. SMART: I don't think that is an objection. I 6 think it's a speech. 7 MR. HAGENS: It's an objection as to relevancy, 8 Your Honor. 9 MR. SMART: I'm trying to complete the picture of 10 what this witness did by way of his work. And it's clearly 11 relevant. 12 THE COURT: That's fine. You may proceed. 13 MR. SMART: Offer 993, Your Honor. 14 MR. HAGENS: Objection on relevancy grounds, Your 15 Honor. 16 MR. ANDERSON: No objection. 17 MR. SMART: Actually, before I offer it, I would 18 like the witness to highlight the water surface elevation at 19 the Burlington Northern bridge shown by the --20 THE COURT: Actually, you already offered it. 993 21 is admitted. 22 (Defendant's Exhibit No. 993 admitted into evidence.) 23 24 (By Mr. Smart) And then label that "Mount Vernon gauge" just 25 so we know what it is, please, sir. And put the elevation in ¶ there, please. 1 Again, I'll interpolate. It's about 29 feet. 2 A 3 Okay. All right. 0 4 Now, put this one up. And what year, sir, does 993 5 represent? I couldn't tell you a specific year. But we've referred to 7 it as turn of the century. Predevelopment. 8 Well, did you in your investigation, sir, go back and determine what civil works existed at the turn of the century 10 when you were trying to replicate the conditions for your 11 computer model? 12 No. This represents the case where there was no development 13 of any sort. There was nothing but natural topographic, 14 geographic features. 15 So you can't tell us then, can you, how long ago it was that 16 the levees started to cause an impact on water surface 17 elevation in the Nookachamps by your computer work because 18 you never studied that, right? 19 I think that's not completely accurate. I know that any time the flow gets higher in the Skagit River than the bank, fill 20 21 the top of the natural banks as they existed before levee 22 construction, I would expect some impact upstream. 23 Would you agree then with the proposition that as long as the 24 levees have existed they have operated to influence water

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- 1 A Certainly as long as the levees in the near vicinity of the Nookachamps that existed, that impact, yes.
- Q Let's take Dike District 12. Would you agree with the proposition that as long as Dike District 12's dike has existed it has operated to impact water surface elevation during floods in the Nookachamps?

MR. HAGENS: What level? Object to the form of the question without some specifics as to what level he is talking about. A foot, two feet?

MR. SMART: If you listened to his answer before, Mr. Hagens, you would have understood that he indicated -- MR. HAGENS: I have an objection.

MR. SMART: The water exceeds the banks.

14 Q (By Mr. Smart) Isn't that correct?

THE COURT: The question is properly phrased. That is fine. You may proceed.

- A In historical times, as long as levees existed, they would have affected flood levels in the Nookachamps in the range of flows from the ones that just would go over the natural banks to the top of the levees. That has been changing over time. So the impact would have been changing over time, also.
- Q (By Mr. Smart) But you agree with the proposition that as long as Dike District 12's levee has existed during times of flood, it has influenced water surface elevation in the Nookachamps, correct? ¶
 - 1 A For certain events and to some degree, yes.
 - Q Can you tell, sir, by your -- Strike that.

I take it because you didn't go back and study any of the historical floods between 1815 and 1975, any of these it floods in here, you can't tell us what the water surface elevation for any of the plaintiffs' properties were as a result of Dike Districts 12's dike during any of these floods; is that right?

- 9 A That's correct.
- 10 Q Okay.

You would agree with the proposition, though, would you not, sir, that as long as there was no failure and as long as the levee was not raised in height that the Dike District 12 dike would be expected to have roughly the same effect on water surface elevations in the Nookachamps for a given flood, wouldn't it?

- 17 A The same as -- what?
- Same as it would for the next flood. In other words, let's take 1951 where you had 150,000 cubic feet per second or approximately that flow. Actually, a little lower. You would expect the flow -- the water surface elevation in 1951 to have been approximately the same as the water surface elevation in 1990 where you had approximately the same flow, assuming the dike didn't fail and assuming it was

24

A That's correct.

