ALASKA STATE LEGISLATURE
JOINT MEETING
SENATE RESOURCES STANDING COMMITTEE
HOUSE RESOURCES STANDING COMMITTEE
September 10, 2018
2:00 p.m.

MEMBERS PRESENT

SENATE RESOURCES

Senator Cathy Giessel, Chair
Senator John Coghill, Vice Chair
Senator Bert Stedman
Senator Kevin Meyer

HOUSE RESOURCES

Representative Andy Josephson, Co-Chair
Representative Geran Tarr, Co-Chair
Representative John Lincoln, online
Representative Harriet Drummond
Representative Justin Parish, online
Representative Chris Birch
Representative George Rauscher, online

MEMBERS ABSENT

SENATE RESOURCES

Senator Natasha von Imhof
Senator Bill Wielechowski
Senator Click Bishop

HOUSE RESOURCES

Representative DeLena Johnson
Representative David Talerico
Representative Mike Chenault
Representative Chris Tuck

OTHER LEGISLATORS PRESENT

Former Representative Kurt Olson

COMMITTEE CALENDAR

OVERVIEW: COASTAL RESILIENCY MANAGEMENT

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

KEN PAPP, Deputy Director
Division of Geological and Geophysical Surveys (DGGS)
Department of Natural Resources (DNR)
Anchorage, Alaska
POSITION STATEMENT: Provided an overview of coastal resiliency management.

JACQUELYN OVERBECK, Manager
Coastal Hazards Program
Division of Geological and Geophysical Surveys
Department of Natural Resources (DNR)
Anchorage, Alaska
POSITION STATEMENT: Provided an overview of DGGS' coastal flooding and erosion program.

ACTION NARRATIVE

2:00:50 PM
CHAIR CATHY GIESSEL called the joint meeting of the Senate and House Resources Standing Committees to order at 2:00 p.m. and said this is a subject of particular interest to Representative Tarr who chairs the House Resources Committee, so she would turn the gavel over to her for this meeting.

CHAIR GIESSEL said Senators Coghill and Stedman were also present at the call to order.

CO-CHAIR TARR announced that Representatives Birch, Drummond, Co-Chair Josephson, and herself, Co-Chair Tarr were present and online were Representatives Parish, Rauscher, and Lincoln. Former Representative Kurt Olson was in the audience.

Overview: Coastal Resiliency Management

2:02:26 PM
CO-CHAIR TARR said today the committees would listen to an overview of the Coastal Resiliency Management Program from a number of departments.

CHAIR GIESSEL welcomed Senator Meyer to the committee.

2:03:27 PM
KEN PAPP, Deputy Director, Division of Geological and Geophysical Surveys (DGGS), Department of Natural Resources (DNR), Anchorage, Alaska, said before getting started with the coastal hazards portion of the presentation he would provide an overview of some of the other hazards work they department performs starting with volcanic hazards. In 2017, the [Ted Stevens Anchorage] International Airport that is ranked as the second busiest cargo airport in the U.S., and currently deals mostly with flights to and from Asia and the airspace above it is potentially threatened by over 54 active volcanoes, about half of which are not monitored at this time. This is the main reason why the Alaska Volcano Observatory (AVO) was formed back in 1988.

Four DGGS staff are involved in the larger group effort between the U.S. Geological Survey (USGS) and the University of Alaska Fairbanks Geophysical Institute. The four DGGS staff are dedicated to geologic mapping and research on the active volcanoes; they also perform helicopter and fuel procurement and logistics tasks. They also work very hard to communicate information about active volcanoes to the public and other agencies. Some of the recent volcano geologic maps are displayed on the slide.

2:05:42 PM
The procurement and logistics portion of what their group does is support for the entire observatory; all of their field programs are done from June through September. The AVO website is the main vehicle through which information about active volcanoes is provided to the public.

MR. PAPP said in FY18, the website received over 60 million-page views, almost 10 million more than the previous year. One of the recent AVO achievements is creation of the Alaska Tetra database, tetra being basically busted up rocks that have flown out of the volcano. This is important because it basically allows scientists to understand the potential and capability of

some of the active volcanoes, basically the extent over which ash might fall.

