

MINUTES

PLANNING COMMISSION / COMMITTEE OF THE WHOLE

CITY AND BOROUGH OF JUNEAU

Maria Gladziszewski, Chair

June 21, 2011

I. CALLED TO ORDER

Acting Chair Miller called the meeting of the City and Borough of Juneau (CBJ) Planning Commission (PC)/Committee of the Whole (COW), held in the Assembly Chambers of the Municipal Building, to order at 5:30 p.m.

Commissioners present: Nathan Bishop, Benjamin Haight, Marsha Bennett, Dennis Watson, Frank Rue (via teleconference), Dan Miller

Commissioners absent: Nicole Grewe, Michael Satre, Maria Gladziszewski

A quorum was present.

Staff present: Dale Pernula, CDD Director; Greg Chaney, Eric Feldt, CDD Planners

II. REGULAR AGENDA

AME2010-00009

Review of New draft flood maps.

Applicant: CBJ

Location: Boroughwide

Staff report

Mr. Feldt said he is the Project Manager of the re-mapping program since the CBJ Community Development Department (CDD) received the draft Flood Insurance Rate Maps (FIRMs) in October 2010. Several years ago, staff contacted the Federal Emergency Management Agency (FEMA) to look into a specific area of the borough that had a flood designation which was quite peculiar. FEMA responded several years later and decided to map the entire borough and provided new data. The adopted borough FIRMs are severely out of date so it was difficult to make accurate flood zone determinations which affect where development could occur, including when purchasing flood insurance might be required. The current FIRMs of the borough are dated 1981 and 1990, and the new draft FIRMs provided by FEMA were created using that data. The new draft FIRMs contain 20 to 30 years of newer data provided in modeling systems approved by FEMA and the US Army Corps of Engineers (COE). Based on that data, a consulting company, Northwest Hydraulic Consultants Inc. (NHC) out of Seattle, was hired by FEMA to take on this project, and is the main source that provided most of the project data gathering. He said NHC took much of the modeling information and put that data into a Flood Insurance Study (FIS), and then placed it on the new draft FIRMs.

Three main data sources were used to create the new draft FIRMS along coastlines of the ocean, Gastineau Channel, and other areas. Light Detection and Ranging (LiDAR) data was incorporated using the 2002 Mean Low or Low Water (MLLW) reference elevations, the National Oceanic Atmospheric Administration (NOAA) bathymetric data and ocean floor mapping, and wind and precipitation data from the National Weather Service (NWS). For the riverine areas, data was gathered and modeled by the COE, and their modeling methods are used throughout the US. Some results of this modeling is seen when certain floods occur in the country, and the modeling is heavily critiqued. The LiDAR data was used to map contours. Not every riverine and creek area was mapped with detailed methods, which means they did not have water elevation data for every single flooding source of river or creek area. In areas that they do not have detailed information is termed "approximate information" on the new draft FIRMs. In these instances, they did not know what level the water during a 100-year flood event would elevate to, which is an aspect the CDD has to decide upon based on using various data sources. Luckily the main river sources, such as the Mendenhall River and Jordan, Duck, and Lemon Creeks have detailed data provided in terms of elevation numbers being assigned to them on the new draft FIRMs.

On the 1981 Flood Map of the downtown area, the shaded portion represents the special floodplain area where flood regulations apply, and flood insurance is likely to be required. In the V5 zone area, V represents velocity in an area when wind and wave action would result in waves being 3' or higher during a 100-year storm event. Below this area of the FIRM is labeled EL 23, which represents 23' above the MLLW, and during a 100-year storm event the waves would rise to 23'. Therefore, if a person were to build a structure above 23', the water would theoretically not reach the structure. The areas in white on this FIRM represent areas outside and above the special flood hazard area.

The 2010 FIRM is different than what was mailed out with the notice to residents, but it displays similar information of the downtown area. The red arrows point to a V Zone, and other riverine and coastal AE Zones. Along the coastal areas are where the wave action during a 100-year storm event would not be above 3' in height, but hydrodynamic forces would still be experienced from them. The elevation is shown as EL 25', 27', and 23' on different locations of this FIRM of how the waves would interact with the shoreline, depending upon the direction the storm. The ocean floor changes along the shoreline, so the waves would interact with it differently.

He said staff placed the new downtown draft FIRM into the computer system and overlaid it with the latest 2006 aerial photograph of the borough. This shows that the shorelines are located within different flood severity categories. Gold Creek is one of the creeks that was studied without using detailed methods, so it was not provided a Base Flood Elevation (BFE) designation, as was provided in other areas of the map. In other areas of the borough, there would be different flood zone categories applied, such as AH, and AO, which are within special flood hazard areas. AH represents areas susceptible to flood ponding when it rains so heavily and quickly that the water is unable to permeate the ground, or when culverts and creeks are unable to discharge it fast enough. This is likely to be experience during late winter when the ground is frozen and ice might block culverts. AO represents areas where the water would start to accumulate and flow over flat surfaces, which usually appears over parking lots and streets on level surfaces where water cannot penetrate during a 100-year storm event. C, B, and X Zones are outside the 100-year flood hazard area where people are still able to purchase flood hazard insurance, but it is not required. Since they are in a lower flood severity area, flood insurance would be much cheaper.

[Mr. Watson arrived at 5:39 p.m.]

Mr. Feldt continued with the report, stating that by FEMA's definition a flood is "When water goes over two or more properties or acres of normally dry land." He asked that they keep this in mind during the fall months when it starts to rain harder and more frequently. The Land Use Code allows buildings to be constructed in a floodplain under certain regulations, and fill could be placed within them. Hypothetically, if a jar was filled half full with water, and rocks were placed into it then the water pressure would build up and rise. This would be the same situation if they were to place fill at a site, and then build a house atop of it in a floodplain, so the house should be elevated at least 1' above the BFE. The current Land Use Code requires buildings to be constructed at or above the BFE. On the map denoted in blue is the floodway where the water would rise to more frequently than a 100-year flood event. This is where the Land Use Code prohibits residential construction because of the increased flooding capability.

He explained that when a person refinances a home or obtains a new loan to purchase a house are instances when a person might be required to obtain flood insurance if the residences are in floodplains and the mortgages are backed by the federal government. Therefore, it would be wise to speak to insurance representatives regarding the possible need to purchase flood insurance regardless of where the residence is situated. This insurance primarily covers the building and personal property.

The predicted changes in the new FIRMs are in the Gastineau Channel area, and Downtown Juneau and Douglas where the BFE is forecasted to increase by a few feet. North Douglas, Salmon Creek, and Lemon Creek are areas where many zones actually decreased in flood severity from V to A designations, but the BFE is forecasted to increase by several feet. Auke Bay is an area forecasted to have the greatest change from AE to V Zones with the BFE increasing by several feet. Duck Creek is listed as having a new floodway, so it would be an area where residential development would not be permitted because of the increased flooding severity, with an increased BFE of a few feet. The Nugget Mall area is listed as being in a new flood zone. The neighborhood of Aurora Drive, Cascade Street, and Minor Court are forecasted to have a higher BFE and an expanded floodplain.

The comment period ends on Saturday (June 25, 2011), but the CDD office would not be open, so he requested that comments from the public be provided to him or the general CDD Permit Center by Friday (June 24, 2011), which will then be submitted to FEMA. He informed the public that he provided blank comment forms on the testifier table for them to complete and provide to him today, or submit them by Friday. He said FEMA will have three to four months after June 26, 2011 to incorporate revisions, and then they would re-submit a final document to the CBJ in November 2011. At that time, the CBJ has six months to adopt and approve the FIS and FIRMs to maintain good standing with the NFIP, which is a program that provides Juneau with flood insurance. Chair Miller asked if the CBJ is currently in good standing with the NFIP. Mr. Feldt said yes. Chair Miller stated that at the last PC meeting they discussed where it was legal per the Land Use Code to place fill in a flood zone, and staff informed the PC that the CBJ would have to omit that section of code in order to adopt the new FIS and FIRMs from FEMA. Mr. Feldt confirmed that this is correct in V Zones. Mr. Pernula added that in riverine situations of floodplain and floodway areas, fill is allowed to be placed in the floodplain, not in the floodway. The new draft FIRMs are modeled in the 100-year floodplain, and are viewed from the outside in. The model assumes full development of the floodplain eventually encroach onto

both sides of the stream, so once a stream rises 1' they stop development. When that model is stopped, it creates a floodway down the middle. FEMA defined what the floodway is by adding a 1' elevation after full development and fill in the floodplain.

