# MITIGATION COMMITTEE MINUTES Wednesday July 6, 2022, 9:00 am Lewes BPW Conference Room Agenda

The Wednesday, July 6, 2022, meeting of the BPW mitigation committee was held at 9 am in the BPW upstairs conference room.

## 1. WELCOME AND CALL TO ORDER

Chairman Lee called the meeting to order at 9:00 am.

# 2. ROLL CALL

# **Committee Members**

D. Preston Lee, P.E., BPW
Austin Calaman, General Manager BPW
Bob Heffernan
Sumner Crosby
Barbara Curtis
Member TBD on June 29, 2022, Regular Board Meeting
City Ex-Officio TBD

## Others

Thomas Panetta, BPW Board Director Robin Davis, Asst. General Manager BPW Sharon Sexton, Executive Assistant BPW

# Attendees reviewed their background:

- Mr. Panetta is not an official member of the mitigation committee. Mr. Panetta stated that he was on the sea-level rise subcommittee of the city planning commission before it was disbanded and has a background in nuclear and civil engineering. Currently on the President of the BPW Board.
- Mr. Heffernan has a mechanical engineering degree and was a member of the of the sea-level rise committee. Mr. Heffernan ran a company that made flow measurement instruments.
- Ms. Curtis has an undergraduate degree in philosophy and a graduate degree from
  Drexel in environmental science. Ms. Curtis has worked in health safety environment
  and that several years in remediation projects. Ms. Curtis was involved with the
  planning stages of buildings and permits regarding wastewater plants.

- Mr. Davis is the assistant general manager of the BPW and was previously with the city as a building official. Held state water license and a level two water license and currently has plumbing license.
- Ms. Sexton is the Executive Assistant at the BPW and hold an associate degree in general business.
- Mr. Calaman stated that he is the general manager at the BPW and has a degree in supply chain and operation management. Mr. Calaman stated that the not only does the committee need to look at assets and facilities but also supply chain issues.
- Mr. Prouty is a retired engineer and worked as a sewage plant operator for six years.
   Worked as a civil engineer designing water and wastewater treatment plants for 37 years.
- Mr. Crosby was also on the sea-level rise committee of the planning commission.
   MR. Crosby has an undergraduate degree in geology and a graduate degree in environmental planning. Worked for EPA, was a schoolteacher, farmer, etc.
- Mr. Lee is a professional engineer and his entire career he worked with water, wastewater, and stormwater with the exception of his first year. Mr. Lee and Mr. Prouty worked together for around thirty years.

## 3. REVISIONS OR DELETIONS TO THE AGENDA

None.

## **NEW BUSINESS**

# 4. FORUM/GENERAL DISCUSSION OF THE DEVELOPMENT OF THE SCOPE AND GOALS OF THE MITIGATION COMMITTEE.

Mr. Lee stated the first order of business is decide what the committee will do. Mr. Panetta stated that with the sea-level rise committee, the focus was on adverse weather events and climate change within the city and on city assets. The BPW focus will be much narrower. The BPW has control over the water, electric, wastewater, and stormwater. This committees concern will be critical assets as opposed to houses. Critical assets are specified separately in FEMA and the tendency is to build higher safety into critical utility infrastructures. Mr. Panetta would like the committee to come up with ideas on what to do with BPW assets in order to protect them from damage, minimize the cost associated with damage and recovery, and ensure the most critical ones survive.

Mr. Panetta stated that one of the more critical BPW assets is the wastewater treatment plant. It is above flood stage now and the near future. The flood stages are set by FEMA.

Lewes has approached 100-year flood, 4.9 times in the past ten years. The probability of this is next to zero. What is the risk to the wastewater treatment plant and what is to be done in the interim, low-lying infrastructure, above ground infrastructure, poles, water tower, etc. Mr. Panetta thinks the mitigation committee should categorize these and come back with recommendations.

Mr. Panetta stated that the 100-year storm is based on a historical 40-year lookback and projected forward. It has served well, but the climate change curve is going up. The rainfall curve is going up. FEMA is not doing anything until the next five years. Mr. Heffernan stated that the 500-year storm is 1.7 feet higher. Mr. Panetta stated that the 100-year flood plains are mapped out topologically and with elevations. The 500-year map does not have elevations associated with it. Some places are doing their own mapping, but this is probably beyond what can be financially afforded here.

