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UNOFFICIAL TRANSCRIPT OF JUNE 12, 2013 PUBLIC HEARING BEFORE THE SKAGIT COUNTY EXAMINER, RE: SHORELINE SUBSTANTIAL DEVELOPMENT PERMIT PL12-0144.

SKAGIT COUNTY HEARING EXAMINER WICK DUFFORD (HE): Good morning, my name's Wick Dufford and I'm the Hearing Examiner for the county. We're here today to hear our regular land use agenda and what we have on the agenda is two items. One is an application for a special use permit by the Conway School District, and the other is to continue a hearing that was begun in late April on the application of Skagit County Dike and Drainage and Irrigation District Number 12 for improvements to the Skagit River dike that is just beyond the Burlington city limits upriver. So first of all, we'll do the Conway School District matter because I think that will be pretty quick and then we'll take up the second one.

So, um, just by way of introduction this will apply to both of the hearings. What we do is we have the staff summarize their analysis of the application and what they have to say is largely shown in a staff report of which I think there are copies in the back of the room. Once we've heard from the staff, we'll ask the applicant – in the first case, it'll be the school district to uh, give their, uh, pitch on what they're applying for and to tell us what they think about what the staff had to say. Then we'll hear any members of the public that want to testify about these requests. At the end of that, we'll let the applicant and the staff respond to any public comments that they want to respond to and then we'll close the hearing. We'll take the record then with all of the exhibits that are a part of that record and then I will make a written decision which will be within about two weeks of the hearing.

Now in, starting with the uh, Conway School District matter I have the staff report and it has listed ten exhibits. So, and those are all matters from the uh, the city's, excuse me the county's official file so they're, they're, materials that were used by the staff in reaching the decision that they came to. Those will be all included in the record and given exhibit numbers as shown on the staff report. Then if anyone has any additional information they want to include in the record, when they get an opportunity to speak they should bring that material to my attention and we'll deal with getting it into the record at that time.

These cases are decided by the Hearing Examiner and then are appealable to the County Commissioners. But the appeals to the Commissioners are on the record made here. So it's important that we have a good record for them to review in case they have to and, uh all they're really doing when they hear an appeal is deciding whether the things that were done here were done right. That is to say whether the correct decision was reached on the evidence given but you don't get to put a new case on these appeals. The evidence is already in, it's just an argument over what the result was. So that's the way it works, after that then things go on to the court system if indeed they go any further. So, we'll start with the Conway School District matter and then take up the Dike District 2nd.

[ABRIDGED FROM 0:04:43 TO 0:21:30]

HE: Call the hearing to order. On April 24th, we had a hearing about the application of Dike, Drainage and Irrigation District Number 12 to, uh, 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 just 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. So we decided

to continue the hearing and take another crack at making sure that we have a good record and, um, 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 that we can recapture that fairly clearly but in case anybody wants to say it again and make sure that they get a verbatim transcript then this is an opportunity to do that.

In between, at the end of the hearing I left the record open for a week for additional comments because there was some suggestion there was some problem with notice of the hearing and people felt they needed more time. Just in order to deal with that, as a, I am going to include as a, we are up to exhibit 30 I think aren't we?

HE AIDE: 29, 29 is the last.

HE: So the next one would be 30. Uh, what I'm going to do is mark the notice of the April 24th hearing and the, uh, that was published in the paper as well as the notice that was sent out to people as Exhibit 30 so that will be in the record that those notices were in fact made. Then for today's hearing I'm going to do the same thing as Exhibit 31 – Notice of Continued Hearing June 12th, both the published version and the mailed & posted version. So, uh, those two additional items will be in the record and we're up to Exhibit 31 now.

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 Schultz; the Corps of Engineers sent a letter on the 1st of June; another letter from, another two letters from John Schultz; and finally a communication from Chal Martin, the City of Burlington. So we have all those items and they are now part of our record. We will expand

our record by whatever happens here today. I'm going to ask the County to sort of recapitulate what they did last time and so speaking for the County we have...

[0:25:36]

John Cooper [JC]: John Cooper.

HE: Alright Mr. Cooper, do you swear and affirm that the testimony you'll give you'll tell the truth, the whole truth and nothing but the truth, so Help you?

JC: I do.

HE: Okay, why don't you go back over your staff findings?

JC: Okay, I'll just be brief. This is a continuance for the hearing for the Shoreline Substantial Development Application PL12-0191. This is for Skagit County Dike, Drainage and Irrigation District Number 12. The area is subject to the proposed shoreline stabilization and flood protection improvements. It's located along the right, which is the north and west, bank of the Skagit River extending from Lafayette Road in the north to Gardner Road in the south, which is east of Burlington. The project is an eastern extension of the levee maintenance project initiated by the City of Burlington and the Skagit County Dike, Drainage and Irrigation District Number 12. It's intended to increase flood protections for the City of Burlington. Skagit County Dike and Drainage District Number 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 at the top of the levee will be increased by approximately 4 feet and the toe or base of the levee will be increased by approximately 60 feet. The widening of the dike will be limited to an area landward of the existing levee toe. The purpose of the improvement is provide structural reinforcement of the levee system

to prevent failure during elevated flood events and to obtain, see, levee certification from the United States Army Corps of Engineers. The subject property is designated as agricultural, natural resource lands as indicated in Comprehensive Plan Zoning Maps as adopted December 23rd, 2008. The subject site has a shoreline designation of rural as indicated in the current shoreline county or Skagit County Shoreline Management Master Program. You'll note the 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 13, 2009 for the dike stabilization project. The Final EIS or Final 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. Based on that information we went ahead and recommended approval of the, this shoreline management or shoreline substantial development permit with the inclusion of seven conditions which are included in the staff report. That concludes this summary. I can try to answer any additional questions that may have resulted.

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

JC: Right.

HE: Then there's something called PIE.

JC: Yes.

HE: Now as I understand it, the PIE, uh, hydrology is basically the basis for the City's application here. Is that right?

JC: They've used a lot of the Pacific International's hydraulic information. They also provide the Army Corps of Engineers model um, or flood evaluation, use their numbers for evaluation of the impacts that may result in the surrounding area from the, uh, increase in height of the dike.

[0:30:15]

HE: I know they've done that analysis as well.

JC: Okay.

HE: The one that isn't explained is the nhc which is kind of the middle range of numbers. Who did that and why?

JC: Let's see, that was Northwest Hydrologic Consultants I believe. I think this was, uh, I don't know a lot about that, I really don't but I believe that there were three, um, the City of Burlington had Pacific International do their modeling to figure out the maximum flood could be. The Corps provided theirs, which was the upper end, the higher volume, and then I think there was, a, the third, the consultant was, uh, they took all the information and tried to figure out what the flow would be and they came in the middle range for the maximum flow in a 100 year flood that came in the middle range. So.

HE: I just didn't know kind of what to do with that piece of information.

JC: Okay. (Chuckling)

HE: I may be, somebody can explain it, maybe it doesn't matter.

JC: I guess I thought it might have...

HE: I thought it might have been done for the GI work.

JC: I think it was done for the GI work.

HE: What the deal was, we'll find out.

Uh, okay, uh, in just a couple of questions of you and then I'll leave you alone. On the noticing of things at this time, uh, there is a notice that is published in the paper and there is a notice that is mailed to people in the area as well as posted?

JC: Yes.

HE: And, uh, who does that? How can I be sure that sort of activities really happened?

JC: Um, the list of people that were included in the mailings was provided with the application. I sent out those mailings.

HE: So you do that?

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

HE: Okay, so you can testify those things were done with respect to the April 24th hearing?

JC: Yes. Yes, absolutely.

HE: You are testifying?

JC: I am testifying, yes.

HE: And also with respect to today's hearing?

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

HE: Alright then, let's hear from the applicant then, whatever it is they may want to add to what they've already said or repeat.

[0:32:59]

John Schultz [SCHULTZ]: Mr. Hearing Examiner, could I go up there or…

HE: I think you're fine where you are Mr. Schultz.

SCHULTZ: Okay, thank you.

HE: Identify yourself for the record if you will.

SCHULTZ: Yes, my name is John Schultz, I'm an attorney in Burlington. My address is 160 Cascade Place in Burlington, Washington. I've been an attorney for the Dike District 12 and other dike districts for many years.

HE: Okay assuming that you are testifying I'm going to swear you in.

SCHULTZ: Yes.

HE: You swear the testimony you give you'll tell the truth, the whole truth and nothing but the truth so Help you?

SCHULTZ: I do.

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, um, that after myself and Mr. Semrau discuss this we've filled all those gaps in the record. So what I wanted to do is just summarize what I've seen so far and I will try to be brief.

I notice the process is a little different than court. In a court process people testify or submit documents, they're ruled on at the time. They're either objected to or accepted or excluded. It seems to be a little different process here where, um, I think we're in a search for the truth here but it seems like in many of these hearings 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 about some of one commentator we have some disagreements regarding what was factual and what was emotional. So I'm hoping that my letter of April…

HE: So these letters that we, that I'm noting, that have been submitted, refer to things like that?

