

King County Flood Hazard Management Plan Update Citizen's Committee Meeting # 4

MINUTES MARCH 13, 2012

MERCER ISLAND COMMUNITY AND EVENT CENTER

| | |
|---------------|--|
| FACILITATOR | Tamie Kellogg, Kellogg Consulting Inc. |
| NOTE TAKER | Melissa Plotsky/Priscilla Kaufmann |
| ATTENDING | Committee Members: Leonard Carlson, Bob Freitag, Dave Gashler, Warren Halverson, Joe Herr, John King, Molly Lawrence, Martha Parker, Jeff Randall, Steven Stanley, Keith Swenson, Joseph Wartman, Brian Winslow – King County Staff and Consultants: Tom Bean, Steve Bleifuhs, Priscilla Kaufmann, Brian Murray, David St. John, Monica Walker |
| NOT ATTENDING | Nicole Hagestad and Jon Scholes |

AGENDA TOPICS

| | | |
|--|---|---------------|
| 5 MINUTES | WELCOME AND STAFF INTRODUCTIONS | TAMIE KELLOGG |
| DISCUSSION | Tamie Kellogg welcomed meeting attendees and thanked them for participating, briefly introduced the purpose of the meeting, and had all members briefly introduce themselves. | |
| 5 MINUTES | HOUSEKEEPING | TAMIE KELLOGG |
| DISCUSSION | There were no issues or questions in regard to February's meeting minutes. | |
| 35 MINUTES | REPORT AND DISCUSSION ON COMMITTEE ROLES AND RESPONSIBILITIES | BRIAN MURRAY |
| DISCUSSION | <p>Brian discussed the role of the Citizens Committee and the responsibilities of the members and the County, including the difference between the consensus model used during the formation of the 2006 Flood Plan and the current sounding board model.</p> <p>He also introduced process changes for the current Citizens Committee, including:</p> <ul style="list-style-type: none"> • Having more time for discussion • Greater clarity in the meeting notes of the key issues from meeting discussions • Executive summaries to distill key points of each meeting and help members easily see the main points of discussion • Shorter presentations in order to provide more room for discussion. <p>In response to Citizen Committee members, Brian also provided more information on the purpose each stakeholder group and the Council's interest in each.</p> <p><u>Key Question</u> What changes would you like to see in how information is brought to and discussed with the Committee?</p> | |
| QUESTIONS/COMMENTS | KING COUNTY RESPONSE | |
| I would like to make an observation. I got a call and I would like to thank you very much for that call. In that call, I indicated that I was a little surprised at how Steve had reacted to this. That Steve needed to go to the Council and ask these questions. And, then I said that if you take a look at definitions -- words are important -- that a "sounding board" doesn't preclude debate, doesn't preclude discussion, doesn't preclude consensus, doesn't preclude voting. It's pretty open. But I notice that there is -- if you look through all the other documents that we've received, the original charter had in it "consensus" and it also had in it a decision-making matrix all | <p>[Steve Bleifuhs] That's a good question and I obviously can't speak on behalf of Board or Council about what their thoughts or feelings were. But, in terms of direction got from them, all I can say is that they wanted to hear breadth of opinions and thoughts out of this group. It's not that they don't want you guys to debate issues or talk through these very thoroughly, but they didn't necessarily want this Committee to debate issues to the point where it got to a</p> | |

about coming to consensus. Then the final charter received had this subject to opinion sounding thing in it. So there has obviously been a lot of discussion received by the people that you have dealt with and I'd like to know why that came up at that time.

My only observation on that is – and I can see it's a real balancing act – and I think it's really naive for me to think my opinion is to control. Obviously, it isn't. And, it isn't meant to be. The reason I came here was to add value, and I would like to add value. But, I think what you lose is the strength of what everyone is saying when you say, for example, in this last item on the sea wall, support, because as I heard the conversation, it was one of support, and that's almost consensus. You could ask anyone in this room and the thinking was "don't fund it through this mechanism," basically. So, I think what you're going to lose a little bit is that the strength of more than one, or a lot, or everybody. When you say "support," it's a really generalized statement. I mean, if this Committee were to come up with one thing and say, "This has to be it," I think you'd get a great outcome.

singular recommendation where everybody had to buy into a single recommendation. I think in large part because this group, as large as it is, isn't going to really be able to come to a recommendation or a consensus on the different issues. So, they were a lot more interested in hearing every body's thoughts around this and ideas, more than coming to a decision.

[Tamie Kellogg] So, a range of opinions and thoughts versus necessarily narrowing it down to one.

[Steve Bleifuhs] I guess what I want to say, too, is that all the people that are here are debating an issue and everybody decides that they agree with one position or one concept, we would reflect that in the notes. If 14 out of 15 did, we would reflect that, too and say that there was another person on the Committee that felt differently. So, we're going to try and capture that to the extent possible. We just may not get to sway the 15th person.

[Tamie Kellogg] In terms of process, we can certainly do that. When we end dialog, if it feels like the group might be at consensus, I can ask, "Are you in consensus? If anyone doesn't agree with this, please say so." and then we can reflect that, as well. It's not like we're precluding trying to achieve what might be seen as a higher amount of support or strength by using the not using the word "consensus".

| 45 MINUTES | INDEPENDENT EXPERT PANEL REVIEW OF WATER & LAND RESOURCES DIVISION | DAVID ST. JOHN |
|-------------------------------|--|----------------|
| DISCUSSION | <p>David discussed the <i>Independent Expert Panel Review of Water and Land Resources Division's Project Scoping and Implementation Process</i>.</p> <p>He explained the importance of the Panel, the methodology that was used to select projects for inclusion, and went over the seven recommendations that the Panel came up with.</p> <p><u>Key Question</u> Do the seven recommendations from the Independent Expert Panel represent the Committees preferred direction for King County?</p> | |
| SUMMARY OF COMMITTEE COMMENTS | <p>One Committee member was concerned that a few individuals complaints about flood projects resulted in a very costly study and recommends adding additional bureaucratic process and cost to flood risk reduction projects. Another member felt the study was essential in order to point out what is believed to be inadequate civil engineering used by the County. It was pointed out there is more uncertainty when engineering projects in the natural environment than there is in the built environment. Consequently these types of river projects will have less certainty than engineered projects in the build environment using standard materials and outside the influences of moving water.</p> <p>Concern was raised about the cost of implementing recommendation #4 to set up an office of River Public Use and believed that is not the role of the River and Floodplain Management Section. This report should be viewed as an audit where the County can make adjustments to the way they do their work. The Committee all appeared to agree that</p> | |

