

**SEWARD / BEAR CREEK FLOOD SERVICE AREA
CLEAR CREEK WORK SESSION
SEAVIEW PLAZA BUILDING, SUITE 122
Monday 16 February 2009**

A. CALL TO ORDER

The meeting was called to order at 7:05 PM.

B. ATTENDANCE

BOARD MEMBERS

Bill Williamson, Chairman
Randy Stauffer, Vice Chairman
Tom Gillespie
Bob White
Dave Dieckgraeff
Terry Federer

STAFF

Christina Stauffer
Administrative Assistant

CLEAR CREEK RESIDENTS

Bob Reisner
Bob White

C. WORK SESSION GOAL

Chairman Bill Williamson opened the meeting by stating that the goal of the work session is to get updated input from Clear Creek residents and make a small presentation.

D. SUMMARY

Chairman Bill Williamson introduced the board members, **Assemblyman Ron Long** of the Kenai Peninsula Borough (KPB), **Kevin Lyon**, Director of Capital Projects for the KPB, and **Dan Mahalak**, Project Manager for the KPB Projects Division. He then asked Clear Creek resident Bob Reisner for his comments.

Bob Reisner said that he bought his property in 1974 and that his property is located directly north of the Pit Bar with east and west boundaries from the highway to the creek. The gravel in Clear Creek has risen in elevation with each flood. Last year Clear Creek was up in his yard and has never been before except during floods. Mr. Reisner stated that Tom Gillespie had assisted him in removing old bridge foundations last year. He went on to say that it seemed to him that ever since the borough began requiring permits to work in the stream it seemed more important to protect the salmon than to protect the people. His neighbors, the Chisholms, had been

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very unhappy about the high water on Clear Creek. They had replaced water damaged carpet twice and lost business due to the flooding. Mr. Reisner ended by saying that the water in Clear Creek is getting higher and that the gravel in the creek is also getting higher as evidenced by newly appearing gravel bars.

Discussion was held regarding the actual origins of Clear Creek.

Bob White said that the water in Clear Creek originates from ground water and a number of springs.

Bob Reisner agreed and said that he has a spring on his property that really pumps out water. He repeated that the gravel in the creek bed has risen significantly since the mid-forties. The Army Corps of Engineers did a topography study in 1945 that could be compared to topography today. Mr. Reisner said that he had large trees that were being undermined by the creek and were about to fall into the water.

Bill Williamson asked Mr. Reisner if he had noticed any significant increase in the ground water over the last 6-7 years.

Bob Reisner reported that he had dug a 32 inch deep test hole in 2004 which immediately filled up and has never drained. It still holds about 30 inches of water.

Tom Gillespie commented that he had put a manhole beside the creek to indicate the water table in 1991 and had seen only a few inches of fluctuation since then. He also said that he believed the gravel on the upper part of Clear Creek was not the cause of the rising water but instead the bed load at the confluence was the problem.

Discussion was held regarding gravel removal as a possible mitigation measure for Clear Creek flooding. It was noted that a large amount would need to be removed to be effective and that sediment fills back in over only a short period of time.

Bob White said that when he bought his property in 1981 he could walk the whole of Clear Creek in his rubber boots and not get wet. Now the water is so deep that he would need hip waders and even that might not be enough. The gravel bar at the confluence used to always be dry except when it flooded. Bob said he has walked up and down the creek and observed the confluence since Oliver Kunitake did his dredging and levee project on Salmon Creek. Mr. Kunitake's work probably saved the White Sawmill area in 2006 but the water is now pinching off by Jim Conant's property. Eventually, Bob stated, the water in Clear Creek is going to back up and flood the highway. The SBCFSA can not afford to continue removing gravel at the confluence at the current cost. State charged fees for the gravel and the cost of hauling it is prohibitive. The only solution he can see is a separation dike on Clear

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Creek to move the confluence further south to allow Clear Creek to drain. One of the borough's dredging projects caused water to rise on property downstream. Several people complained and this project was stopped. It is just not cost effective to keep on digging and hauling. Bob stated that he had built a dike on his property and shared the cost with his neighbor who also benefited from it. Trying to come up with a long term solution should be the goal.

Bill Williamson asked if there was any further comment from the Clear Creek residents. There being none, he asked Randy Stauffer for a report on the financial aspects of the Clear Creek projects.