Mr. Crosby agreed that the FEMA flood study was based on historical data and a set of probabilities but did not include a set of probabilities analysis of sea-level rise. Mr. Crosby thinks that it is critical to properly incorporate sea-level rise to determine a path that is more conservative.

Mr. Panetta stated that he attended the APPA conference recently and it seemed that other utilities were using the data from the last ten years. This still does not address the increasing slope of the curve, but it is better than nothing and is an existing data set. Mr. Lee questioned if this should be investigated further and seems to be a major task. Mr. Prouty questioned if someone is already doing this. Mr. Lee referred to Delaware's Climate Action Plan and the climate change consequences and questioned if the committee should build on this or redevelop. Mr. Heffernan stated that his experience with the state, is that the state was very reluctant. No one seems willing to provide definite responses. Mr. Heffernan suggested postulating an awful storm in 2050 and try to measure the BPW against that.

Mr. Panetta stated that the draft ordinance that the sea-level rise committee created, used the FEMA 100-year, mid-level curve from ICC, and putting it to an 18" freeboard. The committee did not account for fetch or winds because that becomes impossible to determine when the storm is and breaches. The most common freeboard is 18", but ranges from 12" to 24".

Mr. Panetta referred to AECOM flood study for the city. This is based on upcoming events of Lewes Waterfront Preserve and Fishers Cove. In Mr. Panetta's opinion of the study is very good and very flawed. The study uses a combination table of precipitation and coastal storms. The flaw is that the two are treated as individual variables. The AECOM report can be found on the city website.

Mr. Crosby stated that he hopes that the mitigation committee will look beyond sealevel rise and at all four quadrants of the Delaware CAP plan. Mr. Crosby stated that regarding risk management, the committee should look at the wiggle room in the BPW assets now. What is the effect of hotter, longer days to the electric assets? Mr. Lee stated that there are a lot of other things going in the power industry such as EVs, solar, wind, batteries, etc. The grid system cannot handle all that is projected.

Mr. Panetta recommends that Mr. Calaman put together a list of BPW assets in a matrix form including risks: wind, precipitation, coastal storms, etc.

Mr. Panetta stated that Lewes has one incoming power line. Mr. Calaman stated that the BPW not only has to worry about the substation and 69KV, but the BPW is completely dependent on Delmarva Power from the 69KV tie in point to the midway substation. There is no redundancy. Mr. Panetta stated that the BPW is on the "end of an extension cord". Mr. Lee questioned if Mr. Calaman and Mr. Panetta spoke to Delmarva Power about bringing in another line. Mr. Calaman stated that there is no room. Delmarva Power substations have no additional capacities to tie into right now. Mr. Panetta stated that it is real estate, not enough footprint to put another bank to tie into. MR. Panetta stated that the BPW looked into Delmarva Power putting in another substation, but unable to find land that was accessible enough to the transmission system. This is a weak link and would cost tens of millions to run a line to Route five. The closest one is landlocked, and lines would have to be underground. Ms. Curtis stated that she recently read that the underground lines are not being considered because they are harder to maintain. Ms. Curtis questioned if this has to do with the water table, animals, or corrosion. Mr. Panetta stated that there are multiple reasons. Mr. lee stated that it cost on average a million dollars a mile. Mr. Panetta stated that underground lines are expensive initially, cannot be seen visually, and the size goes up drastically because of the conduit. In the Lewes area, the lines must come out ground and the transformers have to be mounted six feet in the air because of flooding. Mr. Panetta stated that there are tradeoffs and not that simple. Mr. Lee stated that at a recent conference he attended he learned that FEMA funded a project in Palm Beach Florida and Jackson County Missouri to underground entire communities. Mr. Panetta stated that a coastal community in Florida decided post storm to harden lines and went from wood poles to steel or concrete poles. A storm came through and the damage was ten times worse. Subsequently, the community in process of undergrounding.