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A Well, we're assuming that we have an identical levee in '51
1
         and '90. And I think we know that is not the case. We know
3
         that prior to 1960 levees might have withheld a ten-year,
         eight-year flood, and beyond that we would have been
 4
5
         overtopped. So the impact upstream would have been less than
6
        today.
7
        Answer the question that I asked, if you would please, sir.
8
                   THE COURT: Counsel, pose another question without
         making -- the Court makes the determination as to whether
9
10
         witnesses are responsive or nonresponsive.
11
                   MR. SMART: Sure.
12
     Q (By Mr Smart) I want you to assume, sir that the 1951 dike
13
        for Dike District 12 was approximately the same height as the
14
         19 -- as it was in 1990.
15
        Okay.
16
     0
        And I want you to assume that it didn't fail.
17
    A
        Okay.
18
    Q For the flow of 150,000 cubic feet per second in 1951, would
19
        you expect to get approximately same water surface elevations
20
        as in November or December of 1990?
21
                  MR. HAGENS: That is a hypothetical. Already been
22
        of record that that can't be put to the witness because we
23
        know that there was a -- testified to a break in the 1951.
24
        So creating a hypothetical situation that the facts don't
25
        justify, Your Honor. ¶
 1
                   MR. SMART: It's a hypothetical, Your Honor.
 2
         entitled to ask him that question. He is an expert.
 3
                  MR. HAGENS: A hypothetical comports with the
         facts.
 5
                   MR. SMART: No. Any hypothetical.
                   THE COURT: I think that Mr. Smart is correct.
 6
7
              Would you restate it?
8
                  MR. SMART: Sure.
 9
     Q (By Mr Smart) Assuming that Dike District 12's dike was in
10
         approximately the same height and didn't fail during 1951
11
         because the flow was approximately 150,000 cubic feet per
        second, wouldn't you expect to get approximately the same
12
13
        flood or water surface elevations as in November of 1990?
14
     A You're asking me essentially if the 1990 levees existed in
        1951 for that flow. Would levels be about the same. And
16
        they would.
17
       Okay.
     0
18
              And you, sir, did not study what condition the levee was
19
        in in 1951, did you?
20
    A Not in detail, no.
21
    Q Yeah. And you never made a determination by computer model
22
        or otherwise what the water surface elevations were in 1951
23
        in the Nookachamps, correct?
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And so you have only one point that you know about which represents a water surface elevation for the 1951 flood, and it's 41.7 feet at the Johnson property; is that correct?

- 4 A I don't know that we didn't have other spot elevations, but 5 we certainly didn't make a comprehensive study of flood 6 levels in 1991.
- And you haven't included any of those 1951 flood levels in your work or your presentation to the jury on direct, correct?
- 10 A They are not relevant to what the impact of the levee system 11 was during the 1990 flood. That was the focus of our work.
- 12 Q Answer to my question, sir, would be, no, that you didn't do that, right?
- 14 A That's correct.
- Now, did you learn during your analysis of this matter that -- and your historical review -- that the last major change to Dike District 12's dike was in 1955?
- 18 A Depends how you define "major change." I understand it was 19 realigned quite dramatically in 1955.
- 20 Q Did you study the profiles of the dike that was built in 1955 by Dike District 12?
- 22 A Um, I understand that the profile was changed. Raised by a couple of feet, perhaps. But where it began and where it ended, I don't know.
- 25 Q My question is: Did you study it? ¶
 - 1 A I studied the history of the profile.
 - 2 Q Did you study the profile itself?
 - 3 A No.
 - 4 Q Okay.
 - And I take it that you didn't include the profile of the dike that existed in 1955 in any of the calculations that you performed, correct?
- 8 A Um, well, we did indirectly. The with-without levee 9 simulation included what were essentially the original levees 10 because their present-day streets and other features still in 11 the Burlington area.
- 12 Q I didn't understand that, sir. The 1955 levee is the one 13 that exists today; isn't that correct?
- 14 A I'm sorry. You're right.
- 15 Q Okay.
- And so when you say you studied it, you assumed that the levees in the 1990 situation were the same as they have existed since 1955, correct? You didn't make any changes to account for any change?
- 20 A We didn't make any assumptions about the levees whatsoever. 21 We put in the 1990 topography.
- 22 Q All right.
- And so for the purpose of your work, the levee that existed in 1990 was the same levee that existed in 1955,

now?