Randy Stauffer started by saying that when the SBCFSA was formed in 2003 it was charged with flood mitigation. The board knew at that time that they did not have the money to make any significant difference by working in the streams. The ever increasing cost for the removal of bed load due to transportation costs, fuel costs and the money charged for the gravel by the state Department of Natural Resources (DNR) has made in stream mitigation virtually impossible. After three years of accumulating money in the SBCFSA fund balance, the board decided to take on some small bed load removal projects to help clean up after the 2006 flood and because people were in trouble. Financially, the board will not be able to continue this. With regard to Clear Creek, if nothing further is done at the confluence, Clear Creek will eventually stop flowing and will back up into a lake. To date, the SBCFSA has spent over \$70,000 to do four small projects for Clear Creek flood mitigation. The reduction of bed load in all of these projects has only lasted a short while until gravel coming down Salmon Creek filled it up again. There are hundreds of thousands of cubic yards of gravel above the confluence and I can not even estimate the cost to remove this even if the board had the means. As Bob said, the SBCFSA did these small jobs because there was an immediate need and Clear Creek was flooding property. The board has spent more money on Clear Creek flood mitigation than all the other projects combined and is fighting a losing battle. The \$70,000 total does not include money spent for hours of pursuing permits or the cost of paying the state for removing gravel from Salmon Creek. The SBCFSA never will have the funds to take out the kind amount of bed load that would make a longer term difference in Clear Creek flow.

Kevin Lyon commented that the last time a study was done it was estimated that there were 450,000 cubic yards of gravel that needed to be removed from Salmon Creek above Clear Creek.

Bill Williamson spoke to the permitting issue. He said that there is only a very short period of time that Salmon Creek can be worked due to fish considerations. Getting a permit requires going to every agency in the state and takes a great deal of time.

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Kevin has been working for months to get a permit that will allow dredging in Salmon Creek reaches as needed for flood mitigation.

Bob Reisner said he has experienced the extreme time and paperwork costs to get permits. In the Kenai Peninsula Borough property is platted to the middle of the creek. He stated that he would probably have to reinforce his stream bank to avoid losing more big trees.

Bill Williamson stated that he wanted to be sure that the public was aware that the SBCFSA needs to get the same permits as everyone else. Because Salmon Creek has been determined to be navigable, the state fee for removal of gravel comes into the equation. It is not free to anyone. Starting with the emergency dredging done on Salmon Creek by the borough in 2007 and thanks to Scott Walden's efforts, we have been getting a variance to remove the first 5,000 cubic yards for free and to pay 50 cents per cubic yard up to 10,000 cubic yards.

Randy Stauffer explained that for the first projects done by the board, we got around some of the permitting issues by using the gravel removed to repair and restore the stream bank after damage by the 2006 flood. Now it is necessary to either pay for the gravel taken from Salmon Creek or store it and protect it. The other big problem is that the stream eventually pushes the gravel right back in from the banks and just moves it downstream. If the board tried to move 450,000 cubic yards of gravel we would have to pay to haul it somewhere even without the state being involved.

Dan Mahalak introduced himself. He asked Bob Reisner if, in his time, the flow of Clear Creek has slowed. Dan asked if the trees that were in jeopardy were old and close to dying and why he (Mr. Reisner) thought the stream was undermining them.

Bob Reisner responded that yes, the creek has slowed. The trees in question are very healthy and he knows they are being undermined because he can now see roots that were never before exposed and one tree is leaning severely.

Dan Mahalak referred to the Army Corps of Engineers topographic study Bob had mentioned and asked if it might be possible get a copy. He added that he would like to help obtain the old documents.

Bob Reisner said he was looking into getting this document through the Army Corps of Engineers in Washington state.

Dan Mahalak stated that at this time he would like to make a small presentation. He said that a picture is worth a thousand words. He then began a Power Point presentation to illustrate his information.

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Dan explained that the images he was projecting and manipulating were created by the data from the 2006 LiDAR. He said he had exaggerated the vertical dimension to make it easier to see. Using the computer, Dan demonstrated graphically a hypothetical flood of the Salmon Creek drainage, including Clear Creek, caused by coastal inundation. He showed how the water would recede and explained that rates of recession would be faster or slower depending on the gradient of the land and pointed out that water would recede much more slowly from flatter land. He said that he had not included the effects of tide in the model which would slow receding floodwater.

One problem at Clear Creek, Dan explained, is that water is slowing and ponding. He showed Clear Creek cross sections on the projection to illustrate why it is doing so. Dan also pointed out that the data would have changed since 2006 as the stream as moved since the flood and gradients have changed. The key question to answer right now is how much it changing and where is it changing. He then showed Salmon Creek and pointed out the old stream channels and where the water is currently flowing.

Kevin Lyon mentioned that the DNR was claiming gravel ownership anywhere Salmon Creek is or has been. It will also be easier for them to keep track of fill because they can see changes on Google Earth as well as from LiDAR data.

Bob White stated that more data was available from the Army Corps of Engineers as they had taken thousands of points of elevation when they built Exit Glacier Road.

Tom Gillespie added that this information would be available from the Department of Transportation or Wyler who was the contractor on the job.

