

February 10th, 2025

Aloha Maui County Planning Department and Maui County Planning Commission,

This letter is submitted as a response to Dr. Fletcher’s rebuttal of a draft opinion document written by Lynn Barr and shared by Dr. Fletcher with the Maui Planning Department titled “Exaggerated and Incorrect Climate Change Data Halts the Rebuilding of Lahaina” (the “Document”) dated January 10, 2025. I appreciate the clarifications Dr. Fletcher makes, but do not believe he provided sufficient evidence that the SLR-XA model is an appropriate tool to create a setback in Lahaina.

There is only one test of a predictive model, and that is the test of time. The SLR-XA model has failed that test in Lahaina. We are 25 years into the 100-year forecast and both the sea level rise predictions and the erosion predictions have failed to materialize.

In 2017, the SLR-XA model assumed 3.2 feet of sea level rise between the year 2000 and 2100. In 2022 that forecast was increased to 3.9 feet of sea level rise over 100 years. Sea level rise varies widely locally, however, so NOAA monitors its official tide gauges to predict both local effects and to calculate global numbers. The official NOAA tidal gauge in Kahalui shows that Maui sea level has only risen 2.5 inches since 2000 in Maui. **There is no question that the sea level rise projected in the SLR-XA model did not materialize and does not exist in Lahaina.**

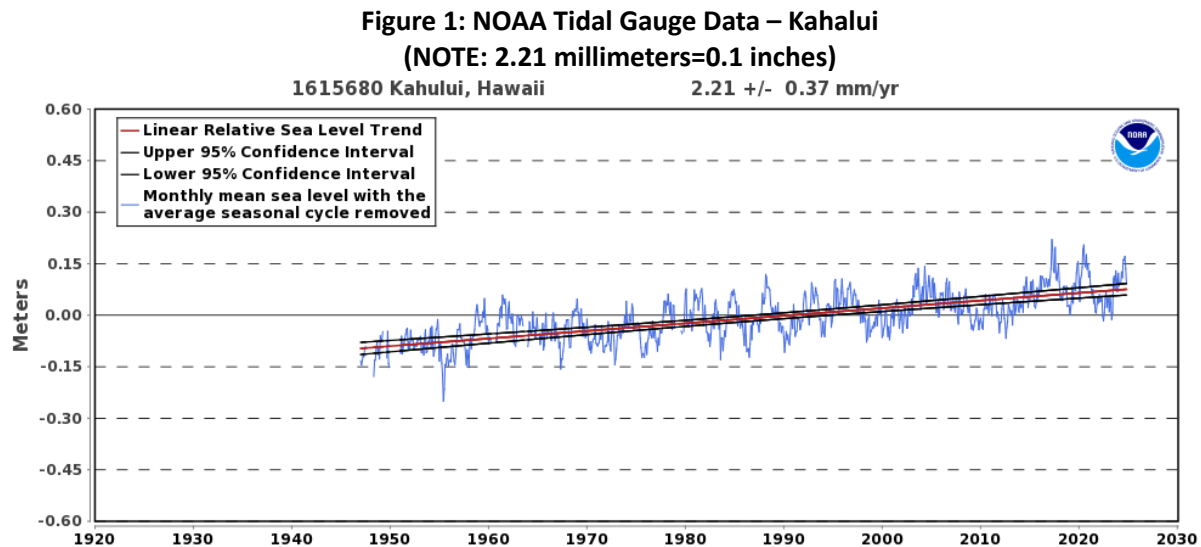


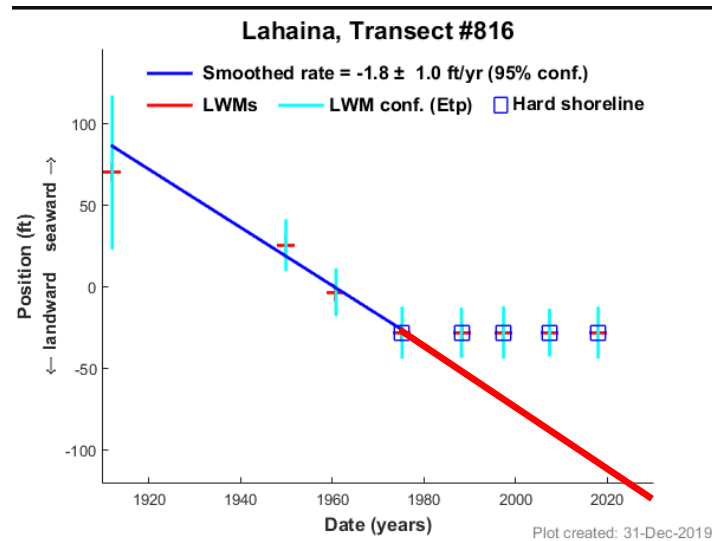
Figure 2: Maui Sea Level Rise: SLR-XA Forecast Vs. Actual, 2000-2025