Chair Miller stated that public testimony is generally not provided at COW meetings, which is when the Commissioners hold workshops. However, the new draft FIRMs are of great public interest, and he requested a Commissioner to provide a motion to open public testimony at this time.

MOTION: *By Mr. Bishop, that the COW opens public testimony.*

There being no objection, it was so ordered.

Public Testimony

Jody Vick, 1214 First Street, Douglas, Alaska, said he has had a close working relationship with the CBJ and FEMA flood regulations over the past seven years. In one respect, Juneau has a NFIP, and the CBJ is mandated to carry out the FEMA rules and regulations. In 1981, he discovered that his property is in a high-velocity V Zone, and he applied for a permit to install a concrete wall and 2,500 cubic yards of fill. He obtained a permit to do so through the COE. He later found that per the FEMA regulations that his property is within a high velocity floodplain, and he was not allowed to install a concrete wall or fill. He deviated from this and learned a lesson, which is finally coming to resolution. He said FEMA has processes called "A Letter of Map Amendment (LOMA) and a Letter of Map Revision (LOMR), and the CBJ has to take control of these aspects in terms of the local NFIP. He explained that his residence is in a V Zone that FEMA determined is going to flood, but 500' away on the same side of the street from his property is a triplex, a residence, and 32 condominiums in an X Zone which FEMA says is not going to flood because they are in an area where a beach would protect them. He said he was able to submit a LOMR with a \$6,500 application fee to FEMA, and they forwarded the LOMR to an engineer in Virginia, but it was never actually provided an evaluation. He said James Lowell is a certified professional engineer who showed that the infrastructure he installed on his property has five times the structural integrity capacity as compared to 10' of dirt in front of the adjacent condominiums. He said this area is not a floodway; instead, it is a coastal zone. In order for a flood to take place in this location, they would have to experience high winds and tides occurring at the same time, which previously happened during the Thanksgiving Day Storm in the 1980s, but this area is not a flood zone. He said it could rain 20" per day for 365 days a year and it would not flood the Gastineau Channel because the rainwater flows out with the tide. He said for FEMA to arbitrarily decide 10' of dirt is adequate fill on the adjacent property, versus his 10" concrete wall and fill he installed does not make sense. He found out after the fact that FEMA never did make a determination on the structural integrity of the infrastructure he installed, but it still cost him \$6,500. He is now in the process of working with Senator Murkowski to have this money returned from FEMA because when a person pays the federal government money, they are supposed to receive services in return. This provides FEMA full control, but the CBJ should be making the recommendations on LOMAs through the Engineering Department. He explained that they should take into account the \$6,500 application fee he had to pay FEMA for a LOMR and instead, if the CBJ were to take this over those fees would stay in Juneau and determinations would be locally made. He said Juneau needs the NFIP, and if they are going to experience flooding it would probably be within the Mendenhall River or Montana Creek areas, not in Gastineau Channel. He questions where FEMA derived the BFE numbers of the new FIRMs, as the only BFE numbers he was able to locate was when

they built the Douglas Boat Harbor in 1961, and those are the numbers he used to come up with BFE determinations for his property. He said the new FIRMs contain arbitrary BFE numbers in relation to local FEMA flood zone designations. An engineer in Alexandria, Virginia, who has never been to Alaska provided the flood zone designations, but they do not have the slightest idea as to what is truly represented on the new FIRMs. He stressed that the emphasis has to be placed on local control, especially for LOMA and LOMR applications, fees, and designations. He said the LOMA application is used to request an amendment from FEMA for a fee of \$400, and the LOMR an inquiry as to structural integrity for a fee of \$6,500, so if these are processed locally it would be legitimate. Mr. Watson said he recently spoke to members of the Douglas Neighborhood Association who stated that they were provided relief on the floodplain issue in that area, and he asked if Mr. Vick's property was included in that. Mr. Vick said the revision went from a high-velocity V Zone to an AE Zone, and the BFE was increased from 23' to 24', which provides no relief whatsoever. Mr. Pernula said he is not aware of any local government taking oversight of LOMAs or LOMRs from FEMA, but he believes it might be worthwhile to look into that to see if that is possible.

Lawrence Blood, 227 Irwin Street, provided a handout to the PC. He resides at 227 Irwin Street and also owns 225 Irwin Street [with Lori Blood who testifies later]. These properties are in the vicinity of the bridge near Cope Park in the flood zone along Gold Creek. He referred to the handout, stating that the first photograph contains four orange dots, and two of them are inside the flood zone and two are outside, which correspond to the next two photographs. The next photograph shows two orange stakes and an arrow where his son is standing on the ridge in the flood zone, and the stake near the parking lot is not in the flood zone. The following photograph is at the front door of his residence in the flood zone, and the condominium across Gold Creek in a much lower elevation not in a flood zone. He concludes that the new draft FIRMs are incorrect. He understands that in an A Zone, the flood insurance would cost nearly the same as not being in a flood zone. However, when they purchased their property at 227 Irwin Street, since it was in a hazard area he was unable to use his VA loan benefits. Instead, he had to provide a 20% down payment, which caused a strain on their finances. He said he now owns the house, but some day he might want to sell it but because it is in a hazard area it narrows the pool of potential buyers and would cause financial impacts. He does not believe his house is in a floodplain area because the adjacent uphill property owners had theirs removed from the flood zone designation. He explained that he is going to try to have a map modification instituted to remove this property from the flood zone area, but instead of having one property to do this for he now has two. Therefore, the CBJ should address this now by stating that the new draft FIRMs are incorrect, as clearly a property located above his at a higher elevation cannot be in a flood zone unless water is able to flow uphill. Mr. Bishop asked Mr. Blood to explain the method he used to designate the positions of the stakes in the photographs. Mr. Blood said he used a compass and performed a re-section from a point on the a new draft FIRM that was clearly identifiable on the ground that ended up being located in the area of a stump and telephone pole. Mr. Bishop held up a photograph to confirm that it was from the new draft FIRM. Mr. Blood said yes, stating that it is the FIRM where Gold Creek is highlighted. He said there is no longer flood protection in the wide location near the Cope Park area because the concrete infrastructure no longer exists. It used to be located near his property where his front door is 15' higher than that area and the water level, so there has been a significant change in elevation. He said the elevation of the ridgeline is much higher than what the water level normally is. Mr. Bishop inquired whether Mr. Blood's property was designated as being in the floodplain prior to the new draft FIRMs. Mr. Blood said he does not know. [Lori Blood interjected from the audience stating that she also the owns the property, and when they purchased 225 Irwin Street in 2006 it

was not in a floodplain.] Mr. Haight said Mr. Feldt mentioned earlier that data is lacking for the Gold Creek area on the new draft FIRMs. Mr. Feldt said FEMA did not use a detailed study methodology, and unfortunately it is an approximation, which is why that area is labeled as an A Zone, versus an AE Zone.