Mr. Lee questioned if the committee should determine the need, along with the list of assets. Mr. Panetta agreed this is needed. Mr. Lee suggest the committee assume a planning year of 2050. Mr. Lee stated in the GHD study, that the option to harden the plant is using 2050. MR. Lee stated that this seems like a reasonable year. Mr. Crosby stated that all the studies he has seen with sea-level rise are thirty years away, which

feels like tomorrow. Regarding the critical assets, the question is how these assets will last. Mr. Lee stated the planning for WWTP design purposes, used to be twenty years but is now thirty years. Mr. Panetta stated that IRC is based on 100 years, which is what a standard house is expected to last. Mr. Panetta thinks 30 years out is foolish regarding housing, but the infrastructure that is being discussed has a useful life and will have to be replaced regardless of storm damage. Technology changes: right now, there is directional drilling which is not something that that was cost effective 10-15 years ago. Technology is moving quickly especially in the distribution industry. Therefore, the timeframe should be tied to the life of the asset. Ms. Curtis stated the BPW would not replace the entire WWTP at one time, rather replace sections at different times. Mr. Prouty stated that the for the most part this is true. Mr. Panetta stated that the plant was basically gutted when the membrane technology was updated, but with the same footprint. Three options have been discussed as the long-term plan for the WWTP: Harden the plant, move the plant, send flow to the county.

Mr. Crosby questioned the design life consideration for the current plant and the viability with rising waters. Mr. Crosby stated that there is a clock ticking on the age of the plant and age of the design. Whether it is the rising water or another aspect that "gets" the plant, the committee cannot just look at one or the other. In the short-term to keep things running is fine, but at some point, in the future something will need to happen whether it is to build up the plant or move the plant out of the flood plain. Mr. Lee stated that is the purpose of the GHD that is ongoing now. Mr. Panetta stated that when a plant is built, everything is on the same clock. The current plant has new membranes, and the clock has restarted on those with a 10-to-15-year useful life. The EQ tank needs to be replaced because it is 25 years old. The zero point on the clock is all over the place. Mr. Crosby assumes that as time goes by, the cost of replacing those goes up. It may be more depreciative, but the payments are more and more every year. Mr. Panetta stated that the plant is at the peak of the maintenance now and should see the maintenance curve go down. Mr. Crosby questioned if there are any long-term limitations and how long can the plant run in the current condition. Mr. Lee stated that by piecemealing the plant it extends the life. Mr. Panetta stated that there is not that much more area at the present site to develop. Mr. Heffernan questioned having spares. Mr. Calaman stated that it is hard to spare filters because they have to be stored in glycerin, but it will be difficult with the supply chain issues. Mr. Calaman used transformers as an example and stated that Lewes is one hurricane away from having a problem. Delaware Electric Co-op has stopped all implementation of new transformers in new developments. New transformers have a 34-week lead time. If there is a hurricane, FEMA steps in and takes the allocation and puts it where the need is. Mr. Panetta stated that the BPW has increased the inventory over the past year and believes that many people are doing the same.

Mr. Crosby referred to the monthly contractor report and the graph that shows the months flows by day, as well as precipitation. Every time there is a storm, there is higher flow. Mr. Crosby assumes that there is some sort of infiltration in the system and that it is a ground water infiltration into pipes that are sitting partially submerged in the water table. Ground water will rise as sea level rises. Storm water and sanitary system infrastructure will be under water and Mr. Crosby is unsure how susceptible it is to infiltration. Mr. Lee stated that it is susceptible but the new stuff going in is PVC as opposed to clay and manholes are being sealed. It has been questioned how the BPW is handling the flow with the addition of so many people in the past ten years. Mr. Lee stated that it is because the system has been tightened up and less water is being used. The is a plan to line manholes on Cedar, Kings Highway, and Pilottown Road. Mr. Heffernan questioned what percentage of this is done. Mr. Calaman is unsure of the percentage but stated that clay is still there and there is still work to be done and guesses that on the sewer side there may be 25%-40% left. Mr. Crosby stated that it is unknown the condition of the clay infrastructure and may be in good shape. Mr. Calaman stated that the BPW tries to camera everything possible. Mr. Lee stated that Cedar Ave is a big project. Mr. Prouty questioned if the BPW is relining or replacing the manholes. Mr. Calaman stated that the BPW will reline when they can and replace if not. Mr. Prouty stated with the rising water levels, that water is likely to go saline and saline water will damage activated treatment plant faster than anything. Mr. Panetta stated that another aspect is that salinity could completely change the condition of the marshes and trees. Mr. Prouty questioned if any work has been done to keep saltwater away from the well field as well. Mr. Calaman stated that DNREC has pushed for emerging contaminants, like PFAS. The BPW had testing done in September 2021. The water that comes out is terrific and the site location is wonderful. The BPW looked at alternative sites and the options are limited. The wells are fairly shallow, 80-110 feet. Mr. Crosby stated that it is not continuous and that there are no firm layers. Mr. Calaman stated that the BPW purchased the Jones Farm in an act to preserve that area. The development around that area, Mitchell Property, the Village Center, the cottages of the village center, and Kings highway has picked up. The most recent well protection study was in 2003 and DNRECs trigger for doing this study again is adding an additional well. The BPW requested a proposal from DGS and received this at \$77,000 and DNREC offered 10% contribution. The BPW has moved forward with the study. A condition from the Village Center is that DNREC would work with the applicant. Two plan reviews would be required with public comment and a DNREC delineation update had to be provided. This was in 2016. Mr. Panetta stated that the Village Center has been put on hold at this point, but the Mitchell Farm is moving forward. Mr. Lee stated that the county engineer questioned what the BPW would like to see happen and adopted most of the BPW's requests. Mr. Panetta stated that Mitchell Farm stormwater management field does have monitoring wells for contamination in public schools. IT was recommended to the BPW prior to put in a monitoring well between the well field and the Ebenezer branch