He said DGGS staff also study active faulting, earthquakes, tsunamic inundation mapping; they also do landslide mapping and response. They study snow and ice hazards such as avalanches and glacial outburst floods and perform studies on permafrost and groundwater and also take part in coastal erosion and flooding research.

2:08:07 PM
Obviously, as geologists they care about the rocks, but it is really difficult to see them underneath dense forest and thick vegetation. So, one tool they typically use to better see the geology is light detection and ranging (LiDAR), a remote sensor that detects light and range that can be mounted an aircraft or put on an ATV or someone's back. It sends pulses of laser light through a target that gets returned to the sensor and recorded. It has the capability of producing some extremely high-resolution digital elevation models for events like the landslides on Wishbone Hill and Girdwood.

Often times, they perform these LiDAR surveys when there is "leaf-off" and no snow to better see the rocks underneath the vegetation. Some other applications include permafrost, lava flows, erosion studies, flooding, and faults.

2:09:03 PM
SENATOR STEDMAN editorialized that the landslide photos on slide 3 were taken in Sitka and that one slide was where a house once stood and a building inspector getting away from the slide. He said that area was mapped as a slide zone years ago and was deleted out of the subdivision as not suitable for building. The planning commission a few decades ago allowed several "green belts" along that route. Time passed, and personnel changed and some of those parcels, particularly this one - a known slide zone - were subdivided and subsequently built on. This shouldn't have happened.

He also stated that constituents around coastal Alaska are being subject to escalating regulations, building restrictions and fees to subsidize a $20-30 billion Federal Emergency Management Agency (FEMA) deficit from Houston, Louisiana, Florida, and a couple other places. Sitka has not reported floods from the ocean and people have lived there for 10,000 years. Rebounding has been going on that has changed some elevations, but the fees just seem to be filling a deficit and spreading the customer

base to Alaska to do that. If this was a real flood issue, the communities would have dealt with it a long time ago. Furthermore, no cannery was ever built in Southeast that has since gone under water, and according to these flood zone maps, a lot of them would be under water along with the boat houses that were built above high-high tide.

CO-CHAIR TARR recapped the topics Senator Stedman mentioned and asked for comments.

MR. PAPP responded that the next slide on Alaska's coastline was of recent progress in the geologic hazard areas. They had worked very hard with the Department of Transportation and Public Facilities (DOTPF) in the Yukon River Dalton Highway area to better understand the surface geology, the permafrost, and the local hydrology. This is in support of infrastructure planning, both current and into the future. They hope to do additional field work in 2019. In response to Senator Stedman, he said they are analyzing new LiDAR data acquired in the Sitka area to create a hazards map for landslides there.

2:16:28 PM
SENATOR STEDMAN commented that the impact of the coming study will target areas that are less stable than others and that will encourage insurance companies to ring fence up to a mile and a half around the slide zones. That makes it very difficult to insure a mortgage; it will devastate property values and put the community in a precarious position: being shoved up against the mountains on one side and ocean on the other. The flood zone map is out your front door and the slide zone map out your back door, and there won't be a whole lot of property left.

He asked Alaska Housing Financing Corporation (AHFC) to look at this issue to see if they could underwrite individually some of the mortgages and risk adjust if need be, they are going to shut down the mortgage market for existing homes as well as new construction.

2:19:32 PM
REPRESENTATIVE PARISH said one of his Juneau constituents was subject to a flood zone designation but lived in a protected harbor. The explanation that makes the most sense is that Alaskan properties are being unfairly targeted to make up for a shortfall in FEMA's budget.

MR. PAPP answered that in 2018 made two publications regarding tsunamis inundation maps (slide 4): one is for Haines; others

have been published for Kodiak, Juneau, Skagway. They also produced permanent flooding maps for Valdez, Chenega, Chignik, and Chignik Lagoon. In FY15 they produced 32 new reports and peer review publications on geologic hazards and that is double from the previous year. So, they are working hard to get the information out to those who need it.