Murray Walsh, 2974 Foster Avenue, said he represents many waterfront property owners, particularly on Gastineau Channel, and his interest is the saltwater portion of the new draft FIRMs. He reviewed the 2011 tide book and found six high tides of 20' to 20.3'. Therefore, to have 3' or 4' of "free board" above the highest predicted tide seems like plenty of protection, yet the new draft FIRMs propose 6' to 7' of "free board." He is not saying it is impossible for the area in front of the ferry terminal downtown to experience higher than normal water in Gastineau Channel. Even if Juneau experienced more than 24" of rain in a 3-hour period with 100 mph winds blowing up the channel, and at the exact same moment they had a 20' high tide then they might experience a lot of water, but this scenario seems very unlikely to occur. He does not believe the developers in Juneau should be required to build structures to meet those standards. The CBJ has to accept the responsibility that the federal government has done something wrong in terms of the new draft FIRMs because they contain mistakes. He said FEMA used some type of analytical method either based upon lack of direct and local knowledge, or bad math, etc. It is insane to be predicting floods as FEMA has with the new draft FIRMs, and if such floods were to happen it would be once every 1,000 years, and the residents could live with that. He is glad to see many residents attending this COW meeting because this is one of those creeping aspects that could make life very difficult for the residents of Juneau for generations to come if the CBJ does not do something about it. Another lesson might be that the CBJ should be real careful when they ask the federal government for help in a situation such as this because apparently that is what triggered this FEMA re-mapping of floodplains for Juneau. He asked if the CBJ intends to make an official comment to FEMA on the new draft FIRMs, or whether they are simply going to forward comments from the public to them. Mr. Feldt said the CDD staff would send comments that vary in terms of technical data to FEMA. Mr. Walsh asked if the comments would consist of anything similar to what he just said. Mr. Feldt said he is sure many comments provided are similar to those that Mr. Walsh just stated. Mr. Walsh said he hopes so because he thinks that "something has gone way off the rails here" and he does not know what to do to stop it other than to scream about it, and to encourage everyone else to do the same. Mr. Watson said he appreciates and thanks the public for attending because no one attended the last PC meeting, which is the reason the Commissioners decided to hold this COW meeting, and their comments would be passed on to FEMA. Mr. Walsh said he appreciates that the Commissioners scheduled this COW meeting, and the sensitivity that has been displayed, as this literally would affect how people live their lives. He believes the basis for the increased heights listed on the new draft FIRMs might be due to an un-admitted concern over global warming, which is the only way the levels of the ocean are going rise. If this is what FEMA or its contractor based the new draft FIRMs on then the CBJ ought to know this, but so far despite his asking no one has admitted to this, but that is the only thing that makes any sense. He does not want to see public policy based upon that without FEMA admitting to it.

James Baumgartner, 5150 Lemon Creek, said he lives across the street from Western Auto in the Lemon Creek area. Under the existing borough FIRMs the majority of his property is outside of a flood zone or floodway. He used those old FIRMs to ensure the footprint of his development would not impact wetlands, flood zones, or floodways. The new draft FIRMs show his property in an A Zone, notwithstanding that they installed several cubic yards of fill for a driveway and house pad on-site. He attended the neighborhood meeting on December 2, 2010, held at the

Thunder Mountain High School, and it is commendable and he thanks the CBJ for hosting FEMA and their contractors to present the new draft FIRMs, and answer questions of the public. The FEMA contractors presented the new draft FIRMs stating their rationale, and he understands that FEMA is not soliciting public comments; instead, only comments from the affected communities. If so, he said individuals do not have a venue to present testimony regarding changes that are going to have a big impact on landowners who have property previously outside of the floodplain areas, and with changes in FEMA's methodology has now pulled certain landowners into floodplains. During his conversations with the FEMA contractors at that meeting, they admitted that the methodology of approximating the designation of an A Zone was probably the wrong approach. He said the FEMA contractors set a grid using an approximation manner, versus more exacting methods, which differs depending upon the A Zone on his property, or the AE Zone on the other side of Glacier Highway. He requests the CBJ to ask FEMA to reconsider the methodology they used for his site, and to increase the grid spacing of their LiDAR assessment to pick up fill features to ensure the homestead remains outside of the floodplain area. He has not experienced flooding during the 19 years he has resided on his property. Mr. Bishop asked if Mr. Baumgartner is stating that the A Zone designation methodology FEMA used smoothed out the terrain to a degree so that his property is no longer represented as being above the floodplain. Mr. Baumgartner stated that during his discussion with the FEMA contractors regarding the model they used is when they said the LiDAR assessment determined what the elevations were at discreet points on a grid. Therefore, because the amount of fill he installed on-site is so discrete FEMA's grid spacing missed it, and now his property along the entire zone on this side of Glacier Highway is within a floodplain, but it was not on the old FIRMs. Mr. Bishop asked Mr. Baumgartner if this is because the data was not available, or if the FEMA contractor did not use all the available data. Mr. Baumgartner said he does not know. Chair Miller asked in this particular situation if the new draft FIRMs were adopted, whether Mr. Baumgartner would have to submit in the future a LOMA to try to have his property removed from the floodplain designation by FEMA. In addition, he wonders if there might be a method to remove Mr. Baumgartner's property out of the floodplain now as he suggested by asking that a more detailed assessment by FEMA be conducted, including whether this is incumbent upon CBJ on behalf of Mr. Baumgartner. Mr. Feldt said with the new draft FIRMs almost being a finished product, any technical data received during this comment period would have some bearing on possible changes, but without that the likelihood of receiving such changes might be low, but staff would request that this be done by FEMA. Chair Miller stated that if Mr. Baumgartner has an as-built survey showing current elevations of his property, it might be good technical data to include with his comments to show FEMA that they do indeed have it wrong on the new draft FIRMs. Mr. Feldt said technical data such as that would be valuable, and he suggested that people who provide comments consider going a step further by obtaining a Certificate of Elevation, which would show the lowest floor and highest adjacent grade. This would be more effective and useful for FEMA to possibly remove Mr. Baumgartner's or other property from the floodplain. Chair Miller said to try to get that done by Saturday might be difficult. Mr. Feldt said the CDD requires a Certificate of Elevation to be completed by a surveyor, architect, or professional engineer for a structure built in a floodplain. Mr. Pernula added that if a property were built upon and not in the floodplain in the old FIRMs of the borough, then an Certificate of Elevation would not have been required. Mr. Baumgartner said he appreciates that the CDD staff provided letters to the affected homeowners, although he did not receive one, but he appreciates that a local radio station provided an announcement so he could participate.

Lori Blood, 225 Irwin Street, [wife of Mr. Blood] said she resides at this address, also owns the 227 Irwin Street and Zero 12th Street properties, and that her properties are in the AE Zone near Gold Creek. She said the AE is termed "Approximate Estimation," and her concern is how this FEMA process placed her properties in a flood zone without a scientific study behind it. She referred to the area surrounding the Federal Building and that length of Gold Creek is designated on the new draft FIRMs as being in a flood zone until it reaches the Federal Building where the flood zone just remains in the corridor, and then past the Federal Building property it goes back out into the flood zone. She asked why on all of Gold Creek the Federal Building land is the only property not in the flood zone in this area. She requests a more detailed assessment of the area be conducted before FEMA places her property in a flood zone. Mr. Feldt said the CDD staff would request that more detailed and information be provided in the AE Zones, and explained that FEMA could have used LiDAR to figure out contour elevations. He then stated that during a 100-year storm event they forecast the elevation to be at X feet, which FEMA could have used as the LiDAR corridor. Even so, he said the new FIRMs do not appear to follow the path of least resistance; they appear to follow some arbitrary channel well outside of the concrete walls of Gold Creek, this is one of the AE Zones that staff has deep concerns about. Mrs. Blood said if this area was designated as AE Zone with an arbitrary channel as Mr. Feldt just stated, she asked why the PC and staff are considering sending them in for approval. Mr. Feldt clarified that staff would not be sending the new draft FIRMs to FEMA for approval, but rather data to back these facts up. Mrs. Blood confirmed that what Mr. Feldt is stating is that this body and the community will not approve the new draft FIRMs until staff receives more data. Mr. Feldt stated that once the final product is received from FEMA in November 2011, the Assembly would have up to six months to approve it. Therefore, at that time if this particular area is still being shown as it is on the new draft FIRMs as is, it would be up to the PC to make a decision to forward a recommendation to the Assembly for final adoption, but hopefully the public would have an opportunity to comment on different FIRMs before action is taken on them. Chair Miller confirmed that the City would comment on the fact that the floodplain is being shown outside of the concrete walls of Gold Creek. Mr. Feldt said yes. Chair Miller stated that FEMA should narrow that floodplain. Mr. Pernula said some of the best comments he heard tonight relate to properties near Vanderbilt and Gold Creeks, neither of which have BFEs provided for them. If BFEs were provided along with more detailed scientific information, staff could review each individual residence to determine whether they were elevated above the BFEs and if they are truly inside or outside the floodplain. The general comments staff would provide to FEMA are that they require such information for the homeowners, and for staff to administer the floodplain regulations. He explained that difficulty can occur when an applicant provides a building plan to staff and it appears as though their structure would be well above the floodplain, but on the new FIRMs it shows that the structure would be within it.

