SHORELINES SUBSTANTIAL DEVELOPMENT PERMIT APPLICATION

IN RE: Dike, Drainage and irrigation
District #12; PL120144 Shoreline
Substantial Development Permit

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BEFORE HEARING EXAMINER WICK DUFFORD

Date: June 12, 2013

Transcribed By: Allen R. Emerson
Certified Court Reporter
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A-P-P-E-A-R-A-N-C-E-S:

FOR DD# 12

MR. JOHN SHULTZ

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DAN LEFEBER

Operations Manager DD#12

LORNA ELLESTAD

Commissioner DD#12

JOHN SEMRAU

Engineer, DD#12

INTERVENOR:

LARRY KUNZLER

ALSO PRESENT

MIKE ANDERSON

Mayor of Sedro Woolley

DAN BERENTSON

Natural Resources Division Manager, Skagit County

LEONARD HALVORSEN

KEITH WAGONER

Sedro Woolley City Council

TOM SHEAHAN

ROGER RIDGEWAY

JOHN COOPER

Planning and Development Services

E-X-H-I-B-I-T-S

(9:25 AM)

HEARING EXAMINER: Call the hearing to order. On April 24th we had a hearing about the application of dike drainage an Irrigation District #12 to do some shoreline stabilization and dike improvement on the Skagit River Dike that extends from Lafayette Road in the north to Gardner Road in the south east of Burlington. After the hearing we discovered that some of the record that we had hoped we were making on the machinery wasn't too intelligible and so we decided to continue the hearing and take another crack at making sure that we have a good record and on that subject I guess I should say that we do have a lot of documentary evidence as well as pretty good notes about what everybody said last time, so I think we can recapture that fairly clearly but in case anybody wants to say it again and make sure they get a verbatim transcript then this is an opportunity to do that. At the end of the hearing I left the record open a week for additional comments because there was some suggestion that there were some problems with notice of the hearing and people felt they needed more time. Just in order to deal with that – and we are up to exhibit 30 I think –

UNKNOWN SPEAKER: 29

HEARING EXAMINER: So the next one would be 30 and what I'm going to do is mark the notice of the April 24th hearing that was published in the paper as well as the notice that was sent out to people as exhibit 30, so that that will be in the record that those notices were in fact mailed and then for today's hearing I'm going to do the same thing as exhibit 31, the notice of the continued hearing of June 12th, both the published version and the mailed and posted version. So those two additional items will be in the record.

(Ex. #30 & #31 Marked)

HEARING EXAMINER: We're up to 31 now and I note that during the interim while the record was open there were several additional exhibits that were submitted. So we have three from John Semrau – I have not seen these so I don't know what they're about but one from Margaret Fleek, a letter from John Shultz and the Corps of Engineers sent a letter on the 1st of June, two letters from John Shultz and finally a communication from Chal Martin of the City of Burlington. So we have all those items and they are now a part of our record and we will expand our record by whatever happens here today. I'm going to ask the county to sort of capitulate what they did last time. So speaking for

the county we have –

MR. COOPER: John Cooper.

JOHN COOPER

Having been sworn to tell the truth in this matter, testified on his oath, as follows:

HEARING EXAMINER: Okay, why don't you go back over your staff findings.

MR. COOPER: Okay, I'll just be brief. This is a continuance of the hearing for the Shorelines Substantial Development Application, PL12-0191. This is for Skagit County Dike Drainage near Irrigation District #12. The area is subject to the proposed shoreline stabilization and flood protection improvements located along the right – which is the north and west bank of the Skagit River extending from Lafayette Road in the north or Gardner Road in the South, which is east Burlington. The project is an eastern extension of the levee maintenance project initiated by the City of Burlington and the Skagit County Dike Drainage & Irrigation District #12 intended to increase floor protections for the City of Burlington, Skagit County Dike and Drainage District #12 proposed to enlarge both the width and the height of the existing Skagit River Levee along a 1.3 mile-long project site. The elevation of the top of the levee

will be increased by approximately four feet and the toe or the base of the levee will be increased by approximately sixty feet. The widening of the dike will be limited to an area landward of the existing levee toe. The purpose of the improvement is to provide structural reinforcement of the levee system to prevent failure during elevated flood events and to obtain levee certification from The United States Army Corps of Engineers. The subject property is designated as agricultural, natural resource lands as indicated in the comprehensive plan and zoning maps adopted December 23rd, 2008. The subject site has a shorelines designation of rural as indicated in the Skagit County Shorelines Management Master Program and I'll note that Skagit River is considered a shoreline of statewide significance. A *Determination of Significance* was issued by the City of Burlington and a draft environmental impact statement was completed on February 13th, 2009 for the dike stabilization project. The final EIS or environmental impact statement was issued on July 16th, 2010. We reviewed the application according to the criteria in the Shoreline Management Master Program and, in general, found the application to be in compliance with that criteria and based on that information we

went ahead and recommended approval of the Shorelines Substantial Development Permit with the inclusion of seven conditions which are included in the staff report. That concludes the summary. I can try to answer any additional questions that may have resulted.

HEARING EXAMINER: I think the record is unclear on a couple of things and so I wanted to ask you about the different kinds of hydrology studies that have been made with respect to the river. The Corps has done their work and then there is something called NHC and then there is something called PIE.

MR. COOPER: Yes.

HEARING EXAMINER: Now as I understand it the PIE hydrology is basically the basis for the city's application here, is that right?

MR. COOPER: They have used a lot of Pacific International's hydraulic information. They also provide the Army Corps of Engineers flood evaluation and used their numbers for evaluation of the impacts that may have resulted in the surrounding area from the increase in height of the dike.

HEARING EXAMINER: I know they have done that analysis but the one that isn't explained is the NHC, which is kind of the middle range of numbers. Who did that and why?

MR. COOPER: Let's see, that was Northwest Hydrologic Consultants I believe and I think this was – and I don't know a lot about that I really don't but I believe there were there were three – the City of Burlington had Pacific International do their modeling to figure out what the maximum flood could be. The Corps provided theirs, which was the upper-end, the higher volume and then I think there was the third – the consultants took all the information and tried to figure out what the flow would be and they came in the middle range or maximum flow could be under one hundred year flood, in the middle range.

HEARING EXAMINER: Yes I just didn't know what to do with that piece of information and so maybe somebody can explain that to me or maybe it doesn't matter. I thought it might have been done for the GI work –

MR. COOPER: I think it was done for the GI work.

HEARING EXAMINER: I didn't know what the deal was with that but we will find out. Okay, just a couple of questions of you and then I'll leave you alone. On the noticing of things of this kind there is a notice that is published

in the paper and there is a notice that is mailed to people who live in the area as well as posted.

MR. COOPER: Yes.

HEARING EXAMINER: And who does that? How can I be sure that that sort of activity has really happened?

MR. COOPER: The list of people included in the mailings was provided with the application. I sent out those mailings.

HEARING EXAMINER: Oh, you do that?

MR. COOPER: I did it all, yes. I posted. I got it in the paper, yes.

HEARING EXAMINER: Okay, so you can testify that those things were done with respect to the April 24th Hearing?

MR. COOPER: Yes.

HEARING EXAMINER: And you are testifying?

MR. COOPER: I am testifying, yes.

HEARING EXAMINER: And also with respect to today’s hearing?

MR. COOPER: Yes, that was put out in the paper as well.

HEARING EXAMINER: Alright, then lets hear from the applicant, whatever it is they may want

to add to what they have already said or repeat.

MR. SHULTZ: Mr. hearing examiner should I go up there?

HEARING EXAMINER: I think you are fine where you are, Mr. Shultz. Identify yourself for the record, if you will.

MR. SHULTZ: My name is John Shultz and I'm an attorney in Burlington and my address is 160 Cascade Place, in Burlington, Washington and I have been an attorney for dike district 12 and for the other dike districts for many years.

HEARING EXAMINER: Okay, assuming that you are testifying I'm going to swear you in.

(Applicant Testimony)

JOHN SHULTZ

Having been sworn to tell the truth in this matter, testified on his oath, as follows

MR. SHULTZ: Mr. Hearing Examiner I wanted to make just a few brief comments. We did have the gap in the record and I wanted to make sure that after myself and Mr. Semrau discussed this we filled all those gaps in the record. So what I wanted to do is summarize at least what I have seen so far and I will try to be brief. I notice that the process is a little different than court. In a court process

people testify or submit documents and they are ruled on at the time and they are either objected to or accepted or excluded. It seems to be a little different process here and I think we're in a search for the truth here but it seems like in many of these hearings they kind of go afield as far as emotional comments, derogatory comments, some things that are stated that are not under oath and so that prompted our submitting comments after the hearing. With one commentator we had some disagreements regarding what was factional and what was emotional and so I'm hoping that my letter of –

HEARING EXAMINER: These letters that I was noting had been submitted, you are referring to things like that?

MR. SHULTZ: Yes and so I just wanted to recap that. I don't think I need to remind the hearing examiner but the permit should be determined on the facts of the case and I look at this and I see just a huge amount of facts that militate in favor of submitting and approving this permit and I'll go through a couple of things that are self-evident because the county has discussed these things and they are in the record: That the EIS has been approved in July, 2010 and I would

submit that all the comments that we're hearing today and at the prior hearing and written comments, have already been addressed in the EIS including some of the commentators who submitted voluminous information at the time of the EIS and those have been dealt with. So Nothing new under the sun here as far as the evidence. This project has been going on since 2007 and when I say this project I mean phase 1 of the project where there has been some widening. Thus far that hasn't been any raising of the height of the levee and I wanted to make sure the hearing examiner knew about the concept of freeboard, that there is a certain height that has to be met if we're going to certify the levee. That doesn't mean that willy nilly the dike district is going to go out and raise the levee four feet. It means that some areas would not be raised because they are already at sufficient height. Other areas will be filled in and other areas would be raised possibly three feet. So the height of the levee would increase later and the EIS looked at this and said there would be some minor impacts to folks down river but not a great deal of impact. We have wetland assessments that have been approved and they are in the record. We have fish and wildlife assessment approved in the record by

Graham Bunting. There was some reference that the dike district is working without a permit and I think Mr. Semrau testified that as far as the number of permits and the dates of issuance and the whole thing, all the permits that we needed were applied for and the fill and grade permits were all appropriate. I wanted to, just briefly, look at oversight here. This project has had just unbelievable oversight since early 2000 when it was proposed. We had PI engineering and Mr. Semrau will discuss the issue that you just raised with the county and I'll tell you what I know as far as the long and short of it. The Army Corps of Engineers has done hydrology which included four historic biblical floods, huge in proportion to all the rest. Do you see the graph in these four floods stand out like this and everything else is pretty much consistent. PIE Engineering probably did about three or four years of work on this, spent a couple million dollars and they found that these historic floods weren't necessarily accurate, so they lowered those a little bit by the evidence we have seen in various studies. There was a prior geologist who walked the site many years ago. And so PIE lowered those amounts a little bit. NHC – and you heard Mr.