Lastly, in collaboration with the Alaska Seismic Hazards Safety Commission, Mr. Papp said, they have published on the DGGS website a very important report that outlines all they know about active faults and potential seismic hazards in Alaska.

2:22:15 PM
CO-CHAIR TARR asked how their work is affecting housing insurance and what kind of coordination is taking place with FEMA.

MR. PAPP replied that they coordinate efforts with FEMA and other federal agencies so that efforts aren't duplicated. Also, particularly for coastal hazards and erosion issues, a critical part of what they do is work very closely with community leaders to help them understand the information they produce.

CO-CHAIR TARR asked if they interact with insurance underwriters and who advocates on behalf of the homeowners in those geographic locations.

MR. PAPP replied that DGGS doesn't interact with insurance underwriters. Community leaders would deal with those issues; DGGS basically just provides scientific information that can be used by anyone.

SENATOR STEDMAN said for FEMA you opt in, and the hook is if you don't opt in, you're not going to have access to federally-backed mortgages. That is why he has started having discussions with AHFC. Sitka is a very good example of the not-so-subtle kind of game they are playing. Premiums are high as a couple thousand dollars a month and have a minimum escalation clause.

2:26:36 PM
REPRESENTATIVE PARISH asked what manner of formal action from the legislature would be most helpful in resolving this.

MR. PAPP said he would get back to them on that.

2:28:04 PM

JACQUELYN OVERBECK, Manager, Coastal Hazards Program, Division of Geological and Geophysical Surveys (DGGS), Department of Natural Resources (DNR), Anchorage, Alaska, said their primary focus is on coastal flooding and erosion. Alaska's coastline is 40,000 miles long; that is more than 1.5 times around the equator. It makes up about 40 percent of the U.S. coastline including the Great Lakes region and has 159 coastal communities.

2:28:54 PM
The coastline has permafrost (ground with a temperature that remains below 32 degrees, which is the freezing point of water, for two or more consecutive years). Permafrost is vulnerable to rising air and sea temperatures for ice-rich soils. Much of Alaska's coastal infrastructure and the coastline are subject to steep increasing temperatures. Alaska's northern and western coastlines have sea ice forming along it in the winter months. In recent years during the regular fall and winter storm seasons the extent and thickness of it has been at record lows. Storms that occur this time of year gain energy in the ocean and transfer that energy to the coastal communities if the sea ice isn't present, which results in flooding and erosion in low-lying areas. November 2017 is the lowest extent of sea ice on record. Even into February the Bering Straits had open ice and storm waves were able to impact the community and small island of Diomede.

2:30:44 PM
MS. OVERBECK said that Alaska has to account for relative sea level changes because the entire coastline is, such as in Southeast Alaska where land is actually rising up out of the water, outpacing global sea level rise resulting in a cumulative sea level decline. That's also the region of Alaska that has the most monitoring equipment and the longest records in order to determine what those rates are. In northern and western Alaska, few studies are available showing relative sea level rise in comparison to that.

CHAIR GIESSEL asked her to comment on a common question that as the sea ice melts the sea level will rise.

MS. OVERBECK answered that relative sea levels are expected to rise and are documented to have been rising, but there are many contributing factors including melting of ice on land as well as in the sea and other contributing factors that she would get back to her on.

CHAIR GIESSEL observed that if sea ice melting raised the level of the ocean, then glasses with ice water in them would over flow as the ice melted, but that is not what happens. Water while it is frozen will displace the same amount of water consistently. She could see how land-based glacier ice melting could contribute, to a minor degree, to the ocean level, but sea ice melting does not raise the level of the ocean, as a physical principle.

MS. OVERBECK said she will get back to her.

2:33:45 PM
CO-CHAIR JOSEPHSON said he wanted Ms. Overbeck to feel comfortable in responding to Senator Giessel's question. He said legislators look at myriad legislation and try to be experts in every field, whereas Ms. Overbeck spends her time on this issue. He asked if she agrees based on her reading and research with the Senator's statement.