[0:34:59]

SCHULTZ: Yes. So I just wanted to recap that. I don't think I need to remind the Hearing Examiner but, you know, this should be determined on, the permit should be determined on the facts of the case. I look at this and I see just a huge amount of facts that militate in favor of submitting and approving this permit. I'll go through a couple of these things that are self-evident because the county's discussed these and these are part of the record.

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 in written comments have already been addressed in the EIS including some of the commentator's 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 I of the project where there's been some widening. Thus far there hasn't been any raising of the height of the levee and I wanted to make sure that the Hearing Examiner knew about the concept of freeboard. There's 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's going to go out and raise the levee 4 feet. It means that some areas would not be raised because they're already at the submission height, other areas would be filled in, other areas would be raised possibly 3 feet. So, the heightening of the levee, the height of the levee would increase later and the EIS looked at this and said there would be some minor impacts to folks downriver but not a great deal of impact. We have wetlands assessments that have been approved – they're in the record, we have fish and wildlife

assessment and in the record by Graham Bunting, we have – there was some reference that the Dike District is working without a permit. I think Mr. Semrau testified that as far as the number of permits and the date of issuance and the whole thing – all the permits that we needed were applied for and the fill & grade permits were all appropriate.

I wanted to, just briefly, look at oversight here. This project has had just unbelievable oversight since early 2000s when it was proposed. We have PI Engineering doing 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. You see the graph of these four floods stand out like this – everything else is pretty much consistent? PIE Engineering did probably 4, 3 or 4 years of work on this, spent many – a couple of million dollars and they found that these historic floods weren't necessarily accurate so they lowered those a little bit. By the evidence that we've seen in various studies, uh, there was a prior geologist who walked the site many years ago and so the PIE lowered those amounts a little bit. nhc – and you heard Mr. Cooper refer to this – nhc was hired by the county, they're the county's engineer and they took a second look at this so we have the Corps up here, 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 not too hot, not too cold, but just right like Goldilocks. The Dike District is okay with that, we've incorporated that in our work so we looked at all these issues and there have been many millions of dollars spent on nhc, and on PIE to get the engineering right and we're pretty close to getting it right. As right as anybody else has gotten it the last 20 years.

We also had oversight with Golder and Associates, Riechert and Ebey Engineers were on this.

US Army Corps of Engineers has been a partner with us for many years and you heard at the last hearing that Doug Weber – he's one of the officials from Seattle District Army Corps of Engineers, he came and testified, 'Yeah, this is good project.'

[0:39:53]

We've talked about the GI Study, that's somewhat of a red herring because the GI Study's been in process for 17 years, they have not yet identified a project, they're starting to cut down the time period to 3 years now. So we're working with them but there's no guarantee the GI Study will be completed or when or if it is completed there will there be funding or if there is funding that dike districts will or any dike district in the county will reach cost-benefit ratio accepted, acceptable to getting funding from the Corps. In the meantime, Dike 12 has been working on this project diligently with Burlington to get levee certification. Once we get levee certification that's going to affect the FEMA flood rating for the entire valley. It will, uh, 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, um, we've had other people testify here, we've had let's say Doug Weber from the Corps, Tom Sheehan – he goes way back he knows a lot about flooding, Margaret Fleek testified, Chal Martin's been involved – he was employed with the County, he worked on these issues for many years and then he went to Burlington and he's worked on the certification. So they're a lot of people in

favor; I think those opposed may have, um, 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've looked at all this, the evidence is submitted, it's consistent with all the regulations and this permit should be issued'. If it's not issued that stymies Dike 12 because we can't complete projects now, we can't work for levee improvement, urban levee protection, the next several years, uh and so what if, what if at the end of the day the GI Study's not approved and we're stopped from doing 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 they'll be more certainty about [the] river, the hydrology, and the certification of levees. FEMA would be happy because we're doing what we need to do to certify our levees.

So with all that I know I repeat myself but I would urge the Commissioner, er, the Hearing Examiner to approve the permit and there are conditions to the permit. They're fine with Dike 12. We've already complied with most of those anyway but we certainly would work with the county to comply with anything they're required to help us get this job done.

HE: Thank you. Mr. Semrau?

Alright, state your name.

[0:43:35]

JOHN SEMRAU [SEMRAU]: John Semrau.

HE: Right. Do you swear and affirm the testimony you give in this hearing is the truth, the whole truth and nothing but the truth so Help you?

SEMRAU: I do. I had a fairly lengthy presentation the last time, um, I have updated it in written form and will submit this at the end but I want to make sure that some of these things, uh, are brought into the record to this recording also. Uh, so, I did mention the last time that I've been working on this project since, uh, about 1997. I've been a consultant for Dike District 12 throughout this process. Um, this portion of the plan, uh, that we're dealing with this permit is found on pages 68 through 76 of the EIS. " This project, uh, 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. That portion is permitted under shoreline substantial development permit SMA 1 dash 12 through the City of Burlington. This hearing was permitted on June, or heard on June 20th, 2012 and the appeal period ended in July 2012. I previously submitted a copy of the, uh, of the minutes from that hearing and that's Exhibit 18 in the record.

[0:45:16]

I also showed you this vicinity map which is Figure 2 in the Golder Report and then the red here is the area in question on this shoreline substantial development permit. This area right here, this is the portion that's already been permitted to 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 of both width and height of the existing levee in place for the 1.53 mile portion within Skagit County. Project extends from the Burlington City Limits at Gardner Road north to the terminus south of the Burlington Northern Sante 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 and 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, these are the areas, this is the area that's being worked on and you'll see in the red, the pink, and the green these are the type of cross-sections in the work that will occur along this portion of the levee.

Then I, uh, I'm just skipping through because you can read what I submit to you. I also, uh, 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. I want to make sure that we're clear on these different, uh, descriptions. The certification, that's the portion that the design team, the engineers, the geotechnical engineers, and things – that's where 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 to those through maintenance and through this construction process and then the engineering team we certify that this meets that criteria. That's what we're proposing to do. We're proposing to take these levees to the Corps' certification standard. You have a new exhibit that, that apparently you haven't seen yet, that, um where the Corps of Engineers concurs that they expect us to be building these uh, levees through maintenance and through these construction process and bringing them up to their standards.

Now the accreditation, that's what FEMA does. We take this certification package, these 300 documents that we're gonna have, and the last 10 years of work plus our construction process and we're going to have 15 to 20 years of update plus the GI Study. We're not

gonna, we're not gonna get accreditation until after the GI Study's essentially done, alright, okay but we're positioning ourselves to do what we know we have to do, we have to do it whether or not the GI Study is finished or not but that's bringing these levees up to the Corps' standards. Um, but once we take this package, the GI Study's done, then we can go to FEMA for the accreditation.

[0:49:57]

Essentially when these levees are accredited, then they're 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's also community rating process and we don't want to confuse the flood levels we say in community rating with accreditation or certification flood levels. But that's a process that Margaret can better explain because she's actually in the process of it right now with these updates and things. That's where when these levees get certified or accepted to a certain flood level then they are, the community gets a break on the insurance, they are able, 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've, they've come through flood events of 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've got those 3 different things out there.

FEMA does not include nonaccredited 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 define 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. That's found on pages 11 and 12 in the EIS.

Um, probably the best explanation of freeboard and how it's 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 a foot in addition along the length of the tieback levees and an additional foot either side of structures such as bridges. In other words, the top 3 to 4 feet of this levee will be freeboard to the Corps and FEMA guidelines for 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's no proposal for a tieback levee and Burlington and Dike District 12 are hopeful FEMA will consider benefits of conveying some of the peak out of the system. This discussion you'll find on pages 10 and 11. The tieback levees can affect upstream and downstream properties. If the GI Study determines that a tieback levee is required then this would also be needed to be constructed before 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 proposed project will take from the current; the project we're proposing now is going to take us from 5 to 6 years to build. If they tell us 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's going to take additional time. What we do know is 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 because a tieback will likely affect upstream and downstream properties, we've been leaving this question to the GI study to answer.

[55:00]

A key component – and again I'm quoting from the EIS – a key component of develop, developing the levee certification project is addressing impacts of the proposed action on the upstream and downstream areas. The choose, the choice to proceed with work to certify the current levee gives the GI another 5 to 6 years to determine the bigger flood picture. Reducing the flood risk every year, sorry I missed some of that, but, okay... hydrology, okay, the Skagit, uh, the hydrology for this project has been performed by three different entities. We've got the Corps of Engineers, the nhc or Northwest Hydraulic Consultants, and Pacific International Engineering or PIE. The best kind of the, and they call it the synopsis, the difference of the work is found on page 44 of the EIS.