Cooper refer to this, NHC was hired by the county, they are the county's engineer and they took a second look at this. And so we have the Corps up here and we have PIE here and the difference really is maybe – well, it's not a great deal of difference between those two. NHC was kind of in the middle, they were, you know not too hot and not too cold but just right, like Goldilocks and the dike district is okay with that. We have incorporated that in our work. So we have looked at all these issues and there have been many millions of dollars spent on NHC and PIE to get the engineering right and we're pretty close to getting it right, as right has anybody else has gotten it in the last twenty years. We also had oversight with our engineers, Golder and Associates, Reichhardt and Ebe Engineers were on this. The U.S. Army Corps has been a partner with us for many years and you heard at the last hearing that Doug Webber, he is one of the officials from the Seattle District, Army Corps of Engineers, he came and testified and he said yeah, this is a good project. And we talked about the GI Study, that is somewhat of a red herring because the GI study has been in process for seventeen years and they have not yet identified a project. They are starting to cut down the time

period to three years now. And so we're working with them but there is no guarantee that the GI study will be completed or when or if it is completed if there will be funding or if there is funding, if the dike districts will – or any dike district in the county will reach cost benefit ratio acceptable to getting funding from the port. In the meantime dike 12 has been working on this project diligently with Burlington to get levee certification. Once we get levee certification that is going to affect the FEMA flood rating for the entire valley. Dike 12 work will be a component of the GI Study if it gets done but I want to make one thing clear. The GI study is part of this but it is not a precondition for dike 12 doing its work. There is no contingency for dike 12 doing their work as conditioned upon the GI study. So I wanted to make that point clear because I don't think that was made clear. In any event we have had other people testify here. We have had, like I said, Doug Webber from the Corps. Tom Sheahan, he goes way back. He knows a lot about flooding. Margaret Fleek testified. Chal Martin has been involved, he was employed by the county and he worked on these issues for many years and then he went to Burlington and

he has worked on the certification. So there are a lot of people in favor and I think those opposed may have other issues or other agendas but I would submit to you that all the evidence points in favor of approving this permit, as evidenced by the fact that the county does recommend it. The county says we have looked at all this, the evidence has been submitted and it's consistent with all the regulations and this permit should be issued. If it is not issued that stymies Dike 12 because we can't complete projects now and we can't work for urban levee protection for the next several years. So what if, at the end of the day, the GI study is not approved and we're stopped from doing the work? The people in Skagit County will suffer because there will not be this added protection for the river and once we have this added protection we can embellish that and add other protections to other areas because there will be more certainty about river hydrology and the certification of levee. FEMA will be happy because we're doing what we need to do to certify our levees.

So with all that and I know I'm repeating myself but I would urge the hearing examiner to approve this permit. There are conditions to the permit that are fine with Dike 12 but we have already

complied with most of those anyway but we certainly would work with the county and comply with anything that is required to help us get this job done. Thank you.

COMMISSIONER DUFFORD: Thank you. Mr. Semrau. State your name.

MR. SEMRAU: John Semrau.

JOHN SEMRAU

Having been sworn to tell the truth in this matter, testified on his oath, as follows:

MR. SEMRAU: I had a fairly lengthy presentation last time. I have updated it in written form so I will submit this at the end but it want to make sure that some of these things are brought into the record through this recording also. I did mention last time that I have been working on this project since about 1997 and I have been a consultant for Dike District 12 throughout this process. This portion of the plan, this permit is found on pages 68 through 76 of the EIS. This project is located both within Skagit County and the City of Burlington. The plan for this portion in the City of Burlington is found on pages 62 through 68 in the EIS and that portion is permitted under Shorelines Substantial Development Permit SMA1-12 through the City of Burlington. This hearing was heard on June 20th, 2012 and the appeal

period ended in July, 2012. I previously submitted a copy of the minutes from that hearing and that is exhibit 18 in the record. I also showed you this vicinity map, which is figure 2 in the Golder Report and in the red here is the area in question on this particular Shorelines Substantial Development Permit. This area right here, this is the portion that has already been permitted trough the City of Burlington. Of course these studies also include other areas, the three-bridge corridor and other things that are included in the EIS. This project relates strictly to the enlarging in both width and height of the existing levee in place for the 1.53 mile portion within Skagit County. The project extends from the Burlington City Limits at Gardner Road North to the terminus south of the Burlington Northern/ Santa Fe Railroad on Lafayette Road. Construction will occur on top of and landward of the existing levee. This project is undertaken for the protection of life and property in the City of Burlington in Skagit County and for maintenance of flood control facilities relating to the Skagit River.

Okay, this is figure 13 in the Golder Report which I showed you at the previous hearing. Again, this is the area that is being worked on and you will see in the red, the pink and the green, these are the type

of cross sections in work that will occur along this portion of the levee. I'm just skipping through this because you can read what I submit to you. I also spent some time explaining the difference between certification and accreditation and also I think there was some confusion about the third component which is community rating and I want to make sure we're clear on these different descriptions. The certification, that's the portion that the design team, the engineers, the geotechnical engineers and things, that's what we take and study the existing facility. We do borings, lots of soils tests, do the engineering analysis and do the design criteria to build these levees to meet the requirements of the Corps of Engineers. Then we go out and we build these levees through maintenance and through the construction process and then the engineering team, we certify that this meets that criteria.

And that is what we're proposing to do. We're proposing to take these levees to the Corps certification standard. You have a new exhibit that apparently you haven't seen yet where the Corps of Engineers concurs, they expect us to be building these levees through maintenance and through the construction process and bringing them up to their standards. Now the

accreditation, that is what FEMA does. We take this certification package, these three hundred documents that we are going to have and the last ten years of work plus our construction process. So we are going to have fifteen to twenty years of data plus the GI study. We are not going to get accreditation until after the GI study is essentially done but we are positioning ourselves to do what we know we have to do. We have to do it whether the GI study is finished or not but that is bringing these levees up to the Corps standards but once we take this package and the GI study is done then we can go to FEMA for the accreditation. Essentially when these levees are accredited they are actually included in the computer modeling that FEMA does or their consultants but the modeling that is done to develop the flood rate insurance maps or the flood insurance rate maps, the FIRM.

Now there is also a community rating process and we don't want to confuse the flood levels we see in community rating with accreditation or certification flood levels but that is a process that Margaret can better explain because she is actually in the process of it right now through these updates and things. That is where, when these

levees get certified or accepted to a certain flood level then the community gets a break on insurance. They accept a certain level of protection. One of the goals that Burlington has is to get these levees to a 25-year acceptance. We know they have come through flood events from 25 to 50 years but until we do this maintenance work and have these levees built to a better standard of the Corps we're not going to get that 25-year acceptance for the rating. So we have those three different things out there. FEMA does not include non-accredited levees in their flood modeling. Currently there are no certified and accredited levees along the Skagit River. Once levees are accredited by FEMA they can be included in the hydraulic modeling that is conducted to find the 100-year floodplain. This is found on page 10 of the EIS. The Golder Geotechnical Study found that the levees in general were already constructed soundly enough to withstand significant flooding, which has been confirmed in the 1990, 1995, 2003 and 2006 flood events. These floods have return intervals ranging from 25 to 50 years. The primary constriction in the floodway is the Burlington Northern, Santa Fe Bridge. This bridge can only pass 150,000 CFS and that is found on pages 11 & 12

in the EIS. Probably the best explanation of freeboard and how it is applied in this situation is found on page 10 of the EIS. FEMA requires riverine levees to have a minimum freeboard of three feet and in some cases a half of a foot in addition along the length of the tieback levees and an additional foot on either side of structures such as bridges. In other words the top three to four feet of this levee will be freeboard to the Corps and FEMA Guidelines for the certification and accreditation. This portion of the levee is above the floodwater level and does not change the flow of the floodwaters. This is what prevents the overtopping and potential catastrophic failure or breach of the levee during a flood event. At this point there is no proposal for a tieback levee and Burlington and Dike District 12 are hopeful that FEMA will consider benefits of conveying some of the peak out of the system. This discussion you will find on pages 10 and 11 The tieback levees can affect upstream and downstream properties. Now if a GI study determines that a tieback levee is required then this would also be needed to be constructed for accreditation. If a high ground tieback is required this could occur to Sedro-Woolley, Sterling Hill or Burlington Hill. This is really a

GI question that needs to be answered. The project that we are proposing now is going to take us from five to six years to build. If they tell us that we need to go even higher because of the hydrologic things that work would need to occur. But even in addition to that, if a tieback levee is required that is going to take additional time. What we do know is that these levees need to be brought to the certification levels and the standards. This project has always been an integral part of the GI Study. The discussion on page 10 of the EIS also answers the questions raised by the county on the exceptions to the tieback and because a tieback will likely affect upstream and downstream properties we have been leaving this question for the GI Study to answer. A key component and again I'm quoting from the EIS, a key component of developing the levee certification project is addressing the impacts of the proposed action on the upstream and downstream areas. The choice to proceed with work to certify the current levee gives the GI another five to six years to determine the bigger flood picture reducing the flood risk every year – I'm sorry, I missed some of that. Okay, the hydrology for this project has been performed by three different entities. We have

the Corps of Engineers, the NHC or Northwest Hydrologic Consultants and Pacific International Engineering or PIE. Now the difference in the work is found on page 44 of the EIS and there is also – if you look on page 9 of the EIS you will find a little more brief table. This particular project, the choice that Burlington made – and it's all based on the conclusions of the EIS. PIE was a consultant for the county at first and they came up with flood numbers that differed from the Corps, lower numbers. They were a little more realistic numbers in my opinion but that is not to say that being a little more conservative than that – because you can still have flood events greater than a 100-year event. Northwest Hydrologics or NHC was the next – and I think they are still the current consultant for the county and they essentially came in between the two. They made some adjustments on the PIE numbers but still came in below the Corps of Engineers. Now I did submit to you – and it's exhibit 19 in the record, I submitted a draft report dated January 12th, 2012 from NHC. Now it's my understanding that at that time they were using the Corps hydrology. The county and the GI Study in moving forward is using those larger numbers. This project,

because of the decisions made initially, we have gone with the lower numbers partly because we want to reduce as much risk as we possibly can to the City of Burlington in this floodplain area and to do that we don't feel we need to build it to the higher level now. We can wait until the GI study is done and if they tell us they are going to use those Corps numbers, which is very likely, then we will be raising the levee. The levee design is incorporated so that it can accommodate that additional two or three feet, whatever it ends up being to meet the certification and accreditation at that higher levee standard. But all of this project is about reducing the risk to the City of Burlington – and, actually, Dike 12 when you start looking at the floodplain maps, especially the dike map, if we breach then Dike 1 is affected and every dike district on the west side of the Skagit River is going to be affected because we're upstream of them. If our levees fail then there are going to be other dike districts that are going to be affected.

Okay, this is the important part of the EIS showing the effects of this proposed project and this is found on page 47 of the EIS and this is

the effects of an uncertified levee using the Corps of Engineers Hydrology. This Map is found on page 48 of the EIS and this is the uncertified levee using the PIE hydrology. The difference between the two is basically most of the area floods, I mean there really is no difference. This is found on page 49 of the EIS. This is the effects of flooding and you can see flooding through Gage's Slough. This is a proposed certified levee using the PIE hydrology. This is the project that we're proposing at this time.

This is found on page 50 of the EIS. This is the same project that we're proposing with the effect of this levee with the Corps hydrology. As you can see, a large portion of Burlington under the PIE hydrology is affected by the higher flows and the poor hydrology.