MS. OVERBECK said she was not prepared to answer the chair's comment, at this time, from the perspective of her office that considers any published research and takes on-the-ground measurements. She wouldn't know the contributing factors to sea level rise in a particular region off the top of her head, but she would really like to get back to them on it.

CO-CHAIR JOSEPHSON responded that before the comment was made, Ms. Overbeck said that, in fact, relative sea level rise (RSLR) was attributable in part to mankind.

MS. OVERBECK responded that it was not her intention to attribute sea level changes to anything at this time but wanted to speak to the observations that are made on the ground.

2:35:35 PM
REPRESENTATIVE DRUMMOND said there looks to be significant sea level fall in Kodiak, Cook Inlet, just north of Prince William Sound near the Yakutat area (referring to slide 8).

MS. OVERBECK said that is correct.

REPRESENTATIVE DRUMMOND asked if she had some idea why that is happening in those particular places.

MS. OVERBECK replied that is occurring in those regions because of the relative motion of the land there, which is very

tectonically active, actually lifting up out of the water faster than global sea levels change.

CO-CHAIR TARR commented that arrows are sized differently to show the relative impacts.

2:36:59 PM
MS. OVERBECK agreed and summarized that the map shows measured land-based GPS data and modeled water levels for the entire region of Alaska. The positive arrows show the relative sea level rise as compared to vertical land motion and the downward arrows show the relative sea level decline. The magnitude of the arrows is also associated with that.

2:37:25 PM
SENATOR STEDMAN said the University of Alaska did an analysis on sea level movement in Southeast and attributed it to the melting of the ice, especially around Mount Fairweather and the glaciers where land is rebounding. The Forest Service has also done a lot of work with the melting of the ice. Apparently, there used to be land masses in front of Sitka, Prince of Wales, and other areas. Some of that land has gone down, which is now in the ocean, and some has gone up. Village sites are being found up to 300 feet that is being attributed to the melting of the ice.

CHAIR GIESSEL said that Norway has multiple evidence of village sites that actually became more distant from the coast as the ice cap melted and that the downward movement in Prince William Sound and "Earthquake Park" in Anchorage were due to a sizable seismic event. She was just trying to look at the sea level issue from a standpoint of what they know about movement of land having nothing to do with the political comments about climate change.

CO-CHAIR TARR asked Ms. Overbeck if her office is collecting all of the data for their modeling or is it coordinating with other divisions.

MS. OVERBECK replied her office doesn't collect any data that is shown in this map. It is all published information and she offered to provide the references. She added that in 2009 lots of government reports came out discussing Alaska's vulnerability to coastal flooding and erosion. These were the only reports that were available that actually pointed to specific communities that might be at risk. This included government reporting from the Government Accountability Office, the U.S. Army Corps of Engineers, and the state's immediate action

working group. This map doesn't tell them the relative vulnerability to these hazards and their magnitude. Since those reports are almost 10 years old, there could be some discrepancies between what is known today from what this map shows.

CO-CHAIR TARR asked her to differentiate the coastal types.

MS. OVERBECK answered there are three different types of coastal settings: those exposed to wave activities (communities set on the open ocean without any land mass fronting them), sheltered coastlines (with land mass in front of an ocean community), and river communities that are tidally influenced (near the coastline that might experience local storm surge and high tides).

2:42:30 PM
Slides 9 and 10 illustrate what some communities around the state are dealing with and some of the infrastructure that is impacted by coastal flooding and erosion. She visited Quinhagak in June and took photos showing the erosion that is occurring in front of the sewage lagoon. The community of Dillingham has a sewage lagoon that is also near an eroding coastline. Coastal storms have been documented to erode as much 10-20 feet during an individual storm.

Many dump sites in western Alaska are also located near coastal rivers and coastlines. The community of Kotlik dumps materials that were actually floating in the river at a high tide during their site visit. The community that operates this dump site is able to get heavy equipment into it when the river is frozen. However, if the river doesn't freeze, they can't do that. So, they end up having issues with dump materials flooding into the river.