Chip Verrelli, 2405 Aurora Court, said he has resided in his residence for 23 years, which is located behind the new boat condominium complex on Jordan Creek Avenue. Previously his house was not in the floodplain, and now it is. He said the new draft FIRMs are incorrect because the ditches in this area start from his property, and run downhill. The adjacent property is not in the floodplain, but his property drains into their property, and his property abuts three adjacent properties that are not shown as being in the floodplain on the new draft FIRMs. He said a previous testifier mentioned the elevation of 29', and he wonders if it is an arbitrary number. It does not seem right for homeowners to have to obtain Certificates of Elevation to confirm the lowest level of structures on their properties. He called the USA Insurance company and requested flood insurance rates should he be required to obtain it, and they informed him that the first two years would be \$350/year, and then it would increase five to eight times up to

\$1,000 to \$1,800/year unless he provides a Certificate of Elevation showing his property is below the 29' BFE. He said this would be the flood insurance premium for his residence located in the middle of the Mendenhall Valley. He conducted research and found that there has never been a flood in this area. The new FEMA floodplain designations are going to financially impact a lot of people in this community, and the official and scientific comments provided to them stating that the new draft FIRMS are incorrect are going to have to be provided by the CBJ to FEMA. Chair Miller said comments provided by the public are important. He said it would be beneficial if landowners had actual data on the ground, such as showing where Mr. Verrelli's lot drains into adjacent lots. These types of comments with data being provided to FEMA would show there are flaws with the new draft FIRMS, and they are not ready to be adopted because they have to be reviewed further. Mr. Verrelli said if the highest tide this year is expected to be 20.3', then 5' plus rain on top of that elevates it to the 29' BFE that FEMA established. Mr. Feldt said the tidal area would not influence that so much, but it is going to be a combination of Jordan and Duck Creeks flooding during a period of heavy rain where water would pool, but 29' is still a high BFE, which is 3' higher than the current adopted FIRMS. Mr. Verrelli said 100 years ago would have been in 1911, and asked if there has ever been any documented flooding in this area during that time. Mr. Feldt said he does not know, and he would have to research this. Mr. Watson stated that when representatives of FEMA were in Juneau, the question was asked as to whether they took glacial rebound into consideration, and their answer was no without providing an explanation as to why. Mr. Pernula said this area is more impacted by potential stream flooding, and the uplift might not have an impact other than eventually the stream would down size and lower the BFE, which might take time. In areas such as this, he believes staff might be able to come up with LiDAR data to determine whether islands, etc. are above the BFE of 29'. He said maybe Mr. Verrelli's property is above 29', or some of the others are as well, or landowners might happen to have Certificates of Elevation for their dwellings on properties, which would assist as hard data to present to FEMA.

Malcolm Menzies, 19005 Glacier Highway, provided a letter to the COW. He said he and Mr. Feldt have corresponded via email regarding the FIS and new draft FIRMS, and he was provided references, but Mr. Feldt could not answer all his questions. He has written to FEMA on them as well, but has not yet received a response. For the record, he is a retired Civil Engineer, Land Surveyor, and has lived in this community for 50 years. He has also had his own practice for 35 years and has worked for government and contractors. He noted that his letter deals with what Mr. Watson just mentioned in regards to glacier or isostatic rebound, or land masses rising. He was unable to obtain from the initial FEMA data what vertical datum was used in terms of the new draft FIRMS other than the 1929 North American Datum based off of Lake Michigan or the Great Lakes tidal influence. He said Juneau is not tidal; instead, at Mean Sea Level, which is MLLW. Therefore, he previously asked Mr. Feldt what FEMA used, and he replied that they were using 2002 datum, which he is questioning. If they are using 2002 datum, the new draft FIRMS are at least 4/10ths of a foot in error by the contour intervals. He is a great believer in photogrammetry aerial surveys, but they have an accuracy limit plus or minus ½ the contour interval. LiDAR has an impulse type accuracy limit, and he does not know what this one was or how accurate it is, but his question is dealing with the Super Bear area, which he was the Engineer Surveyor of record on in the early 1970s. He set those elevations in the parking lot, the storm drain system, and the floor elevations, including other mall buildings and they are all above 31', which is the flood elevation of that area by the 1972-74 survey, and MLLW 1960 datum of Gastineau Channel. Since that datum was established, the government raised the elevation of that datum seven times due to isostatic rebound so it is 1.92' higher now than it was in 1960. Accretion does not just happen along the coast; it happens all over. Therefore, he

questions the elevation shown on the new draft FIRMS of the Mendenhall Mall area of 31' in all instances and where the mall is located the BFE is 32' or above. The parking lot was generally above 31' way back in 1972-74, and it is 1.92' higher than that now. He said he provided the CDD staff the original layout and elevations of the Mendenhall Mall and the storm drain system at the lowest point of the parking lot, and a letter stating that they should add 1.92' to those elevations making the BFE well above that datum. If the datum is truly from 2002, it is around .5' above what FEMA is showing on the new draft FIRMS, plus whatever the accuracy ratio is of mapping pursue. He is questioning the entire new draft FIRMS because they do not compute. He is speaking as a 50-year resident of Juneau who surveyed that land in the 1960s for the original owner, Marshal Irwin, who was a Planning Commissioner who watched it being logged. Afterwards, he ground truth surveyed that property using normal conventional methods, and then the CBJ surveyed it in 1974 by aerial topographic methods; he included in the documentation to staff. He said both of those survey methods concurred and that the original ground elevation prior to filling the land was roughly at 29' to 30'. He said staff and the Commissioners wanted historical data, which this is. He has never in 50 years seen this area flood, it was never in the FIRMS before, and not that is he questions it. In bringing up this questions, it seems like history is repeating itself. He does not know if it was by the Greater Borough of Juneau or the CBJ that was formed later on, but in the late 1960s or early 1970s the City went through a FEMA floodplain study also at that time. That was when FEMA said everything west of Riverside Drive (now where the US Post Office, schools, etc.) was the area they determined to be in a flood zone per FEMA mapping. That flood zone designation by FEMA was disastrous for landowners, and many sold their property at cost. This was beneficial to some people, such as himself as a Surveyor who had to cross-section the area to show FEMA it was not listed on the FIRMS as the right elevation. In that instance, it underwent a three- or four-year study until FEMA admitted that those FIRMS were in error, and then those lands were later allowed to be developed. That was when the CBJ installed the sewer system in the Mendenhall Valley, but not in the Riverside Drive area. He explained that the Mendenhall Loop Road was not designed to route through lands west of Riverside Drive because the CBJ thought it would never be developed. When CBJ finally installed sewer later on west of Riverside Drive, they had to build numerous lift stations. He fears in this case that the borough is probably experiencing the same type of error by FEMA, and he is asking staff and the Commissioners to be very cautious. Correspondence with Mr. Feldt left him puzzled, so he visited the local NWS and asked them when there had been a 10-, 50-, or 100-year flood in the Mendenhall Valley, and their answer was that there have never been any floods. He said a copy of what the NWS gave him is attached to the letter he provided to the COW. He explained that flood Interval Frequencies from 1943-2011 are listed in the NWS data sheet in inches showing actual rain that occurred in Juneau during that time. This data shows that for a 100-year flood at a 24-hour duration has never occurred, and they are able to compute this data using in the same method for 10-, or 12-hour durations, etc. He said Aaron Jacobs is a Hydrologic Meteorologist who he dealt with at the NWS, and he was very shocked at FEMA's floodplain designations on the new draft FIRMS because no one has ever talked to them about this, or requested records. A property owner north the Mendenhall Mall informed him that he was required to pay \$4,800 for flood insurance on an apartment building, which is very high and the banks have already "jumped onboard" with these new draft FIRMS where floodplains are now listed, so some banks are already charging for this floodplain mapping. He was unaware of the new draft FIRMS until two weeks ago when he was speaking to a Commissioner, and then he was provided the notice of this COW meeting. He reviewed the datum he performed regarding the Super Bear property, which he does not believe could be in the floodplain now. He said Mr. Jacobs of the NWS lives and works in the valley, and he informed him that the only area of the valley that could potentially experience a 100-year