13

MR. SMART: Yes.

- 14 0 (By Mr. Smart) Isn't that correct?
- 15 A Yes, that's correct.
- 16 And in fact, you testified in deposition and at other times 17 that you agreed that there was no significant change in Dike 18 District 12's dike between 1975 and 1990 that would have 19 affected any of the opinions that you had concerning water 20 surface elevations --
- 21 MR. HAGENS: Objection as to computer result or 22 some other opinion.
- 23 MR. SMART: Isn't that correct?
- 24 MR. HAGENS: I object to the form of this

25 question. Now he has embraced all five opinions, Your ¶

Honor. So are you talking about the computer model? 2 THE COURT: My understanding there is kind of a 3 mixed bag in terms of the type of work and the conclusions 4 derived from different methodology, if you will. They aren't 5 all the same.

Maybe you can be more specific.

- 7 (By Mr. Smart) Isn't it true, sir, that you agree that for 8 the purposes of your computer simulation and the work that you did to calculate water surface elevations during the 1975 flood, that there were no material changes between the dikes that existed in 1975 and the dikes that existed in 1990?
- 12 With respect to the levee height or profile, I agree, yes.
- 13 Q Okay. And did you ever discover any difference in levee 14 height between 1975 and 1990?
- 15 A Nothing significant.
- 16 Okay.

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- 17 Did you ever discover any difference in levee height 18 between 1955 and 1990?
- 19 I didn't discover any survey data or anything of that sort. 20 Just the reports I indicated earlier of having been raised. 21 That's all I know.
- 22 You reviewed the deposition testimony of Mr. Mapes and Mr. 23 Walker, didn't you?
- 24 A Yes.
- 25 You're familiar with their testimony that the dike hadn't ¶
- 1 been raised in 1955 to 1990, aren't you?
- 2 I don't recall that, but take your word for it. A
- 3 Well, and you didn't study the levee profiles that were 4 created in 1955, correct?
- 5 If there were any, I didn't see them.
- 6 And you don't know whether the 1955 levee settled between its 7 original construction and 1990, correct?
- 8 No, I don't.
- 9 But you do know that settlement of levees is a natural 10 problem with levees and in fact all levees settle over time 11 if they are earth-constructed, don't they?
- 12 I think that is a little -- a little broad. Some levees are 13 subject to settlement. Depending on soil conditions and 14 foundations.
- 15 How about Dike District 12's levee, is that subject to 16 settlement over time?
- 17 I have no idea.
- Is that because you didn't study it? 18
- 19 That's correct.
- You are familiar with the deposition testimony of Mr. Walker 20 and Mr. Mapes, are you not? 21
- 22 To some degree.
- That they testified that Dike District 12's levee was subject 23 to settlement, didn't they? 24

- 1 0 Okav.
- 2 How about any of the other depositions that you
- 3 reviewed? Didn't the witnesses testify that one of the major
- 4 problems along the Skagit with respect to keeping levees
- 5 there was that they tended to settle over time?
- 6 A I don't recall any -- any testimony along those lines. I guess I wasn't interested in that issue.
- 8 Q Wouldn't you agree that that is one of the major problems in maintaining a levee, is the problem of settlement because of
- the boiling and the seeping and the effect of the water on the materials that are used to construct the levee itself?
- the materials that are used to construct the levee itself?

 A Settlement generally results from soil beneath the levee
- settling and the levee moving down with it. It has generally nothing to do with seepage.
- 15 Q The levees erode, don't they?
- 16 A They do.
- 17 Q They can be worn away by animals like cattle, for instance,
- 18 running over them?
- 19 A Yes.
- 20 Q They can be eroded by floodwaters, can they not?
- 21 A They can.
- 22 Q And those are all problems in maintaining levees, correct?
- 23 A Yes.
- 24 Q And in your review of the depositions in this case and the
- witness' testimony, it's your position that you didn't learn ¶
- of any of those problems with Dike District 12's levee?
- 2 A I don't believe I said that.
- 3 Q Well, did you or did you not then learn of problems that
- might have altered the height of Dike District 12's levee from the height which it was originally built between 1955
- 6 and 1990?
- 7 A -- confused. I don't believe any of the factors you just mentioned would be a reason for settlement to occur. And
- 9 I've indicated that with regard to foundation settlement, I have no knowledge.
- 11 Q Well, if it erodes from the top, it still goes down same as 12 if it settles from the bottom, correct?
- 13 A Well, I think the kind of erosion problems that the Skagit 14 River presents is carving out the face of the levee rather
- than the top. Wouldn't create a reason to add material to
- the top in order to restore them.