| | <p>additional studies to implement this MWH study are not needed.</p> <p>The Committee also recommended assuring there was adequate provision made for public review and comment on the proposed designs of flood risk reduction projects.</p> |
|---|--|
| QUESTIONS/COMMENTS | KING COUNTY RESPONSE |
| <p>I have a series of questions. First, you had people who complained and that instigated that you needed to have this group analyze your process. What did this cost?</p> <p>So, now we have \$137K to spend to study our process because of complaints from the stakeholders. Now, how much do you think that all of this adds now to the project? In other words, this is typical government stuff in that we now have a huge report and now you have just that many more things – these projects are just going to get eaten up with administrative stuff. I mean, it sounds like you were doing a great job, but a few people have a few minor complaints. Any study you commission is going to find something wrong. That’s their job. If they don’t, what are you paying for? But they’ve now inundated you with more and more and more. This is a systemic problem in our country. We’re out of control with regulations and this and that. There is government interference in everything we do. Has any good come of this or is this just another bureaucratic nightmare that you guys have to live with? I don’t want to make that sound like a political rant, but this is just what I see with this kind of stuff. It just gets out of control.</p> <p>Well, that’s my question. Has anyone taken this now and said –</p> <p>No, no. I don’t want to do another study on this study – but that’s where this will be. We could go around on this forever and no projects will get done. And, I see that the projects we’re getting done – I don’t care what your project is -- someone could have complained, someone might not have been informed, “you didn’t tell me”, “that’s not the outcome I thought there’d be”, etc. – but now what have you burdened yourself with to satisfy what seems like a pretty small amount of complaints. You’ve already said “Gee, we didn’t get very many comments.” So, who were the complainers? How does small minority get such a big way?</p> | <p>[David St. John] There were two parts and motivations for the report. One is so the general performance management that Christie [Christie True, Director, Department of Natural Resource and Parks] has – so this is not unusual for her to want to do this kind of thing. And, we did have complaints from stakeholders that needed to be addressed. The study cost \$137K.</p> <p>[Tamie Kellogg] So, I hear you saying, really strong support for not working to implement more of what is listed there because it will just eat up process and time.</p> <p>[Tamie Kellogg] So, what do the implementation steps look like?</p> <p>[Tamie Kellogg] Thank you. We will address this for you, but I’m also curious and if there’s anything that showed up under those seven recommendations that seems like something that you would like to encourage this group to do, to take a look at, and throw the rest out or save one of them or --</p> |
| <p>Well, I was one of the original complainers. I was one of the people who met with the panel, who met with MWH. I presented material. I presented 13 pictures showing what I believe to be failures. I’m talking about wood going six miles downstream, I’m talking about wood impacts and a band-aid to part of a steel bridge. I’m talking about a log jam over 100 feet long and a pedestrian bridge supported by wood timbers and I’m talking about 50 homes in the town of Pacific that were flooded. These are serious things in my book. I find one statement in the report that I completely disagree with and that is this statement: “The panel assumes that standards and structural hydraulic and civil engineering are being used by the County where appropriate.” I disagree -- or they wouldn’t</p> | <p>[Tamie Kellogg] Is there a particular recommendation in addition to what’s listed there that you would like to see the County move forward on or view differently?</p> |

| | |
|--|---|
| <p>have had the failures that they have had.</p> <p>You bet -- proper civil engineering, for one thing. Another thing is the National Resources Conservation Service issued in 2007 a free CD giving all kinds of ideas about how to properly use wood in rivers and shores. The only reason the County has a copy of that is because I gave it to them. I've got more.</p> <p>Number one – the Endangered Species Act that Steve gave me a link to in an email a couple of years ago says “80 trees per mile.” That’s the standard for which all of our rivers are going. I question whether there can be any recreation with that amount of wood in the river. Number two – if the County has been doing a good job on engineering these river projects, how come they suggested FL 7023 as part of their program: raise Renton’s bridges. So, now we have had failures that have impacted Renton’s bridges and now we’re going to fix those by raising Renton’s bridges?! I mean how many times are we going to have to turn inside out? Another thing I would say is that the term “River more dynamic” sounds really benign. When you’re talking about millions of dollars of damage, it’s not so benign.</p> | |
| <p>Martha, I was just sort of intrigued, because this kind of goes with Joe’s comments, did this study meet your needs or resolve anything in your mind – the money that was spent?</p> | |
| <p>I think that a lot of the things in the study are really good. A lot of the recommendations were good, but there were a couple of things that I think are really important that were ignored. And, I’ve mentioned them already. The panel <i>assumed</i> that the proper hydraulic engineering standards were being met – that doesn’t cut the mustard.</p> | |
| <p>I guess what I’m wondering is if you think it was worth the money for this study here.</p> | |
| <p>Maybe.</p> | |
| <p>I was not one of the complainers. I had several clients along the river who were trying to get information about several levee projects that were going on and – two things: One, the process for design is so long. In fact, I had a client who sold their property at a significant loss because they just had no idea when the project was actually going to get done and what standards it was going to get done to. And, then I’m also working on another project that’s been featured many times in the last several meetings and I would say that there has been inadequate dialogue with immediately adjoining property owners about what the design is going to be, about what the impacts were going to be, and what the timing’s going to be. Engaging stakeholders would be good and in a more meaningful way. At the same time, I’m also articulating the contrary view, which is that we don’t want it to take six years to design a levee – or three years to design a levee.</p> | |
| <p>How many case studies or how many projects did this panel evaluate? And, how were those things presented to them? Obviously, with the entire administrative record and the design process and the construction process, there’s no way they could have done this in just a few months. Can you maybe just explain the process a little bit more? Let’s just start with how many projects did they review?</p> | <p>[David St. John] There were four projects on the Cedar. The largest project was the Tolt/Snoqualmie. And, there were two or three projects on the Green.</p> |
| <p>So they visited. Did they just assume the design was done properly? I guess I don’t understand how we could have – just from looking and going on a “windshield” tour –</p> | <p>[David St. John] So, they got materials from the staff, from the folks who work on those of projects. They probably had the most material from the Cedar Rapids project. So they had a period where they were gathering information</p> |