I also just wanted to note, we spent a lot of time talking about the 100-year events here, something we have not experienced and most of these events that we have experienced are 25 to 50-year events so we are talking about a theoretical event. Okay this map is found on page 57 and this is a base flood elevation map that shows the impact upstream based upon the proposed project and this is

to the PIE hydrology and its showing a point one foot base flood elevation impact and this is alternate number two that was included in the EIS and this is the impact be the PIE hydrology for the upstream. Now I the EIS was completed in 2010 and I submitted that January 2012 Northwest Hydrologics Report prepared for Skagit County. Now that was using the poor hydrology and that is your exhibit 19 and that report was called the Northeastern Levee or the Burlington Urban Levee and they performed an analysis for both the 50-year and 100-year events. On page 16 the results were point one foot and point four feet respectively at the Sterling area and that is for the 50 year and 100-year events. I wanted you to note that that study also included projects – Mt. Vernon flood wall, which is now under construction. The measures considered in the final work by Northwest Hydrologic Consultants were to find in a series of meetings with the Skagit River flood risk management GI project delivery team and discussions with several of the project stakeholders and none of that work has been held back from all these stakeholders that have been involved in this project from the start.

Have I answered your question with regard to the hydrology?

HEARING EXAMINER: Yes.

MR. SEMRAU: Okay. Alright in summary I'm going to start with quoting again from page 11 of the EIS. In the case of riverine levee in the Skagit River Delta Area the projection goal for Burlington is to have a levee system that will solidly withstand a 100-year flood event, lower base-flood elevations in the city, remove a percentage of the city from the 100-year floodplain and ensure that the established base flood elevations adequately communicate the best estimates of the 100-year water surface elevations to property owners. I think that paragraph summaries our project. We are proposing the PIE hydrology because we felt at the time that was the best estimate of the 100-year and it's a reasonable first target to be spending he public's money to build these levees to and if we're told we need to go higher than we will go higher. If we are going to use the Corps hydrology, which is pretty apparent that the GI Study is using that, then that is what we will do. We have a project here that removes a good portion of the city from flood maps. We can't build these things in one or two years. We have five to six years here just to do what we have got. We know we have got more

work and we need to continue to do more work every year to continue to reduce the risk for these areas. Essentially you have a levee improvement project that proposes to minimize the upstream and downstream impacts on the existing conditions while maintaining or enhancing current levels of flood protection and achieving FEMA accreditation of a segment of levee. Most of the new height is freeboard required to certify the levees to the current level of protection. It has no more impact on the upstream or downstream portions of the system as indicated by the NHC 2012 Report. The 20 foot top will provide more stability during an over topping situation and the levee can be further raised in the future to meet the crest, the high Corps hydrology. This alternative of enlarging the upstream levee will not remove the risk of flooding. However, it will reduce the risk of a catastrophic levee failure and make the specific flood risk for each individual property be easier to quantify through modeling of water surface elevations at various river discharges and that’s on page 17 of the EIS.

So in regards to this actual permit, the Shorelines Substantial Development Permit I did comment in regards to page two that the parcel

numbers were not complete. I did submit an additional exhibit letter that summarized those as of the date that I did that work. We have been in the process of continuing with some purchases and exchanges of land so I can't guarantee they are going to be the same next week but they have been updated.

HEARING EXAMINER: This list of parcel numbers is a list of those parcels that are affected by the project?

MR. SEMRAU: Yes, a list that the levee is on or contiguous ownerships of the dike district. Now you did have a question regarding the mailings and things and the process. We prepare that for the county and we give that to the county. The process that we use, we use the title company to prepare those for us and then we went individually to the assessor maps and pulled up every one of those parcel numbers and confirmed that everyone was included. Now we did an update of that before this third mailing because this was the third time we mailed out to that list. The first list was updated in October and then the second list was the middle of May that we re-updated that list.

Development schedule, previously we said

construction would start mid July, 2013 and that is not going to happen. So we are probably the middle of August at the earliest, if not next year. So we will wait until we get your findings before we can really update our schedule but we are kind of in a bind for permitting getting fill-and-grade permits and NPDES permits and things. So it will start as soon as we can and if we have the weather. Pretty much work occurs from July to September and that is when it will occur as soon as we finish this permitting process.

So I also commented on number 11. My comment there, because we had submitted the 2012 Northwest Hydrologics we felt that section should reference that, as that was part of our materials that we had submitted. Number 13 on page 10, I wanted to be sure that the wording in that section does not preclude us from being able to get the one year extension. It says five years, the current code language and also and I can't remember if it's the WAC or the RCW, it's five years plus a one year extension. We certainly have enough work under this permitting that we would want make sure we have that option for that sixth year and that's from when we pulled the permit. So if we get into a situation

where we can't effectively do work this summer we're going to pull the permit next summer and we need that five to six years to do that work. Also, just briefly in summary, those exhibits 22, 23 and 24 were letters prepared by myself. One was the parcel number discrepancies. One was in regard to fill and grade permit 070267. That permit I mentioned in the previous hearing, that we had applied for the extension of that permit and we have now received that extension and that permit will expire November 14th, 2013. Again that is new information since the previous hearing and since I submitted that last letter. But that permit has been extended and that work will continue this summer. I also submitted – there is a summary of our permitting activity within this area. There was some other testimony about areas outside of this particular area and we were just trying to limit it to here but we permit everything that we are expected to permit here. So, unless you have any other questions.

HEARING EXAMINER: Just going back to the very beginning of your testimony you were trying to tell me the difference between certification and accreditation. Certification you went into how that is designed and somebody takes a lot as to

whether it is properly built from an engineering standpoint. Who does the certifying, is that the Corps or do you get a certification from somebody?

MR. SEMRAU: It's the engineering design team.

HEARING EXAMINER: Okay, so it's a team of people who are working on this?

MR. SEMRAU: That's correct, it's the same team who has prepared the plan and there is a Corps standard and we have studied it and designed it, the improvements, to meet that Corps standard. Now the district needs to build it and then once it's built and it actually meets that standard that was outlined in the design then the engineering team is the one who certifies it. The Corps of Engineers no longer certifies levees. They used to in the past but they don't any more.

HEARING EXAMINER: Okay, assuming that all happened then you take that certification that the engineering team has given you to FEMA and they then look at the question of accreditation, is that right?

MR. SEMRAU: That's correct but then again if you get to the GI Study we need to be consistent with the GI Study, so if the height

isn’t correct – I mean once we certify it to the level that we have designed today –

HEARING EXAMINER: I understand that if the design GI team comes up with something else you may have to go back to the drawing board.

MR. SEMRAU: Right, but the city, after we certify it, can take it for community rating, so every part of this process is going to give the public benefit and that is why we’re doing this.

HEARING EXAMINER: Alright, thank you very much. Anything else on behalf of the applicant here? Sir? Okay this is a written version basically of the kinds of things you were just telling me?

UNKNOWN SPEAKER: Yes.

HEARING EXAMINER: Okay, what exhibit number are we up to? This will be exhibit 32 and we will admit it for the record.

(Exhibit #32 Marked)

HEARING EXAMINER: Now, sir, will you state your name?

MR. LEFEBER: Yes, my name is Dan Lefeber and I’m the operations manager for Dike District 12

HEARING EXAMINER: Alright, I’m

going to swear you in.

MR. DAN LEFEBER

Having been sworn to tell the truth in this matter, testified on his oath, as follows;

MR. LEFEBER: Because the question has come up based upon the last hearing and these are copies of the notice mailings that came to the dike district because the dike district owns many of the parcels adjacent to and where the levee is situated. So right in the corridor of the project that is proposed and I have substantiation that that mailing took place if there is question for the properties all in general, not just the ones that the dike district own. But if you would like that as an exhibit, I'm not sure.

HEARING EXAMINER: It's up to you.

MR. LEFEBER: Okay. And again I would like to show on a map and I brought a larger rendition, so maybe it will show a little bit better those parcels that these mailings connect to so there is a good understanding of the lay of the land and the impacts of the project on the neighboring lands.

HEARING EXAMINER: Okay, you have a map?

MR. LEFEBER: Yes, I do.

HEARING EXAMINER: Okay. So we will call your mailing notices exhibit 33 and the map will be exhibit 34.

(Exhibits 34 & 34 Marked)

MR. LEFEBER: Would you like them now? I'll show you the map and bring them to you.

HEARING EXAMINER: Do you have more testimony?

MR. LEFEBER: Not really more testimony I can either show the map on the overhead or just include it and you can recognize the parcels.

HEARING EXAMINER: Give it to me and I'll take a look at it.

MR. LEFEBER: Okay.

HEARING EXAMINER: So what the witness was showing me is properties that the district owns on the map that are within the project. Would you like more time to speak?

MR. LEFEBER: Yes.

HEARING EXAMINER: Sure.

MR. LEFEBER: So I would also like to state for the record that I believe the dike district's mission all along is to have this consistent effort towards improving public safety for lives,

property, infrastructure. I think we're all pretty aware of what happens to the community if a little infrastructure is damaged these days and that we desire to do our best to protect those types of things. As mentioned earlier, because of the weather and what happens with soil moisture for materials being imported and existing conditions at the site, we usually only have two to three months a year. So we have to be as efficient as we can and take advantage of those work window opportunities to have this consistent effort. That's why it has been ongoing for many years as the dike district was originally formed in 1895 by farmers to protect farm area and the surroundings and so it's just this consistent effort that has been ongoing and I don't think it is really out of line when the district was formed for all those years ago and is continuing to do.

I think that is really the gist of it.

HEARING EXAMINER: Alright thank you very much. If that concludes the applicant's – did you have something else?

MS. ELLESTAD: Yes.

HEARING EXAMINER: Try to speak into the mic so the machine hears you. You're Lorna Ellestad?

MS. ELLESTAD: Yes.

HEARING EXAMINER: Alright, let me swear you in.

LORNA ELLESTAD

Having been sworn to tell the truth in this matter, testified on her oath, as follows:

MS. ELLESTAD: Because of differences in hydrology as has been discussed today it kind of delayed, funding delayed but I would like to point out that the community has been utilizing information from this GI and I'll just throw out there since 1999 when they completed a work group where a lot of the community – and particularly dike district commissioners were involved and dike 12 started to purchase properties in anticipation of some of these larger projects the City of Burlington put a building moratorium in place and Dike #3 utilized Corps information, water surface elevations to establish a new levee height when the established a setback levee. The City of Mt. Vernon utilized Corps information, GI information when they began designing their flood wall and they currently have a four foot extension on their levee system as well. It is the enhanced brick concrete wall that looks a little different from the structure that we're proposing but, again, that structure is

parallel to the flow and the structure we're proposing is directly perpendicular to the main course of the Skagit River and a breach at that point has the potential to capture the entire river and then it's not always so easy to put things back as we are finding. I would also like to mention a couple of other projects that have utilized the GI information to date. The majority of the improvement work completed by other districts have engaged the county technical staff in particular when Tori Nelson was working on the GI and myself would provide the water surface profiles developed by the GI. We had worked with them to establish a levee profile and in particular in the rural levees we do not put this freeboard. The purpose of the Skagit GI was to try to provide 100-year protection for our urban areas and less than that to the rural areas. A point I would like to make on that is when the GI is completed, the purpose of a GI from a federal standing is to establish a federal interest or economic interest in assisting a local community to provide flood protection and they will do so at whatever the benefit to cost ratio supports. So when they finish what they have been trying to identify and we have been working with damaged areas and

they’re currently looking to identify the benefit area from the proposed alternatives and then they will come up with a curve that will establish at what level they will participate in funding those projects. If at the end of the day a worse case scenario for our urban areas where the Corps determines they can’t justify a 100-year protection there are two things the community can do. One (1) they can accept that or they can buy up the project and assume 100 percent of the cost of the difference in that. And so as a member of the responsible party, as a dike district commissioner, we are taking our annual budgets – and I’m sorry that Steve Sexton had to leave but were working as diligently as we can to participate at a known level when projects are identified, when areas have been determined to be beneficial or an integral component of whatever they final alternative would be and that is where we’re at and I would like to thank our engineer John Semrau for going through some of those alternatives because there is an alternative in this levee project that could extend – and I notice the Corps has actually picked one of those alignments as part of their alternative that would then make a determination on where the rest of the water goes.