MS. OVERBECK said the Nunapitchuk primary dump site is fenced around the lake area, but it is hydrologically connected to a lake on the right, which is also connected to the entire river system and dump materials move back and forth between them.

2:45:00 PM
Other pictures from 2013 showed the Gambell dump site that had a breach in the fence where dump materials had been released from the dump during storm events. Slide 11 had some examples of residential homes in Kwigillingok, a very low-lying community on the Kuskokwim Delta, which experienced a storm in January last year, showing flooded boardwalks that connect the community.

2:45:46 PM
The community of Golovin is set on a low-lying sand spit, primarily where much of the residential facilities are as well as some other infrastructure. They experience regular flooding, as well. Ms. Overbeck showed a photo from 2011 during the last major Bering Sea storm that occurred in western Alaska, which impacted many communities along the coastline.

REPRESENTATIVE BIRCH said he had been in and out of Point Hope a number of times and it has a well-earned reputation of being one of the longest continuously-inhabited communities in North America. He asked Ms. Overbeck if she has data on how long communities have been established to get a sense of how transitional some of these locations are.

MS. OVERBECK answered that the length of time for which a place has been occupied is not part of their analysis. However, they are collecting historical aerial imagery that goes back to the 1950s.

CO-CHAIR TARR asked if traditional cultural knowledge is used in their analysis.

2:50:02 PM
MS. OVERBECK replied their program takes traditional knowledge and stories into account and corroborates them with ground surveys and other data. More examples of public and private infrastructure being impacted in Utqiaqvik (formerly Barrow) and Newton were pictured on slide 13.

MS. OVERBECK said she just visited Kotzebue Sound and the Community of Deering (slide 14) that experienced storms last year resulting erosion up to the power lines that connect the western part of the community, which would be the airport facilities, the tank farm, the sewage location, and health clinic, as well as some residential facilities.

2:50:59 PM
A site visit to Kotzebue in July 2018 revealed a small storm event that flooded part of a road. The local city planner said those events are anticipated in fall and winter, but it happened in July, which was abnormal.

The program visited Shishmaref in 2012 and 2017, and the photos on slide 15 show the 100 feet of erosion on the beach relative to the snow fence in those five years. Then, after their visit,

in November a storm event resulted in erosion of the road that provides access to the local dump site.

Port Heiden on the Alaska Peninsula relocated in the 1980s due to erosion; the road south is the only infrastructure that is left. This area has no permafrost; it's all made of volcanic materials, a very light pumice, and waves erode the pumice very easily and quickly. The monitoring station there has been up for about three years.

2:53:10 PM
MS. OVERBECK said she provided a lot of examples of the changes happening around the state to give the committee a better of idea of what is going on. Now she would talk more specifically about what DGGS does in working with these hazards. A wide variety of state and federal agencies do engineering work in the coastal zone; they do community planning, disaster preparation and mitigation. Those groups rely on DGGS data to fill in gaps in their information.

2:55:46 PM
They collect orthoimagery, aerial imagery that is collected from a fixed-wing aircraft, a drone, or satellite that is corrected to the earth's surface so that measurements can be made from the photograph. Using a LiDAR system, they collect topography, which is elevation data, and bathymetric data, land elevations below the water surface. This is primarily needed for any sort of modeling of the near shore coastal zone for both flood and erosion issues. Water level data is collected using a sensor that is set out in a community setting that documents not only the highs and lows of the tides but also the very highest water level events and storm surges. Sea ice and wave data are also collected since they are connected to storm surge. This data helps them understand how storms are going to impact the coast line. The Continually Operating Reference System (CORS) is a system that is placed in the ground and collects data continuously to measure the relative land motion. Their aerial and ground surveys need the corrections from these stations in order to accurately see what is happening.

CO-CHAIR TARR provided a time check and asked how using drones improves the ability to get data.

MS. OVERBECK answered that using drones allows them to continuously collect an entire area of elevation data. They are also able to get an image of that area, as compared to going out with one survey rod and collecting those data sets individually.