There's also if you look on page 9 of the EIS, you'll find little more brief table um, this particular project – the choice that Burlington made and it's all based on the, the conclusions of the EIS, PIE was a consultant for the County at first, 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's not to say being a little more conservative than that you can still have flood events greater than a 100 year event. Northwest Hydraulics or nhc was the next and I think they're still the current consultant for

the county, um, they essentially came in between the two. They said, you know, made some adjustments on the PIE numbers but still came in below the Corps of Engineers. Now I did submit to you and its Exhibit 19 in the record, I submitted a draft report dated January 12, 2012 from nhc. Now it's my understanding nhc at that time they were using the Corps' hydrology. The County and the GI Study moving forward is using those larger numbers. This project because of the decisions made initially – we've 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's done and if they tell us they're going to use those Corps numbers which is very likely then we will be raising the levee. The levee design has, is incorporated so that it can accommodate that additional 2 or 3 feet, whatever it ends up being to meet the certification and the accreditation at that higher levee standard.

But all this project is about is reducing the risk to the City of Burlington and actually Dike 12 when you start looking at the floodplain maps especially the Dike District maps, if we breach then Dike 1's affected, most of the, every dike district on the west side of the Skagit River is going to be affected because we're upstream of them. If we, if our levees fail, there's other dike districts that are going to be affected.

[1:00:00]

Okay, this is the important part of the, um, EIS showing the effects of this proposed project so this is found on page 47 of the EIS. This is the effects of an uncertified levee using the Corps of Engineers' hydrology.

This map is found on page 48 of the EIS, this is the uncertified levee using the PIE hydrology. The difference between the two is basically most of the area floods and there really is no difference.

Okay, this is the – found on page 49 of the EIS – this is the effects of flooding, you can see the flooding through the Gages 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 but the effect of this levee with the Corps hydrology. As you can see there, a large portion of Burlington under the PIE hydrology is affected by this, the higher flows and the Corps hydrology.

I also just wanted to note we spent an awful lot of time talking about the 100 year events here, something that we've not experienced, um, and most of these events are, that we've experienced are you know 25 to 50 year events so we're talking about a theoretical event.

Okay this map is found on page 57. This is a base flood elevation map and it shows the impact upstream based on the proposed project and this is to the PIE hydrology. It's showing a .1 foot base flood elevation impact and this is alternate number 2 that we've, that was included in the EIS and this is the impact by the PIE hydrology for the upstream. Now I did and the EIS was completed in 2010 and I submitted that January 2012 Northwest Hydraulics report prepared for Skagit County. Now that was using the Corps' hydrology and that's your Exhibit 19. In that report that called, it was called the northeastern levee, or the Burlington Urban Levee and they performed analysis for both the 50-year and 100-year events. On page 16 the results were .1 foot and .4 feet respectively at the Sterling area. That's for the 50-year and the 100-year events. I also wanted to note that study also included projects; the Mount Vernon floodwall

which is now under construction. The measures considered in the final work by Northwest Hydraulic Consultants were defined in a series of meetings of the Skagit River Flood Risk Management GI Project Delivery team and discussions with several of the project stakeholders. None of that work has been held back from all these stakeholders that have been involved in this project from the start.

[1:05:10]

Are you just confirming that it's Exhibit 19 there? Okay?

Have I answered your question in regard to the hydrology?

HE: Yes

SEMRAU: Okay.

Alright, in summary, and I'm going to start with quoting again page 11 of the EIS, in the case of the riverine levee and the Skagit River delta area, the protection goal for Burlington is to have a levee system that will solidly withstand the 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, that paragraph summarizes our project. You know, we're proposing the PIE hydrology because we felt at the time that was the best estimate of the 100-year. That's a reasonable 1st target for us to be spending the public's money to build these levees to. If we're told we need to go higher, we will go higher. If we're going to use the Corps hydrology which is pretty apparent that the GI Study is using that, that's what we'll do.

The, we've got a project here that removes a good portion of the City from the flood maps, um, we can't build these things in 1 or 2 years.

We got 5 to 6 years here just to do what we've got, we know we've got more work, we need to continue to do work every year to continue to reduce the risk to these areas. Essentially you have a levee improvement project that proposes to minimize the upstream and downstream impacts on existing conditions while maintaining or enhancing current levels of flood protection in 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 and downstream portions of the system as indicated by the nhc 2012 report. The 20-foot top will provide more stability during an overtopping situation and the levee can be further raised in the future to meet the crest of the higher Corps' hydrology. This alternative of enlarging, 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 easier to quantify through modeling of surface water elevations at various river discharges and that's from page 17 of the EIS. So in regard to this actual permit, the Shoreline Substantial Development Permit, I did comment in regard to page 2 that the parcel numbers weren't complete. I did submit additional, um, exhibit letter that summarized those as of the date that I did that work. We have been in the process of doing, continuing with some purchases and exchanges of land so I can't guarantee that they're going to be the same next week. But we will, um, they have been updated.

HE: So this lists the parcel numbers? Is a list of those parcels that are affected by this project?

SEMRAU: There they list, yes. That are, that are, that the levee is on or contiguous ownerships of the, of the, uh, dike district. Now you did have a question in regard to the, you know the mailings and things and that and the process we prepare that for the county and we

give that to the county. The process that we used is we used 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 confirm that everyone was included. Now we did that, we did an update of that before this last, before this third mailing. This was the third time we mailed out to that list. The first list was prepared, updated in October and then the 2nd list was I guess the 1st weekend, the middle of May that we re-updated that list.

[1:10:10]

Developments scheduled, previously we said construction would start mid-July 2013 that's not going to happen. [Chuckling] So we're probably middle of August at the earliest, if not next year um, so, we'll wait until we get your findings before we can really update our schedule but we have, we're kind of in a bind getting fill and grade permits and NPDS permits and things so it will start as soon as we can and we have the weather. Pretty much this work occurs from July to September and that's when it will occur as we finish this permitting process. So I also commented on number 11.

Um, my comment there because we had submitted the 2012 Northwest Hydraulics, we felt that section should reference that because that was part of our materials that we had submitted… Number 13 on Page 10 I wanted to make sure that the wording in that section does not preclude us from being able to get the 1 year extension that says 5 years. Current code language is, and also the, can't remember if it's the WAC or the RCW, it's 5 years plus a 1 year extension – we certainly have enough work under this permitting that we would want to make sure that we have that option for that 6th year and that's from when we pull 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.

I also, just briefly, in summary, those exhibits 22, 23 and 24, were letters prepared by myself, um, one was the parcel number discrepancies, um, one was in regard to fill and grade permit 0702067, that permit I mentioned in the previous hearing that we had applied for the extension of that permit – we have now received that extension and that permit will expire November 14th, 2013 – again that's new information since the previous hearing and since I submitted that last letter so but that permit has been extended and that work will continue this summer. I also submitted, there's a summary of our permitting activity within this area – there was some other testimony about areas outside of this particular area and we're just trying to limit it to here. We do an awful lot of, we permit everything that we're expected to permit here so unless you have any other questions…

HE: Uh, only one. Just going back to the very beginning of your testimony. You were trying to tell me what the difference between certification and accreditation are.

SEMRAU: Uhum.

HE: Certification is, you went into how it has to do with how its designed and somebody can take a look if its properly built from an engineering standpoint. Who does the certifying – is that the Corps, is there a, do you get certification from somebody?

SEMRAU: No, it's the engineering design team.

HE: Okay, it's a team of people that are working on the levee.

SEMRAU: That's correct, it's the same team that has prepared the plan, and, and, there's a Corps standard and we've studied it and designed it, the improvements to meet that Corps standard. Now the District needs to build it.

HE: Uhum.

SEMRAU: Then once it's built and it actually meets that standard that was outlined in the, in the design – then the engineering team is the one that certifies it. The Corps of Engineers no longer certifies levees. They used to in the past. But they don't anymore.

HE: Okay, so, if then assuming that all happens 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?

SEMRAU: That's correct.

[1:15:10]

HE: That, sort of, two terms, two terms of different meaning.

SEMRAU: Right and, but then again if again 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've certified it to the level we have designed today.

HE: I understand that if the GI comes up with something else, you may have to go back to the drawing board.

SEMRAU: Right. But the City after we certify it can take it for community rating so there's, there's still every part of this process is going to give the public benefit. That's why we're doing this.

HE: Alright, thank you very much.

Anything else on behalf of the applicant there? Sir?

HE: Okay, now this is a written version of basically of the kinds of things you were just telling me?

SEMRAU: Yes sir.

HE: Okay. So what exhibit number are we up to?

This will be exhibit 32 and we'll admit it to the record.

Now, sir would you state your name?

[1:16:55]

Dan Lefeber: [**DL**]: Yes, my name is Dan Lefeber, I'm the Operations Manager for Dike District 12.

HE: Okay let me swear you in. Do you swear affirm the testimony you'll give the truth, the whole truth, and nothing but the truth so Help you?

DL: I do.

HE: Okay.

DL: Okay, I have because the question has come up – and I thought it might based upon the last hearing and these are copies of recent, 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's proposed and so I have substantiation as far as that mailing took place. Uh, if there's a question you know, 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.

HE: It's up to you.

DL: So…

HE: It would be fine.