I believe the current modeling is fifty-two thousand, existing conditions would lead the system at Sterling. But our district and our city and I'm going to speak for Burlington, has chosen to wait and participate in the bigger study to determine what is the cost effective, most beneficial to our community on how – and Sterling is the big unknown.

So the other thing I would like to mention is that – I'll mention one other project, the Anacortes Treatment Plant also utilizes Corps information and the GI information when they put in their sixty-million dollar improvement and so they, too, couldn't really wait for the GI to maybe reroute water away from their structure but had to move forward because economically risk-wise sometimes you just have to do these things and they, too, had been collecting kind of a war chest to get that done. And as our engineers spoke, we have been working on this project acquiring land since 1999 and we still are probably half-way there when it comes now to this construction phase where we can start constructing this.

I would also like to address the FEMA risk mapping that is going on. I think most of the folks in this room have seen some type of presentation on what the preliminary, new base flood elevations

would be. They are significantly higher than the current ones and I know one of the concerns on this project is does this project raise the base flood elevation by a foot and then be in violation of the floor ordinance I believe. The new base flood elevations would be three to four feet higher in Burlington and even higher in this location. By constructing this project – and this community was very instrumental in getting FEMA to readdress their levee mapping policy because they completely ignored these levees that have withstood some significant flood events and by getting this type of geotechnical work in place and levees constructed we can ensure that our community is able to have this levee represented in those flood models, not at the 100-year certified level but at the current level of protection. Currently their mapping policy removes the entire levee. So that is the significant benefit to the community and it is also able to provide a non-geotechnical structure. One of the things – and I have been back to DC several times and I'm part of national levee task force and I'm also a member of the national levee safety committee and we have been looking for ways to utilize both local information and utilize Corps information from your PL8499 program

so we can start building a data base so they can make a determination on what level existing levees will be included in the mapping and in particular, for our community, there is a really big deal.

Again I think I heard at some point in the earlier conversation that hydrology and hydraulics was going to be used interchangeably and I just want to make note that while there are some disagreements over the hydrology, it is the hydraulic modeling that has been performed for this project and, basically in a nutshell, different hydrologies and how deep the hydraulics and where and this project has had multiple hydraulic modeling runs performed. NHC, through the county's contract is the Corps' contractor as well. So we think we have kind of landed on some common ground on how to address this. But one other reason for the amount of freeboard that is required by FEMA is that there is an 8% uncertainty band in all of this data that we would like to take as, you know, verbatim that we have something we can count on but an 8% uncertainty band when you are looking at the two hundred and thirty-five thousand (235,000) CFS is a significant degree of uncertainty and that is one of the other reasons why you want to have this freeboard. And the reason

we are also going with the long, overtopping slope is that in the event we do get some overtopping our levee can withstand and doesn't start on a breach that would widen at a rate of like 100 feet a minute. I mean they have calculations on that and we would end up with the entire river running through and on out, flooding La Conner. And that was on other point I wanted to make on the GI, that it has been a two-way street on the technical exchange and that as part of the GI we incorporated the City of Sedro Woolley's sewer treatment plant, ring configuration that they had been kind of looking at over the last ten years. We have incorporated ring – Dike 12 has been working with United General Hospital to develop in the past. The GI incorporated the flood wall and they incorporated all the soil work, the hundreds of thousands of dollars-worth of soil work that has been performed by the City of Burlington and Mt. Vernon. They incorporated La Conner's flood study on the ring dike that they are proposing and then eventually they incorporated the Anacortes water treatment. So our community has had this hand-in-hand working relationship with the Corps/county GI and that it hasn't been this wait

and you're going to get this – we used to refer to it as "our silver bullet". And so I see our community continuing to work through this and support our congressionals as we work to finish this and get it approved and get it authorized. But right now we're in a situation where we can't wait and expect someone to come in and have a large checkbook and fix things, because if that was at all true we would be getting a nre bridge over I-5 that was longer in length to accommodate an eventual flood risk reduction project similar to how the Mt. Vernon Bridge was built so that there were additional piers put so that it could be extended if necessary but that is just no a current or realistic, immediate financial prospect and that we're going to have to continue because this is a life-long endeavor. I personally have been involved with flood fights for – I think I was probably about six the first time. My dad was living on Fir Island and my father, Virgil Ellestad, was involved with levee repairs for probably thirty years before I went to school to be able to have some technical input into solving the problem.

So I would also like to ask if there are any questions that you think I could help answer?

HEARING EXAMINER: I don't think so

MS. ELLESTAD: Alright. Well, thank you for giving me the opportunity to enter some technical information into the record.

HEARING EXAMINER: Alright, anyone else on the applicant's team who wants to speak? If not, let's take five minutes to relax and we will hear public testimony and then we will finish up. Thank you.

(RECESSED at 10:40 AM)

HEARING EXAMINER: I don't know what happened to our counsel and engineer but we can start. Okay, I'm calling the hearing back to order.

(RECONVENED at 10:46 AM)

PUBLIC TESIMONY

HEARING EXAMINER: This is the time for public testimony, so anyone who wants to be heard on this matter should come up and give their testimony at that microphone.

MR. KUNZLER: Mr. Examiner do you want to swear me in?

HEARING EXAMINER: Well, just tell me who you are.

MR. KUNZLER: Okay but do you want to –

HEARING EXAMINER: I will swear you in.

LARRY KUNZLER

Having been sworn to tell the truth in this matter, testified on his oath, as follows:

MR. KUNZLER: I do have some exhibits I want to enter.

HEARING EXAMINER: I didn't get your name.

MR. KUNZLER: Larry Kunzler.

HEARING EXAMINER: Okay.

MR. KUNZLER: I do have exhibits that I want to submit into the record.

HEARING EXAMINER: Okay. Where are we with exhibits

UNKNOWN SPEAKER: The next one would be 35.

HEARING EXAMINER: Alright Mr. Kunzler, go ahead.

MR. KUNZLER: Thank you, sir. In late 1999 I was approached by the chairman of Dike District 12, he was a farmer and a good man and a good friend. He told me that he had found some mystery mud while putting in a Keyway project and he knew I was working with geologists down in Kelso on that huge landslide that took place where over 57 homeowners lost their homes because a city councilman fired a geologist who told

him not to build there. So he gave me a huge – it was like a soccer ball sized chunk of this mud and gave it to the geologist, the same one who works for Dike District 12 now and he stated that the hand specimens that the hand specimens are composed of yellow stray weakly interrelated silt, non-plastic monolithic sediment. (phonetic) I guess that means a lot to Mr. Cooper but it doesn't mean much to me. I brought an actual jar of mud and this is the mud in question that he found.

HEARING EAMINER: We don't really know how to deal with a jar of mud.

LARRY KUNZLER: Yeah really and I don't either. I also brought – and this was given to me by the Anacortes Water Treatment Plant on August 18, 1992 when the Skagit River ran chocolate brown and all of that material that came down was from the Shot (phonetic) Glacier on Glacier Peak. The problem I have with the Golder Report that the dike district relies on, all 393 pages of it is that it only mentions the word lahar twice and in one of those where they mention the lahar it states – well, anyway, it says that they treated the entire thing as volcanic outwash. In other words they did not make a distinction between the actual volcanic lahar and the stuff that

comes down the river from the volcano on every single flood event, which is what this little jar would be and then this is the actual lahar that Chuck had me get tested for him. Five days after I got that letter Chuck Bennett (phonetic) asked me to give a presentation to the Skagit River Flood Control Meeting on what I found and that begins on page 6. It says “Kunzler then presented a short presentation of the volcanics of the Skagit River Flood Plain and he had been contacted by flood committee chairman Chuck Bennett, some strange mud that chairman Bennett found while working on the Keyway Project in the vicinity of the Burlington Sewage Treatment Plant”. I had the mud annualized by the geologist and he said it was volcanic tuff or in translation for a lay person’s terms, it is a volcanic lahar. What I did was – and I won’t do it here today but I used my Mr. Roger’s interpretation and I took the mud out and I put it in my hand and shook it to show the liquefaction part and – Mr. Cooper, you have no idea how envious I am of you for having a geology degree because Skagit County is one, big geologic happening and you have got everything here. You’ve got active earthquake faults you have got volcanos, you’ve got floods. In my public presentations I have always used the comment that

“mother nature has left her footprints in the sand and if you walk in her moccasins she will show you her past and in so doing she shows you her future”. I found it interesting in the FEIS that they gave some smart-aleck answer to some of my concerns on the draft EIS and it was said there is lots of information out there about the geology, see Beget (witness spells) and Dragovich. What evidently they don’t know is that I had been in personal contact with Mr. Dragovich over 13 years ago and he gave me a portion of his study for DNR before it was actually released publically and I quoted from it at this meetings; “the sediments contained abundant bayside fragments and appear to be Lahar run-out deposits. These deposits are exposed in 10 to 50 foot high terraces” – you can see them, the county had a project, they were looking at buying out Cockreham Island and it shows these lahar deposits all along Highway 20. It goes on to say that “the lahars underlie the flood plain in the cities of Burlington, Sedro-Woolley, Lyman and Hamilton and much of the agricultural area of the lower valley. We have traced the stratum, both exposed and buried to the vicinity of La Conner”. So this is something that is missing in the Golder Report that the dike district is relying

on. They should have located the lahars, especially near the sewage treatment plant and under the Dike District 12 Levees.

Okay, enough about mud. I'm probably going to be the most controversial speaker you will have here today but it's a hat I'm used to wearing. There is a huge question as to whether or not any of Dike District 12's levees should be raised because of one word, floodway. This actually first came to the valley in 1981 when we had a very controversial building official in the City of Mt Vernon. He wrote to FEMA "if the designated floodway included all of our existing dikes would we be able to maintain the dikes, repair the dikes or increase the dikes as needed". Later, on July 17th, 1981 FEMA responded: "If a floodway is designated in the future and the dikes are included in that zone you would be able to maintain and repair the dikes to their present profile elevation, raising the dikes is another matter. Hydraulic studies of the river have shown that increasing the height of the dikes would cause an increase in flood levels upstream. On that basis your ordinance would have to prohibit such improvements".

Later, 1982 FEMA wrote a letter to the mayor of the City of Burlington, "concerning floodways in the

Lower Skagit Delta we have ruled out floodways developed either through the conventional equal conveyance methods or through unsteady state flow modeling at this time. Instead we have decided to build on and refine your thoughts regarding density criteria in conjunction with establishing a minimum floodway that will encompass the channel and overbank areas including the levees".

In April, 1982, FEMA had hired Dames & Moore to do the hydraulic analysis for the density floodway and the instructions Dames and Moore received was as a result of meetings held in Region 10 during the week of March 15th, 1982; it was determined that "a conventional floodway would not be established for the communities within the Skagit Delta Area. These include Skagit County, the Cities of Burlington and Mt. Vernon and possibly others. These communities should show floodways delineated to include only the main channel of the Skagit River and the levees".