flood would be around the Jordan Creek Mall area where Jordan Creek has been re-routed to a huge Y-shape where the culvert conduits are smaller which creates backwater, so headwater over the depth of the culverts could potentially cause flooding. He requested long-term residents to ask themselves when they have ever seen the Super Bear area flooded, or when they have driven in the parking lot when it had 10" of water on it; this has not happened in the 40 years that establishment has been in existence. He stated that Super Bear was the first building constructed in the area in 1974-75, and the mall was expanded from there. He requests the CBJ to determine the accuracy of the mapping, and if the actual vertical datum were taken from 2002, then it would be expressed in the title datum. In addition, the CBJ needs to check the accuracy of the impulse readings for the LiDAR in terms of whether it is plus or minus 1', or plus or minus 1/10th, or plus or minus 5/10ths, which would play into the amount a landowner would pay for flood insurance. Furthermore, the CBJ should conduct actual ground truthing surveys of the aerial mapping. He said the staff and Commissioners have stated that it is up to the citizens to obtain surveys and/or Certificates of Elevation, but he concurs it is FEMA doing this to the citizens, so it is the CBJ that has to do something about this. He said the CBJ could also refer to recent street maps to check elevations of floodplain areas, as they have been reconstructing streets for the past five to 10 years. He requested that the CBJ adjust all the new draft FIRMs as needed, and do not adopt them as they did in 1970 when it impeded development. He would like the CBJ to inform the residents via mail of the FEMA results. He said this last public notice of the new draft FIRMS shocked people and drew them to attend this COW tonight. The CBJ has to do what is necessary as good public policy.

Jack Kreinheder, 2544 Douglas Highway, and Gary Patton, 2546 Douglas Highway. Mr. Kreinheder said he and Mr. Patton own separate units of the Atwater Estates. Mr. Kreinheder said Mr. Menzies alluded to the 2002 date the elevation was collected, but the Atwater Estates were constructed in 2007-10. He asked Mr. Feldt if the elevation data and grid size for Juneau were collected from a LiDAR aerial study. Mr. Feldt said some of the data was, and he does not know the full extent regarding how much of the borough the LiDAR covered, but he could research this and get back to Mr. Kreinheder. Mr. Patton said the grid size is especially important because if the resolution is larger than the elevation of properties, the accuracy of the results would suffer and they would be arbitrary. This is especially true in the coastal areas where FEMA essentially ran a straight line on the new draft FIRMs. When zooming in on their property, the flood line designation is directly through the middle of it, but their property is on flat land. Mr. Kreinheder said one answer could be that it was designated as such from the LiDAR aerial data, which was conducted prior to construction of the complex, but since that time the parcel was graded and filled, so the elevation increased. Another clue is the resolution is limited when they zoomed in on individual properties. An adjacent lot has generally the same contour as theirs, but it is about 6' lower, and the new draft FIRM shows that property in the floodplain. He said he understands that the V Zone is in regards to wave action in a floodplain, and any future event might consist of a southeast type of storm, but that sort of swell would bypass their property. He also understands that a storm surge could cause the water level to back up in the channel and raise the level, but the wave action would be at a 90-degree angle rolling onto the beach, rather than parallel. Mr. Feldt said a greater fetch would take place from Taku Winds blowing up the channel, as compared to coming out of the north and down Mount Juneau, which was experienced earlier this spring during very windy conditions, but the waves did not build up as high as expected during that time because there was not a large fetch. When the Taku Winds are blowing up the channel, the area has a greater fetch with the likelihood of wave build up. Mr. Patton said their property is relatively protected from that impact by the floodplain

of Lawson Creek because it does not have sufficient water depth to create large wave events even during Taku Wind situations.

Mr. Kreinheder asked if Mr. Feldt knows the approximate cost to hire a surveyor to prepare a Certificate of Elevation. Mr. Feldt said he estimates around \$1,000, which is more applicable to having an as-built survey conducted on a property, but it would be a bit different surveying for a Certificate of Elevation. He suggests that property owners call various companies to obtain cost estimates. Mr. Patton asked if the CBJ is going to offer landowners assistance in disputing the new draft FIRMs with FEMA since they are supposed to look out for the interest of its citizens. He said this is true if the Assembly adopts the new draft FIRMs with inaccuracies in the FEMA data, so it would behoove staff and the PC to look out for the citizens of Juneau, as this is their job. Chair Miller said he is fairly contrary, and when he hears so many situations from citizens stating that the new draft FIRMs are inaccurate, then he would not recommend that the Assembly adopt them. Instead, the PC would provide all comments to staff to forward to FEMA regarding the new draft FIRMs, and Mr. Patton's comment about the floodplain of Lawson Creek protecting their property is a good one, including how the wave action against their particular stretch of shoreline is more protected than other beach areas. The PC is holding this COW meeting to figure out if the residents of Juneau should be provided with NFIP protection. Mr. Patton said the new draft FIRMs are arbitrary, granted that some of the data might be legitimate, but the financial impact will be substantial if the new draft FIRMs are adopted.

Mr. Kreinheder asked Mr. Feldt what the situation is with adding fill to raise the elevation of a lot according to FEMA. He explained that he understands that would have no impact if the structure is below the BFE, but in their case they plan to add a couple of feet of fill above the foundation of the building to level the lot and install a patio. He also believes they are able to submit a form to FEMA for dealing with that type of situation. Mr. Feldt said that is a possible solution, but the floodplain at the Atwater Estates is shown to be in a V Zone on the new draft FIRMs, which means it is an area where FEMA states that fill is prohibited to raise the foundation of a structure. Unfortunately, the CBJ Code conflicts with FEMA codes regarding this and states that they could do so, but the ramification if they did so, and then requested FEMA to remove their property from the V Zone; FEMA would deny it because they would have used fill to elevate their property. He stated that if their property were in an AE Zone where fill could be used, they would be able to apply for a LOMR based on fill. Since FEMA is the only agency that could remove a property from a flood zone, they trump the CBJ. Mr. Pernula confirmed that Mr. Kreinheder and Mr. Patton believe that the lowest floor of the Atwater Estates is above the BFE. Mr. Kreinheder said yes, explaining that foundation consists of a concrete slab with the lowest corner grade having 2' to 2.5' of vertical space under their individual units where they could add fill to raise the elevation. Mr. Patton added that the foundation is about 2' above grade. Mr. Feldt said his concern is where the 25' elevation might be compared to the shoreline because if that BFE does not reach the structure then it would clearly show that the units of the structure are outside of the 100-year floodplain. However, if the BFE is underneath the units of the structure, installing fill would not remove it from the floodplain because FEMA does not allow fill to be installed in a V Zone to elevate their structure, and they would not allow it to be removed from the floodplain. He said if the structure was built on stilts, columns, or pilings where the water would be allowed to flow underneath it, they would still be protected because the water would not be coming up to the structure level, but it still would impact the supporting stilts, columns, or pilings. Mr. Kreinheder stated that if they were to install fill under the units of the structure tomorrow, it would not matter because staff is already working off of the data of new draft FIRMs. Mr. Feldt replied that if the CDD received a

building permit from them today, staff would not use the new draft FIRMs because they are not adopted, but they would indicate what the new draft FIRMs show, and if they show a higher elevation, staff would probably recommend to the applicant that they should build their structure to a higher elevation, but they could not require them to do so because the new FIRMs are still in draft status. Mr. Pernula said if their land is higher than the BFE now, or if they legally fill it between now and when the new draft FIRMS are possibly later adopted, they would still have the LOMA or LOMR processes they could undergo to exclude it from the floodplain. Mr. Kreinheder said the comment period ends this Friday, and consideration of adoption of the new draft FIRMs is November 2011. Mr. Feldt clarified that the actual date to consider adoption of the new draft FIRMs is six months after November 2011. After the comments are submitted to FEMA, the CBJ will probably receive a final product from them in November 2011. Staff would re-present those results to the PC for review, and possibly forward a recommendation to the Assembly who would have six months from that time to adopt the newly revised draft FIRMs after November 2011. He is forecasting that this consideration might take place by the Assembly in January 2012. He stated that when the CDD receives the final draft FIRMS from FEMA, staff would contact property owners to notify them of the affected floodplain areas within the borough.