	<i>Actual Based on NOAA Tide Gauge</i>	<i>2017 SLR-XA Forecast (3.2 ft)</i>	<i>2022 SLR-XA Forecast (3.9 ft)</i>
Inches Per Year	0.1 inches	0.4 inches	0.5 inches
Inches by 2025	2.5 inches	9.6 inches	11.7 inches

On 1/23/25, Commissioner Kealoha asked whether the erosion had been caused when the Lahaina seawall was built (in the 1940's). No one knows for sure why the beach disappeared in front of these homes prior to 1975, but most agree that beach erosion is the main reason new sea walls should not be built near sandy beaches. Figure 3 shows the **predicted** erosion hazard line moving far mauka of Front Street as a result of erosion that stopped 50 years ago.

Figure 4 not only shows that erosion was no longer seen after 1975, it also shows how the model projected 120 feet of erosion on Transect #816 by 2020, which was used to calculate the erosion hazard line. The obvious lack of erosion on Transect #816 and the very robust sea wall that has existed for at least 50 years will likely prevail another 50 years. **There is no doubt the SLR-XA model failed to accurately predict the erosion hazard line in Lahaina.**

Figure 4
Erosion Forecast for Transect #816 Projects 120 Feet of Erosion Today With No Erosion After 1975



The model has failed to predict erosion accurately because **it pretends the seawall doesn't exist**. On page 5 of the rebuttal, it states, "The area between the beach and the erosion hazard line may be thought of as the land area exposed to erosion should the seawall fail or be removed." There are no plans to remove the seawall and no evidence of failure as seen in Figure 5, which is shown at the height of a king tide. Clearly, one tenth of an inch per year of sea level rise is not an imminent threat.

According to the 1/23/25 Planning Commission meeting, the central wastewater infrastructure under Front Street is intact, is not going to be moved or removed at this time, and the county is committed to protecting the infrastructure. That means the Lahaina sea wall, which has lasted close to 100 years will be maintained and **the predicted erosion that has not happened thus far will continue to not happen over the next 50+ years**.

The "eroded" lots in figure 5 are level with Front Street. If their sea wall fails, Front Street and its buried wastewater infrastructure will also fail. If Maui County is not concerned about the integrity of Front Street for the next 50 years when it is in the erosion hazard line, why does it need to relocate the homeowners in the erosion hazard line? How can Maui County demand homeowners move or abandon their homes because of the SLR-XA model and not be concerned about Front Street?

Figure 5- Transect #816 Seawall During King Tide (6 inches above normal)



I appreciate Dr. Fletcher's sympathy for the fire victims who have not only lost their homes and businesses but also suffer great financial harm and building delays because of the SLR-XA model. We are fire victims, not developers. I am puzzled by the logic of turning our tragedy into the "opportune time" mentioned on page 6 to take actions that thwart our progress and are not supported by reality. I have been told that the purpose of moving people back behind the new erosion setback line is to prevent potential harm to some future homeowner if SLR-XA predictions come true. I find it unusually cruel that elected officials would choose to cause additional harm to fire victims to protect a future owner who would certainly have the choice of purchase and risk.

I also appreciate the time taken to explain and clarify why Dr. Fletcher continues to believe his predictive model is accurate enough to create property lines. It was very informative, and it is an interesting model. I hope it can be re-applied in a constructive way to guide visual investigation of potential hazard areas and whether action needs to be taken on a case-by-case basis instead of being used to create blanket policies that ultimately harm individual homeowners more than anyone else.

Please. Let Lahaina Rebuild.
Mahalo,
Lynn Barr, MPH