| | |
|---|--|
| <p>I was just curious if MWH led them through something like a case study –</p> | <p>and they got information.</p> <p>[David St. John] There wasn't a project by project case study. But certain projects got more attention than others, Cedar Rapids being one, Snoqualmie Confluence (Tolt) being another.</p> |
| <p>I have a comment on #4. It talks about developing an office of River Public Use. It just seems that this is mushrooming from the 2006 Plan to now we get sea walls, we get an Office of Public Use. It talks about two staff, but of course, government always expands, so pretty soon it may be getting bigger and bigger. You know, the focus on flood control is turning into so many other things. So, I'm just worried about how is it going to get funded. There are other government organizations that deal with recreation, it just seems like that's money going in a direction that it shouldn't be going in.</p> | |
| <p>I think we're working toward consensus! Let me express a viewpoint here. We trust that money is spent in a good way. But, I share the taxpayer concern. From another viewpoint, to think of adding two more people to staff – you think of pensions, etc. I would definitely not do that. What I would do is use this as an audit report. In audit reports, you float back this information to people within the organization and you say, "How do we integrate? How do we change? How do we get things done? There are some things we can eliminate and there are some things that are fine." The result of that kind of a study, and one that is done within 30 to 60 days, is that you find that sort of integration going on within the organization. I can also see where you've done things like this, but I don't think it's going to address your concerns. I think you're going to have the same people doing the same thing on #4. So, the standards that you are asking and we're asking for on these rivers and everything, need to be enforced.</p> | |
| <p>The issue that I see is really with what Martha said regarding solid engineering practices, in the sense that I don't know what good solid engineering practices are with regard to a levee. I mean, you can build a levee a certain height a certain lift. You can have it withstand all sorts of forces. But, in terms of practice, they don't handle directly what happens downstream, they don't handle upstream, they don't talk about long-term maintenance directly, they don't talk about that levee system in a negative way as people come up behind it. Levees have a purpose. Tactically they can protect, but they can also cause a lot of long-term damage, in the sense that they provide an artificial protection, that people then build behind and increase the risk. FEMA now has stupid policy that they're promoting called the LAMP policy. Levees are a big deal and the levees that are there now and have some protection now and people built behind them so I think that's a positive thing, but it's much more than the detention area. In terms of the stakeholder question, I mean, who are the stakeholders? Well, the stakeholders are certainly the people who pay for the levees, the stakeholders are most certainly downstream, because the water is confined and they get flooded, the stakeholders are also upstream, and certainly people who use the water are stakeholders. The stakeholders are huge. It's not just the guy being protected, it's <i>also</i> the guy being protected.</p> | |
| <p>Excuse me, but the stakeholders are also the people who have spent the time to read the documents and attend meetings on behalf of the stakeholders who live behind the levee and don't do anything. There's a difference between those who remain ignorant and those who don't.</p> | |

| | |
|--|--|
| <p>Does your figure concern the actual standards of the construction of the setback levee, the embankment, or are you just mainly concerned with the large woody debris? If I understand correctly, the large woody debris came loose and went down the river and did a bunch of damage. I mean we all know there's a bunch of experimentation going on –</p> | |
| <p>That's not all. It's mistakes on top of mistakes. The second design said, "We're going to keep the river within the boundary of County land." It didn't work. The river started eating away, heading toward the boundary of County land, and the County had to come in on an emergency basis and put in huge rocks. Now this is the second design. Now we're going to have a third design. I'm not saying anything about it. I can't really comment on the third design. We'll have to wait and see how it works out.</p> | |
| <p>In the County's defense, I have to say that I like their engineering staff and I think they do a very good job. There's always some inherent risk and there's always some experimentation.</p> | |
| <p>For two months we had complete blockage in the river and the County is supposed to own recreation. Of course, it was early in the year on 5th Ave.</p> | |
| <p>Has the County read the WLRD report and do they agree with it?</p> <p>My question is – what are you going to do differently?</p> | <p>[David St. John] I am sure the staff in these sections have read it. Christie has read it and is getting feedback on it now.</p> <p>[David St. John] She's going to tell us what she wants.</p> <p>[Tamie Kellogg] What he's saying is that the staff, engineers and Christie have all read the report and that Christie is getting feedback and will then decide on what has to be done. After that, they will do the things she has decided on.</p> <p>[Brian Murray] At the risk of speaking out of turn, that a part of this process is internal discussion about how to respond and take these recommendations to heart. Christie isn't just going to read the report and make her own decisions without talking to people. It's important to understand that this is a group effort. She gets input from people who know the program and know the issues in depth and then makes informed decisions with all of that knowledge. The audit analogy I think is a very good one.</p> |
| <p>There's one way to look at risk analysis. Then there's also an emerging way started in 2005 by the Millenium Report looking around ecological services and the river itself. So there's another way of looking at it besides just risk. I'm not suggesting another study, but there are beneficial services provided by the river and even the levees that, as soon as you alter things, those services change. Risk analysis isn't everything.</p> | |
| <p>I think the general consensus is: don't do another study to study the study.</p> | |
| <p>I would say that various failure scenarios should be worked out. One cottonwood tree 24-inches in diameter, with a 5-foot root wad, weighs 1 ton. Imagine one or more of these</p> | <p>[Brian Murray] I do want to note that if you look back at projects proposed prior to the whole Cedar Rapids experience, the City</p> |

