

Share your thoughts on Sea Level Rise with City leaders

Pacifica City Council Study Session on Sea Level Rise



Tuesday, September 27, 2016

6:00 PM

City Council Chambers at 2212 Beach Blvd.





City Manager Lorie Tinfow contributes a monthly column to the *Pacifica Tribune* to connect with local residents and keep Pacificans informed on issues that are of current interest in the City of Pacifica. Below is the submission for the **August 3, 2016** edition of the *Pacifica Tribune*, which focuses on the topic of Sea Level Rise.

City of Pacifica to Chart a Course Toward Sea Level Rise Policy

At the Council's goal-setting meeting in July, Council members grappled with setting priorities among a myriad of wide-ranging projects and initiatives. Having completed four of the priorities on their work plan for 2015-16, they considered what to add and how to prioritize the new group.

Coming in as priority number four, was a new initiative: developing a policy related to sea level rise.

The recent winter storms have raised our awareness of the impacts of sea level rise and climate change. Powerful waves resulting from severe storm conditions and king tides created significant damage that threatens City infrastructure. Since the effects of sea level rise and climate change are projected to continue and worsen, now is the time to determine how the City will proceed in terms of not just repairing the immediate damage but looking ahead and creating a policy direction for the next 30, 50, 100 years.

In simple terms, there appears to be two policy options—"managed retreat" (also referred to as strategic retreat or managed realignment) and something referred to as "asset protection".

Managed Retreat involves breaching an existing coastal defense, such as a sea wall or an embankment, and allowing the land behind to be flooded by the incoming tide, thus setting back the line of actively maintained coastline.

Alternatively, **Asset Protection** means taking steps to protect infrastructure such as streets, trails, utility lines, and other facilities, against the wave action and rising sea level. The City and County of San Francisco have taken this approach related to the Oceanside Wastewater Treatment Plant.

Approximately 40% of Pacifica's coastline has development adjacent to it, mostly clustered in the Manor, West Sharp Park and Rockaway districts. The City infrastructure immediately at risk include the streets of Esplanade Avenue, Beach Boulevard, Rockaway Beach Avenue, and Palmetto Avenue, the utilities below them, and the pump station near the Pacifica Pier. Private property is also at risk including homes, apartments, and businesses especially our hotels.

To begin to understand the issues, the City commissioned a study by internationally respected engineering firm Moffat & Nichol of the coastal hazard risks related to City property at 2212 Beach Boulevard where we have plans for a hotel, restaurant and new library. The study concluded that as long as the City maintains the sea wall along Beach Boulevard, the hazards through at least 2100 are likely to be minimal. (A copy of the study is available on the City website.)

Each direction—managed retreat and asset protection—has significant impacts and significant costs. We have applied for grants to help cover repairs to our damaged areas and have started discussions with the US Army Corps of Engineers and our State and Federal elected officials toward understanding funding opportunities for longer term options.

The City Council recognizes the importance of determining the best direction for the City and we are preparing for a public study session, likely later this month, to start this crucial discussion of Pacifica's future. To receive notices about this and other meetings, please email ConnectwithPacifica@ci.pacifica.ca.us.

For more information from the City of Pacifica, scan the code below:





City Manager Lorie Tinfow contributes a monthly column to the *Pacifica Tribune* to connect with local residents and keep Pacificans informed on issues that are of current interest in the City of Pacifica. Below is the submission for the **April 6, 2016** edition of the *Pacifica Tribune*, which focuses on the issue of Sea Level Rise.

The City of Pacifica Responds to Sea Level Rise Locally and Regionally

Recent news headlines trumpeting “the warmest winter in recorded history” have contributed to our collective sense of urgency related to sea level rise and its expected impacts. The City of Pacifica is responding by joining forces with other agencies to form a regional plan and leveraging every resource available for local repairs.