At this time I think it appropriate that I explain to you the difference between a conventional floodway – I don't know how familiar you are with Skagit County but take Hamilton and there is a mountain, the land, the town, the river, more land

and then more mountains on the other side and they take the floodplain the conventional way and they squeeze it together until the water surface raises one foot and then everything in between that is prohibited from putting landfill in that area.

The next exhibit is the Dames and Moore Report in December of 1982. The good 'ole boys' in Skagit County at that time had thought that they could put a floodway using the density criteria and leaving twenty-five percent of each parcel of property open and then they could develop the rest of it.

On the next page, page 9, it states, "the density criteria" – now remember they took into consideration the entire lower valley; "the density criteria varies from 5 percent to 14 percent depending on the flow path and lot size. For example suppose the landowner wishes to construct a building on a one-acre lot in flow path 4, the tables shows that the owner can raise a maximum of 10 percent of his property. So, to make floodplain regulations easier to enforce, a ten percent density criteria for all flow paths and lot sizes is recommended".

Needless to say, that was not adopted in Skagit County but I do think for purposes of the record that if you drive over to Burlington and just look

east of Interstate 5 you can determine that more than ten percent of the community has been developed.

In August of 1983 FEMA – and I don't know what the proper terminology here is and if John and I were in court we would ask you to take judicial notice but I'm asking you just to recognize that all of these letters that I'm going to submit to you from this point on come from Washington DC and they made the decision to designate the levees as part of the floodway. They said "because of the lack of adequate topographic mapping and field survey data it is not possible to determine the distribution of flood flows between Burlington proper, Gage's Slough and overbank areas. The 63,000 CFS discharge" -- identified by John Norman who was a hydrologist with the Corps of Engineers before he had his own firm hired by the Cascade Mall Developers "is not supported by any scientific or technical data and must be considered as speculation". But that didn't stop Burlington from building the Cascade Mall. "From a qualitative perspective we agree with your conclusion that Gage's Sough is a conveyance area which should be protected" and then it goes on to say "part of this requirement will be to ensure that no new construction, substantial improvements or other development

including fill is permitted within the zones of the flood insurance rate maps unless it is demonstrated that the accumulative effect of a proposed development when combined with all other development will not increase the water surface elevation of the base flood more than one foot at any point in the community". And that last part is perhaps the most important because if you raise your levee to a one hundred year event are you not raising the level at that part in your community and then the ramifications of that is you're done building. Burlington will not issue another single building permit.

So they haven't really thought this through they way they should have. December 15th, 1983, section 60.3C10 of the program regulations and that is quoted substantially throughout the EIS and again the most important thing to me is that it states the base flood more than one foot at any point in the community. February 1st, 1984, a letter to the mayor of the City of Burlington: "Conventional floodway analysis was not considered appropriate due to the unpredictability and variability of flow paths between various flood events, which is complicated by uncertainties about where the levee failure will occur. The sequence of the failures in volumes of

flow thus only lands within and including the Skagit River levees were designated as floodways in the conventional manner". And that throws us back to the example I gave you in Hamilton, that no fill is allowed in the conventional manner of determining a floodway. I raise the question about who is the legal authority – I'm getting ahead of myself: "However FEMA recognizes the majority of the overbank flow occurs over Interstate 5 in the vicinity of the George Hopper Interchange between Gage's Slough and the drive-in theater" – and the drive-in theater is now the Target Store – "and from near Edison High School to just south of Cook Road" there are all kinds of developments that are put in, in that location as well. Approximately 80 percent of the total overbank flow crosses the highway in those segments. April 9th, 1984, a letter to the state department of ecology. They objected as I objected to FEMA's flood insurance study and they state "the elevation of the street intersection" – and they're talking about downtown Burlington, "is 34 feet mean sea level, which would make the flood elevation be about 37 feet. The FEMA Map showed the elevation of the 100 year frequency flood of 240,000 CFS to be about 31 feet in that location".

On May 22nd, 1984 and again FEMA from Washington DC wrote to the Mayor of the City of Burlington and this was s response to the department of ecology letter: "Since the Skagit River levees are inadequate to contain the local 100 year discharge of 240,000 CFS our hydraulic analysis was performed as though the levees did not exist". And that has always been a huge contention of mine and it's why, when the Burlington Planner makes public statements in the draft EIS as well as at many public hearings that I have attended, that FEMA adopted a project failure point of Sterling, that is untrue because they determine their flood elevations as if the levees did not exist at all. And so when the City of Burlington issues letters to developers that they can tell the people who buy these homes that they are out of the 100 year floodplain when they are really, only 100 yards away at the most from the levee itself. Those levees break and those people are definitely in the 100-year floodplain.

FEMA is on the next page, paragraph 6: "FEMA's analysis, which assumes failure of all levees along the Skagit River therefore results in lower elevations for the Avon Area. Any given area near a levee that fails may experience flooding more

severe than that showing in the preliminary FIS", flood insurance study. November 1st, 1984, "conventional analysis, floodways are to be kept free of encroachment and that would include the levees themselves". Here is a memorandum for the record and fast forward to 1996 from Joseph Weber the program manager. He used to be a hydrologist with FEMA and then he went to work as a floodplain manager for the Corps of Engineers and then he went back to work for FEMA and now he is retired but this was pulled out of the Corps files: "Conventional floodways were not adopted for the entire delta downstream of Sedro-Woolley in this area of the Skagit River proper. The levees confining the channel and adjacent areas have been designated as floodways in the vicinity of Whitmarsh Road" – and this is when I first started complaining about four feet of fill on the riverward side of the levee along Whitmarsh that wasn't there during the '90 flood event and what the dike district has never told the residents of the City of Burlington is that the flood waters were in the process of crossing Whitmarsh Road in that location. So I understand them wanting to put four feet of fill but they are still putting four feet of fill in the floodway and the reason

I know the water was crossing this is because I drove over there and you could tell exactly where the high waterline was of the river at that time. Joe Weber goes on to state: "As long as any repairs we make to the Skagit River Levees replace them in kind we comply with that standard". All of the work they have been doing is improvements, they're not maintenance. Why the county and the City of Burlington issued them permits for maintenance work I don't know but when I stated they didn't have permits -- I mean where are the floodplain permits. You know I don't really blame Mr. Semrau or Mr. Schultz because if I had a client and a city government official tells me I don't need a permit why the hell would I want to go and force them to get a permit. So I don't really blame them or the dike district but I do blame the county and city officials who have allowed this to continue for so many years.

This you are going to find kind of humorous. This is a nasty email exchange between myself and FEMA in 2001. This is a response by a young man named Patrick Massey who worked for FEMA. He says: "First your entire long argument about the lack of enforcement accumulative rise standard of section 60-3C10 is wrong. Section 60-3C10 only applies to

developments in floodplains where a floodway has not been designated, since a floodway has been designated along the lower Skagit within the levee, 3C10 doesn't apply. Yes, the floodway established in 1985 is located between the landward toe of the levee". So yes, this means that there can be no fill or other development outside of the original cross section located within this designated floodway. By the way there is a regulatory floodway. I don't know what your point is about just being a floodway and not a regulatory floodway, the two terms are synonymous. If the development has occurred between the levees this would be NFIP compliance issue. Have the levees been raised or widened since the community jointed the NFIP and the firms were published in 1985. If so, this would be a violation of D-3. Were these fills used to improve the levees or simply return them to their previous condition. Obviously four feet of fill on the river – side of a levee is an improvement. I don't know why the words maintenance and improvement are so difficult for some in this room to understand. Maintenance, given its ordinary definition means you have something, it breaks, you fix it. Improvement is when you make something better, so when you put in Keyways that is an improvement. When you put in

an extra four feet of fill that is an improvement, it is not maintenance. This entire charade of smoke and mirrors by the City of Burlington and Dike District 12 is really – I just don't understand. It's not a maintenance project. They are not fixing anything they are improving it. So that requires permits, it requires floodplain permits on behalf of the county and the city and there are none.

The grading permits, who goes out and inspects that what they did was what the grading permit authorized them to do. I know for a fact that when they put in the keyways they backfilled onto the levee in the floodway next to the Skagit River. They did not take that material out of the river channel, they put it in the river channel. Then Mr. Massey goes on to call me a Muslim, so I don't know what that was all about but he, evidently, has got a problem. The fact is a lot of the letters I submitted to you I submitted these same letters to FEMA. I have been submitting them to the City of Burlington for many years. I submitted them on my comments to the draft environmental impact statement and I will submit them to you here today. I heard earlier testimony from the applicant that everything was addressed that was on the draft EIS.

These people didn't address half of what I stated in here and you as the examiner and Mr. Shultz as an attorney and me as a person who has worked for attorneys for the last 34 years, you know sometimes it's much more important what they do not say then what they do say. I submitted in here portions of the letters that I have given you today. They ignored them. You won't see those addressed anywhere in the FEIS. You will not see the map that I submitted anywhere addressed in their EIS and then here, this to me is an example of an applicant speaking out of both sides of his mouth at the same time. On page 14 I quote from the draft EIS and it says "extensive levee enlargement work has been in the process since 1990 by Dike District 12". Well of course it was. That includes that 4 feet of fill they put along Whitmarsh Road riverward of the existing levee. But again, extensive levee enlargement, that is not maintenance work, that is an improvement and improvements require permits. Their final environmental impact statement, again to me – and you know who I used to work for and my job for 20 years was to review environmental impact statements. An attorney would come in and drop the draft on my desk and say take it apart. That is what I did for them for their

clients and a lot of their clients had big “W’s” in front of their names – very important companies in the State of Washington that we built developments for and we also built all the Eagle Hardware Stores in the State of Washington. The one permit they kept away from me was the Mt Vernon permit because that permit got approved in like 12 days and they knew I would be opposed to putting all that fill in the floodplain and so I didn’t really find out about it until the construction took place. It says in the EIS that “in addition FEMA included as floodway areas lying within 300 feet of the landward toe of the levee”. That would be the area that they now want to put fill in – and again, I have nothing against them turning their levees into overtopping levees, I really don’t, that’s a sound and safe thing to do. But the regulations with the federal government say you can’t put fill in that area and yet they are anyway. This I find an interesting comment. Burlington recently conducted a study to determine the accumulative amount of fill from 1985 to the present. The documented rise across Burlington is point three seven one feet. (.371) You know I really looked, I spent a lot of time over the weekend going through all of their

documentation and I don't see that study anywhere in the EIS. I'm hoping you would require that as part of – before you would approve their permit so that it can receive public scrutiny, because it's one thing to make a statement and it's something else to have the engineering to back it up. They again make the same statement on page 38 where, based on the record, accumulative fill from 1985, Burlington, is well below the limit. And again I submit to you that if you raise the 100-year flood level on the levee are you not raising it accumulatively above the 100-year flood level and the answer has to be yes, why else would you raise it.