| | |
|--|--|
| <p>impacting something on the shore or a bridge pier. This is the kind of failure scenario I would expect to be examined.</p> | <p>proposed the bridge raising projects back in 2007 when the District was first being discussed and they predate issues with wood being moved down river. The basic issue is the bridge itself is above the base flood elevation and the chords supporting the bridge are not. That's why the City of Renton wants to increase the height of the bridges.</p> |
| <p>So these recommendations strike me as being incremental in the sense that they're not going to dramatically change the way things are being done. With that said, they also all seem really quite reasonable to me. I don't think any of them are bad in any way.</p> | |
| <p>In the study, I appreciated Martha's comments a lot. It helps me to understand the problem more. She has first-hand experience, has a desire to be involved in it, and an educational background. How is that used by you and what degree of emphasis is given to that when you put something together?</p> | <p>[David St. John] We did see stakeholder input and information from Martha and other stakeholders on the scope and the guiding questions. And, we had the panel meet with stakeholders. We try to be very inclusive. When I got materials from Martha, I gave them to the Panel. It was important for us to view.</p> |
| <p>I would really love to see some sort of scheduling that goes along with the levee projects that allows the stakeholder process to be meaningful because it's great to say we want to involve more stakeholders, but if we could figure out a way to have a tighter schedule that is more clearly delineated then people will feel as if they can more meaningfully participate.</p> | |
| <p>I'll say one last thing about the comment on civil engineering standards. There are branches of civil engineering that pertain to built environment and there are branches of civil engineering that pertain to the natural environment. The branch that works with the connection to the natural environment is far more uncertain and has a much lower degree of precision than that branch that works with the built environment. Things are much more difficult to predict, they follow a different kind of distributions, and so forth. So, I think that, inherently, there's much more uncertainty and there's a much higher probability of failure in some sense with these types of systems in contrast to what might be considered more general civil engineering.</p> | |
| <p>I think recommendation #5 really does focus right in on that uncertainty and project consequences. For instance, talking about the cottonwood tree, there is no such thing as a standard cottonwood tree with a standard root ball. You have to convey the risks and convey the uncertainty to public and I think that's captured right here. I think a lot of times that the public thinks that when something is built it has thousands of years of engineering experience and that we know things down to three or five significant figures and it's not that precise.</p> | |
| <p>We saw on the shore of the Cedar, and we're told by two, three, four people from Herrera that the 13 engineered log jams would keep the river within the bounds of the County property and that didn't happen.</p> | <p>[Tamie Kellogg] I think the recommendation here sounded like the recommendation is to ensure that the public is getting input on the design and that they are also being told the level of risk and uncertainty associated with things.</p> |
| <p>I would agree with you, but it's hard to do that. When you start talking about real probabilities, the public doesn't want to hear that. It's very hard to communicate. I think that certainly has to be communicated, it's just difficult to do. There are ways to design safety into it. I mean you can have a setback</p> | |

| | |
|--|---|
| levee... [muffled] and maybe homes have a slight chance, but that's why you have insurance. You can't actually plan for uncertainty. | |
| But, I'm not a professional. But I could predict that thirteen engineered log jams placed at various places along four-tenths of a river mile is not going to keep a river in a particular place. | |
| I have to say that the conclusion I'm coming to hearing the viewpoints of those who have vastly more knowledge than I do on aspects of the issue is that this Panel's set of recommendations make a lot of sense to me. That it is a complex situation and that only through study (and, granted, speed is definitely an issue) and analysis can these things be somehow balanced out. Having said all that, I don't think there's any type of foolproof way of dealing with this. | |
| If you look at these seven actions that they assigned... it looks like you should have been doing all of them in the first place. And, this is only to bring it to your attention to keep doing them – but do them better. | [David St. John] I think that in some cases, that we are already doing some of these things. |

| | | |
|--------|---------------------------------------|--------------|
| 1 HOUR | LEEVE VEGETATION AND PL 84-99 PROGRAM | BRIAN MURRAY |
|--------|---------------------------------------|--------------|

| | |
|--|--|
| DISCUSSION | <p>Brian Murray gave a detailed overview of levee vegetation issues.</p> <p>He explained:</p> <ul style="list-style-type: none"> • The Corps of Engineers current levee vegetation program • The National Levee Vegetation Policy • The Seattle District Regional Variance • The Proposed National Levee Vegetation Variance Policy Guidance Letter (PGL) • The System-Wide Improvement Framework (SWIF) <p><u>Key Question</u> How should the Flood Control District engage with the Corps on levee vegetation management and disaster funding eligibility under the PL 84-99 program</p> |
| SUMMARY OF COMMITTEE COMMENTS | <p>The Committee members generally agreed that simply walking away from the PL 84-99 Program was not the answer nor was it wise to follow the nation-wide US Army Corps of Engineers standards. Concern was raised that by disengaging with the CORPS would send a message to floodplain residents and businesses that the levee systems are not safe. The Committee felt it made sense to try and either develop a new regional variance or work through the SWIF process. However several Committee members felt very strongly that King County should not participate in the PL 84-99 program.</p> <p>There was general support for finding opportunities for levee setbacks to allow more room for the rivers. One creative suggestion was to route water through the adjacent floodplain, such as along streets, during extremely high flows. A committee member who was a member of the national engineering team reviewing the performance of the New Orleans levee system stated there is no scientific evidence that vegetation on levees compromises the levees integrity – quite the opposite. It was recommended that an independent group, such as the American Society of Civil Engineers, could help to mediate the issue with the Corps because they are seen as a neutral party of experts.</p> |
| QUESTIONS/COMMENTS | KING COUNTY RESPONSE |
| King County may be in complete agreement about these things, but we might not be. I would like to at some point talk about that. Is there a way to address that? | [Brian Murray] Let me back up a bit. What I'm trying to say is that we're in agreement about concerns about structural stability, inspection and maintenance – we all want to see resilient, stable levees; we all want to be able to inspect and maintain them between King County and the Corps. |
| What are the lawsuits about? | [Brian Murray] They are about whether or not removal of vegetation would impact listed species or their habitat under the |

