

Sea level rise messaging

Communicating the value of preparation to protect people and property

BACKGROUND AND CONTEXT

With sea levels projected to rise up to 66 inches along the West Coast by 2100 [according to the National Research Council](#), it is vital that we begin preparing our communities and natural systems to withstand the increased erosion, flooding, and storm surges that rising seas will bring. While most elected officials and resource managers are aware of sea level rise, and, in many instances, thinking ahead to adaptation needs, a lot of their constituents still perceive climate change as a far-off problem. The messaging challenge, then, is to convey the urgency of this challenge while still communicating hope.

California, Oregon and Washington all have statewide climate actions plans. California has had an [Executive Order](#) in place since 2008 mandating state agencies consider sea level rise vulnerability in planning, as well as a [statewide adaptation strategy](#). Oregon released a [Climate Adaptation Framework](#) in 2010, and Washington completed its [Integrated Climate Response Strategy](#) in 2012.

While state policy and resources are a vital foundation, much of the action on sea level rise preparedness is happening at a local level. From [San Diego](#) to the [San Juan Islands](#), many communities are looking at their vulnerability to flooding and erosion, and realizing there is no time to waste in preparing.

While scientists, government officials, and advocates have a shared language they use to discuss sea level rise and adaptation, it is often confusing or off-putting to external audiences. It's hard to picture resilience or green infrastructure, and words like revetment are simply not familiar to the average coastal resident. In this document, we propose plain English messages that can be used to describe the threat posed by rising seas, and the solutions communities can undertake now to protect public safety, private property, and critical services like clean drinking water.

GOALS

1. Communicate the urgent need to prepare for sea level rise.
2. Engage West Coast policymakers and voters in sustainable solutions.

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PUBLIC OPINION RESEARCH

Resource Media reviewed climate change and sea level rise opinion research from the last several years. Below is a summary of our findings.

Climate change is politicized and polarizing

[Recent opinion research](#) by Pew Research Center found that 50% of Americans believe the Earth is getting warmer due to human activities. However, there is a sharp divide along party lines. While 71% of liberals agree with that statement, just 27% of conservatives do, and 41% say there is no solid evidence the Earth is warming. Even among the believers, climate change [often ranks behind concerns](#) like the economy, national security, and immigration. Just 29% of Americans believe it should be a top priority for the president and Congress. [Opinion research in California](#) shows a similar partisan divide, with 66% of Democrats and 26% of Republicans indicating they feel global warming is a “very serious” threat to California’s economy and quality of life.

It is regarded as a far-off problem

While half of Americans believe in climate change, only about one-third think it will be a problem in their lifetimes. Just 36% in a March 2015 [George Mason University study](#) said they believe global warming will impact them, while 63% believe it will harm future generations. A [Gallup poll](#) released around the same time had similar results: 37% of respondents said they believe global warming will pose a serious threat to them or their way of life.

Health, safety and finances are always top concerns

Poll after poll (most recently, [Gallup’s 2015 nationwide environmental poll](#)) finds that clean drinking water and clean air top the list of public concerns. Air and water pollution are problems that hit close to home. We can immediately connect them to our family’s wellbeing, and that is why respondents indicate they are nearly twice as worried about water pollution as they are about climate change. When we begin talking about specific climate impacts that pose an immediate threat to health and safety, however, concern rises. A [2014 Public Policy Institute of California survey](#) found that, while just 40% of respondents say they are “very concerned” about global warming, 64% are very concerned about more severe droughts, and 61% about more severe wildfires.

Concern about sea level rise is still relatively low

By contrast with drought and fire, few people have experienced sea level rise, and there is little awareness that rising seas could impact our drinking water, as well as public safety and critical infrastructure. Consequently, just 32% of respondents in that 2014 PPIC poll said they “very concerned” about sea level rise. A [2013 Stanford Woods Institute poll](#) had dramatically different results, concluding that 79% of California adults believe global warming-induced sea level rise will be a serious problem for the U.S. However, the sample size for that poll was just 440, versus PPIC’s 1700, and the questions were framed

very differently (PPIC asked people to indicate their level of concern about several climate impacts, including drought, heat, and fire, while Stanford just focused on sea level rise).

Extreme weather is perceived as a real and immediate threat

While the [hurricanes](#), drought, and icy winters of the past couple of years have [had little impact](#) on public beliefs about climate change, they have created opportunities for climate action. A [2013 Yale study](#) found that 63% of Westerners believe weather is getting worse, and 42% think it is somewhat or very likely extreme weather will cause a natural disaster in their community in the coming year. In the wake of Hurricane Sandy, New York's Mayor Bloomberg convened a [Special Initiative for Rebuilding and Resiliency](#) to plan for future climate impacts.