Finally I would like to submit to you – this is one of things that Mr. Shultz in his letter to you being so outraged regarding my comments that I submitted to you the last time. He doesn't mention this. In fact I submitted it to the City of Burlington and they don't mention it. I submitted it to Dike District 12 and they don't mention it. This is the result of an hydraulic analysis performed by NHC on how much the levees already impact the upstream property owners. It was entered into a court of law in Snohomish County under cause

#93-2-05201-2, so it is a matter of public record. NHC was paid approximately two hundred and fifty thousand dollars to conduct this. So if you follow the river down, Burlington in their EIS and the dike district commissioners want to continually blame the railroad bridge and something I have to add which was stated here earlier was that Burlington is using the January 12, 2012 NHC report. In that report on January, 2012 Dr. Latham (phonetic) did not know that the railroad bridge does not backup any water on anybody. It is the constriction of Dike 17 and Dike 12 just west of the freeway where the two come together, that is what is backing the water up as well as the current levee up there. And you can see as you go down the channel it has already been raised seven feet, eight feet. Where does that fit in to allowing them to raise it even more.

One other last thing that was stated about them using NHC's report of January 12th and this is before Dr. Latham realized that the water does not flow that goes out at Sterling, does not flow between Burlington Hill and Sterling Hill, it goes straight to Gage's Slough straight out to Bayview Ridge and from Bayview Ridge it splits to the Samish and Padilla Bay. Like the young man said from FEMA, I

would have put a floodway through there 20 years ago because that's where it belongs. So in reality, when you look at this, the water that is going out in Sterling and flooding the area north of Highway 20, the dike district is flooding their own people. If I was a resident along Highway 20 – and a lot of those people are inside Dike District 12, I would be suing the shorts off that dike district because I have been paying that dike district all these years for protection and they are the ones responsible for backing the water up into my house. So, with that, sir, thank you very much and I really applaud your decision to reopen the hearing so that people who have worked on this issue for over 30 or 40 years can come forward and testify. If you have any questions I would be happy to try to answer them.

HEARING EXAMINER: Maybe you could clarify what you just said because I kind of lost it if the water breaks through at Sterling and where it does.

MR. KUNZLER: The water that currently goes across Highway 20, as it did in 1990, after the dike district ran out and put up a bunch of sandbags on the railroad bridge to try and keep the water from flooding. It goes there but it's because the

water is being backed up by the levee system that these people are being flooded across this area here. They are flooding themselves, they are flooding the city of Burlington and yet they come up here and try and tell you with this smoke and mirrors approach that they are not harming anyone. The reason this is such a red flag and such a tender issue for me is because 40 years ago I sat in a room in the Skagit County Court House and had the Skagit County flood engineer say we're going to do this ourselves and we're going to provide a 25 year flood protection for everyone. Even as a Nookachamp resident that sounded okay to me, a 25 year flood protection, and I asked him how much more flood water would that put on the Nookachamp, Clearlake and Sterling Community and he said "oh maybe half an inch". And then they went ahead and we had the '90 and '95 floods and these people suffered 100-year event levels because FEMA never took the levees into consideration. So all that talk in the EIS is so much BS. They did not take the levees into consideration. So, sir, I'm trying to be as diplomatic as I can but this whole project is outrageous and how they try to present it is outrageous and that's why I made the comment that I did, that I was personally outraged at this because I don't know

how somebody sleeps at night who puts water in a 98-year old grandmother's house and thinks that's okay. Because that is exactly what happened on Francis Road where a lady who moved her house to a location along Francis Road – she moved it in 1911 from Clearlake, she moved it into the Nookachamps and she had to be rescued from her house through her kitchen window by the Clearlake Fire Department. Never had water in her house before. So all this work that Burlington had been doing before the '90 flood event, they had never seen a flood that big. I don't know, I can't treat people like that.

HEARING EXAMINER: Alright, thank you.

MR. KUNZLER: Thank you.

HEARING EXAMINER: What I'm going to do because I don't know how else to deal with this – what exhibit are we up to?

UNKNOWN SPEAKER: 34 was the last one.

HEARING EXAMINER: So I'm just going to include your packet as an exhibit, which will be exhibit 35, the Kunzler packet.

(Exhibit #35 Marked)

HEARING EXAMINER: Okay, who is next

then?

MR. RIDGEWAY: My name is Roger Ridgeway and I'm not really offering testimony so much as a request.

HEARING EXAMINER: Let me swear you in, in any event.

MR. RIDGEWAY: Sure.

ROGER RIDGEWAY

Having been sworn to tell the truth in this matter, testified on his oath, as follows:

MR. RIDGEWAY: So I have a much shorter presentation. I'm here to express my desire that there is some assurance that this dike improvement project makes provision for public access to the dike. As state law provides, except of course in times when there is a danger of a flood or the actuality of a flood. So it's important to us who are concerned about trails and public access for public benefit, that this dike and eventually others as well but specifically this dike at this point make provision for public access in some sort of a trail along the top of the dike.

HEARING EXAMINER: So what you are talking about is a pathway along the top of the dike?

MR. RIDGEWAY: Yes. Thank you.

HEARING EXAMINER: Thank you.

MR. ANDERSON: Hello, my name is Mike Anderson.

HEARING: Alright, I'll swear you in.

MIKE ANDERSON

Having been sworn to tell the truth in this matter, testified on his oath, as follows:

MR. ANDERSON: Okay, I'm going to wear two hats today and I'm first going to start off with the mayor's hat. As the mayor of Sedro-Woolley I'm concerned about any time you might slow up or back up water towards our community and we worked with Burlington and Mt. Vernon over the flood issues and we have spent our own money going back to Washington DC to try to work with our congressional delegation and work with Burlington and Mt. Vernon with the idea of working together and solving this problem. It's kind of ironic now though that I'm hearing it's kind of every city for itself. When I heard them talk about we don't have time to wait for the GI Study or to do it right and we're going to raise the dike, I'm thinking of the iceberg effect. Anytime you raise anything in water it's going to push water back somewhere else and that's east and that's towards our community and upriver and Clear Lake and so

I'm against that. I'm really concerned, we just had this bridge failure here on I-5 and we have had some ambulance issues because of the traffic and obviously there is no freeway, so we have been taking some of our ambulances to Bellingham. I have seen – and I have lived here 33 years, I have seen the Cook Road flooded and I have seen Highway 20 where the water crossed over and so I'm concerned about the safety issues. I was looking in the county's report and they were saying there really is no public safety concern in their report. Well, there is because obviously right now we're having that issue and we're just having a little more traffic on 9 and the freeway is out and there is the traffic on Riverside, so this is a big deal for our community. If more water is pushed back and Highway 9 is closed and then Cook Road could be closed and Highway 20 – and I want to work with our neighboring communities and we have but I think we should work for the final solution and it doesn't make sense – you know I heard comment that Mt. Vernon Dike District 3 raised theirs 4 feet and so now Dike District 12 in Burlington wants to raise theirs 4 feet and then in a few more years or 5 years someone else is going to want to

raise and it's just insanity to keep raising it when we should work for a solution to get the water out and then we don't back water up on everybody in the Nookachamps and Sedro-Woolley and Upriver.

Now going on my own personal issue. I own a piece of property just east of the dike 21241 Lafayette and I have owned it for 30 years now and it never flooded until about 1990 and then it flooded twice and in '95 it flooded twice. So my wife and I, we decided to raise it because we were tired of dealing with flooding inside and so we spent money out of our own pocket and we raised it. We went to the county and we went to FEMA and we hired a surveyor to get it at the right elevation and we did and we were one foot above the 100-year flood and we are right there at about District Line and Lafayette and the water would go over the railroad tracks but it couldn't get into our property because we were a foot above the railroad tracks and it would always cross over. Well then – and I don't know what year it was, 2003 or something, Dike District 12 came up and started sandbagging that pushing the water back on our house, our property and it didn't flood but I'm thinking why would we spend all that money to raise it and then have them push the water

back.

So I'm concerned that – you know they keep saying it's not a big deal where they are going to raise it but why are they going to raise it if it is not going to push water back. I mean obviously it's going to push water back and someone is going to suffer and I think we should work towards the final solution and not these Band-Aid approaches. There you go.

HEARING EXAMINER: Thank you.

MR. ANDERSON: Thank you.

HEARING EXAMINER: State your name.

MR. BERENTSON: My name is Dan Barentson.

DAN BERENTSON

Having been sworn to tell the truth in this matter, testified on his oath, as follows:

My name is Dan Barentson and I'm the natural resources division manager for Skagit County and I have been involved in working on the general investigation for approximately 11 years with a number of you. I would just like to make a few clarifications like I did last time. The first thing I would like to clarify is that during the course of the GI we have never, from the public

works perspective, we have never requested that a city or dike district wait on any plan they may have until the GI is completed. Now we're fairly confident that the GI is going to be completed in a timely fashion by 2015 and hopefully it will give us a comprehensive roadmap for flood protection for everyone and we do appreciate the support from the cities and dike districts in that effort.

What I would really like to add some clarity to is the hydrology issue. We heard today PIE's hydrology, NHC's hydrology and The Corps' hydrology. A few years ago in 2002 the county contracted with PIE to take a look at The Corps' hydrology and after a significant amount of work PIE's findings came in substantially lower than the Corps' hydrology. In 2005 the county discontinued work with PIE and hired NHC to take another look at hydrology since there was a substantial difference between PIE and The Corps. So we contracted NHC and the numbers they came up with fell somewhat in the middle. We have never adopted NHC's hydrology or PIE's hydrology but we have supported The Corp's hydrology for the general investigation.

So I guess I would just like to clarify that also NHC right now is contracted with The Corps

of Engineers to do the modeling for the three alternatives and they are using the Corps' hydrology. So I would just like to make that clarification because I'm hearing that all three are being utilized.

Another question I would like to ask is; for this project as you seek certification are you seeking certification to the pile level or I heard you say at a later date that if that is not the acceptable level that you will rebuild the levee to meet that standard, is that what I'm hearing? Just a question.

HEARING EXAMINER: Okay, thank you. State your name.

MR. HALVORSEN: Leonard Halvorsen.

HEARING EXAMINER: Let me swear you in, sir.

LEONARD HALVORSEN

Having been sworn to tell the truth in this matter, testified on his oath, as follows:

MR. HALVORSEN: Just a few words here to clarify some of the stuff that has been said and done. In 19 – well, something, Halvorsen verses Skagit County. Skagit County surveyed the first floor of my house at 39.8700 inches. A year or two later Chuck Bennett was asked in this same room what the dike district's elevation was and

he said 46 feet give or take. So the way I read this thing here now is that we're going to have about a 50 foot elevation on the dike or that's what they're asking for. Well if you add that to my floor level and I've got an 8 foot ceiling to get to the upstairs of my house and I sleep there, that puts a foot and a half of water in my bed is what they're asking for. I think that is a hair excessive. A lot of our infrastructure here I feel is in danger from this. United General Hospital, Life Care Center, Sedro-Woolley Treatment Plant and the School in Clear Lake are definitely in harm's way from raising this dike.

Thank you.

HEARING EXAMINER: Thank you. Okay, who else? Yes, what is your name, please?

MR. WAGONER: Yes sir, Keith Wagoner, Commander, United States Navy, retired, and City Councilman for Sedro-Woolley.

KEITH WAGONER

Having been sworn to tell the truth in this matter, testified on his oath, as follows:

MR. WAGONER: I'll try and keep this short. I took a lot of notes. First I want to tell you that I'm a graduate of the naval academy with a degree in physical oceanography and my masters is

from the University of San Diego, so I know something about fluid dynamics and fluid statics and I think I can speak with some credibility. Mr. Kunzler had a lot of data up here and I would kind of like to distill how I see that and I talked about this last time. The way the water in the river works when it's backed up by a dam or by a dike system which acts just like a dam is that it makes a wedge that goes back upstream. I know there have been arguments about hydrology reports and data but the last slide that Mr. Kunzler showed, this is a fact, this already happened. So we know what happened with the dikes at their state in 1990. This water backs up to my town, Sedro-Woolley, that's a fact. So there is no argument about what it might or might not do it has already done it.