Mr. Kreinheder said the notice refers to buildings shown as being in a floodplain under the new draft FIRMs where flood insurance would be required for new federally backed mortgages, but the research he conducted online indicates that it could also apply to existing mortgages. Mr. Feldt said a new mortgage, refinancing, or obtaining equity loans would be the common triggers for the requirement to purchase flood insurance. He contacted a local insurance company and asked them besides those common triggers if there were other situations, and a bank representative informed him that on rare occasions banks are audited, which would pose another trigger. He recommended that Mr. Kreinheder and Mr. Patton contact their insurance companies to determine whether other unknown triggers he has not mentioned might require the purchase of flood insurance. Mr. Kreinheder said he viewed a FEMA document online today, and the federally backed lender would not be required to scrub their portfolio, but there are processes for FEMA to notify federally backed lenders of changes in floodplains, and if they become aware of them then they are required to institute flood insurance for existing mortgages. Since this is the case, if he were to sell his property in the future and the new buyer has to purchase flood insurance, this would make his property more difficult to sell. Mr. Watson said he has lived in other parts of the country where flooding is fairly serious. With all the flooding taking place in the country right now, all it takes is for insurance companies to state that they need to recoup revenues by increasing rates, so there are no guarantees. He said a huge flood is happening now on the Missouri River where 10,000 people were evacuated, so a major scrutiny of flood insurance is probably going to take place, just like it did following the Katrina event.

Dave Hanna, 11495 Mendenhall Loop Road, said the new draft FIRMs in relation to his property are wrong. He also owns other property on Concrete Way, and there are valuable acres of industrial land in that area, but to the best of his knowledge it has never flooded. He said a situation in that area is where there used to be a bridge across Lemon Creek and the abutments were fairly close together, which created a pinch point. After speaking with FEMA representatives when they were in Juneau last winter, they indicated that they based their flood maps on the fact that the bridge in the pinch point still existed, so the FIRMs back then were wrong, and they still are. If the acreage on Concrete Way had never flooded when that pinch point and the bridge existed, with them now gone that land is never going to flood in the future. He questions why the new draft FIRMs have not been corrected to reflect this, as these facts

were previously brought to the attention of FEMA, and he also talked about this glaring deficiency subsequent to that meeting with CBJ staff. He said staff previously mentioned having the landowners spend a few thousand dollars to request LOMAs or LOMRs from FEMA, but in his instance the Concrete Way property owners would have to hire a contractor to conduct a full study of Lemon Creek because it would be complex to figure out how high that property is going to flood due to the velocity and volumes of water, which could potentially flow down Lemon Creek at various flood stages. He estimates such a study might cost in the area of about \$20,000 to \$30,000 to try to get the Concrete Way industrial property removed from the floodplain, which this is ludicrous. Staff and the PC heard compelling testimony from many people, including from Mr. Menzies who is one of the most qualified men in the State of Alaska to inform them that these new draft FIRMS presented by FEMA are wrong. In terms of the comment period on the new draft FIRMS, he believes the only comment is for staff and the PC to convince the Mayor and Assembly to inform FEMA that the answer is no, and that the CBJ is not going to participate in the NFIP unless the FIRMS are correct. He said the FEMA representatives previously informed him that if the new draft FIRMS are not corrected now during this comment period, when the maps are re-presented in November 2011 it would be nearly impossible to get them corrected after that, so this has to happen now. The CBJ has to stand up for its citizens and state that the new draft FIRMS are wrong because the process was flawed, and they now have to fix them.

Cindy Athern, 4237 Marion Drive, said she when Mr. Watson mentioned the flooding on the Missouri River, she wondered how many people in Juneau are already paying for flood insurance over the years, including that no flooding claims have probably ever been submitted to FEMA. Therefore, she also wonders if it is possible for the CBJ to institute a flood program because, as Mr. Menzies stated earlier, there is no flooding like what FEMA is predicting so it would be a “cash cow” for the City. She lives in the Mendenhall Valley outside the floodplain area, but she carries flood insurance at a preferred rate. An insurance company representative informed her that if her property were in the floodplain it would cost around \$1,500 per year for flood insurance, which is five times what she is paying now. Mr. Feldt said about 500 property owners currently pay for flood insurance in Juneau, and with the new draft FIRMS that would change because some properties would be removed from floodplain areas, while others would be placed within them. Mr. Pernula added that it is difficult to determine the actual number of affected property owners in terms of flood insurance because properties would not be refinanced right away. In addition, notice of this meeting was provided to many people in Juneau who are not going to be affected, so these are unknown aspects until staff reviews individual properties in the field to determine how many houses are actually affected.

Chair Miller described a situation where a new house was constructed last year off of the Mendenhall River, and the bank required the owners to obtain a \$1,275 Certificate of Elevation before they could close their loan, which ended up showing that the property was out of the floodplain, so flood insurance was not required.

Dick Forrest, [no address provided], said he lives about three driveways past the Spaulding Beach condominiums. He has resided at this residence for about the past 50 years. He appreciates that he received the notice of the COW meeting. The new draft FIRMS show his property adjacent to a floodplain in Auke Bay. He is disturbed because he has lived in this area for a long time, and his property is adjacent to Waydelich Creek, which is also not listed as being in a floodplain, so he is pleased how his property was treated in terms of the new draft FIRMS. However, he wonders if he would have to pay flood insurance because his property fronts a

shoreline and a floodplain. He has asked his insurance company, but he has not yet received a response as to what it might cost, or if his property might be excluded. He believes his property is at a 30' elevation.

Paula Smith, 1270 Fritz Cove Road, said she resides at the end of Fritz Cove Road in an area that some people call the "slough," and others the "cove." She understands that their property has been changed from being in a C Zone to a high-risk AE Zone floodplain area. She said their property does not experience wind or wave action, so to be placed into a high-risk flood area does not make sense. Over the past years, the water used to be deeper in this area where a dock was located, but it is nearly closed off now during low tide. The information she received from Mr. Feldt states that they would have to present a letter to FEMA requesting a LOMA, and then hire a surveyor, but Mr. Menzies initially surveyed their property when they constructed the home above the 29' BFE, so this does not make sense either. She and her neighbors in the area did not receive letters from the CDD staff of this COW meeting, so many people that would be in attendance probably do not know that they might be affected by changes in the draft FIRMs. She agrees with all of the comments provided tonight. She does not believe she and her neighbors should have to hire surveyors because the cove is beyond being sheltered, so they would never experience flooding. She said her brother and his wife reside one driveway before Spaulding Beach condominiums who are in Tenakee, so they were unable to attend this COW meeting. She explained that their residence is located approximately 50' above the water level, and he wonders what would he have to do to ensure that their property is not going to be incorporated into a flood zone, and if so, he would have to purchase flood insurance should he sell his property in the future. She said her brother received the notice, but it was not clear what he would have to do, including if he is in a flood zone, so he wonders where FEMA believes the water would come from. Mr. Feldt offered to talk with Mrs. Smith in more detail about specific surveys, LOMAs, and LOMRs following this COW meeting at the CDD Permit Center where he has more data. He said this offer is also open to anyone else who would like to do so. Mrs. Smith said instead of each individual property owner requesting surveys, LOMAs, and LOMRs, she strongly encourages that their cove not be considered as being in a high-risk flood zone. Mr. Feldt said on the new draft FIRMs it shows that area as being in an AE Zone, not in a V Zone. An AE Zone is not in a high wave action area, but it is still in a floodplain. Mrs. Smith stated that when she viewed the FEMA website, she found that they consider AE Zones as high-risk flood areas. She did not contact an insurance carrier, but the FEMA website states that for every \$250,000 building and \$100,000 of contents the annual premium is slightly over \$2,700/year, which is quite high. Mr. Chaney stated that as administrators of this federal program, they review individual properties, and if a house is not located within the mapped flood area even though a portion of the property is within it, but the house is located outside of it, they would correspond with the flood insurance carrier to explain that to them. He said staff at times has had to negotiate with insurance companies because some of their representatives are located in other parts of the country. He noted that all coastal areas are partially in the floodplain because they are along the waterfront, but residences could be built far enough back so they would be out of the mapped flood zone. In such instances, staff would correspond with the insurance companies to state that flood insurance is not required. However, if the residence is in the floodplain then purchasing flood insurance could get very expensive, and a considerable amount of Auke Bay is where the elevation and intensity increased. He said the cove area Mrs. Smith is speaking of would probably still be considered as a flat-water flood area, not a wave-velocity flood zone, and the insurance for flat-water flooding insurance could be expensive. Mrs. Smith said this does not make sense that the entire cove area would remain designated as an AE Zone on the new draft FIRMs, which should be reconsidered. Mr. Chaney said this is what the new draft FIRMs