DL: Okay, then uh, I'd like to again, uh, show on a map. I brought a larger rendition so maybe it will show a little bit better those parcels that these mailings connect to. So that there's a good

understanding of the lay of the land and the impacts of the project on the neighboring lands.

HE: Okay you have a map?

DL: Yes, I do.

HE: Okay so we'll call your mailing notices [unintelligible] Exhibit 33 and then the map will be Exhibit 34.

DL: Okay. Would you like them now or would you like me to show the map and then bring them to ya? Okay?

HE: You, uh, you have more testimony while you're there?

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

HE: Show it to me and I'll take a look at it.

DL: Okay, great.

[1:19:10]

[COLLOQUOY]

HE: We don't need to make them a separate exhibit.

[COLLOQUOY]

DL: South Gardner Road.

[UNINTELLIGIBLE]

HE: Okay, great. So what the witness was showing me is properties that the District owns on the map that are within the project.

DL: ...And show clearly Dike District 12.

[1:20:07]

HE: Okay, great. Alright, so, thank you.

[UNINTELLIGIBLE]

DL: A bit more time to speak.

HE: Okay, sure.

DL: Okay, so I would also like to state for the record that I believe, uh, the dike district's mission all along is to have 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. Uh, 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 the materials being imported and existing conditions at the site, we usually only have 2 to 3 months a year so we have to, um, be as efficient as we can and take advantage of those work window opportunities to have this consistent effort. That's why it's 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, uh, you know, it's just this consistent effort that's been ongoing and I don't think, um, is really out of line with what the district was formed back all those years ago when – and is continuing to do. I think that really is the gist of it. Thank you.

HE: Alright, thank you very much.

[1:22:30]

Uh, alright if that concludes the applicant's – does anybody have something else?

[UNINTELLIGIBLE]

Lorna Ellstad [LE]: I'm with Dike District 12.

HE: Kinda speak into the mike, it's important that the machine hears you.

[Colloquy]

HE: Okay, I got 'em both wrong. Uh, alright. Let me swear you in if I may. Raise your right hand and swear the testimony you give you'll tell the truth, the whole truth and nothing but the truth so Help you? Okay.

[DEAD SPOT 1:23:22 to 1:23:45]

HE AIDE: This one's not picking up.

LE: This one's better.

HE AIDE: Yes.

LE: Okay, Thanks Betta.

Because of differences in hydrology as has been discussed today it kind of delayed, funding delayed, but, uh, 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 – City of Burlington put a building moratorium in place and, uh, Dike 3 down below Mount Vernon utilized Corps information, water surface elevations to establish a new levee height when they installed a setback levee. The City of Mount Vernon utilized Corps information, GI information, when they, um, began designing their floodwall – they currently have a four-foot extension on their levee system as well. It's the enhanced brick concrete wall.

[1:25:00]

LE: Looks a little different than what the structure we're proposing is 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 – a breach at that point has the potential to capture the entire river and you know, then it's not always so easy to put things back as we're finding.

I'd also like to mention a couple other projects that have utilized Corps or the GI information to date. Um, the, any, I don't want to say, any improvement work but the majority of the improvement work completed by other districts have engaged the county technical staff. In particular when Torey Nelson was working on the GI and myself would provide the water surface profiles, developed by the GI, we would work with them to establish a levee profile and in particular in the rural levees we do not put this freeboard – the purpose of this 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'd like to make on that is that when the GI is completed the purpose of the GI from the federal standing is to establish a federal interest or the economic interest in assisting a local community provide flood protection. They will do so at whatever the benefit-to-cost ratio supports. So when they finish which is currently what they're attempting to identify, we've been looking at damage 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, worst case scenario for our urban areas that the Corps determines that they can't justify 100-year protection – there's two things the community could do:

1. They could accept that.

2. Or they could then buy up the project and assume 100% of the cost of the difference in that.

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 working as diligently as we can to participate at a norm level when projects are identified, when areas have been determined to be beneficial or an integral component of whatever the final alternative would be. That is where we're at and I'd like to thank our engineer John Semrau for going through some of those alternatives because there is an alternative in this levee cert project that could extend and I noticed 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 52,000. Existing conditions would leave the system at Sterling. But our District and our City – going to speak for Burlington – that 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, um, mention is that, um, that, 1 other project, the Anacortes Water Treatment Plant also utilized Corps information, the GI information when they put in their $60 Million dollar improvement, and so they too, um, 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 have too been collecting kind of a war chest to get that done. As our engineer spoke, we've been working on this project acquiring land since 1999 we still are probably halfway there when it comes to this construction phase where we can start constructing this.

I'd also like to address the FEMA risk mapping that's 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're significantly higher than the current ones and I know one of the concerns in this project was, 'Does this project raise the base flood elevation by a foot and then be in violation of the flood ordnance I believe?'

[1:30:20]

The new flood, base flood elevations would be 3 to 4 foot 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 years 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 also is able then to provide a known geotechnical structure.

One of the things I've been back to DC several times and I'm part of the national levee task force. I'm also a member of the national levee safety committee and we've been looking at ways to utilize both local information, utilize Corps information under PL 84-99 program so that we can start building a database so they can make a determination on what level existing levees will be included in the mapping. In particular for our community that is a real big deal.

Ummmmmm, I think I've covered – and again I think I heard at some point earlier in the conversation that hydrology and hydraulics was kind of being used interchangeably. I just wanna make note that

while there are some disagreements over the hydrology, it's the hydraulic modeling that has been performed for this project. Basically, in a nutshell difference hydrology is how much, hydraulics is how deep and where and that 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've 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's 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're looking at the 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 why we're also going with the long overtopping slope is 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 on out, flooding La Conner.

Oh, that was one other point I wanted to make on the GI that it's 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've been kind of looking at over the last 10 years. We've incorporated the ring dike that Dike 12 has been working with United General Hospital to develop in the past – the GI incorporated again the floodwall, 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 Mount 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, uh, well the Corps-slash-County GI and that it

hasn’t been this wait and you’re going to get this mystery, I refer to it as the ‘silver bullet’ and so I see our community continuing to work through this, to support our Congressionals as we work to finish this and get it approved and get it authorized but you know, right now, we’re in a situation where we can.

[1:35:18]

I think this bridge and I thank Dan for bringing it up, we can’t wait and have, expect to have someone come in with a large checkbook and fix things because if that was at all true we would be getting a new bridge over I-5 that was longer in length to accommodate an eventual flood risk reduction project similar to how the Mount Vernon bridge was built so that there were additional piers put, so it could be extended if necessary but that’s just not a current, a realistic immediate financial prospect and that we’re going to have to continue. This is a lifelong endeavor, I personally have been involved with flood fights for, I think I was probably about 6, 1st time – my Dad went to, living on Fir Island and my father was Virgil Ellstad was involved with levee repairs for probably 30 years before I went to school to be able to have some technical input into solving the problem. So I’d also like to ask if there’s any questions you think I could help answer or…?

HE: I don’t think so.

LE: Alright. Okay, thank you for giving the opportunity to enter some technical information into the record.

HE: Alright, anybody else on the applicant team wants to speak? If not, uh, let’s take 5 minutes to relax and then come back and we’ll hear public testimony and then we’ll finish up, thank you.

[1:37:06]

HE: I don't know what's happened to our [COLLOQUOY]. Uh, yeah. [UNINTIELLIBIBLE] Council and the Engineer. We can start.

[1:37:25]

HE: Okay I'm calling the hearing back to order and this is the time for public testimony, so anyone who wants to be heard on this matter should come up there and give their testimony at that microphone. I guess we have a gentleman who beat you to his feet.

Larry Kunzler ("LK"): Mr. Examiner, you want to swear me in before my name or...

HE: Just tell me who you are.

LK: Okay, yeah. Do you wanna.

HE: I will swear you in. Do you swear or affirm that the testimony you are about to give is the truth, the whole truth and nothing but the truth, so Help you?

LK: Absolutely sir. I have some exhibits I want to enter.

HE: I still need your name.

LK: Larry Kunzler. I thought you said you knew who I was. I do have exhibits I would like to submit into the record.

HE: Okay.

LK: They are in the order that I will be submitting them.

HE: Where are we at?

EXAMINER AIDE: The next exhibit would be 35.

HE: Alright, Mr. Kunzler, go ahead.

LK: 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 (Chuck Bennett)gave me a huge chunk of this mud, it was like the size of a soccer ball, I took it and I gave it to the geologist, the same one that is working with Dike District 12 now.

[1:40:00]

He stated that "the hand specimen is composed of a yellowish gray, weakly indurated, silt size, non-plastic, monolithologic sediment. I guess that means a lot to Mr. Cooper, it doesn't mean much to me. Apparent glass shards are visible under the handheld lens. No stratification was observed. Based on these observations, the sample appears to be a volcanic ash deposit or tephra. I brought an actual jar of the mud, this is the jar of the mud in question that he found.

HE: I don't really know how to deal with a jar of mud.