 17 O Is it your testimony that none of Dike I
- 17 Q Is it your testimony that none of Dike District 12's levees 18 were eroded, for instance, by rain or animals creating trails 19 over them that would alter the original design elevation?
- 20 A No. That is not my testimony at all.
- 21 Q Is that because you didn't study that so you don't know?
- 22 A I think it would be reasonable to expect minor erosion
- problems with animals and so on. But they would be very
- 24 localized in their effect, I believe. And wouldn't be cause

25 for raising nine miles of levees two feet. That seems like a ¶

different scale of operation to me. 2 And that occurred in 1955, correct? 3 A I believe so. 4 Q So what we're talking about is after 1955, after the last 5 major change in Dike District 12. I'm just trying to find 6 out whether or not you have studied whether or not any of 7 those problems, boiling, seeping, settling, erosion, damage of that kind, occurred to Dike Districts 12's levee to change 9 its top elevation from its original design to something else, 10 to some other condition that existed in 1990. I recall reading reports of -- or by way of background 11 12 information of erosion problems in the face of the levees, I 13 think. And I don't recall information with regard to 14 settlement of the foundation. Could well have happened, but 15 I don't know. 16 All right. 17 And if did you have that kind of problem, you would agree it was a good idea to take care of it and repair it 18 19 back to the original condition, wouldn't you? 20 Depends on the objectives of the levee system managers. I 21 don't have any comment on that. 22 Well, you worked with the Army Corps of Engineers a lot, 23 don't you? 24 Yes, I do. 25 You are familiar with PL99, the law under which the army ¶ 1 corps repairs dikes, are you not? 2 A To some degree. 3 You're familiar with the fact that when a dike is damaged by 4 a flood or other disaster that the army corps goes in and

5 repairs them so as to bring them back up into the same 6 condition as they were before, correct?

7 A

- 8 And that happened with Dike District 12's levee, did it not?
- 9 I don't know. A
- Well, haven't you ever worked with the army corps on the 10 11 design of dikes or dike repair?
- 12 Yes, I have. A
- And when they do that you are doing that work under PL99 13 14 sometimes, aren't you?
- Um, I haven't worked on projects related to PL99. 15
- How about your firm? 16 0
- For the purposes of design. Generally speaking, I think 17 there is very little design done. They simply restore, 18 replace what was -- what was damaged. 19
- 20 Okav. 0
- And that was my original point, is that isn't it a good 21 idea if there is damage to repair a levee so that it gets 22 back to where it was beforehand so that it can perform the 23 work that it's designed to do? 24