Bill Williamson said that the next LiDAR mapping will show how much human development has slowed the water flow. As people do more, develop more, the water will be slowed even more. We should be able to see how much gravel needs to be removed.

Dan Mahalak continued his presentation. With regard to Clear Creek flooding, what do we do? Where exactly is the problem? The problem is not just high water. High water is present all year round on Clear Creek. The SBCFSA funded some work last fall that helped the stream water and ground water drop temporarily. A culvert might work here. The culvert would need to be maintained and erosion would have to be prevented. Fish would need to be taken into consideration as well. A culvert solution would convey normal surface water but would not take care of flooding. Levees, or avoidance policies, would be needed for that.

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Matt Gray, a Seward resident, asked where the culvert would be.

Dan Mahalak replied that it would need to be behind the earthen levee on the south bank of Clear Creek at the confluence. It would be necessary to determine the best place in order to avoid complications. A culvert would transport water to a marshy area where water is already flowing.

Discussion was held regarding the value of elevating houses versus the costs of continued bailing on Salmon Creek.

Tom Gillespie said that it looks like in the long term the fine silt coming across that channel could fill everything in just one event.

Dan Mahalak stated that he did not think the worst issue is the fine grade silt. Clear Creek should carry the silt further down with normal velocities.

Bill Williamson noted that the Clear Creek flow changes year by year, event by event, flood by flood.

Dan Mahalak said that what is being created here is a ponded reach as opposed to a lake. Even if there are no more flood events, he thinks that Clear Creek will cut a bed. What needs to be determined is where the confluence will be and for how long?

Bob White expressed concern that the next flood event will probably move Salmon Creek over next to the highway and will cause it to enter Clear Creek by the highway. A better solution might be to create a finger dike similar to that at the Lost Creek/Grouse Creek confluence on the north side of Clear Creek starting at the highway and following the river left going downstream. It would need to go past the current confluence about 500 feet. Bob also pointed out that with Clear Creek as deep as it is currently fewer Salmon are coming up to spawn.

Dan Mahalak commented that another possible solution would be personal levees. This would need to be permitted and engineered so that the high water is not simply pushed upstream or downstream onto neighboring property. Perhaps the SBCFSA could consider asking for a higher mil rate. Buy outs could be explored. Dan said that what it comes back to is avoiding putting development in harm's way to begin with.

Discussion was held regarding the history of Seward area flooding and the unpredictability of glacial streams which can move millions of cubic yards of sediment every year.

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Todd Petersen, a Seward resident, asked how much revenue the SBCFSA was receiving currently from its mil rate.

Randy Stauffer replied that revenue was about \$160,000 and after overhead there remained \$60,000 for Contract Services out of which we pay for projects. Some money, he explained, needs to be kept in reserve for matching grant funds and engineering. He is concerned that the public now expects the board to pay for dredging.

Kevin Lyon said that the current rate per cubic yard from competitive bids is \$11. He added that it was not allowed to spend public funds without going through the bid process.

Ron Long stated that it will not be possible to tax our way out of this. All of the other strategies have an application somewhere or the other. The one buy out we have currently in negotiation will only allow for purchasing a very few properties. It is important not in what it offers for individual protection but for protection for others. In order to raise taxes with the current economy it would be necessary to cut elsewhere.

Bill Williamson commented that the board plans to use Dan and his data to explore other sources of money. The SBCFSA could use some help with funding. It might be possible to get some money from Fish and Game to improve salmon habitat for instance.

Randy Stauffer agreed that the SBCFSA can not tax its way out of flood problems and we can not save everyone.

Dave Dieckgraeff pointed out that the board could work with other agencies. The state has projects on the boards that will need large amounts of gravel. Gravel could be taken out of state owned streams and put toward state projects. The SBCFSA needs to get the highway and airport people on board and show them where to get their gravel.

Ron Long said that he had finally found one state legislator who was willing to go along with changing the law to exempt gravel removed for flood mitigation from the state fee. He is not in our district but he will go along. There is probably not time during this legislative session but soon. We should pursue all options including the petition.

Randy Stauffer explained for the public present about the petition the board was going to be circulating and the history of the gravel tariff in Alaska.

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Bob White remarked that taking gravel out of the right place is very important. If you look at aerial views of the construction of Exit Glacier Road you can see that they put a gravel mining operation in beside the road and took out a huge amount of gravel during construction. Removing the gravel from that location caused weakening of a dike and the dike lost a huge amount of large rock that was armoring it. There needs to be some selective dredging at the Clear Creek/Salmon Creek confluence or Clear Creek will back up and flow over Exit Glacier Road. Splitting Clear Creek up would help get the confluence down far enough.