In the past year, the City of Pacifica has joined our neighboring cities to respond to the “slow moving emergency” that characterizes the impacts of sea level rise. Of particular note are the following three regional efforts:

- **San Mateo County Sea Level Rise Vulnerability Assessment.** The County’s Department of Sustainability is coordinating a regional assessment of how sea level rise will likely affect the agencies in our County. The project began last summer with a kick-off meeting that Council members, City staff and several community members attended. A consulting firm familiar with sea level rise issues was hired and a working group began collecting the information needed for the assessment. I assigned our Public Works Director to participate on our behalf and coordinate the involvement of other City staff. The assessment is expected to be complete this year.
- **San Francisco Littoral Cell – Coastal Regional Sediment Management Plan.** Last year, the California Coastal Sediment Management Workgroup resumed work on evaluating the movement of sand along the coastlines of San Francisco, Daly City and Pacifica, that included modeling the effects of sea level rise and climate change. I again assigned our Public Works Director to participate on behalf of the City and supply Pacifica-specific information. The draft plan was published for public review in January 2016. While we have some concerns about data gaps in the model, we continue to participate in this effort to understand how sand movement affects our coastline.
- **The City/County Association of Governments (C/CAG) Water Committee.** The impacts of sea level rise are expected to be dramatic, far-reaching, and costly; no single city or agency can be effective by acting alone. C/CAG, comprised of elected officials who represent all cities and the County, recently established a subcommittee to focus on all water-related issues including sea level rise. As a structure, it offers an ideal mechanism for pursuing grant funds, sharing information and ultimately helping to guide the region’s response to sea level rise. Pacifica City Council member Nihart has been selected to chair the committee and City staff will participate as well.

While being part of these regional efforts is important, Pacifica has even more immediate needs related to protecting our coastline. First, we must repair the City infrastructure damaged by this year's El Nino storms. Some of the work has already started and we are working with the State's Office of Emergency Services on grants to reimburse the City for a portion (75-85%) of the costs.

Second is protecting City streets and underground utilities that serve the homes and businesses along Beach Boulevard, the section of Palmetto Avenue near the Milagra outfall, and sections of Esplanade Avenue bordered by coastal bluffs. With support from U.S. Congresswoman Jackie Speier's office, we have asked the U.S. Army Corps of Engineers for help with planning and construction to rebuild the sea wall along Beach Boulevard north of the pier, repair the outfall, and reinforce the bluff edge along Esplanade Avenue.

The ocean is one of Pacifica's greatest assets and yet poses one of our greatest risks. While other coastal cities will eventually face sea level rise issues, Pacifica is facing them now. In response, we are leveraging every resource available to us today and partnering regionally to develop a shared long-term plan. We know that an effective response to sea level rise will require thoughtfully considered actions pursued over many years. Our work to adapt to a changing ocean while preserving what we love about our City has just begun.

For more information from the City of Pacifica, scan the code below:





City Manager Lorie Tinfow contributes a monthly column to the *Pacifica Tribune* to connect with local residents and keep Pacificans informed on issues that are of current interest in the City of Pacifica. Below is the submission for the February 3, 2016 edition of the *Pacifica Tribune*, which focuses on storm damage in Pacifica.

Storm Damage in Pacifica

By now, you have probably seen the dramatic drone video that shows the cliff under the apartments on Esplanade Avenue collapsing, a scene dramatic enough to garner national media attention to the situation in which we find ourselves today.

Storm damage in Pacifica is not a new problem. The latest round to which the City of Pacifica is responding began December 15, 2015, when the Pacifica Pier was damaged by powerful waves that caused one of the wall sections at the apex of the “L” to break and fall inward. We fenced it off to protect the public and planned to get to repairs after the storm season concluded.

The next week, we found that those same waves, along with a storm that followed, had undermined a 7 foot diameter outfall pipe and it’s even larger concrete headway support structure located just south of the RV Park on Palmetto Avenue. The waves had scoured the rocks and sand beneath the structure to the point that the pipe and it supporting structure are in danger of failure. This pipe is critical because it drains the stormwater from the entire Milagra watershed. Should it fail and the flow of water be impeded, flooding could occur upstream, including a stormwater drain on Highway 1. City staff began evaluating options for temporary repairs until the storm season was finished and a permanent fix could be made.