Support is strong for climate preparedness

That 2013 Stanford poll found that [85% of Californians](#) and [82% of respondents nationwide](#) support *preparing now* for the impacts of climate change, as opposed to waiting. When asked about their climate preparedness priorities in a [2011 Yale study](#), Americans ranked drinking water and public health at the top, well above wildlife and coastlines. In Southeast Florida, where many homes, roads, and hospitals are at or below sea level, communities across the political spectrum are [working together to prepare](#).

RECOMMENDED MESSAGING

Given what we know about public perceptions—that specific climate impacts, especially those already being felt, elicit the most concern, and that threats to our water, health and property are top of mind—we recommend talking about flooding, erosion, and contamination of drinking water (where appropriate) when describing sea level rise risks, and emphasizing how preparedness can protect our homes and health.

Resource Media recommends a three-part formula for building a message:

VALUE  **THREAT**  **SOLUTION**

Values

To help our communications break through the noise, we need to talk about sea level rise in context with people's primary concerns: their health, families and pocketbooks. That means appealing to their desire to have a home that's safe from flooding, access to clean drinking water, and a thriving economy. Keep it local: this is about a specific neighborhood or town, not the county, state or region's vulnerability.

Threat

Rather than talking about sea level rise in general, which feels abstract, we recommend describing the specific ways rising seas will impact that neighborhood or community: increased risk of flooding during

storms and high tides, greater erosion that leads to beach loss and more frequent landslides, and the potential for salt water to contaminate drinking water supplies.

Solution

When describing adaptive strategies, use simple language that people can picture: oyster reefs and wetlands that help to soften the force of strong waves, new rules for coastal development that keep homes, roads, and public buildings out of the flood zone, and barriers that protect existing structures. Emphasize the benefits green solutions provide: recreational access to green space, wildlife habitat, increased property values, etc.

Putting it all together: Sample message for San Diego, California

San Diego is a beach town. The ocean powers our economy and way of life, but rising tides are starting to threaten low-lying parts of the city, and stronger waves are already washing away beaches in places like Solana Beach and Encinitas. Experts predict the ocean could rise up to five feet by the year 2100, which would flood the airport and PetCo Park, and swamp our sewer system during storms. To protect our homes, beaches, and clean drinking water, San Diego needs to protect the wetlands that help to buffer against rising seas, and keep future developments out of the flood zone. By preparing our neighborhoods now, we can avoid costly damages later.

SAY THIS, NOT THAT

<i>Terms to use</i>	<i>Terms to avoid</i>
Rising seas, stronger storms, extreme weather	Climate change-induced sea level rise
Flooding	Coastal inundation
Contamination of drinking water	Saltwater intrusion in aquifers
Room to spread out/move inland	Accommodation space
Sea walls	Coastal armoring, revetment, riprap, etc.
Wetlands, raised banks, sand dunes, oyster reefs, etc.	Green infrastructure ¹
Sand replenishment	Beach nourishment
Large rocks and logs, replanting, sand replenishment	Soft shore protection
Relocation of roads or buildings	Managed retreat
Buffer zone, rules that keep buildings out of the flood zone	Mandatory setback

¹ Living shorelines is another way experts and advocates describe wetlands, oyster reefs, etc. We like this phrase better than green infrastructure, but would urge pairing it with more descriptive language to ensure the audience really understands what you are proposing.

HELPING AUDIENCES PICTURE SEA LEVEL RISE

Pictures, maps and simulations can help audiences visualize sea level rise. NOAA’s [Digital Coast](#) allows visitors to look at sea levels, flood risk, and social vulnerability. Camera icons pull up photos of cafes, skate parks and landmarks like San Francisco’s Vaillancourt Fountain, and a slider simulates various sea level rise scenarios. [UC Irvine’s FloodRISE](#) zooms in even further, providing parcel-by-parcel vulnerability information in three southern California communities.



These maps can be helpful, but we think photographs work even better. Efforts like [California King Tides](#) can provide great imagery highlighting roads, bike paths, neighborhoods and public buildings at risk for flooding. Where possible, we recommend selecting photos that show homes, roads, bike paths, or landmarks. These help localize the images and connect them to people’s lives.

Before and after photos from adaptation projects can also be powerful. For example, Stillwell Hall in Northern California was located on an eroding bluff. To protect the historic officers’ club, the shoreline below had been reinforced with a sea wall. This caused the sandy beach to erode. When the structure and sea wall were removed in 2003, the beach came back, and the bluff above became part of a new state park. Case studies like Stillwell Hall help bring the risk of sea level rise to life, and they also demonstrate the multiple benefits of adaptation. In this case, removing an isolated building created new coastal open space for the public to enjoy.



CONCLUSION

To engage policymakers and voters in adaptation, we need to describe sea level rise in terms that connect to their lives and values. Keep it local, and always pair problem messages with solutions. Use both maps and photos to show the timeline and scale of the threat, and emphasize the multiple benefits of preparing now.