LK: I don't either. I also brought, this was given to me, a sample by the Anacortes Water Treatment Plant on August 18th, 1992 when the Skagit River ran chocolate brown and all of that material that came down was from the Chocolate Glacier on Glacier Peak. If you feel the difference between the two, 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. In one of those that they mention the lahar it states, anyway it says that they treated the entire valley floor as glacial, I mean not glacial but 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 would be the actual lahar that Chuck had me get tested for him.

Five days after I got that letter Chuck Bennett asked me to give a presentation to the Skagit River Flood Control meeting on what I found. You can see that begins on page 6. It says, “Kunzler then presented a short presentation on the volcanics of the Skagit River floodplain. He had been contacted by flood committee Chairman Chuck Bennett about some strange “mud” Chairman Bennett found while working on a keyway project in the vicinity of the Burlington Sewage Treatment Plant. I had mud analyzed by geologist who found the mud to be “volcanic tuff” or in translation for a laypersons terms, it is a volcanic lahar. It’s, what I did was and I won’t do it here today but I used my Mr. Rodgers interpretation, I took the mud out, put it into my hand, shook it to show the liquefaction part and I know that Mr. Cooper you have no idea how envious I am of you having a geology degree because Skagit County is one big geologic happening. You’ve got everything here, you’ve got active earthquake faults, you’ve got volcanoes, you’ve got floods. In my public presentations I always use the comment that Mother Nature has left Her footprints in the sand, walk in Her moccasins. She will show you your past, and in so doing She shows you your 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 that “There is lots of information out there about the geology of the area. See Beget – B-E-G-E-T is how I think you say it – and Dracovich. What evidently they don’t know is that I had been in personal contact with Mr. Dracovich over 13 years ago. He gave me a portion of his study for DNR before it actually was released publicly. I quoted from it in this, at this meeting, “The sediments contained abundant dacite fragments that appear to be lahar runout

deposits. These deposits are exposed in 10 to 50 feet high terraces, you can see them in the, 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 floodplain, the lahars underlies the floodplain that sits the Cities of Burlington, Sedro-Woolley, Lyman, Hamilton, and much of the agricultural area of the lower valley. We have traced the stratum its both exposed and buried to the vicinity of La Conner. So this is something that's missing in the Golder Report that the Dike District's relying on, they should have located the lahars especially near the sewage treatment plant, and under Dike District 12's levees.

[1:45:05]

Okay enough about mud. So, I'm probably going to be the most controversial speaker you have here today. It's a hat I'm used to wearing. There's 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 Mount 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 ordnance would have to prohibit such improvements.

Later, 1982 FEMA wrote a letter to the Mayor of the City of Burlington, 'Concerning floodways in the Skagit River Lower 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 had 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. The instructions Dames & Moore received was "as a result of meetings held in the 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 Valley area. These include Skagit County, the Cities of Burlington, Mount 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's appropriate 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's a mountain, there's a land, the town, the river, more land, and then, other mountains on the other side. They take that floodplain the conventional way 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.

This is the next exhibit, is the Dames & 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 25% 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% to 14% depending on the flow path and the collapse size. For example, suppose a landowner wishes to construct a building on a 1-acre lot in Flowpath 4, the table shows that the owner can raise a maximum of 10% of his property. So to make floodplain management regulations easier to enforce a 10% density criteria, outflow of all lot sizes is recommended. Needless to say, that was not adopted in Skagit County.

[1:50:01]

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 10% of that community has been developed.

In August of 1983, FEMA and I don't know what the proper terminology here, if John or I were in court we would ask you to take judicial notice but I'm asking you just to recognize that all these letters I'm going to submit to you from this point on come from Washington DC, they made the decision to designate the levees as part of the freeway, er, as part of the floodway. They said that 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, Gages 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 Gages Slough is a conveyance area which should be protected. Then it goes on to say part of this requirement will be to ensure no new construction improvements or other development including fill is permitted in the zones of the flood insurance rate maps unless it is demonstrated that

the cumulative impact 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*. That last part is perhaps the most important – because if you raise your levee to 100-year event, are you not raising your, 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 the way they should have.

December 15th, 1983 again it says Section 60 c 3 10 of the program regulations, that is quoted substantially throughout the EIS and again the most important thing to me is that it states the base flood at more than 1 foot *at any point in the community*.

February 1st, 1984 letter to the Mayor of the City of Burlington: Conventional floodway analysis was not consider appropriate due to the unpredictability and the variability of the flow paths between various flood events which is complicated by uncertainties about where the levee failure will occur. The sequence of barriers and volumes of flow thus only lands within and including the Skagit River levees were designated as floodways in the conventional manner. 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 raised the question about who's the legal authority, well 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 Gages Slough and the drive-in theater, the drive-in theater is now the Target store. From near Edison High School to just south of Cook Road, there's all kind of developments that have been put in that location as well. Approximately 80% 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 [UNINTELLIGIBLE] 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.

[1:55:25]

On May 22nd, 1984 again FEMA from Washington D.C. wrote to the Mayor of the City of Burlington. This was a 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. That's always been a huge contention of mine. It's why when the Burlington Planner makes statements in the Draft EIS as well as at many public hearings I've attended that FEMA adopted a project failure point of Sterling, that's untrue because they determine their flood elevations as if the levees did not exist at all. So when the City of Burlington issues letters to developers that they can tell the people that buy these homes that they're out of the 100 year floodplain when they're really only maybe 100 yards away at the most from the levee itself – uh, those levees break and those people are definitely in the 100 year floodplain.

FEMA's 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 shown in the preliminary FIS, Flood Insurance Study.

November 1st, 1984 conventional analysis floodways are to be kept free of encroachment that would include the levees themselves. Here's a

memorandum for the record, fast forward to 1996 from the Joseph Weber, the program manager, he used to be a hydrologist with FEMA, then he went to work as a floodplain manager for the Corps of Engineers, then he went back to work for FEMA and now he's retired but this was pulled out of the Corps' files. Conventional floodways were not adopted for the entire delta downstream of Sedro-Woolley and 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 4 feet of fill on the riverward side of the levee along Whitmarsh Road. That wasn't there during the 90 flood event. What the dike district has never told the residents of the City of Burlington is that the floodwaters were in the process of crossing Whitmarsh Road in that location so I understand them wanting to put 4 feet of fill but they're still putting 4 feet of fill in the floodway. The reason I know that the water was crossing is because I drove over there and you can tell exactly where the high water line was from 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. They, all of the work that 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 they, when I told, when I stated that they didn't have permits, I mean where are the floodplain permits? I don't really blame Mr. Semrau or even 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, I do blame the county and city officials that have allowed this to continue for so many years.

[1:59:55]

This you're going to find kind of humorous, this is a nasty e-mail exchange between myself and FEMA in 2001. This is a response by a young man called Patrick Massey who worked for FEMA. He says first your entire long argument about the lack of enforcement of cumulative rise standard of Section 3 c 10 is wrong. Section 3 c 10 only applies in floodplains where a floodway has not been designated, since a floodway has been designated along the lower Skagit within the levee c 10 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 kind of 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 just being a floodway, not a regulatory floodway but the two terms are synonymous. If the development has occurred between the levees, this would be a NFIP compliance issue. Have the levees been raised or widened since the community joined 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 riverward side of a levee is an improvement. I don't know why the words maintenance and improvement are so difficult for some 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 extra 4 feet of fill, that is an improvement. That 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're not fixing anything, and they're improving it.

So that requires permits, it requires floodplain permits on behalf of the County and the City, 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 their 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's evidently got a problem. The fact is a lot of the letters that I've submitted to you, I submitted these same letters to FEMA, I've been submitting them to the City of Burlington for many years, I submitted them in on my comments to the Draft Environmental Impact Statement, I will submit them to you here today, this whole notion 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. As you as an examiner and Mr. Schultz as an attorney and me as a person who worked for attorneys for the last 34 years sometimes it's much more important what they do not say than what they do say. I submitted in here portions of the letters that I've 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 its 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's not maintenance work, that's an improvement and improvements require permits.

[2:05:14]

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. The attorney would come in, drop the draft on my desk and say take it apart. That's what I did for them for their clients and a lot of their clients had big Ws in front of their names and/or very important companies in the State of Washington. We built developments; we also built all the Eagle Hardware stores in the State of Washington. The one permit they kept away from me was the Mount Vernon permit because that permit got approved in 12 days and they knew I would be opposed to putting all that fill in the floodplain. So I didn't really find out about it until the construction took place.

It says in the EIS that in addition FEMA included a floodway area aligned within 300 feet of the landward toe of the levee. That would be the area that now they 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, safe thing to do. But the regulations of the Federal Government have said you can't put fill in that area and yet they are anyway.