because as sea level rise increases, the salinity of the branch needs to be watched. Mr. Prouty questioned if the connection was ever made to the stub at the entrance. Mr. Lee stated that it was connected to Tidewater as emergency connections. Mr. Calaman stated that in anticipation of a connection, BPW installed a 24-inch casing across New Road to provide redundancy on both sides of town.

Mr. Crosby stated that the BPW has different assets with different lifespans and then there is the cost factor. Mr. Crosby stated that he is unsure how to work up that schedule, but it seems that it will be reasonable to protect the assets and that will determine the numbers. Mr. Crosby questioned if the committee should look go to situational. Mr. Crosby stated he does not have a sense of how hotter, longer days affects things but could drum up some scenarios where that may be an issue. One topic is that every year more and more landscape gets paved. This assumes that every year the temperature of the area is going up faster. Is this a factor? Mr. Panetta stated that he is unsure because Lewes has such a coastal influence. Looking at factors independent from each other, the critical risks are wind, water, etc. Mr. Crosby stated that one of the biggest challenges is the synergistic effect. When things get bad, they start to pile up simultaneously. Mr. Panetta stated that with the heat effect, this drives up the air conditioning however from all the studies in the history, the electrification of the economy overshadows those numbers by multiples. The real risk to BPW sustainability from an electric perspective is when does Cape Henlopen go to electric buses and where will they be charged. What will the adoption rate be of these types of things at home? Mr. Crosby questioned what percent of fluctuation, increase or decrease in demand for power kicks off a real problem for the BPW. Mr. Panetta stated that the BPW had a study done by Sergeant Lundy, three years ago, on the distribution lines. AMI would be able to give time of day usage. The BPW has metering on the four circuits. The study was from a high level and showed that the BPW is reaching the point where the big assets, like the substation or transformers, are not going to be 100% redundant. This means with a failure at a transformer, there would be blackouts, spread outs, or cycling. In general, the condition of the electrical assets was quite good. The study included the 20% adoption of EVs. Mr. Panetta is more concerned with items like transformers or the substation because these are things that cannot be stocked and the commonality between utilities is limited. Historically lead time was always three quarters of the year and are now over 16 months. Assuming no tornados in the mid-west or fires in the west, Mr. Panetta does not think the BPW is pushing capacity limits of either the wastewater treatment plant or the electrical distribution.

Mr. Calaman will share that report.

Mr. Lee questioned if the committee wants to try to put something together and use what is already produced. Should 50 years rather than 30 years be used. Mr. Lee stated

that there is probably more data for 30 years and does not think the wheel needs to be reinvented. Mr. Prouty stated that he has heard of a group at the University that is looking at acts of climate and may be a source for some of this information. Mr. Panetta stated that the group is willing to share information and Danielle is a phenomenal resource. Mr. Prouty stated that some of the committee's answers are already in place. Mr. Lee stated that Danielle may have contributed to the DE CAP plan. Mr. Davis stated that he believes that Danielle is still involved in the mitigation planning with the city. Mr. Lee questioned how much this committee should piggyback off what the city has developed. Mr. Crosby stated that the city committee has people looking at different parts. Mr. Panetta stated that the city committee is not looking at anything related to the BPW. Mr. Lee questioned what the city committee is looking at. Mr. Heffernan stated that they look at FRAG and the first idea of a command center was the fire department and had to move it to Cape Henlopen. Mr. Panetta stated that the city does plan for post hurricane and a drill is done every couple of years. Mr. Lee questioned where the work of the sea level rise committee ended. Mr. Panetta stated that there was 95% of a draft ordinance written. Mr. Crosby stated that sea level rise committee was the first step covering some of the items in the CAP plan. It was a specific piece of the overall puzzle. Mr. Panetta stated that the sea level rise committee was more aimed at building and zoning. There was a section that would require increased pervious. Mr. Lee questions if this would solve what the committee is trying to address now and what target to shoot for. Mr. Crosby stated that if a building has a life span of 100 years, the sea level rise committee was looking at 2100 as a time horizon and looking at the whole curve between here and there. Mr. Panetta stated that there was a section that discussed critical assets and another section that was just general. The general curve was forced at 30 years out for mid-level curve forecasting. The critical infrastructure used a longer timeframe.