- 1 Q Don't you agree that is a good idea?
- 2 A Seems reasonable.
- Q Okay. And when you design levees such as levees like the
 Dike District 12 levee, it's anticipated that if it has a
 problem that it will get repaired by the owner of that levee,
 isn't it?
- 7 A There is no real connection between design and -- and maintenance. In that sense.
- 9 Q Well, I'm just trying to get an overview of what you think
 10 about these levees and the levees that you designed. You
 11 anticipate that somebody who comes to you to design a levee
 12 is going to design a levee that can be built at some
 13 substantial expense and then be allowed to erode or settle or
 14 disappear because of natural forces, or do you try to design
 15 something that will last over time?
- That depends on the objectives of the owner, again, and how much he or she choose to invest in erosion protection, what level of protection thereafter to begin with, how high the levee should be, and so on. Those are design issues. What they do with the levee afterwards in terms of maintenance is not a design issue, per se.
- 22 Q Okay.
- 23 Let's talk about the army corps. When the army corps 24 gets you to design a levee, do they ask you to do something 25 that will protect the original investment or do they ask you ¶
- to do something that can erode and disappear right away so that they lose their investment?
- A The projects that we worked on for the Corps of Engineers have had a 100-year year design standard. And we have -- very expansive, but we have designed works to withstand scour, erosion, overtopping and so on, for the 100-year condition.
- 8 Q So I take it then when you do work for the Army Corps of
 9 Engineers, you design projects that are substantially more -10 I don't know what you call it -- more rigorous, withstand a
 11 100-year flood; is that right?
- 12 A All of the ones that I've work on for them have been that case, yes.
- Okay. Now, let me -- I've marked Exhibit 995 here. And I
 would ask you to -- What it is is, it's, again, a blank page
 showing "Mutter Water Surface Elevation No Dike Condition."
 What I would like you to do is to take this document and come
 down to Exhibit 991 and fill in the elevations for properties
- 19 here shown on the no-dike situation.
- 20 A For the no-levee or predevelopment condition?
- 21 Q Well, let's do the predevelopment condition, because you 22 earlier indicated that Exhibit 991, the no-dike conditions
- didn't actually replicate any particular year; is that right?
- 24 A That's correct.

So let's do it with 993, the turn-of-the-century 1 2 conditions. 3 Shall I relabel this predevelopment as opposed to no-dike 4 conditions? 5 Q Let's label it "turn of the century" if we could, please. 6 A (Witness complying.) 7 0 Do you need your list again? 8 A I do. Thank you. 9 0 You're welcome. 10 Again, I'm going to have to estimate on the southeast corner 11 of the map. We don't have the detail on here that we had on 12 our working drawing. That's fine. Again, do your best. 13 14 Okay. Thank you. 15 Just so the record is clear, what we have done is 16 assumed the 1990 conditions but assumed the 17 turn-of-the-century development conditions. And you have 18 estimated by your computer model what the water surface 19 elevation would be; is that correct? 20 That's correct. A 21 And the flow that was used for 995 would be what? 0 22 A 152,000 cfs. 23 MR. SMART: Thank you. Offer 995. 24 (Defendant's Exhibit No. 995 identified.) 25 MR. HAGENS: May I see it, please? ¶ 1 Again, Austin and Ken Johnson, two of the nine listed 2 here are not plaintiffs in the case; is that correct? As you 3 understand the current situation. 4 As I understand it, yes. 5 MR. HAGENS: We have no objection, Your Honor. 6 MR. ANDERSON: No objection, Your Honor. 7 995 will enter. THE COURT: (Defendant's Exhibit No. 995 admitted into evidence.) 9 10 O (By Mr. Smart) Just quickly showing the jury what we've got then, we have got a chart which says "Mutter Water Surface 11 Elevation Conditions Turn of the Century," and then at 12 13 various locations you have input what your computer model said the water surface elevations should be back at the turn 14 15 of the century, correct? 16 That's correct. A 17 Okay. And did you perform any calibration to determine whether 18 or not the water surface elevations shown by your computer 19 20 model were in fact correct? In other words, did you take any observed levels the way you did for the 1990 and 1975 flood 21 conditions and go back and try to see whether or not your 22