Then, this is, I find an interesting comment, Burlington recently conducted a study to determine the cumulative amount of fill from 1985 to the present. The documented rise across Burlington's .371 feet. That's, I really looked, I spent a lot of time, on, over the weekend, going through all of their documentation. I don't see that study anywhere in the EIS. I'm hoping that you would require that as part of, before you would approve their permit so it can receive public scrutiny because it is one thing to make a statement, it is something else to have the engineering to back it up. They again make the same statement on page 38 where based on the record of cumulative fill from 1985 Burlington is well below the limit. Again I submit to you that if you raise the 100 year flood level on the

levee, are you not raising it cumulatively to above the 100 year flood level & the answer has to be yes. Why else would you raise it?

Finally, I'd like to submit to you what I consider; this is one of the things that Mr. Schultz in his letter to you being so outraged of my comments I submitted to you the last time. He doesn't mention this. In fact I submitted it to the City of Burlington, they don't mention it. I submitted it to Dike District 12, they don't mention it. This is the results of a hydraulic analysis performed by nhc on how much the levees already impact the upstream property owners. This is, it was entered into a court of law in Snohomish County Cause 93-2-05201-2 so it is a matter of public record. Nhc was paid approximately $250,000 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 that was stated here earlier was that Burlington's using the January 12, 2012 nhc report. In that report in January 2012, Dr. Leytham did not know that the railroad bridge does not back up any water onto anybody it is the constriction of Dike 17 and Dike 12 just west of the freeway where the two come together. That's what's backing the water up as well as the current levee out there.

[2:10:14]

You can see it as you go down the channel; it's already been raised 7 feet, 8 feet. Where does that fit into allowing them to raise it even more?

One other last thing that was stated about they used nhc's report of January 12th. This is before Dr. Leytham 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 Gages Slough to Gages

Slough straight out to Bayview Ridge, 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's 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 Dike District, along Highway 20 and a lot of those people are inside Dike District 12, *I'd be suing the shorts off that Dike District* because *I've 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 that have worked on this issue for over thirty or forty years can come forward and testify. You have any questions, I'd be happy to try and answer them. If not...

HE: Maybe you could clarify what you just said because I kind of lost it on water that breaks through at Sterling and where it goes. You were saying something.

LK: 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 to try and keep the river 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're not harming anyone.

Oh and 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 Courthouse and had the Skagit County Flood Engineer say that we're

gonna do this ourselves and we're going to provide 25-year flood protection for everyone. Even as a Nookachamp resident that sounded okay with me that 25-year flood protection. I asked him how much more floodwater would that put on the Nookachamp-Clear Lake-Sterling community and he said, 'Oh maybe half an inch'. 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. How they've tried to present it is outrageous. That's why I said the comment that I did that I was personally outraged at this. Because I don't know how somebody sleeps at night that puts water in a 98-year-old grandmother's house and thinks that's okay. Because that's 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 Clear Lake, she moved it into the Nookachamps. She had to be rescued from her house through her kitchen window by the Clear Lake Fire Department. Never had water in her house before. So all this work that Burlington had been doing before the 90 flood event they've never seen a flood that big. I don't know, I can't treat people like that.

[2:15:15]

HE: Thank you.

LK: Thank you sir.

HE: What I'm going to do because I don't quite know how else to deal with this, what exhibit are we up to? 35?

HE AIDE: 34 was the last one.

HE: Okay 34 was the last one so I'm just going to include your packet as an exhibit which will be Exhibit 35, Kunzler Packet.

Okay, who's next then?

Roger Ridgeway [RR]: Hi, my name is Roger Ridgeway and I'm not really offering testimony so much as a request.

HE: Let me swear you in any event if I may: You swear and affirm the testimony you give will be the truth, the whole truth and nothing but the truth, so Help you?

RR: Yes. So I have a relatively much shorter presentation here. I'm here to express my desire that the, that there's some assurance that this Dike improvement project makes provision for public access to the Dike. State law provides, except of course, in times when there are danger of a flood or an actuality of a flood. So it's important to those of us concerned about trails and public access that public benefit that the, um, 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.

HE: Okay, what you're talking about is a pathway along the top of the dike?

RR: Yes. Thank you.

HE: Thank you.

Mike Anderson [MA]: Hello, my name's Mike Anderson.

HE: Alright. You swear and affirm the testimony you give you'll tell the truth, the whole truth and nothing but the truth so Help you?

MA: Yes.

HE: Thank you.

MA: Okay I'm going to wear two hats today. First, I'm going to start off with the Mayor's Hat. As a Mayor of Sedro-Woolley I'm concerned

about anytime you might slow up or back up water towards our community. We've worked with Burlington and Mount Vernon over the flood issues, we've spent our own money going back to Washington D.C. to try to work with our congressional delegation and work with Burlington and Mount Vernon with the idea of working together and not, uh, and solving this problem. It's kind of ironic now though that I'm hearing like it's every city for their selves. Oh yeah when I heard them talk about that we don't have time to wait for the GI Study or to do it right, we're gonna raise the dike; I'm thinking of the iceberg effect when any time you raise anything in water it's going to push water back somewhere else. That's east and that's toward our community upriver and, um, Clear Lake and um, so I'm against that.

I'm really concerned we just had this bridge failure here on I-5 and we've had some ambulance issues because of the traffic and then there's obviously no freeway so we've been taking some of our ambulances to Bellingham and I have seen and I've lived here 33 years, I've seen the Cook Road flooded, I've seen Highway 20 where the water crossed over, I'm concerned the safety issues and I was looking in your county's report and they were saying there really was no public safety concern in their report. Well, there is. Because obviously we're a, we're right now having that issue, we're just having a little traffic on 9 and in the freeways in the traffic out on Riverfront, Riverside. So this is a big deal for our community that if more water's pushed back and Highway 9 is closed and then Cook Road could be closed and Highway 20, 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 to, I heard a comment that Mount Vernon and Dike District 3 raised theirs 4 feet so now Dike District 12 in Burlington wants to raise theirs 4 feet. Then in a few more years or 5 years someone else is going to want to raise,

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.

[2:20:35]

I’m going to go on my own personal issue. I own a piece of property just to the east of the dike, 21421 Lafayette. I’ve owned it for 30 years now, and we’ve had, never flooded until 1990 and it flooded twice and then in 95 it flooded twice so my wife and I we decided to raise it because we were tired of you know, dealing with the flooding inside. So we decide to spend money out of our own pocket and we raised it and we went to the County, we went to FEMA, we got to hire a surveyor to get it the right elevation and we did. We were 1 foot above the 100-year flood. We’re right there about District Line Lafayette and the water would go over the railroad tracks and couldn’t get into our property because we were a foot above the railroad tracks and it would always cross over. Well then, I don’t know what year that was, in 2003 or something Dike District 12 came up and started sandbagging that, pushing the water back on our house property. 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 and so I’m concerned that if you’re gonna, they keep saying it’s not a big deal where they’re going to raise it but why are they going to raise it if it’s not going to push water back. I mean obviously it’s going to push water back and someone’s going to suffer and I think we should work towards the final solution and not these Band-Aid approaches. There you go.

HE: Thank you.

MA: Thank you.

[2:22:26]

HE: State your name.

DB: My name is Dan Berentson.

HE: You swear and affirm the testimony you give you'll tell the truth, the whole truth, and nothing but the truth so Help you?

DB: I do. My name is Dan Berentson, I'm the natural resources division manager for Skagit County. I've been involved in working on the General Investigation for approximately 11 years with a number of you. I would just like to just make a few clarifications as I did last time.

First thing I'd 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 the GI's going to be completed in a timely fashion by 2015, and hopefully it'll give us a comprehensive roadmap for flood protection for everyone. We do appreciate the support from cities and dike districts in that effort.

But I'd really like to clarify or add some clarity is to the hydrology issue. We've heard today mentioned 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 the hydrology since there was substantial difference between PIE and the Corps. So we contracted nhc and the numbers they came up fell somewhat in the middle. We had never adopted nhc's hydrology or PIE's hydrology. We have supported the Corps' hydrology for the General Investigation. The, so, I guess I just liked 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'd like to make that clarification because I'm hearing that, you know, all three are being utilized and also another question I would like to ask is that for this project as you seek certification, you're seeking certification to the PIE level or I heard you say it at a later date if that is not the acceptable level you want to rebuild the levee to meet that standard, is that what I'm hearing?

Just a question.

[2:25:40]

HE: Okay. Thank you.

LH: Leonard Halverson.

HE: Let me swear you in sir. You swear and affirm the testimony you give you'll tell the truth, the whole truth and nothing but the truth so Help you?

LH: Yes, I do. Just a few words here to clarify the stuff that's been said and done, and 19 well something Halverson versus Skagit County courtroom, Skagit County surveyed the floor, the first floor of my house at 39 and 87 hundreds inches. Here too later Chuck Bennett was asked in this same room what the Dike District's elevation was, 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 got 8-foot celling to get to the upstairs of my house and I sleep there, that puts a foot and a half of water in my bed what they're asking for. I think that's a hair excessive.

Lot of the, lot of our infrastructure here is in your, I feel is in danger from this. United General Hospital Life Care Center, Sedro-

Woolley Sewage Treatment Plant and the school in Clear Lake definitely are in harm's way from raising this dike. Thank you.