Mr. Heffernan will send the document to the committee members.

Mr. Heffernan stated that two items from the DE CAP that can be addressed is the rising sea level and the increased precipitation. Mr. Crosby stated that these trends will not stop in 30 years. Mr. Crosby suggests focusing on 30 years but keep in my while discussing that there will ultimately be bigger challenges down the road. Mr. Crosby stated that 30 years may be the right time frame for the now. Mr. Crosby stated that all the data behind the DE CAP, shows an acceleration. It is more complicated than just the sea-level going up because every storm that comes in is in addition to that rising sea level. The frequency of a 1962 storm will go up in 30 years. The frequency of water across Cedar Street will go up. Mr. Lee stated that the study on Cedar Street talked about this. Mr. Prouty questioned if the study includes a decrease in population and demands due to the storms. Mr. Crosby stated that Danielle mentions the concept of retreat. There will come a time that it will be difficult to continue to operate and live in

certain parts of the city. Mr. Panetta stated that he has seen a population curve of five miles from the coast and it does nothing but increase.

Mr. Panetta stated regarding hotter temperatures, utilities are seeing line drooping causing forest fires and subterranean assets with expansion of line and road buckling. Mr. Panetta is unsure if the committee needs to tackle this item, but it could be a factor. Mr. Crosby questioned an earlier statement about coastal mitigating effects and that the BPW gets power from lines that cross an interior part of the Delmarva Peninsula, where there will be more aggressive swings in temperature. Mr. Panetta states that he is not as concerned in Delaware. Mr. Crosby stated that it is undetermined how increased air conditioning affects the grid. With more and more houses coming in and temperatures increasing more air conditioners are run. Air conditioners are becoming more efficient over time but is unsure how it works out. Mr. Panetta stated that the solarization of the areas exacerbates this idea. The industry sees that the peak is broader because the solar is coming off and higher. Then there are EVs being plugged in after work. The industry does not have any visibility. Mr. Heffernan stated that a level of instrumentation is needed to shut off EVs until 11 pm and run air conditioning. Mr. Panetta stated that this is where AMI comes in to play and would incentivize people to use time of day.

Ms. Curtis stated that regarding defining scope of the committee, that 2050, 30 years may be reasonable but would like to look at worst case and not a range. When looking at critical assets and the margin of safety needed, planning around the middle curve drives Ms. Curtis crazy. Mr. Crosby stated as the asset becomes more critical, the tolerance for risk goes down and the highest curve should be used. Mr. Panetta stated that there are communities that have decided to go with the 100% curve. The three curves are 25%, 50%, 75%. Mr. Lee questioned if the committee would use the red line. Mr. Panetta stated yes. Mr. Heffernan stated that the sea level committee used the middle curve because city council chose it six years ago. Mr. Calaman stated that these are the discussions no one wanted to have, and the worst-case scenarios is what has motivated the BPW to start the discussions.

Mr. Panetta stated that there are two delineation areas around the wellfield: the wellhead protection area and the excellent recharge area. The wellhead protection area is somewhat arbitrarily chosen and calculated by a five-year transit time of when oil is on the ground to the screen. It does not mean that things can or cannot be placed on it. Mr. Crosby stated that DGS evaluated the geological resources and classified them in terms of the ability to recharge the aquifer regardless of being a wellhead area. Mr. Panetta agrees. Mr. Crosby stated that excellent recharge area is about general protection of groundwater. Many other places can rely on a mixture of surface water intakes and groundwater to supply its drinking water. Lewes does not have that. Other