designate the cove area as, and he has a strong opinion that staff is going inform FEMA of these situations, so it helps that people are commenting. He stressed that the NFIP is a federal program, and the CBJ is unable to do so locally even if they wanted to because it is part of a national program, but any federally backed mortgage has to have flood insurance. He said this is why the FIRMs are so important. They could negotiate the FIS and the new draft FIRMs, but not the entire NFIP unless they do so through Congress, which would be very complicated.

Chip Verrelli, 2405 Aurora Court, [testified previously], said he recently received more information about the refinancing aspect and whether or not the banks know of the new draft FIRMs designation. He explained that his neighbor contacted him about a month and a half ago stating that her bank representative recently informed her that her property is now located in a flood zone, so she is required to purchase flood insurance. Therefore, the banks are already instituting the new draft FIRMs provided by FEMA, and his neighbor is going to have to pay about \$300/month for flood insurance, which they are continuing to negotiate.

Allen Butner, 9220 Lee Smith Drive, said the floodplain designations on the new draft FIRMs would impact reselling property. He said he experienced this with a residence on Behrends Avenue in an avalanche hazard area. He said that property is located on a hill about 60' to 70' in elevation, which requires flood insurance, but he questions how it might flood. He ended up not purchasing that property, nor did anyone else, so the homeowner rents it. He found out that the flood insurance would have been as much as the mortgage payment. For his current property, the flood zone consists of the slab portion around his house being in the floodplain, and he is already required to purchase flood insurance and still will per the new draft FIRMs designation. He currently works for the federal government and owns three businesses. He does not recall the amount he currently pays for flood insurance, but other utilities rates have increased and he cannot afford to pay for flood insurance. He asked if it is true that the CBJ has to decide either 100% that they are going to participate in the NCIP, or 100% that they are not. Mr. Feldt said this is true, and the NFIP is a national program that the CBJ voluntarily enters. Mr. Butner asked what would happen if the CBJ chose not to enter the NCIP. Mr. Feldt said the residents of the CBJ would not be able to obtain federally backed flood insurance unless a presidentially declared disaster occurred. Mr. Butner said he objects to the fact that his yard has to be designated as being in a floodplain because it holds true for the remainder of his property, so he is required to purchase flood insurance. If he wants to try to get his property removed from the floodplain designation he would be required to pay \$1,500 to obtain a Certificate of Elevation, including paying \$6,500 to apply to FEMA for a LOMR. Mr. Feldt said some FEMA applications are free, while others take more time to process and are generally more expensive. Mr. Butner said either way he would have to pay a huge amount of money to the insurance company, the CBJ, FEMA, and a surveyor or a professional engineer. He said he is running out of time to work more jobs to be able to pay for all of this. He spoke to a gentleman earlier this evening at this meeting who informed him that Western Auto was in a flood zone, and his house was not per the current adopted FIRMs, but with the new draft FIRMs that is now opposite. He noted that across the street from his house are dental offices and other businesses, which were not affected by the new draft FIRMs, but all the residential areas have been. He said a forested parcel of land is located behind his property and is owned by the CBJ, which is identified as being a City Park on the new draft FIRMS as being out of the floodplain, but it is very wet. At the intersection area of Super Bear where the CBJ re-channeled Duck Creek, which they should do to other creeks, and then people would not have to pay for expensive flood insurance. When he was initially informed that he had to purchase flood insurance, he spoke to Mr. Bean who performed the original survey determinations of many elevations in the valley. He asked Mr. Bean why so many people were

allowed to construct houses in the valley if it was a floodplain, and Mr. Bean informed him that that area is not. He said Mr. Bean stated that when the CBJ made the decision to connect this area to city water, the water table rose 10' because all the property owners quit using wells.

Scott Shepherd, 9358 Lee Smith Drive, said he is Mr. Butner's neighbor, and he purchased his property about two years ago. The previous owner demolished the initial house, re-graded the property and filled it in, and then installed a new concrete slab. So his property was raised to the same or higher elevation than all the others in that area. He found that the new draft FIRMs show all the neighbors as being out of the floodplain, but their water channels through the roadway, up his driveway, and onto his lot. He said he is a new homeowner carrying an expensive mortgage, and now he is being subject to flood insurance premiums, which is going to be expensive. He said his bank representative recently contacted him stating that his \$1,200/year flood insurance premiums would be increasing, and being a single homeowner and adding this onto the other cost of living increases in Juneau is taking its toll. He believes the new draft FIRMs have errors, so he requests the CBJ to opt out of the NFIP.

Charlie Smith, 1270 Fritz Cove Road, [Mrs. Smith's husband], said he wonders if the FEMA representatives are aware of the Thanksgiving Day Storm in the 1980s when Auke Bay had what he believes was a 100-year storm event, and none of the homes were affected. Mr. Feldt said the data from that storm should have been part of what the FEMA consultant used. Mr. Smith said they obviously did not because they did not receive a letter stating that their designation was going to change, but the Fritz Cove properties are now in the flood zone. Mr. Bishop asked if Mr. Smith is indicating that he was in Auke Bay area during the time of the Thanksgiving Day Storm. Mr. Smith said yes, and he still owns the same property when the storm hit, and he was out in the storm helping friends save boats, not their houses. Mr. Bishop confirmed that the storm did not affect his property. Mr. Smith said the storm did not affect any property in the Auke Bay area. He said most of the old timers in the Auke Bay area say the Thanksgiving Day Storm was probably equivalent to a 100-year storm. He said prior to building his home on the property, Mr. Menzies said the highest flood in a 100-year event would probably be at 25', so he said for them to place the bottom of their footing above the 26' elevation, which he did, but he would now have to purchase flood insurance per the new draft FIRMs by FEMA, or pay an engineer to obtain a waiver. Mr. Bishop asked how close the water was to his property at that time. Mr. Smith said the tide did not raise during that storm very much, and when the tsunami hit other Alaska coastal communities in 1964 the water did raise about 1'. He said the people who testified earlier about the high costs associated with all of this are certainly not exaggerating. It is generally understood that any homes along the waterfront are more expensive. His wife previously testified that for a \$250,000 building and \$100,000 of contents the annual premium is slightly over \$2,700/year, and most of the homes in the Fritz Cove area are valued up to \$2 million, so they would end up paying more for flood insurance than their mortgages. He said they are already paying taxes, private home insurance, etc., so they are talking about making them have to pay "big bucks," which would also be devastating for resale and other aspects. Mr. Pernula asked if Mr. Smith has the elevation survey of the ground on his property. Mr. Smith said Mr. Feldt provided them some information, which they appreciate, and according to that he believes the documentation indicates that their house is at 23' or 25', but they were above the BFE or right at it, although to really argue this issue they would have to hire an engineer to prove it. He stressed that what he does not like about this is that to be exclusionary, individual property owners would have to pay an engineer to prove that they are out of the floodplain, which is being required by the federal government, not the CBJ.