Local individuals are interested in using drones as part of potential community-based monitoring programs that collect the data for the department.

CO-CHAIR TARR commented that the legislature is interested in maximizing the use of those technologies, because they know the data is needed, but the cost of sending people out to these remote locations is prohibitive and sometimes even prevents it.

MS. OVERBECK said DGGS collects data by using remote sensing methods and either contracts it out or collects it themselves. Any drone survey requires some level of ground control in order to have an accurate product, but ground control can cover multiple surveys. DGGS does equipment installations and puts efforts into a community-based monitoring program (originally funded by Alaska Sea Grants in collaboration with the Bristol Bay Native Association) as well as working with individual tribes in Bristol Bay. They train community members on how to continue the monitoring and to catalogue the data for long-term storage. She provides technical assistance as well as an understanding of Alaska's coastal data to other agencies that are investing in topo mapping Alaska.

MS. OVERBECK said DGGS houses all the elevation data that is available in the state in one location regardless of who collects it and provides it to the public in a format they can use, primarily through their elevation data portal. She has set up individual pages for communities to access data that they are helping to collect or that is being collected around their communities.

She said DGGS helps with both disaster preparation and mitigation. In the three to five days before a storm actually hits the coastline, the National Weather Service is looking for forecasts for that region and then provides a forecast for the communities. They are moving from a method of regional forecast to more localized forecasts, which provides more detailed information to individual communities. DGGS assists with that by using their color index map, which is a conversion of the elevation data collected in that area, infrastructure information provided by the Division of Community and Regional Affairs on their community profile map, and a conversion between what the storm surge model is actually computing and the land elevation. So, instead of saying there is going to be 4-6 feet of storm surge for the Norton Sound area, a forecaster can say specifically that flooding is expected on Front Street. Seventeen communities in western Alaska have these maps, which

are created wherever they have baseline data in order to do it. She offered to provide that information to interested parties.

She said that disaster declarations have been rejected by FEMA because there was no proof that the event actually happened. So, they want to be able to give those communities the capacity to document those disastrous events by providing survey benchmarks on elevation models that give an idea of what parts of a community were affected.

MS. OVERBECK said her department just completed a community planning effort to help update the State Hazard Mitigation Plan, as many local Hazard Mitigation Plans look to the State Plan in order to be written. Slide 21 mapped the communities from which they had data that could actually be processed in conjunction with data from the National Park Service on the North Slope and the U.S. Geological Survey. All the data from western Alaska was compiled into a map showing erosion rates around communities. The community of Newtok, for instance, erodes 63 feet per year. This data allows them to project shorelines into the future based on their historical rates of erosion to give an idea of what parts of the coastline are more vulnerable.

3:06:13 PM
CO-CHAIR TARR asked if DGGS is planning to create a community profile for every coastal community they can, but right now there are gaps. So, eventually that number of 17 communities will go higher.

MS. OVERBECK answered that they want to create these maps for about 63 more communities on the western coastline. Some are more at-risk for flooding than others, so they have a priority scale for mapping them. Different layers of data sets are available for each of those communities, and if Co-chair Tarr was interested in knowing why an individual community didn't have one of those maps, she could point out which data sets they are missing.

3:07:36 PM
CO-CHAIR TARR asked, once these maps are done, if the responsibility for community planning gets transferred as a local responsibility or is the state still involved.

MS. OVERBECK replied that some state partners like the Division of Community and Regional Affairs work on community plans, but DGGS does not do any of the local planning. They work with the individuals who are doing the planning, though, in trying to

determine the best format for the data and how it can be most easily ingested.

She said many engineering firms operate in western Alaska and they are able to use DGGS data for any sort of engineering analysis. One example is the Newtok Planning Group to which they provided elevation data that was used for planning their new community site. For any coastal modeling efforts, they have the statewide model that models tide and surge and other baseline data.