HE: Thank you.

[2:28:00]

HE: Uh okay, who else? Your name sir?

Keith Waggoner [KW}: Sir, Keith Waggoner, Commander, United States Navy retired and City Councilman for Sedro-Woolley.

HE: You swear and affirm the testimony you give you'll tell the truth the whole truth and nothing but the truth so Help you?

KW: I do. I'll try and keep this short. I took a lot of notes. First, I want to tell you that I am 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, I kind of would like to distill how I see that and I talk about this last time. The way the water in the river works when its backed up by a dam or by a dike system which acts just like a dam is it makes a wedge that goes back upstream and I know there's 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's no argument about what model may or it might not do, *it's already done it*.

Now Mr. Schultz asked us to not take emotional things into account here and just deal with the facts.

[2:30:00]

I agree with that. But then immediately afterwards he went on to dismiss some of these, some actual documented events as biblical to give you the idea that well that'll never happen but I want to tell you that a 100-year flood doesn't mean you're going to get 1 of those in 100 years. You might get three of them in the next 3 years or you might not get one for 500 years, we really don't know. They're talking about raising the dikes whatever, 3, 4 feet as if that's just a wall above the water that isn't 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 there, at least she has 8% error rate and they talk about overtopping. That tells me that there's 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, 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. It's well thought out, it will protect at least the people downstream of the dikes, we've seen it causes some havoc upstream so I don't really blame them for that but human beings and organizations tend to act in their own best interests. In common language, we call that selfishness and we all know that selfishness is not the best way for communities to work together. 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 the City Limits say over by Cook Road somewhere – that'd solve the problem for us. But it's not a very good solution for everybody else.

That's why I think Burlington's 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 it wants. Right now, it's like if you and I had a washbucket between us filled to the top with water and we need 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 can not get wet if I just lift my end of it up that's not going to make you very happy. That's 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 already happened, that Mr. Kunzler talked about. It's going to exacerbate that situation. We have some pretty high value assets up there, I think that the County missed a couple of things, Mike Anderson already alluded to it but I'll hit it again – item G and item H on the document signed by Senior Planner March Lindh [sic] 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's already talked about what can happen to our Ambulance System and 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 impact public services or the surrounding areas or conditions could be established to mitigate those impacts. I don't think that's been demonstrated and based on those two items alone, I think you should rule against this project. Thank you sir.

HE: Thank you.

SCHULTZ: Mr. Examiner, I would like to comment on something this commentator said.

HE: Well, you'll have a chance.

SCHUTZ: Okay.

HE: Let's let other people testify.

[2:34:58]

HE: Any other persons wishing to speak?

Thomas J. Sheehan [TS]: Thomas J. Sheehan.

HE: Alright, Mr. Sheehan. Raise your right hand, you swear, affirm and testify the testimony you give you will tell the truth, nothing but the truth and the whole truth so Help you?

TS: Yes I do.

First of all I want to clarify I am a native of Skagit County and I've 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 1st projects that I was called out on in engineering was Cook Road in 1969 we started that project where we were going to rebuild Cook Road. With a great deal of frustration after about a year of 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 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 the, um, portrait that I just sat 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 come to the elected officials.

As an engineering part, in the early part of my career, the West Side Bridge in Mount Vernon, coming north from there, on the opposite side of Mount Vernon, we build a levee and what we would do in the summertime – we would go out and do the engineering, surveying, dadada and accumulated all the information when it took to build a dike – and then, in the wintertime I should say. In the summertime, we would go out and build the project. I was the inspector on that project – and Ms. Ellstad said her father was on that project as well. We took the dike down to ground level. 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 about 8 to 10 feet wide and filled it up with clay. We built that because behind that levee, the water was perking through and popping up the road and lot more water was going on the outside of the dike then there was on the inside of the dike. So we rebuilt that project. It's a relatively stable dike at this time in life compared to some others.

In the, in my career also, was the, um, we have the Emergency Operations Center – you have heard that term, it's the EOC and, uh, in that Emergency Operations Center when there's a disaster such as the bridge falling down all of the players that are important part of the players come together and determine what shots should be called. In that Emergency Operations Center there's Mayors or Mayors' appointed officials, other city officials, Dike Districts have a representative there, da, da, da, da and they respond to the different emergencies.

The three major players in that, that actually will call the shots is the Sheriff, the Public Works Director, and the Director of Emergency Management. And, um, in this disaster, in a disaster, uh, before,

and during and after a disaster – that's three parts. Before you have plans – and the plans is are how you are going to function during a disaster – and one is the operation of that Emergency Operations Center. The next is, uh, during a disaster, you have the warning system which is how you are going to let the people know that there's a flood that's eminent. Then, after the disaster, is a lot of the mitigation stuff. One example of that is Sedro-Woolley during one of the major floods their sewer outfall was broke. 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. But nevertheless, uh, we, we're the avenue for the federal money coming to our office and giving it back to the communities. An example of that was the flood of 1990, there was $54 Million Dollars distributed to the cities, the counties, and the dike, and the dike districts.

[2:40:01]

There's a flood warning that's put out at 28 feet. That's the 28 feet in Concrete. Well 28 feet in Concrete is one thing, but 28 feet down in Burlington and Mount Vernon it's not a big deal. But I'm here to tell ya that in Concrete 28 feet it is because that means the people in Marblemount and Rockport and Darrington and Sauk-Suiattle – they're already being flooded. I would take my vehicle and I would drive up there and I would try to determine how much water was really coming because that's just showing what's in the river. The tributaries below the, below this point is really important. How much water is coming down those tributaries? How much of a flood are we really going to have?

The other thing I would do is right below the gauge is the community called Cape Horn, Cape Horn to me is probably one of the scariest parts on Skagit River. There's hundreds of people that live in this development and what happens when it floods the water runs across the

back of Cape Horn and it cuts these people off. You go and ask them to evacuate, most of the time: 'We've seen it, we experienced it, it's going to be okay'. I'm here to tell ya that many times they said it was okay and it wasn't okay. We had Army rescue trucks up there, we've had Search and Rescue Boats in there in the middle of the night pulling people out because they didn't leave.

Anyway, um, 28 foot is the flood fight and in my opinion, um, 38 feet is about where it starts overtopping down on the dikes down here. 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. That's United General Hospital, which is out towards Sedro-Woolley. It did flood. The water did flow back into the basement. Uh, they did have their generator in the basement. They did lose their emergency generator but we were able to get a generator in the parking lot and allow that to run. That was with the existing dike system that we have now. It's just 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, we've talked about Highway 20, and the Mayor's talked about he's raised his property, and the gentleman sitting right beside him I've stood on his front porch when it was flooding. Talked about, because his garage was about to be flooded. But this is outside the existing dike.

Mr. Halverson, I drove back to his property during a flood. We asked him to evacuate him and his family. I drove back there and the water was up to my headlights in 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's to let people know that there's going to be a flood. 30 to 32 to 34 feet you start

talking about evacuation and 38 *you should be gone*. *I'm telling you should be gone*. The floodwater naturally backs up into the Nookachamps, you heard a little talk a bit about the Nookachamps. One of the things I would do, I would go out in my vehicle and I would drive out in the Nookachamps and you can actually see the water pushing back through the Nookachamps, goes into, around the back of the hills and it comes back around into Clear Lake and then into Mud Lake and it's just a natural pushback because of the levees. I'm sorry, the levees on both sides. That's, it's a natural thing. They get more water; they're complaining that they get more water than they ever had. Well it's the fact is we're getting more rain than what we've ever had. It's a natural thing.

The present levee system we have is a very false sense of security for the people. Here's what I believe the people think: The people of Skagit County could care less if it's gonna flood.

[2:45:02]

They aren't thinking about it. They're thinking about their families, they're thinking about their jobs, they're thinking about Church, they're thinking about birthdays, they're thinking about soccer, *they don't care* because they expect the people in this room to take care of them if there's a flood and that means levees.

In 1980 or so, the population was probably about 65,000. When I first started my job it was 50,000 people. I think it's up to about 120 or 130,000 people and I'm telling ya that the people in the 130,000, everything above that 50,000 people, they're 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 that Dike District 12 is responsible, no. The water that's coming down Highway

20 is more capacity that can go through the 2 levees. It's gotta go around. That's exactly what it's doing. You talked about it goes out to the Bayview Area. Or it goes out to Samish Area. I live in the Samish; I'm here to tell ya it does go out there. There's no place for it to go. I get flooded. But I expect that. But that's 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 on the behalf of anybody that's against it, I'm here to say something needs to be done and I believe that the proposal is an approach to *start the process*. *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, 39 years we dealt with Cook Road as a 2-lane road. I can't tell you how many fatality accidents that I went to on Cook Road. It never happened until 2000 that they rebuilt that road. There was no reason for, 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 that 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-bone accidents, head-on collisions, what we called grinders, all kinds of accidents. I think that if these parties will come together and this is allowed, I think this is the beginning point for Skagit County to develop a diking system that they'll be proud of. 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.