| | |
|---|--|
| | Endangered Species Act. And, there is also another one about the process by which they basically said that there is not an environmental impact from these policies. |
| Doesn't the existing deal we have with the Seattle District of the Corps also do that? | [Brian Murray] The Seattle District Regional Variance had this 4-inch standard at engineering discretion. I guess that, in a sense, that engineering discretion had some room to base things. It all goes away with the new policies, so that the Regional Variance will be rescinded when this new policy comes into effect. |
| So a system wide improvement wouldn't use the words "in engineering judgment," you'd have to actually spell it out? | [Brian Murray] Yes. That would be my understanding of things. It's a little bit more robust than "engineering discretion." |
| What's the downside of withdrawing from PL 84-99 [?]? How much money are we talking about? | [Brian Murray] The funding they needed from the District in order to leverage working with the Corps for this program in 2008 and 2009 combined was about \$25 million, which went mainly towards repairs... [muffled] Before that large installment, which, as it says in the issue papers was a unique award of funding, we averaged around \$1.5 million to \$2 million a year. The total we've received since 1990 is \$27 million. |
| So, in this pay to play concept what's the \$95 million to \$174 million? So, why are we doing this? | [Brian Murray] That's what we've paid in order to spend. [Brian Murray] The other issue here to keep in mind is liability which is also liability if the levee fails. |
| Does the FEMA program go away if that happens? | [Brian Murray] No. It's totally separate. I think the issue that comes up is that we get a letter from the Corps every year that says there is a status evaluation of the levees under PL84-99 program. They are found to be unacceptable because of the presence of vegetation and, therefore, ineligible for the program. Sometimes, if that continues for awhile, they start to say things like, there hasn't been special maintenance or there has been negligence and the concern is that from the legal perspective, one could use those types of letters to say that if there ever was a levee breach that one might assert that one was the cause of the levee failure. There is potentially a legal concern. Regardless of the ineligibility for funding, there is a concern around potential liability if you are not maintaining your levees |
| You guys have really good immunity. Not just Katrina? | [Brian Murray] I'm not a lawyer, but that's what our lawyers tell us. [Steve Bleifuhs] It's not that cut and dry. There have recently been some cases where the immunity has not held up. [Steve Bleifuhs] In Okanagan. |

| | |
|---|---|
| | <p>[Tom Bean] The other thing to remember is that even if our immunity is really good, even if our odds are really good on the immunity argument, the downside is enormous on the lower Green. FEMA's estimate of a 100-year flow coming through the lower Green without the levee confinement actually successfully holding the river at bay from the community is that you'd be looking at billions of dollars in damage from one event.</p> |
| <p>So, do you not have any other studies or analyses to document the security of your levees with trees in them? I'm really surprised that you don't have any studies of that.</p> | <p>[Tom Bean] I'm with you on that, but what I'm wanting to express is that there is reason to look very carefully at this question.</p> |
| <p>We'll see what these lawsuits bring to the Army Corps in terms of their obligation to comply with the Endangered Species Act.</p> | |
| <p>I want to talk about how the river's flood plain provides a lot of services for us and other living things. The Endangered Species Act and the National Wildlife Federation sued FEMA because these services that are provided to us and to other living things were being interrupted. So, they sued. The major element of that was that the river was not being connected to the floodplain and didn't have all of those services provided. FEMA is now sued again because they didn't do it. The Corps of Engineers is even considered kind of separate, but it's not separate from that issue. I spent a summer in Europe looking at levees and I didn't see any non-setback levees throughout all of the Netherlands, for instance. They have a channel, they have kind of a trained channel, they have a setback area and have another area and that in between area can provide all the vegetation and provide that connectivity that you kind of need between that. The Corps and we should say that you cannot build a levee without vegetation. That means we'd have to have a setback levee and it would have to have this. So, that can happen. Also, you tend to think of a cross-section. We're also dealing with a profile and not all sections of that river are the same. So, even with the Endangered Species Act, if you say, close of this reach, but then you allow some area up there where you can have some connection. So, there are other ways to kind of do this. I cannot see how the new levee policy will not be defensible against the arguments that the National Wildlife Federation used to get to FEMA.</p> | |
| <p>The lawsuit in Idaho is before the same judge, so we're going to have a party.</p> | |
| <p>Number one: wood rots. That's why the Corps doesn't want any wood in the levees.</p> | |
| <p>That's fine, but don't have the levees confine the river to that area. There are ways to address this that even you would agree with.</p> | |
| <p>Can you visualize the cost of making the Duwamish 500-foot wide?</p> | |
| <p>No, but what I can visualize is a section of the Duwamish – and there are areas where you can't have a setback, there are areas where you can confine that [muffled], but you can also spill water over. There's no way that in the next -- thinking of projections we're having – that you're going to have a levee system totally being confined in the Green. You're going to have to spread that water out somehow.</p> | |
| <p>Do any of the plans -- like the SWIF or any of the County plans</p> | |

| | |
|--|---|
| <p>-- recognize an increased advantage of trees on the south and west versus on the north and east? Can you realize a median point or a meeting of the minds by taking that into account?</p> | |
| <p>I think it deals with the meander of the river, it deals with where that beltway is on the side. It's not that simple to say that it's on the north or south or east or west. The river is a long river.</p> | <p>[Tom Bean] Really, there are three different answers I would offer. One is that in the Army Corps policy, there is no directional sensitivity. It's just that if our size is above a certain threshold in a certain area, then it's got to go. In our plans we have also not really had much of an aspect sensitivity. We use trees to help hold levees together and to hold velocities off of the levee slope and keep it from eroding. And, we've done that everywhere, whether it shades the river or not. It gives you habitat benefit even if it doesn't give you a temperature benefit. The third answer I'd offer: the State has recently put out what's called the TMDL (Total Maximum Daily Load) modeling of temperature water quality on the lower Green and shown with their modeling that vegetation on the levees is the difference – or, can be the difference -- between what would be lethal temperatures under today's conditions, but with the system potential tree height being allowed to grow on levee sections, you could actually get down close to the standard temperatures – non-lethal temperatures – even under extreme temperature situations.</p> |
| <p>I think this simplifies the issue in my mind. If we were to drop PL 84-99, it's pretty easy to say from the standpoint of industry that if I was to turn around and have to report to my people that the Corps has unapproved the levees and King County has basically said that we're not going to worry about Corps standards, most of my clients (and I'm dealing with industry), and from standpoint of industrial insurance they would be hard pressed. So, this is not just get out of PL 84-99 program. If you walk away from the Corps and you've pretty much told industry to stuff it and you're going to have people moving out. That's why this whole thing as I've looked at it over the decades... [deep sigh] we've got to be working together. It's got to be resolved. You can't just walk away.</p> <p>Myself, living in the Northwest here, I don't want #1 anymore than anyone else does. What Bob just described is the right way to do it. We need setback levees, we allow what the fish need for their lives, and yet we protect man. That's a win-win. We can't do that everywhere, but where we can, we should be moving in that direction and let the river flow free. With #2 and #3 we need to be talking to the Corps and collaborating with the core and coming up with some kind of agreement so that everyone can agree on what makes a safe levee, not just King County. If King County says that the levee is safe, but nobody else believes them, from an international level, which is where I operate, they're going to go, "King who?" It means nothing.</p> | <p>[Tamie Kellogg] So, no on #4. Are you weighing in on anything else that you think the group should be doing?</p> |
| <p>I just wanted to add that you may know that the tribes have issued essentially a letter in the last few months which contests the EPA and the State's accomplishment on the TMDL</p> | |