3:10:53 PM
MS. OVERBECK concluded that the Coastal Hazards Program is dedicated to fostering partnerships among many stakeholder groups, for example, the Alaska Water Level Watch by the Alaska Ocean Observing System whose primary goal is to improve the technology and capabilities for collecting water level data throughout the entire state for more purposes than just flooding and erosion, like navigation to get in and out of communities.

Also, the Alaska Geo-spacial Council has a coastal strategist that is jointly funded by National Oceanic and Atmospheric Administration's (NOAA) Office For Coastal Management, the Alaska Ocean Observing System, and the Department of Natural Resources (DNR) that are developing a strategy for coastal mapping for Alaska which is doing the same thing: identifying who the stakeholders are, what the gaps in data are, and in doing that, two major meetings have happened with over 100 participants both last year and this year at the Coastal Mapping Summit.

MS. OVERBECK said she couldn't list all of the collaborators, but most of their technical assistance comes from NOAA, the National Geodesic Survey, and the National Weather Service.

She displayed the final slide of contact information.

3:12:55 PM
CO-CHAIR JOSEPHSON asked if the Governor's Climate Action leadership team had consulted her office.

MS. OVERBECK answered yes, and she presented to their group this last year. A number of the members are active collaborators with the DGGS.

CO-CHAIR JOSEPHSON observed that Unalaska must have been situated roughly where it is, because we know about the Russian

experience there in the late 1700s. It's also commonly understood that villages used to move more but stopped doing that partly because the U.S. encouraged them to be more fixed and sedentary. Ms. Overbeck mentioned Port Heiden's issue back in the 1980s, and he wanted to know if her historical knowledge allowed her to say with confidence that erosion is worse now than historical knowledge suggests it was even with villages being more transient then and that this wasn't happening to this extent 100 years ago.

3:15:17 PM
MS. OVERBECK replied that their data goes back only to the 1950s and that data would be different for each location and require a detailed analysis.

3:16:14 PM
REPRESENTATIVE BIRCH thanked her for a great briefing and asked who owns all the data and where it resides.

MS. OVERBECK replied the data collected by the state is owned and housed by the state.

MR. PAPP added that the data they use in their analysis are publicly available for anyone for no cost. The department wants to promote that knowledge.

3:18:37 PM
SENATOR MEYER asked if he had analyzed what would happen to coastal erosion with the sewage lagoons and dump sites if Ballot 1 passes.

MS. OVERBECK replied she was not familiar with what Ballot 1 would do, but she would get back to him on that.

REPRESENTATIVE LINCOLN asked if they are doing any projections in terms of future inundation if sea levels rise.

MS. OVERBECK answered that they are not making projections on sea level changes with surge level modeling at this time. The data has to be collected first and the next step would be making models and projections.

REPRESENTATIVE LINCOLN asked if that next step is in the abstract or if it is the actual next step she is planning to take.

MS. OVERBECK said that would be a long-term plan for the program, which doesn't have the capacity to do it at this time.

MR. PAPP added that they work with a lot of other partners to make this information possible and as their data goes back only so far, useful projections need additional data collected in collaboration with other state and federal agencies and the communities themselves.

REPRESENTATIVE LINCOLN asked if they need direction or funding from the legislature and if they have a timeline.

MR. PAPP replied they don't have a timeline at this point.

REPRESENATATIVE LINCOLN thanked them both for the work they are doing saying it is a major issue for the state and his district, especially. Some iconic Alaskan communities are under existential threats from sea level change and storms, and having that information is a huge first step in addressing it. But at some point, soon they will need to apply some resources and interventions to help these places out.

3:24:06 PM
SENATOR COGHILL commented that the only things missing from this really good information are the places where mitigation has been tried and either succeeded or failed. That kind of information would be helpful.

3:25:43 PM
CO-CHAIR TARR summarized the requests for follow up were: what is going on in Southeast Alaska, how the Proposition 1 will affect sewage lagoons in coastal communities, and some examples of successful or failed mitigation efforts. She thanked the presenters again and recessed the joint meeting of the Senate and House Resources Committees at 3:25 p.m. She subsequently adjourned this meeting prior to the start of the 3:00 p.m. joint meeting.