Then, on January 17, 2016, a hole opened on the sea wall near where Beach Blvd. intersects with Santa Maria Avenue, causing the collapse of the adjacent promenade and leaving an opening approximately 40 feet long and 8 feet wide. City staff responded with temporary steps to stabilize the opening with large boulders to limit further erosion beneath the promenade and brought in a structural engineer to assess a permanent repair. On Friday 22, 2016, storm #11 hit, bringing with it powerful waves once again. The temporary fix was no match for the storm and the sea wall cap that had remained in place gave way leaving an open gash in the sea wall. This additional failure caused me to issue the declaration of local emergency that the City Council confirmed on January 25.

This same system of storms also affected private properties along our coastline and City staff responded to news of bluff loss as it came in. Two single family houses have been yellow- or red-tagged (meaning they cannot be inhabited) and local businesses and other property owners took steps to shore up their cliff base.

The City also yellow-tagged the apartments at 310 Esplanade Avenue. This action may have seemed sudden but in reality was inevitable given the private property owner’s lack of action to reinforce the bluff. The City has been monitoring the erosion at this site for years and for at the least the past two

years have alerted the tenants and property owner prior to storm season of the need to be prepared to evacuate the building should conditions change. In January 2016, we stepped up our monitoring, sending our geotechnical consultant and building officials to visit the site frequently, including twice per day for the final two weeks. During that time, we contacted the tenants in every unit to warn them that we were increasingly concerned about the integrity of the cliff and the building, and reminded them that they might be required to evacuate on short notice. When that time came, we lined up resources to help with the tenants' relocation needs including setting up a temporary shelter and working with the Pacifica Resource Center to channel other financial resources to them. The initial surprise and resistance expressed by the tenants and reported by the news media had diminished by this past weekend.

It's been a tumultuous couple of weeks. The declaration of local emergency makes the City eligible for County, State and Federal resources to help with the response and the repairs, and representatives from every level of government responded immediately. San Mateo County's Office of Emergency Services sent their staff to work with City staff in setting up the process for reporting damage to both City and private properties and requesting financial assistance. We escorted representatives of the offices of elected officials County Supervisor Don Horsley, Assembly member Kevin Mullin, State Senator Jerry Hill, Senator Barbara Boxer, and Senator Diane Feinstein, to the damage sites. All pledged their support.

Congresswoman Jackie Speier brought representatives from California's Office of Emergency Services and FEMA to Pacifica to tour the damaged sites and Mayor Sue Digre and I joined a press conference where Congresswoman Speier called for the Federal government to direct funds already allocated for California to help us with our emergency.

The rapid, caring response from other government agencies has been amazing. At every level, we have received help and resources needed to begin to address the losses. Even the California Coastal Commission staff has reached out to us to offer letters of support for grants we will need.

As we complete damage assessments now, we are keenly aware that the threat is not over. In the past, our greatest damage has come during storms in the month of February.

What is clear to me, and what Congresswoman Speier also recognized, is the need to begin to proactively plan for Pacifica's future related to climate change and sea level rise. Although storm damage isn't a new issue in Pacifica, what does seem different now is the way the damage is occurring. Pacifica is being battered by an unrelenting barrage of storms (12 so far this season) that may be a harbinger of the new normal in terms of weather, at least during our periodic bouts with El Nino. Saturated soil from rain, high winds from storms, and large, powerful waves enhanced by warmer oceans and increased King tides, are a combination that we can't respond to on our own. In that respect, Pacifica may be the proverbial "canary in the coal mine" when it comes to climate change damage to coastal communities, a problem that is far bigger than our city alone.

The City Council and I will be discussing how to create a plan for the City's future. In the meantime, we have created a new webpage to share information about the City's storm response and resources available to those affected at http://www.cityofpacific.org/el_nino_storm.asp.