A Well, again, we're not made no attempt to model a historical event. We were modeling a hypothetical event 1 which which consisted of the 1990 flood discharge and 1990 topography, but with the levees removed and the roads removed and everything that man had built removed. So it's a completely hypothetical condition, but it's similar to turn-of-the-century conditions. And my question is: In order to verify whether or not your model was correct, did you go back and try to put in observed levels that existed back around the turn of the century to see whether your model was correct, just the way you did with the 1990 and the 1975 conditions? Well, I think, obviously, there were no high watermarks surveyed for such a hypothetical event at the turn of century. So the answer is no. Well, is it your testimony that there is no information out there about what observed water surface elevations were around the turn of the century? There are estimates of flood discharge and stage at certain locations, such as Mount Vernon gauge, for example. And you didn't put those in? MR. HAGENS: I think he ought to be allowed to finish his answer. THE COURT: Go ahead, sir. There haven't been comprehensive studies made of water surface elevations through the Nookachamps area for that event, I don't believe. 1 (By Mr. Smart) Okay. And did you put on this document anywhere the estimates of the water surface elevations at any location for your turn-of-the-century condition? No. Now, it's my understanding that it's my understanding that what you did by way of the computer model was that you took you took the 1990 flood and the 1990 flooggraphical conditions and you constructed that computer model by numerically assigning values to the topographical information and then you input that into the computer, correct, to start out with a model? A Yes, un—hum. And then came up with variable degrees of accuracy, but within sufficient tolerances that it was acceptable to you, correct? A Yes. All right. And then you wen	23		model was right?
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by using the 1990 computer model and assuming that the dikes 24 were the same in 1975 as they were in 1990, correct? 25 Yes. ¶ 1 All right. 2 And then inputting so that -- inputting a flow of 3 130,000 cubic feet per second to simulate the 1975 flood, 4 correct? 5 A Yes. 6 All right. 7 And so for the purposes of your work, if the 1990 flow 8 of 150,000 cubic feet per second had taken place in 1975, 9 then you would have had the exact same water surface 10 elevations on the plaintiffs' property -- in 1975 as you did 11 in 1990, correct? 12 MR. HAGENS: Is this the computer results you're 13 talking about or something else? Tend to mix these opinions 14 and leave out some of the failures and the like, Your Honor. 15 So we're talking about computer results. Is that what the 16 question relates to? 17 (By Mr. Smart) Well, the testimony to date, Your Honor, has 18 been only that he studied 1975 via computer model except for 19 the observed elevation. And so the water surface elevations that were generated by witnesses -- and you can correct me if 20 21 I'm wrong, sir -- for the plaintiffs' properties, were 22 computed varying the flow from 150,000 to 130,000, 23 representing the unchanged condition under your work for the 24 difference between 1990 and 1975; isn't that right? 25 Can you simplifies question a little please? ¶ 1 (By Mr. Smart) I'll try. 2 Isn't it true that when you had your computer model 3 recreate the 1975 flood you used the 1990 topographical 4 conditions, correct? 5 That's correct. A 6 O Okay. And the difference between the 1990 flood and the 1975 7 computer recreation that you have done, which is shown in 8 9 Exhibit 979A, shown simply to put in the -- I'm screwed up. 10 Let me start over. 1990 was 150,000 cubic feet per second, correct? 11 12 Yes. A 13 All right. And 1975 was 130,000 cubic feet per second, correct? 14 15 A 980A is the diagram of your computer recreation showing the 16 1975 flood, correct? 17 18 I believe so. 19 0 All right. And you took the 1990 topographical information from 20 your computer model and you input a flow of 130,000 cubic 21

feet per second to simulate the 1975 flood, correct?

23 A Yes. All right. And so the water surface elevations that would 24 have occurred on the plaintiffs' properties, according to ¶ 25 1 your computer model, in 1975, would have been identical to 2 the 1990 flood if you had a flow in 1975 of 130,000 --3 150,000 cubic feet per second, correct? As we simulated it, yes. 4 A 5 Right. And another way to describe it is that if you had as 6 much water coming down the river in 1975 as you did in 7 1952 -- Excuse me. In 1990, in other words, 152,000 cubic 8 feet per second, then the water surface elevation on the 9 plaintiffs' properties would be expected to be the same, 10 correct? 11 MR. HAGENS: Is this under the computer model or 12 are we talking about something else now? Because sometimes 13 you leave out the failure testimony, and this tends to mix 14 and match. 15 MR. SMART: We've already had testimony, Your 16 Honor, that there has been no failure in 1990 and no failure 17 in 1975. So this kind of --18 THE COURT: This is assuming we're still operating 19 on the computer model. 20 MR. SMART: Sure. I'm asking what he would expect 21 based on the work that he did, which is to generate this 22 computer model. 23 If our assumptions was correct, that 1975 topography, 24 including levees, was the same as 1990. And we had the 1990 25 discharge, then I would expect to see 1990 flood levels. ¶ 1 (By Mr. Smart) Okay. And you assumed in fact than the 1975 levees were the 2 3 same as in 1990, correct? With respect to their profile of their height, yes. 4 A So the important information for the purpose of determining 5 6 water surface elevation you assumed to be the same because 7 you didn't know of any differences, correct? 8 MR. HAGENS: Again, is this for the computer 9 model? 10 MR. SMART: No. 11 MR. HAGENS: Now we've changed out of the computer 12 model. 13 THE COURT: If you have an objection, please state 14 it simply. 15 MR. HAGENS: Objection to the form of the question 16 because now he has gone from the computer model into 17 something else, some broader question. So I object to the 18 form of the question. 19 THE COURT: Counsel? 20 MR. SMART: Just a second, Your Honor. 21 We've had testimony, Your Honor, that the computer model 22 starts with inputted actual information. In this case,