[2:48:28]

HE: Thank you. Are there other people who want to be heard here? Any 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 would let the applicants respond, I hope briefly, to what they've heard and let the county respond with and get to make any responsive remarks they might want to.

So we'll do that now. Who wants to talk first? I see a hand raised, Mr. Schultz?

SCHULTZ: Can I do that here? From here?

HE: You can do that there.

SCHULTZ: My comment will be about 15 seconds. Um!

HE: Let's see here.

SCHULTZ: Okay. [Chuckling] I do have to object a little bit to, uh, to Mr. Keith Waggoner. Mr. Waggoner's, I think, unfair mischaracterization of my testimony saying I just dismissed factual evidence when I was talking about the engineering.

If he was listening, I did not dismiss out of hand the, quote, biblical proportions found by the Army Corps. What I did was I explained the three positions. You were interested why we had three different hydrology's. I explained that the Corps hydrology was very high because of that, because of those floods. The PIE hydrology after several years and millions of dollars, even when they were the county engineers determined that those numbers probably were not correct and nhc came in the middle.

[2:50:10]

So any implication I was dismissing the facts, I think was inaccurate and little unfair given the caliber of the education of that witness, I think.

HE: Alright. Mr. Semrau?

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 the, kind of the starting point for the professionals – you know, as a professional engineer, I don't, there's certain points in our regulatory stream of how we regulate things from the sitting county and federal standpoint that I have to accept as an engineer. Most of those documents he submitted to you have no bearing on where we're at today and what's required by the county and the cities, and by FEMA and the Corps in regulating that.

The questions in regard to the floodway, we've answered those questions. We've answered the questions as to where the special flood risk areas are, they are mapped on the FIRM, the Flood Insurance Rate Map. Unfortunately I don't have a copy to give you, but we've even heard testimony from some people off Lafayette Road that it made revisions to their house and things, yet we've heard testimony from Mr. Kunzler that we shouldn't be allowed to place fill in the same area. That area's not in the floodway. It's not even within 200 feet of the river; it's not within shoreline's jurisdiction of the Skagit River. It is within shoreline jurisdiction of Gages Slough.

So, but I'll submit this Flood Insurance Study, we have defined the floodway, 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 1, the WAC 173.27.040, our shorelines substantial development permit process in the RCW 90.058.030 we've got these definitions and we work within those. So here's the flood insurance study July 3rd, 1984.

HE: Alright, we'll call this Exhibit 36.

SEMRAU: There was a question in regard to what hydrology we'll use when we certify. The certification, the only hydrology that'll be accepted when certification occurs is the Corps'. Certification will be to the 100-year Corps hydrology. When a levee's certified it's basically certified – or when it's accredited they take the level of the levee and they reduce, they remove the freeboard from it. If the levee's accredited, they take the level of it, move the freeboard and then they stick that into the computer model to determine the Flood Insurance Rate Maps. So whatever level it's at when that's the certification and the accreditation occurs. That's what level it'll be at and the modeling of the river flows or the flood flows will occur from that. The exhibits that I showed you from the EIS showing where the floodwaters go, they're still floodwaters going through Burlington and down Gages Slough even with these levee improvements. That's 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.

[2:55:00]

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 have, I do a lot of flood works, elevation certificates, when I do an E-LOMA I

actually am preparing the LOMA – the Letter of Map Amendment for the, for FEMA, and I get that immediately. I do a lot of flood map work as a consultant and unfortunately there's a lot of people in this county that are in denial that they're in the floodplain. People argue with me everyday that, you know, they've never flooded, they're never gonna flood, and, you know, those flood maps there's portions of Sedro-Woolley that are gonna flood in a 100-year flood event and it's not going to be because of this levee system. As I showed in those exhibits on page 48 and 49, they're well upstream of the 1/10th of a foot impact. Those areas are going to flood in those larger events unless something else is done in those areas. But the, but the whole concept behind the flood insurance, the FIRM, is flood damage reduction. FEMA would like to change that to flood damage elimination but we just don't have the means to provide flood protection to that, to that level in most parts of the country. Just because somebody is built to one foot above the base flood elevation, doesn't mean that they're not going to get wet during a flood event. One of the reasons why, well, I don't want to, well it's probably not important.

That's all I'll address.

[2:57:31]

HE: Alright, thank you very much. [UNINTELLIGIBLE] We have some other remarks? You're still under oath.

LE: Okay. Just a couple points.

One, Mr. Kunzler was using some older documents and I need to point out that topographic information wasn't available. In those early FEMA maps they used a 5-foot contour, we now have contours to the basically I guess the 100th of a foot but more common we use like a 10th of a foot, we have LIDAR, these topographic maps that have been

provided by the cities and the county so we have state of the art digital topography that modeling is conducted on which are to great improvement over what was available in the past.

Another comment is that FEMA did use a split flow. They no longer use that method, they haven't used that method for years – again they use a FLO2D model and they use the more current, accurate digital topography. The statement was made that the water doesn't flow out to the Samish, that it flows to Gages Slough – you can look at county tax records, and this is I have kind of a poor map that I could share, 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 of, um, I can just, I'll give you this for lack of something better.

HE: On the like, show up? Yeah. You can point out what you're talking about.

LE: Okay. [UNINTELLIBLE] So I just wanted to point that this blue is Joe Leary Slough's assessment area that is in the Dike District, it goes beyond this and runs up to capture up above the United General Hospital and that the flow, the reason that drainage area starts up there is because the flow does go out Joe Leary and out towards Padilla Bay into the Samish watershed while Gages Slough runs down through Burlington City proper.

[3:00:16]

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, let me see, the yellow here is Dike 1, now here's La Conner, and should there be a breach, water would want to run through the path of least resistance. But currently because the levee system

stops here, the flow that is predicted to be 52,000 CFS out, Malcolm Leytham, nhc, is very aware of the conditions at the railroad bridge. Part of the uncertainty that I spoke to the 8% 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 4 foot difference in the water surface elevations with the low debris flow versus the high debris and the folks that were around the 95 became 100% debris blockage that backed up and I'm sure Tom was probably an eyewitness to a lot of that event. That, um and those are conditions that you can research, you can bring in every expert you want, we've been in rooms full of people that work for the county that maintain the bridges, people that, DNR that do timber assessment. But you have to have a degree of uncertainty in your modeling because there's just too many conditions that you can't put an exact number on. I know that's been some of the delay and some of the technical work coming out of the GI is getting everyone to agree on how you can model and assess the damages happen where because of the debris uncertainty.

The other one is, is the comment about Sedro-Woolley and folks not doing things to protect themselves versus Burlington. Years ago, Brickyard was rerouted because it was flooding Sedro-Woolley and a ditch was dug around and had it entered the Skagit below Sedro-Woolley. So whereas people have the wherewithal and have localized flooding experience, communities do work to try to improve their localized flooding. One of the other, I guess I'll say half [unintelligible] term from Thomas, is years ago as a member of a county advisory committee I chaired the frequently flooded areas committee as part of the environmental element of the Growth Management Act and you could take these – and that's one of the precursors of the drainage utility so that there was a way to help these localized flooding things that happen and you're going to have

large projects and you're going to have smaller projects then to address some of these areas that – 'Devil in the Details' – but need to be dealt with on a more of a localized impact.

And I think...

HE: You want to submit this?

LE: You know I can't, I can because I spoke about it but because it doesn't show the blue extending up.

HE: I, I.

LE: I could ask that?

HE: It does show. That's fine.

LE: Okay.

HE: You could.

LE: I'm fine.

HE: You don't have to make it into an exhibit unless you want to.

LE: I guess I would like ask my attorney would you like me to submit this, or?

SCHULTZ: Yeah, that'd be a good idea. You could get a better copy.

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

HE: This would be Exhibit 37.

SCHULTZ: You testified to this so go ahead and submit that.

HE: Sure. What I kind of you want you to tell me is kind of what it is, though.

LE: This shows the parcels that are assessed and that contribute to Dike 12. It shows the overlap with the drainage districts in the county and so while these in the white are still blue, there are still in the drainage district, they aren't in the dike district. Since the primary mapping is the dike district, it didn't show all these other districts in their entirety.

HE: What's the source of this?

LE: The source of this, I believe it's from the county GIS department.

HE: Okay. Dike Drainage Assessment is what it says.

LE: Right. It's just to show basically an overlap and basically the drainage utility prepared for a taxation assessment purpose, not to try to show the boundaries. It could be, if you want to make a note to have us provide you with a map that shows the drainage area in its entirety. I'd be happy to work with Kara.

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

LE: Alright.

HE: Exhibit 37. Okay, I think we've reached the end of the road here, at least as far as this hearing is concerned. Has the county have anything they want to add?

JC: I don't think so.

HE: We're concluded.

JC: I think a lot's been said today, enough to digest.

HE: Well thank you all for your patience, I have had a fair amount of time to look at the material I've already received so I don't

anticipate it’ll take very much longer for me to get a decision. Thank you very much.

[3:06:48]

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