| | |
|--|--|
| <p>statements. This is actually a very serious situation because they are essentially challenging the State to come up with better implementation of TMDLs. What that means for rivers is that we have not provided sufficient woody vegetation and buffers outside of that levee area. That will be something that will come into play. I think that what Bob has described is the appropriate approach, where we set back the levee in areas and let's identify the areas that are opportunities to allow that water to spread out. I mean this is a real breakthrough. Having worked on rivers in Southern California and it was always provide the trapezoidal channel and move as much water as quickly through a cost-benefit ratio. Up in Everett, that was the attitude, too. You could not put in any vegetation in any levee and then have ratifications. What I'm hearing – to actually be able to put vegetation on the bases of setback levees – is tremendous. I'd like to take advantage of that because this is a movement in the right direction.</p> | |
| <p>Let's say you held the Green to 25,000 cfs or 12,000 cfs. Let's say that's possible, but you can't really offer anything more than that. Would the community take to kind of retrofitting itself with some design of the streets and other channels to kind of spill water over at 12,000 cfs. Let's say that, over time, if the community itself would elevate buildings, it would have streets that take some water for those extreme events, would that be a possibility where there may be some [muffled]to incentivize...</p> | |
| <p>What you're saying – the idea of routing it through other routes – is not exactly an unviable solution, either. The problem with the Green is that, let's say we were trying to do something like that, we'd be doing that for what? Ten days in a major event? Which is has a significant business impact if we're running it down roadways. But, the idea of routing it through more than just the Green River channel is thinking outside the box and is a good way to think. Why not?</p> | |
| <p>We're talking about just extreme events.</p> | |
| <p>I think there's been discussion about whether or not any of the farming areas could work as compensatory storage during flood events. But, you guys have done back of the napkin analyses on what it would cost to do this – or, at least I understand that you have on what it costs to do setback levees and it's a really, really big number. \$500 million to \$2 billion range is what I've understood. And, I'm not sure I buy what you said in terms of the insurance companies. Do the insurance companies actually know that the levees on the Green are not certified anymore?</p> | |
| <p>That's what I'm saying. The PL 84-99 is not the issue. It's the issue of the Corps coming in and saying, "We find this levee unacceptable."</p> | |
| <p>Well, they do that all the time. Do they see those reports? I mean you've got lots of levees that don't meet PL 84-99 and we're not running industry away.</p> | <p>[Brian Murray] I think what I said earlier about getting the annual letter is that what happened after having these problems in 2009, is that those letters we got every year that said, "You haven't maintained your vegetation" added a few more words about the concerns that they had because of that, and that's where, if you have that message, whether they're right or wrong, that message going out to folks that, regardless of what King County says, that the Corps of Engineers, as the national experts, said</p> |

| | |
|---|---|
| | these are not acceptable and that's the issue. |
| I'm not going to give up on this one thing. So, we're talking about a 100 year event. We're talking about the cost of increasing that whole system to take on an extreme event. At that point, you're talking about the cost of a workforce that is delayed for two weeks, every 100-years or something, but that may be worth it in terms of design. A lot of the buildings are elevated anyway because they have to have loading docks and the loading docks are up. I mean, it appeared that there were certain areas that could take water, that could take the flow, again, for extreme events as a way to hold some of the costs down and maybe even capture some setback potential. Not in every cross-section, but along the river. To put it to you, if people thought this was an extreme strategy, we're talking about an extreme event. | |
| When I'm dealing with industry, I think our biggest trouble right now is that the Corps now has told us that they're coming out with the 500-year event. So now the big question is what the blazes does a 500-year look like? | |
| The modeling that FEMA is sitting on right now and won't let us issue – in the 2010 preliminary maps – is the best modeling that I have ever seen. To be able to see where the water really is going to go – I mean, you do that and you apply a 500-year event and you can route that water around so that industry can survive. If that would be possible, it would be wonderful news. | |
| There are quite a few folks in the floodplain who own small businesses and quite a few of them rent because they could not stand the [muffled]. John is right, if item #4 comes about they won't be able to tolerate that. | |
| I just want to know what you three would recommend? | [Steve Bleifuhs] We've been trying to work on the Corps on this for actually the last year and a half, very intensively. To say that we just want the bookends is not correct. We're trying to get to someplace in the middle working with the Corps. |
| Do you think it's realistic that you'll be able to get before within the timeframe you have before the policy goes into effect? | [Brian Murray] That's the thing about this approach, is that it gives you this two year window. So, we're working with the Seattle District and others so that you don't have to have everything in place by the time the new policy takes effect. I don't know if we have a formal recommendation, but I think that's where #3 is probably where we're heading within the framework that we're doing. It doesn't make sense to have this on a piecemeal basis, levee by levee, with all of the application review. If you work with a system of framework with the Corps so that they partner with us, saying, "Yes, we agree with this prioritization of risks and we agree with the approach with vegetation," you don't get that letter. It's a different one that says that we're in compliance our agreed-upon system we've developed. We haven't all gotten together to discuss what it means, but it isn't really clear what a SWIF is and how it works. The experience of some others in California, we've heard stories of "Well, we overbuilt and overbuilt |