Kevin Lyon stated that the existence of the SBCFSA gives the borough the power to spend mitigation money on more flood projects. Without the board being here the borough would only be able to respond to flood emergencies when there was a threat to public infrastructure. He agreed that it was extremely important to dig in the right place because the cost of digging the hole is the same and you want to get the most benefit from the money. Currently he and Dan are trying to get a watershed masterplan so that individual projects do not interfere with or harm others. Kevin said that he wanted to encourage people to talk to Dan Mahalak or the SBCFSA about personal flood control projects.

Randy Stauffer reminded everyone that the SBCFSA does not have emergency powers.

Bill Williamson commented that Kevin Lyon had asked to speak informally regarding the proposed KPB Ordinance 2009-09 to the board.

Kevin Lyon started by saying that he was hoping to get as much public input as possible and get board input for the wording of this ordinance. Trying to regulate is always difficult. There are obviously places where houses should not be. The borough is trying to put together a reasonable ordinance but there are a lot of issues to be considered including the impact on the local economy. Seward is one of the only places where people own the river bottom. Kevin reported that they already had feedback on the proposed 5 feet of required freeboard and that they had changed it to read 2 feet. There are other areas of the ordinance that are being altered as well. He added that at this time the borough has permitting in place for dredging on Salmon Creek but not the money to do it.

Ron Long said he has been trying to keep up with the changes to the ordinance. He reported that he had submitted an article to the Seward City News and the same article would be in the Seward Phoenix Log soon. In addition to changing the amount of freeboard required, the 500 feet from the highest point of the property has been changed to the lot line. The only properties that will be affected by this ordinance are those outside the current FEMA FIRM mapped area. A sunset clause has also been

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added so that the ordinance would go away after a year unless it was suspended or extended. It would also change if new FIRM maps come out. For now it is asking for 2 feet higher than the highest point from where the house is being built on new construction of a primary structure. If someone wants to build foolishly, that is their business but we want to keep them from harming their neighbor.

Discussion was held regarding the area covered by the ordinance, the limitations and particulars.

Ron Long spoke regarding the Floodplain Task Force that will be developing long term revisions to the borough's floodplain regulations. The earliest that the Task Force can meet is on March 4 in Seward. With regard to the proposed interim ordinance, assembly action will be deferred until after the SBCFSA has had a chance to comment at their meeting of March 2nd. When the ordinance was first introduced the assembly was considering two public hearings. The hearing that was to be scheduled for March 3rd will be postponed. There is a public hearing scheduled for February 17th via teleconference from the borough annex office.

Todd Petersen commented that he was a little dismayed at the public lack of knowledge about this ordinance. The Seward City News does not have it. The Log does not have it. The first public hearing is scheduled for tomorrow and no one knows about this.

Ron Long responded that he had put an article in the Seward City News and that the Log article would be out next week. He said that signs had been placed all over town and on the borough website.

Todd Petersen said that he appreciated Ron's hard work and Dan's hard work but that he opposed any ordinance getting passed before the task force has a chance to do its job. He thinks the ordinance is putting the cart before the horse. Todd stated that he realizes that this is a stop gap measure but he does not think that the situation is so dire that we need another ordinance on the books that will be there for a year.

Ron Long asked if the board members had any input on the ordinance.

Bob White remarked that he agreed with Todd.

Bill Williamson reminded the board that the SBCFSA had actually asked Kevin to check into doing something to keep the building in some of the high risk areas under control. They are only doing what they were asked to do.

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Kevin Lyon pointed out that there some plats that this board has recommended against, individual and subdivisions, but at this point, even if the requested plan is a very bad idea because of flood risk, the borough does not have any way to say “no”. The borough cannot even tell them “yes” with conditions.

Todd Petersen said that if someone in good faith bought a piece of property, how can the borough go back retroactively and tell them they cannot do what they planned.

Terry Federer commented that he does like the ordinance. He likes what has been put together. A person who is new to the area can buy a piece of property and see old growth trees and assume that they are safe. There is not much property available in Seward and people will buy it anyway but this way they might build more safely. Terry stated that he is one person who has property where he wants to build and he would rather do it right.

Kevin Lyon said that the maps were drawn broadly and do not indicate the depth of flooding.

Discussion was held regarding areas that have flooded and areas on the map that indicated a flood history and have never been wet. The consequences of not having any ordinance were also discussed.

Dan Mahalak used his computer data to project a sample cross section taken from a property in Questa Woods to illustrate the intent of the ordinance.

Further discussion was held regarding what FEMA would pay for after a flood disaster and what they would not.

Tom Gillespie remarked that he could understand Todd’s objections to the ordinance.

Bill Williamson asked for any further comment. There being none he adjourned the meeting at 9:05 PM.

Christina Stauffer

Secretary

Minutes Approved: 2 March 2009

Date of Approval