23 topography and water surface elevations. That's input into 24 the computer model. And then there is a calibration. We've 25 also had testimony that he performed a hypothetical review. ¶ I And we've had testimony that he didn't find any material 2 difference between the actual dike that existed in 1990 and 3 the actual dike that existed in 1975. 4 All I'm trying to do is to tie that up for the jury so 5 that we can have the full import of this witness' testimony, 6 which is that he would not expect that there would be any 7 material change in water surface elevation between 1975 and 8 1990 based on what he learned. 9 MR. HAGENS: Your Honor, that is a serious 10 mischaracterization. He has testified that the dikes in 1990 11 are not the same dikes that they had in 1975. Repeatedly 12 testified to that. 13 THE COURT: Okay. That's beyond the scope of the 14 objection. The question as stated is proper. And the 15 witness may respond in any way he feels is --16 (By Mr Smart) Just doing back, because Mr. Hagens has now 17 injected a red herring in here. 18 You didn't discover any material difference in the dikes 19 between 1975 and 1990, correct? With respect to their height or profile, yes. 20 A 21 And those are the important things in determining water 22 surface elevation, is their height and profile, correct? 23 Essentially. 24 And so if you had a flow of 150,000 cubic feet per second in 25 1975, then you would have expected to see exactly the same \P water surface elevations in 1979 -- '75 as he got in 1990, 1 2 right? 3 Providing the levees were still there, yes. 4 And they were still there. MR. HAGENS: 1975 -- objection to form. In 1975 5 6 that flow, were they still there? That is the question. 7 (By Mr Smart) And they were still there in 1975, weren't 8 they? MR. HAGENS: Arguing a 1990 flow of 150,000 cubic 9 10 feet per second. THE COURT: Restate the question. 11 (By Mr. Smart) The dikes were there in both years, years 12 13 1975 and 1990, correct? MR. HAGENS: The objection is --14 MR. SMART: Could I have less interference, please. 15 THE COURT: I'm asking him to restate the 16 question. That is the first part. 17 (By Mr. Smart) The dikes existed in both 1975 and 1990, 18 19 correct? Yes, they did. 20

They didn't fail in either case, correct?

Well, they were there substantially in both years.

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23 All right. They did have the normal kinds of problems that you get 24 with levees in any year, that the flood damages them, didn't ¶ 25 1 they? A Well, they did. 2 And that happens in all big floods; that is, you have some 4 levee damage along the Skagit, don't you? 5 Not necessarily. A 6 Did you study that, sir, to determine whether or not there 7 has been damage historically to levees in every big flood 8 along the Skagit? 9 We're talking about the Skagit River levees? A 10 Yeah. Did you study them? No. I'm sorry. I thought you were generalizing about levees 11 A 12 as a whole. 13 I'm talking about the Skagit. Would you agree with the 14 proposition: Every big flood since there have been levees, 15 the levees have been damaged by those floods. 16 That's probably true. 17 THE CLERK: Exhibit 997 marked. 18 (By Mr. Smart) Okay. Showing you 997. This is a document 19 entitled "Mutter-Water Surface Elevation-If 1990 Flow Happened in 1975." And I have given you the same properties 20 21 that you identified the flood levels for the 1990 flood, 22 which would be 994. And since you have agreed that you would 23 expect the flood levels to have been the same in 1975 if you 24 had the 1990 flow, I just ask you to fill in the water 25 surface elevations for 997, please. ¶ 1 MR. HAGENS: May I see the exhibit that he is working from, Your Honor? I don't have a copy of it. 3 THE COURT: All right. 4 MR. HAGENS: This assumes no break, counsel, 5 assumes no failure, no levee failure; is that correct. MR. SMART: This is his computer model, counsel, as 6 7 the document indicates. 8 MR. HAGENS: Computer model assuming no failures; 9 is that right? 10 That's correct. A 11 (By Mr. Smart) And there wasn't a failure in 1975 or 1990, 12 as we've been over many times. 13 (Witness complying.) 14 (Defendant's Exhibit No. 997 identified.) 15 16 MR. SMART: Offer 997, Your Honor. 17 MR. HAGENS: Your Honor, I think we ought to have a 18 notation on there, this assumes no failures and that was a 19 computer-generated results, Your Honor. 20 MR. SMART: Well, I'd object to counsel dictating 21 what I have on my exhibit. I think the testimony is accurate