| | |
|--|---|
| | <p>the levees and made them wider than they needed to be, so we could have vegetation, which means more land and it still didn't get accepted." Or it only got accepted because people applied political pressure at the highest levels to make sure it got approved. That doesn't provide us with the certainty that we all need going forward, either. And, I don't think that's what the Corps wants as a model. To be candid, withdrawal from the program completely is probably not a viable thing for all of the reasons we've described today.</p> |
| <p>When you are talking about externalities and who pays for them, the levees are really paid for by everybody who contributes to that levee system. The individuals that may be hurt by a levee can't always support the levee. If it costs a billion dollars to get the levee up to some kind of standard and by spreading the water it costs half that much, it would probably be better to actually have some kind of insurance pool or something to pay for the downtime that these businesses have when that happens, then build this whole system that's not only expensive, but you remove some services.</p> | |
| <p>So, there is absolutely no scientific evidence that suggests that trees or vegetation contribute to destabilization of levees. I have looked at 25 levee breaches, I saw the tree we were talking about, three weeks after Katrina, and this is my own professional opinion and I was not in full agreement with others in the investigation team and others who were looking at this, but that tree was merely a victim of a failed levee, but was in no way the instigator. My other opinion is that I think that removing vegetation would really destabilize levees over the long-term. So, I think you have a really strong technical basis to really work with the Corps on this and provide some objection. I'd say you're also not alone in this. This is an issue that is facing a lot of different communities across the United States. And, everyone is wondering about how they're going to deal with this. One option you may want to consider is to get a neutral party involved with this to work with the Corps in that sense. My particular recommendation is that the American Society of Civil Engineers has a [muffled] of levees that is very influential with the Corps because they are seen as a neutral party of experts. You may ask them formally, because they have been informally asked to look into this, but you may formally ask them if they would weigh in on this issue and perhaps serve as an intermediary between you and the Corps and provide technical opinion. As I said, I think that above all, we've had discussion on liability and so forth, but, above all we hold public safety paramount. I'm fully convinced that this would really not compromise public safety in any way. I can't make that as a 100% statement, as there might be exceptions, but I don't think it really warrants removing vegetation. So, that might be one avenue to working with the Corps. Just as I said, there are a lot of other communities with those issues, so if you can get together with other Flood Control Districts and maybe pull some resources and maybe you can initiate a focused investigation. Right now, scientific evidence for any of this stuff is lacking – and to support my viewpoint as well, I should say.</p> | |
| <p>I'm a little perplexed as I think all of you are about this,</p> | |

| | |
|---|---|
| <p>because I don't know the science at all. But I would say that I'm not too interested personally, as either a taxpayer or a stakeholder, to invest a lot of money into the science or a study on the science. I have trees on the levee in North Bend at 1400 feet right now that I'm wondering about, but I'm not that concerned. I'm interested in John's comment about what he thinks from that perspective and the perspectives of the people doing business around those levees, which one of those options does he think is acceptable.</p> | |
| <p>As I said, I feel that #1 makes us feel nice and safe, but I don't think it's what anyone wants. I think it's somewhere between #2 and #3. I don't know. I think the concern about going to upper levels of the Corps is that my understanding is that you've got a good working relationship with the Seattle Corps office, so that makes it nice in that you do have an advocate or someone you're working with. To me, if #2 or #3 are things that look viable, then I just want everyone to keep talking because we've got to get to a solution. We have to get consensus between the government entities one of these days. This can't go on like this forever. This is ridiculous. We're suing each other and you and I and everyone else is paying for us to sue each other. That's got to be resolved one of these days.</p> | |
| <p>I think you need to be really careful about pushing water back around somewhere or building more levees and things like that. From my experience of 40 years and four floods in the Snoqualmie, a farm that was once pristine and had trout on it, is now a slough. And, by some of the policies that have been taken and some of the things that have been done, and a lot of the things that haven't been done, the water keeps getting pushed back. Now it's more water and more water. And, where does it go? It goes onto this land that's a little bit low and it sucks the land down. Slowly we'll be underwater. So, I think we need to be really careful in thinking about some of these things. If it's decided and people want to spend a lot of money on doing the flushing or whatever it's called, you have a huge PR issue.</p> | |
| <p>I just wanted to say that I'm not really advocating for #4, I just think it's an interesting option because the Corps has been thumbing their nose at everyone for so long that it would be good to thumb back at them at some point in some way. I'm not at all confident that this process would be effective, so despite the desire to not having everyone suing everyone, I think that may be the only way.</p> | |
| | <p>[Tom Bean] I'd like to respond to _____ question to the three individuals; I've been quiet since she asked. I've also been asked the same question by Stu Cook, who is the Chief of Operations of the Seattle District Office of the Corps of Engineers and what I told Stu is that if it was up to me, with my experience, I've been working on King County's rivers for nearly 25 years and I've worked a lot of floods, I've built a lot of levees and put a lot of trees in the levees I've built to make them safe. I believe as Joe said that cutting trees off these levees will make them less safe. Also, I have gone to the Army Corps of Engineers for help. Many times from this very same program PL 84-99 Rehabilitation and Inspection Program. I have never had them say, "Yes,</p> |

| | |
|--|---|
| | <p>I'll help you." Never. They have always found a reason not to. The major exception is the one year that Brian pointed out. I wasn't making those requests. He also pointed out about a million a year. That's not King County, that's the Seattle District. Four states. We're talking about a program that doesn't bring much to the table. I'm #4. Now, I don't get to make this choice, but I will advocate #4 every time I get the chance.</p> |
| <p>I just wanted to reinforce those comments. I worked for about 20 years in the Snohomish District and have some familiarity with the levees there. In Everett, we tried to get the Corps to put woody vegetation on some of the levees, instead of clearing them. And, we didn't make any headway with them at all. The City went out and cleared some of the Simpson-Lee property that runs for about 1.7 miles along that lower bend of the main part of the Snohomish. And, immediately, they lost hundreds of yards of bay, flooding the vegetation and it destabilized the whole area. And, that went on for years. They finally replanted it, but it's still more unstable then, for example, Spencer Island. On Spencer Island, those old levees, which don't meet Corps standards, have Sitka Spruce on them, a really wide variety of vegetation, and they haven't failed in 100 years. There are some other factors and I think that, looking at where these levees are in the landscape, when you're in a tidal situation, you don't have quite the same forces acting upon it. The levee vegetation provides a really important stabilization and erosion control.</p> | |
| <p>There's a lot of research in California on some of those levees using loads [?] as their own armor. There's been a lot of research on vegetation as protective devices, not just providing ecological benefit.</p> | |
| <p>Has there been any experiential learning with others in this area – with option #4?</p> | <p>[Brian Murray] There are probably folks in California who are in the same type of grade that we are in currently and get the letter year after year, but I'm not real familiar with it.</p> <p>[Steve Bleifuhs] It's not a toggle switch by jurisdiction, either you're in or you're out; it's on a levee by levee basis. So we have made the decision to do that because the cost to remove the vegetation is more expensive than to go in and do the repairs to fix the damage – just to get the cost share from the Corps to fix it. So, our experience is that we've saved the money. Anecdotally, from what we've seen in the 200+ project we've done since the early 1990s is that none of these have been from the result of vegetation or trees falling along the river bank. In fact, where we do see a lot of our damage is where vegetation is <i>not</i> present.</p> <p>[Brian Murray] I wanted to bring up the whole question of withdrawing from program and whether or not that's actually possible. The challenge is that you're still</p> |