communities with similar terrains would use a different time of travel. This is another consideration. Mr. Panetta stated it was his understanding that five years would be adequate time to mitigate, ameliorate final alternatives to the wells. Mr. Crosby stated that it may not be easy or possible to replace these wells if they go down. Mr. Calaman stated that this brings up the issue with the city ordinance and wells are not allowed. BPW was looking outside at Tower Hill to put a production well that would allow 294 homes to have an irrigation well, or AG well. Mr. Panetta stated that there are wells on county land and cannot be annexed in because of the high school. Mr. Crosby stated that there are not really other options to move other than to possibly interconnect one day and depend on Tidewater. Tidewater is getting the water from the same place and are in the same boat. It is critical to protect these resources. Mr. Crosby is unsure if this suggests a longer time of travel or at least more conservative understanding of the importance of the wellhead. Mr. Panetta stated that the wellhead protection area is state delineated. Mr. Lee stated that this is something that new wells will need to be discussed and consider applying for.

The committee decided to design to 2050 and the higher curve.

**Mr. Calaman will compile a list of BPW assets.** Ms. Curtis suggested looking at the useful life and the risks of each asset.

Ms. Curtis questioned how soon the GHD study would be completed. Mr. Lee stated that he expects 90 days. Mr. Calaman stated that the goal was to have final study by end of September-beginning of October. Mr. Lee stated that it would be nice to pick up the WWTP and move it, but there is nowhere available. Mr. Prouty questioned the field next to the water field. Mr. Lee stated that this is the Jones farm and the future location of a water tank.

Mr. Crosby stated that the committee needs to look at the determination of risk and how many people are tied to the failure of an asset (how many houses). Annexation is always a discussion and how much will the customer base grow. Mr. Panetta stated potential annexation has calculated in the studies done through capacity and electric. Mr. Lee stated most areas are already spoken for and there is limited growth.

Mr. Lee questioned how many meetings the committee would like to have and when the next one will be. Ms. Sexton stated that the resolution states that there is to be a minimum of four meetings a year.

Next meeting will be held on Wednesday, August 3, 2022, at 9:30 am.

Mr. Crosby stated that behind the state planning process there are documents compiled that may be useful.

Mr. Lee presented a list of resources assembled by Mr. Davis and Ms. Sexton. These are possible links for review from different organizations, such as EPA and FEMA. Mr. Crosby stated one item was a link to a series of webinars from DRBA. Ms. Sexton stated that there was also a tool that would help with a risk assessment. Mr. Crosby questioned if was possible to sign up and participate in webinars. Ms. Sexton stated that she believes it is cost free and open to the public.

Mr. Calaman will send the AECOM, Sergeant Lundy, CAP four, and the committee resources to the committee.

Mr. Heffernan will send the sea-level rise draft and Saunders University of Hawaii study.

Mr. Crosby stated that there are some visualization tools put together by NASA and will share with the committee. The study visualizes flood frequencies and has a database built in to allow to specify a number of locations around the U.S. including Lewes.

Mr. Panetta stated that Lewes as one FEMA flood gage and the city has worked for DNREC and DelDot to get foundations on the canal and other places, but it has never moved forward. Mr. Crosby stated that when water is pushed against Delaware Bayshore and through Roosevelt Inlet, the water is stored in the great marsh and in the canal system. It seems that the inlet becomes a bottleneck. Mr. Davis agrees. Mr. Crosby stated that the relationship between the ferry dock and what actually happens around the area of the city. Mr. Prouty questioned another gauge or measurement of water levels. Mr. Davis stated that there used to be a marker somewhere on Cedar, but it was removed because someone did not want it. Mr. Prouty questioned if there are any stains on the wall at the treatment plant. Mr. Calaman stated that in 2013, water reached the oxidation ditch, but not in it. The elevation of the oxidation ditch is 9.56".

Mr. Prouty stated that the concept of building something to solve the problem for a few dollars more should be applied when looking at the mitigation. Mr. Panetta stated that it should be kept in mind the opposite.

There were no public attendees.

Ms. Curtis questioned what is fetch. Mr. Crosby stated that it is the distance wind can blow over the water to generate waves. The longer the fetch the greater development of waves.

# 5. ADJOURNMENT

Mr. Crosby motioned to adjourn the meeting. Ms. Curtis seconded the motion, which passed unanimously.

Chairman Lee adjourned the meeting at 10:56 am.

Respectfully Submitted Sharon Sexton Executive Assistant