22 that there were no failures in 1975, there were no failures 23 in 1990. And the computer model assumed that. And I have 24 specifically --25 THE COURT: That is the testimony, counsel. I ¶ 1 don't think the document needs to reflect that. You can 2 pursue that. I'm sure you will during redirect. 3 MR. HAGENS: No objections, Your Honor. 4 MR. ANDERSON: No objection, Your Honor. 5 THE COURT: All right, counsel. 997 will enter. 6 (Defendant's Exhibit No. 997 admitted into evidence.) 7 (By Mr Smart) Showing this chart then to the jury, what we 8 9 have is, we have your water surface elevations if the 1990 10 flow occurred in 1975. And this is per your computer model, 11 correct? 12 Yes. 13 And these water surface elevations shown on 997 are the same 14 water surface elevations as you filled in for the 1990 15 flood. All right. 1990 flood. On 994, correct? 16 That's correct. 17 Okay. 18 MR. SMART: I can start a new --19 THE COURT: No, that's fine. 20 We'll take our noon recess at this point. 21 Ladies and Gentlemen of the Jury, we have a presentation 22 this afternoon at one o'clock, which I think, just to be on 23 the safe side, will take at least a half an hour. So I'll 24 ask you to be back in the jury room at 1:45. Just a little 25 bit longer break today. We can use that extra fifteen ¶ 1 minutes to our advantage. Be back in the jury room at 1:45. 2 Again as we discussed -- and one sort of thing that can 3 come up and often does, I'm sure would over the course of a 4 long trial like this. As we see each other more often, court 5 personnel, myself, court staff, attorneys and even perhaps witnesses who are on the stand for a couple of days at a time 7 or something, there might be an occasion where it's very natural to say, you, as Members of the Jury, would say good

Good morning, or so forth.

However, there are those who might misconstrue even that amount of contact with a juror and participant in the case. So if your morning pleasantries which you would want to offer are met with this icy stare or you are ignored, it's only because I have again mentioned to attorneys and the parties in this case that that really needs to be the way they handle

morning and hello and that sort of thing. And common decency would dictate that you would get a similar response from us.

I don't want anybody to be able to make a casual observation and misconstrue that or they are having a

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21 conversation or, look at how well they are getting along. 22 We're not really meant to get along, quote, unquote, in this 23 case, other than to function properly with each other, with 24 one another. You understand what I'm trying to say. I don't want ¶ 25 1 there to be a misapprehension in someone's mind that I saw Juror No. 3 was having a great time with so-and-so or 2 whatever. Obviously, none of us are having a great time 3 4 together with what's going on here. We all want to be 5 pleasant to one another. That is our natural instinct and inclination. And certainly mine and everyone else's I'm 7 aware of in this court. But we really can't engage in very 8 much of that type of thing. 9 Don't take it personally. We've had a little discussion 10 about that today. It looks like we're ignoring you because 11 we've been told to do that. No discussion of the case among yourselves. Crucial to 12 a fair trial no determination be made until all the evidence 13 14 has been presented and that there be no opportunity for you 15 to begin to form opinions among yourselves by having any sort 16 of discussion about the case. 17 With that, we'll see you at 1:45. 18 Thank you. 19 (Noon recess was taken at 12:02 p.m.) 20 21 22