Fred Morino, 3201 Douglas Highway, said he came to speak about Sorenson Way off of Douglas Highway where five or six lots are located, and several of them are now listed as being in the floodplain. Several were not designated in the floodplain before, but they all have the same elevation and abut each other. He said this confirms with what other people have stated in regards to the new draft FIRMs being incorrect in terms of the aspects of the LiDAR grid, etc. Mr. Bishop asked how Mr. Morino determined that those properties on Sorenson Way are all at the same elevation. Mr. Morino said by line of sight, which is as flat as this floor [he pointed to the Assembly Chamber flooring]. He said he is concerned about the extensive time, effort, and energy this review is encompassing, and also the flood insurance costs associated with it in the future. Mr. Watson said Mr. Morino is a man with extensive banking experience, so and he asked if it is safe to state that banks would probably be proactive in requiring flood insurance per the new draft FIRMs. Mr. Morino said the trend now is not to lend money; instead, it is for the bankers do what the federal government tells them to do, and the banks are already starting to incorporate the new draft FIRMs in the process.

Public testimony was closed.

BREAK: 7:38 to 7:44 p.m.

[Mr. Rue disconnected via teleconference at 7:44 p.m.]

COW action

Mr. Haight stated that one obligation to the community is to ensure that those who truly own property in flood zones are protected by purchasing flood insurance, and that others are not burdened with the cost of having to pay for surveys, mapping, or additional flood insurance if they are in fact out of the floodplain. From viewing the new draft FIRMs and the testimony provided tonight, the maps presented by FEMA are flawed. From his engineering experience, the new draft FIRMs consist of a partial design or study that FEMA has not yet completed, and as Mr. Menzies stated it appears that ground truthing has not been done. He said FEMA compared the data that their contractor obtained by sitting in an office down south and working off of data sheets and models, which has not been compared to real on the ground data, which would primarily be in the river and flood type of areas. He believes the CBJ has to provide a strong statement to FEMA, which basically states that from evidence of the testimony provided to the PC by the community, this job by FEMA is not done.

Mr. Bishop echoes those sentiments, and the PC has to support the claims of the community by providing them to FEMA, which would be good to follow up on to show through the LiDAR where the new draft FIRMS are in error. He believes this represents a small sample of the community, as the COW has probably only heard from 10% of the population who have problems that would stem from this. Therefore, backing the comments up with samples of where specific areas are incorrect, with an egregious one being in the Gold Creek location where the new draft FIRMs show a floodplain going up about 7' above the roadway, and provide them to FEMA stating that the new draft FIRMs are unacceptable.

Ms. Bennett said the PC and CBJ have to do as much as possible to prevent a lot of expense on the part of property owners who are truly not in flood zone areas.

[Mr. Rue was reconnected via teleconference at 7:48 p.m.]

Mr. Watson echoes the balance of the Commissioners who have spoken. He said a tremendous amount of work has to be done in a very short amount of time. He believes staff heard compelling information from the testifiers, and it is the responsibility of the PC and staff to ensure that their concerns are effectively communicated to FEMA. If the citizens think of additional comments they wish to provide after this COW meeting, he requested they submit them to staff by the June 24, 2011 deadline.

Chair Miller said a lot of good testimony was provided to question the integrity of the results of the new draft FIRMs, and many cases were presented where the maps are in error, and therefore a strong opinion has to be provided from CBJ that the Commissioners expect more work to be done to ensure the new draft FIRMs are accurate before the PC possibly recommends adoption to the Assembly. A few comments that struck him as being important is when Mr. Smith who resides on Fritz Cove Road was present in Auke Bay during the Thanksgiving Day Storm in the 1980s stating that he had to work to help friends save boats, not their property. He has heard other stories of high tides during that same storm, but in Tenakee properties were damaged, so it could be that they did not have as good of Building Codes that the CBJ has. In terms of the isostatic rebound between 1980 and now, the land is 1.5' higher today than it was then, which makes him wonder if the new draft FIRMs are further in error. He urges staff to write the strongest possible letter to FEMA in regards to correcting the new draft FIRMs.

Mr. Pernula said the greatest impact on FEMA would be to provide facts and numbers. The information provided by Mr. Menzies shows an area of the Mendenhall Mall in a floodplain, but it truthfully has an elevation above the floodplain. There are errors on the new draft FIRMs in that area, which have to be corrected before the new draft FIRMs are recommended for adoption to the Assembly. He said errors such as that could carry over to other areas on the new draft FIRMs as well, such as areas along Vanderbilt and Gold Creeks where BFEs were not provided, and where FEMA identified those streams could be off a bit because they were not provided detailed analysis. He would like to hire a hydrologist to review the information on the new draft FIRMS to ensure they were properly done.

Mr. Rue said the new draft FIRMs would place people in harms way in terms of having to purchase flood insurance based on estimated data. When staff provides comments to FEMA, they should do so stating that people should not be placed in the NFIP without very concise data clearly identifying whether or not their properties are in floodplains, not on estimates.

Chair Miller said it is four days from the comment period deadline. It seems that if more time was provided, staff could possibly garner additional facts by taking elevation measurements. He said if they were to do so then they would be able to show FEMA where the errors are on the new draft FIRMs, and then they could request them to respond as to why this happened. There are many corrections FEMA could make once they figure out why the new draft FIRMs contain wrong data in several areas. He asked staff if it is possible to extend the FEMA comment deadline past this Friday. Mr. Feldt said he asked the same question of a FEMA representative who stated the deadline cannot be extended, but it might be possible to submit technical data and other comments after the expiry period. He is continuing to wait for the final answer to this question from FEMA.

Chair Miller asked staff if the COW is able to make a motion recommending the Assembly hire a hydrologist or surveyor to perform spot-checking to ground truth some of the areas listed on the new draft FIRMs. Mr. Pernula said yes, and if the initial review would not be overly costly they

might be able to do so using existing budgets with some of the CBJ departments or through the City Manager, but if it gets very costly then they would have request to do so through the Assembly. The COW could request that this be done via a motion, and then staff will do the best that they can.

Ms. Bennett stated that the Commissioners are responsible to the people who could be affected by informing FEMA the technical proof that could possibly be submitted after the comment period through a report from an engineer or Certificates of Elevation. This is true especially because only 10% of the affected people have probably commented, and others still have to be notified to inform them of their rights and what they should do. She said the radio is a good method to provide announcements, and staff could also mail another notice.

Mr. Bishop said when the Commissioners were discussing this earlier, they were under the auspice that this was a pilot project for FEMA to review new mapping strategies. Mr. Feldt clarified that the FEMA coastal study is a pilot project, but the mapped riverine areas are not. Mr. Bishop said it would not be a big surprise for FEMA to find out that the Commissioners have concerns and comments on the new draft FIRMs. Staff should point out that pilot projects typically have problems associated with them, and the Commissioners are willing to work with FEMA on that.

Mr. Rue said it is a good idea for Mr. Pernula to pursue hiring a hydrologist or surveyor to conduct spot-checking in questionable areas of the new draft FIRMs. Following that, staff could put together a report stating that the Commissioners are concerned, which includes the Super Bear issue with the data provided by Mr. Menzies, for other sites people mentioned during public testimony, and other obvious errors staff has found.

MOTION: *By Mr. Watson, that the COW requests staff to pursue spot-checking.*

FRIENDLY AMENDMENT: *By Mr. Bishop, that the COW requests staff to pursue spot-checking in obvious areas provided to the COW tonight, and follow-up with those that are most problematic with the new draft FIRMs.*

Mr. Watson accepted Mr. Bishop's friendly amendment.

Mr. Rue asked Mr. Watson if he intended the motion to state that the Commissioners have serious concerns about the accuracy of the mapping process of the new draft FIRMs, and the jeopardy it places people in based on poor data. Mr. Watson said he did not wish to make the motion too lengthy, but he does not have a problem with this. Mr. Rue said the record will reflect this as being the purpose because the COW has serious concerns about the data an methodology used on the new draft FIRMs.

Roll call vote:

Ayes: Bishop, Haight, Bennett, Watson, Rue, Miller

Nays:

Motion passes: 6:0, and it was so ordered.

III. COW COMMENTS AND QUESTIONS - None

Mr. Watson said this is one of the most productive meetings the Commissioners have had, and he thanked the public for attending. His fellow Commissioners agreed.

IV. ADJOURNMENT

MOTION: *By Mr. Bishop, to adjourn the PC/COW meeting.*

There being no objection, it was so ordered and the PC/COW meeting adjourned at 8:15 p.m.