Now Mr. Shultz asked us to not take emotional things into account here and just deal with the facts and I agree with that. But then afterwards he went on to dismiss some of the actual documented events as biblical to give you the idea, well, that will never happen. But I want to tell you that a 100-year flood doesn't mean you are going to get one of those in 100 years, you might get three of them in the next three years or you might not get

one for five hundred years, we really don't know. They're talking about raising the dikes, whatever, three, four feet as if that is just a wall above the water that is not going to have any effect – freeboard they're calling it, as if it has no effect. At the same time the dike district commissioner mentioned that she has an eight percent error rate and they talk about overtopping. That tells me there is a possibility even in Burlington's mind that all of that freeboard might be used up. If this is the result of the 1990 dikes then clearly it's going to be worse if it's raised another 4 or 5 feet.

Now if I were Burlington and Burlington was operating in a vacuum, in isolation, I think this is a great plan, well thought out and it will protect at least the people downstream of the dikes and we have seen that it causes some havoc upstream. So I don't really blame them for that but human beings in organizations tend to act in their own best interests and in common language we call that selfishness. We all know that selfishness is not the best way for communities to work together and that's why this is a county issue and that's why we're sitting here in front of you to help solve this.

I thought about what a Sedro-Woolley solution might look like hypothetically. If we decided in Sedro-Woolley that we ought to dig a big ditch below our town and dump the water outside of the city limits say over by Cook Road somewhere, that would solve the problem for us but it's not a very good solution for anybody else. And that's why I think Burlington sort of has the cart ahead of the horse. I think that their dike improvement or dike maintenance might be part of the total solution. I think we should wait for the GIS and see where it fits in, in a coordinated flood prevention plan so it helps all of the cities at once. Because right now it's like if you and I had a wash bucket between us filled to the top with water and we needed to move it somewhere, neither one of us wants to get wet. Well, if we're careful and we work together we can do that but if I get the bright idea, hey, I will not get wet if I just lift my end of it up, that is not going to make you very happy and that is what I feel Burlington is trying to do to us right now on this go-it-alone solution. The proponents act like all this dike does is protect Burlington and downstream and they don't want to talk about what happens upstream. That's because this is a

fact that has already happened as Mr. Kunzler talked about. It is going to exacerbate that situation and we have some pretty high-value assets up there.

I think the county missed a couple of things and Mike Anderson already alluded to it but I'll hit it again; Item G and Item H on the documents signed by Senior Planner Marg Fleek and John addressed it earlier. If you look at those items it says: "The proposed use is not in conflict with the health and safety of the community". Mike has already talked about what can happen to our ambulance system, we've got United General up there. We also have our water treatment plant that the commissioner alluded to earlier, the dike commissioner. Item H says: "Will not adversely affect public services or the surrounding areas or conditions can be established to mitigate those impacts". I don't think that has been demonstrated and based on those two items alone I think you should rule against this project.

Thank you, sir.

HEARING EXAMINER: Thank you.

MR. SHULTZ: Mr. Examiner I would like to comment on something this commenter said.

HEARING EXAMINER: Well, you will have your chance but we have to let other people comment. Is there any other person who wishes to speak?

MR. SHEAHAN: Thomas J. Sheahan

THOMAS SHEAHAN

Having been sworn to tell the truth in this matter, testified on his oath, as follows:

MR. SHEAHAN: First of all I want to clarify that I am a native of Skagit County and I have lived here my entire life along with my 13 brothers and sisters. I went to work for Skagit County in 1969 in the engineering department, which I spent 17 years in engineering and a great deal of time working on flood projects. I was there for a total of 42 years. One of the first projects I was called out on in engineering was Cook Road in 1969. We started that project and we were going to rebuild Cook Road. With great deal of frustration after about a year in engineering it was tabled because certain people didn't want to sell their right-of-way. I'll come back to that but that project was built in 2000. In 1983 I became the director of the department of emergency management, fire marshal's office, Homeland Security and I was a major player in the development of 911. As the director of the department

of emergency management I don't want to give you a portrait that I just say in my office and pushed paper, because when there was a disaster I didn't and that was probably one of my downfalls when it came to the elected officials. In the engineering part, in the early part of my career the West Side Bridge in Mt. Vernon, coming north from there on the opposite side of Mt. Vernon we built a levee and what we would do in the summertime is we would go out and do the engineering, surveying etcetera, and accumulate all the information it would take to build the dike in wintertime. In the summertime we would go out and build the project. I was the inspector on that project and as Ms. Ellestad said, her father was on that project as well. We took the dike down to ground level and we graded all the river from the edge of the water back to the dike and dug down into the dike and made a core of about eight to ten feet wide and filled it up with clay, rebuilt that, because behind that levee the water was perking through and popping up the road and a lot more water was going on the outside of the dike than there was on the inside of the dike and so we rebuilt that project. It's a relatively stable dike at this time in its life compared to some others. In my career

also we have the emergency operations center and you may have heard that term, it's the EOC and in that emergency operation's center, when there is a disaster such as the bridge falling down, all the players who are an important part of the players come together and determine what shots should be called. And in that emergency operation's center there are mayors, appointed officials, other city officials and the dike districts have a representative there and they respond to the different emergencies. The three major players in that who will call the shots is the sheriff, the public works director, and the director of the department of emergency management. In a disaster, before, during and after a disaster, those are the three parts. Before you have plans and the plan is how are you going to function during the disaster and one is the operation of that emergency operation's center. The next is during the disaster you have the warning system, which is how are you going to let the people know that there is a flood that is eminent. And then after the disaster is a lot of the mitigation stuff and one example of that is Sedro-Woolley during one of the major floods their sewer outfall was broke and we can blame dike districts for building dikes but

I kind of think it's mother nature's fault for letting it rain so hard. Nevertheless we are the avenue for the federal money coming to our office and giving it back to the communities. An example of that is the flood of 1990. There was fifty-four million dollars distributed to the cities, the county and the dike districts.

There is a flood warning that is put out at 28 feet and that is the 28 feet in concrete. Well, 28 feet in concrete is one thing but 28 feet down in Burlington and Mt. Vernon it's not a big deal but I'm here to tell you that 28 feet in Concrete is because that means the people in Marblemount and Rockport and Darrington and Sauk Suiattle were already being flooded and I would take my vehicle and I would drive up there and try to determine how much water was really coming because that's just showing what is in the river. The tributaries below this point are really important, how much water is coming down those tributaries and how much of a flood are we really going to have. And the other thing I would do is right below the gage is a community called Cape Horn. Cape Horn to me is probably one of the scariest parts on the Skagit River. There are hundreds of people who live in this development and what happens

when it floods is the water runs across the back of Cape Horn and it cuts these people off. You go in and ask them to evacuate and most of the time we have seen it and we have experienced it and it's going to be okay and I'm here to tell you that many times they said it was okay and it wasn't okay. We've had army rescue trucks up there. We have had search and rescue boats in there in the middle of the night pulling people out because they didn't leave,

Anyway, 28-foot is the flood fight and in my opinion 38 feet is about where it starts overtopping on the dikes down here and keeping those numbers in perspective a little bit. In 1975 there was a flood that impacted and there was a statement in the last hearing about United General being flooded and that is United General Hospital, which is out towards Sedro-Woolley. It did flood, the water did flow back into the basement and they did have their generator in the basement and they did lose their emergency generator but we were able to get a generator in the parking lot and allow that to run and that was with the existing dike system that we have now. It's just that the water coming down the river is more water than the capacity of the two dikes, the dike on the left and the dike on the right. It runs around

the end of the dike just up above Burlington and we've talked about Highway 20 and the mayor has talked about he raised his property and the gentleman sitting right beside him, I stood on his front porch when it was flooding and talked about – because his garage was about to be flooded. But this is outside the existing dike and, Mr. Halvorsen, I drove back to his property during a flood and we asked to evacuate him and his family. I drove back there and the water was up to the headlights on my vehicle to get them to come out. His family came out, he stayed.

The 28-foot warning is just exactly what it is. That is to let people know there is going to be a flood. 32 feet to 34 feet you start talking about evacuation and 38 you should be gone, I'm telling you, you should be gone. The flood water naturally backs up into the Nookachamps. You heard a little bit of talk about the Nookachamps. One of the things I would do, I would go out in my vehicle and I would drive out into the Nookachamps and you can actually see the water pushing back through the Nookachamps and it goes around the back of the hills and then comes back around into Clear Lake and then into Mud Lake and it's just a natural push-back because of the levees. I'm sorry but the levees on both sides, that's a natural thing and they're

complaining that they get more water than they have ever had. Well, the fact is we're getting more rain than what we've ever had. It's a natural thing.

The present levee system that we have is a very false sense of security for the people and here is what I believe the people think. The people of Skagit County could care less if it's going to flood, they aren't thinking about it, they're thinking about their families and they're thinking about their jobs and they're thinking about church and they're thinking about birthdays and they're thinking about soccer. They don't care because they expect the people in this room to take care of them if there is a flood and that means levees.

In 1980 or so the population was probably about 65,000 and when I first started my job it was 50,000 people. I think it's up to about 120,000 or 130,000 people and I'm telling you that the people in the 130,000 – everything above those 50,000 people, they are not really familiar with flooding. They have no idea what that Skagit River can do to them and I think it's our responsibility to do something.

The water that backs up and runs through Highway 20, is Dike District 12 responsible? No. The water that is coming down Highway 20 is more capacity than

can go through the two levees. It has got to go around and that is exactly what it is doing. You talked about it going out to the Bayview Area or it goes out to the Samish Area – I live at the Samish and I'm here to tell you it does go out there and there is no place for it to go out. I get flooded but I expect that. But that is a natural thing for it right now, it runs down Highway 20. I'm not here to testify on behalf of Dike District 12 or anybody who is against it I'm here to say that something needs to be done and I believe that the proposal is an approach to start the process. How many years are you going to study it?

The Cook Road Project, you heard me mention that when I first started. For 39 years we dealt with Cook Road as a two-lane road and I can't tell you how many fatality accidents that I went to on Cook Road and it never happened until 2000 that they rebuilt that road. There was no reason for it. The only reason there was, the politicians got enough pressure from the people that they did not want it. They didn't want people to buy their right-of-way. They wanted to keep their lawns clear out to the edge of the road. The only accidents we have on Cook Road right now is the backup from the railroad tracks,

Cook Road, Old Highway 99. Those are rear-end collisions. Before we used to have t-boned accidents, head-on collisions, what we call grinders, all kinds of accidents. I think that if these parties will come together and this is allowed I think this is a beginning point for Skagit County to develop a diking system that they will be proud of and I think they all need to be in concert on that.

With that, I don't have anything more to say, thank you very much.

HEARING EXAMINER: Thank you. Are there other people who want to be heard today? Any further public testimony? Well as I mentioned at the outset – it's about noon but I don't see any reason why we can't just finish up and eat lunch late. I will let the applicant respond and I hope briefly to what they've heard and let the county make any response or remarks it might want to make. So we will do that now, who wants to talk first? I see a hand raised, Mt. Shultz.