| | |
|---|--|
| | <p>going to be on a list somewhere as (even the levees we've withdrawn) and that list is still part of the National Levee Database that is in development that will say that King County has an unacceptable and ineligible levee. So, we're still somewhere on someone's list as being, in some people's minds, ineligible.</p> |
| <p>It seems to me that our state was populated relatively recently when compared to a lot of other states in the east. There must have been a lot of levees built in Eastern states and Midwestern states that we could make use of. There's got to be a literature of what has happened there that we could make use of.</p> | <p>[Tom Bean] I agree with you both and would like to share one tidbit. I went, about a year and a half ago now, and got the pleasure of going down to Sacramento to attend what they call the Midpoint Workshop on the California Levee Vegetation Research Program. And, they've just got some wonderful research going on. Dr. Les Harder, who used to be high up in the California Department of Water Resources, I believe he's now with HDR, he's a member of the National Committee on Levee Safety. He has very high qualifications on all of this stuff. He's a leader of some of the research in the California Levee Vegetation Research Program. He said at this Midpoint Workshop that we have <i>thousands</i> of case studies because there are trees on levees all over the country and they have not failed for that reason. We know this.</p> |
| <p>So we take the levee off the program and you do your thing. Now, sometime later, for whatever reason the levee fails. What are the consequences to the property owners from insurance point of view?</p> | <p>[Brian Murray] There wouldn't really be an insurance impact. It's more about our eligibility for Federal Repair Assistance. The program itself has a cost share. It's an 80% cost share has for non-federal levees and 100% for federal levees. It's just for construction. It doesn't include the right away, land acquisition... [muffled]. If you ran into that scenario and you had a levee that was not part of program, you would be ineligible for the possibility of Federal assistance that Tom talked about applying for.</p> |
| <p>Where do those funds come from?</p> | <p>[Brian Murray] The Flood Control District budget.</p> |
| <p>How much does it cost you to be eligible for this?</p> | <p>[Brian Murray] In 2008 and 2009, to remove about 500 trees on the Green and others in Snoqualmie, it cost us something like \$5.6 million to leverage that \$25 million. That was just to do the removal of 500 trees. And, that \$5.6 million did not include the amount we needed to acquire 36-acres on the Green so that we had a place to do the mitigation on the Green. One of the challenges is that the whole system is in the program, so where do you plant the trees to do the mitigation.</p> |
| <p>So, if you just maintained the levees' trees and all they held, we wouldn't have any "blowouts" - and therefore, we wouldn't have to worry about the Program?</p> | |
| <p>You could put the \$5.6 million away and bank it for the next year every year until something does blowout.</p> | |

| | |
|--|---|
| <p>You say it's working because things can happen.</p> | <p>[Brian Murray] I think that as we talk about this, the framework that's emerging in this partnership with the Corps, the way our maintenance lead puts it, instead of clearing out the whole levee of all the vegetation, it becomes more of a gardening exercise in the sense that you've got vegetation that you're trying to grow because it contributes to the structural stability of the levee. You know that if you see certain conditions and certain factors, disease, problems with trees that you need to do some maintenance. So it does have a maintenance implication. So, there's a cost on the maintenance side of it, but it's far less than the however many million.</p> |
| <p>So, in the process of doing that, are we able to comply with the PGL?</p> | <p>[Brian Murray] That's the thing that I would also add about that is that both of these middle options that are perhaps more viable is that the National Marine Fisheries Service and the Muckleshoot Tribe and probably Ecology and some others have been part of this discussion. The SWIF framework and the variances have not been reviewed or consulted with the National Marine Fisheries Service and Fish and Wildlife to make sure that they are PGL compliant. Back to the point about the uncertainties, that's one of the uncertainties. We're all hoping that this group effort will come up with something better than the current status quo and will result in something that meets everyone's needs. Whether or not it will, is a speculative thing at this point.</p> |
| <p>I would just recommend moving as close as possible to #3 and to use the word "partnership" with Corps of Engineers wherever possible. But with my past, having spent time as an Administrative Assistant to a United States Congressman, and I can tell you that on a particular occasion we killed a project in about one day that had been in the making by the Corps of Engineers for about thirty years. So, I would suggest walking softly and carrying a big stick.</p> | |
| <p>What would your costs over a 20-year period – or what have they been -- for repairing levees from floods?</p> <p>The reason I ask is that given your figure of \$5.6 million over 20-years, if you would invest that in a fund and use that money to do repairs, it seems that might be sufficient, especially if you're seeing a cost savings from not only not having to cut down the trees, but the trees are actually protecting the levee.</p> | <p>[Brian Murray] I will have to get back to you on that.</p> <p>NOTE: For reference – between 1998 and 2010 on the Green River we spent \$41M on repairs, average of about \$150,000 per mile per year along the lower Green where the river is most constrained and maintenance needs are highest. Countywide, the 2009 flood event resulted in about \$7 million in repairs.</p> |
| <p>I have the same question because if you look at this from a business point of view, it doesn't make any sense at all.</p> | |