MR. SHULTZ: Can I do that from here?

HEARING EXAMINER: You can do it from there.

(Applicant's Rebuttal)

MR. SHULTZ: My comment will be fifteen

seconds. I do have to object a little bit to Mr. Keith Wagoner, Mr. Wagoner's I think unfair characterization of my testimony saying that I just dismissed factual evidence when I was talking about the engineering. If he was listening I did not dismiss out-of-hand, quote "the biblical proportions" found by the Army Corps. What I did was I explained the three positions you were interested in, why we had three different hydrology's. I explained that the Corps hydrology was very high because of those floods. The PIE hydrology after several years and millions of dollars, even when they were the county's engineers determined that those numbers were probably not correct and NHC came in the middle. So any implication that I was dismissing the facts I think is inaccurate and a little unfair given the caliber of the education of that witness I think.

HEARING EXAMINER: Alright, Mr. Semrau.

MR. SEMRAU: Yes, I'm going to submit to you for the record a copy of the 1984 flood insurance study for the City of Burlington. Mr. Kunzler showed you several documents that were prior to that flood insurance study. The flood insurance study is kind of the starting point for the

professionals. You know, as a professional engineer I don't – there are certain points in our regulatory stream of how we regulate things from a city, county and federal standpoint but I have to accept as an engineer – and most of those documents he submitted to you have no bearing on where we are at today and what is required by the county and the cities and by FEMA and the Corps in regulating that. The questions in regards to the floodway, we have answered those questions. We have answered the questions as to where the special flood risk areas are. They are mapped on the FIRM, the Flood Insurance Rate Map which, unfortunately, I don't have a copy to give you but we heard testimony from some people off of Lafayette Road that have made revisions to their house and things and yet we have heard testimony from Mr. Kunzler that we shouldn't be allowed to place fill in the same area. That area is not in the floodway. And it's not even within 200 feet of the river. It's not within Shoreline's jurisdiction of the Skagit River but it is within Shoreline's jurisdiction of Gage's Slough but I will submit this flood insurance study. We have defined the floodway and the floodway is basically riverward of the levee. We are allowed to make

improvements to the levee. We make those improvements according to the Corps' requirements. We make those improvements when the Corps tells us to make those improvements but we're covered through the WAC 173-27-040 our Shorelines Substantial Development Permit Process in the RCW 90-58-030. We have got these definitions and we work within those. So here is the flood insurance study, July 3rd, 1984.

HEARING EXAMINER: Alright, we will call this exhibit 36.

(Exhibit #36 Marked)

MR. SEMRAU: There was a question in regard to what hydrology we will use when we certify and the only hydrology that will be accepted when certification occurs is the Corps. Certification will be to the 100-year Corps hydrology. When a levee is certified it is basically certified or – when it's accredited they take the level of the levee and they remove the freeboard from it. If the levee is accredited they take the level of it and remove the freeboard and then they stick that into the computer model to determine the flood insurance rate maps. So whatever level it is at when the certification and accreditation occur, that is what level it will be at in the modeling of the river

flows, where the flood flows will occur from that. The exhibits that I showed you from the EIS showing where the floodwaters go, there are still floodwaters going through Burlington and down Gage's Slough even with these levee improvements and that is because we don't have the tieback yet. There are modeling scenarios in the EIS of the tieback but those are not being proposed at this time.

And then, just a quick comment on the 1990 flood map. The flood maps that I showed as well as the FIRM, the Flood Insurance Rate Map, they show a whole lot of other areas that are going to be flooded at the 100-year flood event. Those are the maps people need to be looking at. I'm a certified LOMA administrator. I do a lot of flood works, elevation certificates. When I do an eLOMA, I'm actually am preparing the LOMA, the Letter Of Map Amendment for FEMA and I get that immediately. I do a lot of flood map work as a consultant and, unfortunately there is a lot of people in this county who are in denial that they are in the floodplain. People argue with me every day that, you know, they have never flooded and they are never going to flood. And, you know those flood maps, there are portions of Sedro-Woolley that are going to flood in a 100-year flood event and

it's not going to be because of this levee system and as I showed in those exhibits on page 48 and 49, they are well upstream of the one/tenth (1/10) of a foot impact and those areas are going to flood in those larger events unless something else is done in those areas. But the whole concept behind the flood insurance, the FIRM, is flood damage reduction. FEMA would like to change that to flood damage elimination and, you know, we just don't have the means to provide flood protection for that level in most parts of the country and just because someone is built to one foot above the base elevation doesn't mean that they are not going to get wet during a flood event and one of the reasons why – well it's probably not important and that's all I will address.

HEARING EXAMINER: Alright, thank you very much. Do we have some other remarks?

MS ELLESTAD: Yes.

HEARING EXAMINER: You are still under oath.

MS ELLESTAD: Okay. Just a couple of points. One, Mr. Kunzler was using some older documents and then he did point out that topographic information wasn't available and in those early FEMA Maps

they used a five foot contour. We now have contours to I guess basically to one hundredth (1/100) of a foot but more common we would use like a tenth of a foot. These topographic maps have been provided by the cities and the county, so it's state of the art digital topography that modeling is conducted on which is a great improvement to what was available in the past. Another comment was that FEMA did use a split flow and they no longer use that method, they haven't used that method for years. Again, they used a photo-D (phonetic) Model and they use the current, more accurate digital topography.

The statement was made that the water doesn't flow out to the Samish but it flows through Gage's Slough. You can look at county tax records – and I have kind of a poor map that I could share and I say poor map because it was generated for another purpose and only includes parcels in the dike district but it shows the Joe Leary drainage that is District 14 that runs out towards the Samish and runs along the north side – I'll give you this for lack of something better.

HEARING EXAMINER: If we put it on the thing here will that show up? Now you can point out what you are talking about.

MS ELLESTAD. So I just wanted to point out that this blue the Joe Leary Slough's

assessment area that is in the dike district. It goes beyond this and runs up, to capture up above United General Hospital and the reason that drainage areas starts up there is because the flow does go out Joe Leary and out towards Padilla Bay and into the Samish Watershed along Gage's Slough and runs down through Burlington City proper. The other thing that this map shows is that a lot of these areas aren't in Dike 12 but that the benefit area for this project, the yellow, you see the yellow and here is Dike 1 and here is La Conner and should there be a breach the water would run through the path of least resistance but currently, because the levee system stops here the flow there is predicted to be 52,000 cfs. In reference to the conditions at railroad bridge, part of the uncertainty that I spoke to, the eight percent, is because of the debris load on that railroad bridge which really does have an impact on how much water gets backed up. Some of the hydraulic modeling shows up to a four foot difference in the water surface elevations with a low debris flow verses a high debris and for the folks that were around in '95, it became a 100% debris blockage that backed up and I'm sure Tom was probably an eye witness to a lot of that event

and those are conditions that you can research, you can bring in every expert that you want. There are people who work for the county and maintained the bridges, people from DNR who do timber assessment but you have to have a degree of uncertainty in your modeling because there are just too many conditions that you can't put an exact number on and I know that has been some of the delay and some of the technical work coming in on the GI is getting everyone to agree on how you can model and assess what damage has happened where because of the debris uncertainty.

The other one is the comment about Sedro-Woolley and folks not doing things to protect themselves verses Burlington and years ago Brickyard was rerouted because it was flooding Sedro-Woolley and a ditch was dug around and had it enter the Skagit below Sedro-Woolley. So people who have the wherewithal and have localized flooding experience, communities do work to try to improve their localized flooding. One of the other hats I wore is that years ago I was a member of a county advisory committee and I chaired the frequently flooded areas committee as part of the environmental element of the Growth Management Act – and that is one of the precursors of the drainage utility so that

there was a way to help these localized flooding things that happened and you are going to have large projects and you are going to have smaller projects to address some of these areas that – and the devil is in the details but that need to be dealt with on more of a localized impact.

HEARING EXAMINER: Do you want to submit this?

MS ELLESTAD: You know I think I can because I spoke about it but because it doesn't show the blue extending up –

HEARING EXAMINER: For what it does show, that's fine.

MS ELLESTAD: Okay, I'm fine –

HEARING EXAMINER: It's illustrative but you don't have to make it an exhibit unless you want to.

MS ELLESTAD: I guess I would ask my attorney would you like me to submit this or –

MR SHULTZ: Yeah, that would be a good idea or if you can get a better copy.

MS. ELLESTAD: I could ask maybe the county to provide a map of Drainage District 14.

HEARING EXAMINER: This would be exhibit 37.

MR. SHULTZ: You testified to it so let’s go ahead and have it marked if that’s okay with the hearing examiner.

HEARING EXAMINER: Sure. What I want you to tell me is what it is.

MS ELLESTAD: This shows the parcels that are assessed and that contribute to Dike 12 and it shows the overlap with the drainage districts in the county and so while these in the white up here are still blue, they are still in the drainage district but they aren’t in the dike district and so since the primary mapping was the dike district it didn’t show all these other districts in its entirety.

HEARING EXAMINER: And what is the source of this?

MS ELLESTAD: The source of this is from the county GIS department.

HEARING EXAMINER: Okay, dike drainage assessment is what it says.

MS ELLESTAD: Right it’s just to show basically an overlap and it shows the drainage utilities prepared for a taxation assessment purpose and not to try to show the boundaries and if you want to make a note to have us provide you with a map that shows the drainage area in its entirety I

would be more than happy to work with Kara.

HEARING EXAMINER: Well I think we're going to have to close our record after this hearing, so thank you.

MS ELLESTAD: Alright.

HEARING EXAMINER: Alright, this will be exhibit 37.

(Exhibit 37 Marked)

(Applicant Rebuttal Concluded)

HEARING EXAMINER: Okay, I think we have reached the end of the road here at least as far as this hearing is concerned. Does the county have anything else they want to add?

MR. COOPER: I think a lot has been said today, enough to digest.

HEARING EXAMINER: Well, thank you all for your patience. I have had a fair amount of time to look at the material I have already received so I don't anticipate it will take very much longer for me to get a decision, so thank you very much.

(HEARING ADJOURNED 12:15 PM)

STATE OF WASHINGTON

COUNTY OF SKAGIT **C-E-R-T-I-F-I-C-A-T-E**

I, **ALLEN R. EMERSON,** a Notary Public and licensed court reporter in and for the State of Washington, do hereby certify:

That the verbatim record of proceedings held in the matter of a Shoreline Substantial Development Permit was transcribed by me from an official CD produced under the direction of a Skagit County Official and reduced to typewritten form under my direction;

I further certify that I am not a relative or attorney or counsel of any of the parties to said action or a relative or employee of such attorney or counsel and that I am not financially interested in the said action or the outcome thereof;

I further certify that the verbatim record of this Hearing, as transcribed, is a full, true and correct transcript of the testimony including questions and answers taken at the time of this Hearing regarding the application for a Shoreline Substantial Development Permit as heard on June 12th, 2013;

I further certify that the original transcript of this verbatim record of proceedings will be filed with the City of Sedro Woolley.

ALLEN R. EMERSON & ASSOCIATES
Phone: 360.856.2618; Cell: 360.421.1867

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal this _____day of_____, 2014.

_____

ALLEN R. EMERSON--NOTARY PUBLIC in and for the State of Washington, residing in Sedro Woolley. My Commission expires: June 27, 2016.