

SEA LEVEL RISE: *Wild West on the Waterfront*

GLIMPSES OUR FUTURE

Decades from now — without new fortifications — San Francisco Bay could overtop the Embarcadero and flood the Financial District, SoMa, Mission Bay and elsewhere. But you can preview the flooding during king tides, when the sun, moon and Earth align, causing the highest water levels.

Photo by Anna Vignet // Public Press



Projects Sailed Through Despite Dire Flood Study

Giants, Warriors won approvals before voters and officials learned of risks

By Kevin Stark // Public Press

A city-commissioned environmental study that detailed how the Mission Bay neighborhood would be inundated by rising seas in coming decades went unpublished for more than a year while two showcase waterfront developments won key approvals from city officials and voters, a Public Press review of records shows.

Before the Golden State Warriors scored a win at the Planning Commission for a new bayfront arena and the San Francisco Giants got the go-ahead from voters for plans to develop housing and offices next to AT&T Park in late 2015, city agencies and the Port of San Francisco sought input from major “stakeholders,” which included the two sports franchises.

But they did not involve the district’s supervisor or the public, and did not widely distribute the June 2015 draft marked “final” before the official publication in September 2016 — two weeks after an official records request by the Public Press. Ten months earlier, voters had approved Proposition D, the Giants’ Mission Rock development, without being given a chance to compare the developers’ ballot-box claims about resilience to sea level rise with the independently researched report laying out the need to radically re-engineer the burgeoning neighborhood.

The report describes the immediate need for public agencies to plan for massive physical barriers to protect against powerful storms and coastal flooding that are expected to increasingly threaten the city’s southeast and downtown over the next few decades. Costs will likely run into the billions, with taxpayers bearing most of the burden.

“We don’t have 5–10 years before this process can begin,” wrote the authors of the report, prepared by SPUR, a San Francisco-based planning and urban research think tank. “The catastrophic events of Katrina and Sandy show that disasters with unimaginable impacts can happen tomorrow.”

Though the report’s authors shared several drafts with the Planning Department staff, there is no record of members of the San Francisco Planning Commission having seen it before approving the Warriors arena in November 2015, not long after voters passed Proposition D. There is also no indication that drafts were shared officially with the Board of Supervisors before it approved both projects.

Mayor Ed Lee advocated forcefully for both megadevelopments, which together would cost about \$2.6 billion. His office and the port jointly requested the sea level rise study in early 2014, but missed several



opportunities to bring the report into public discussions about major waterfront developments.

Three members of the city Planning Commission, which approved the Warriors basketball palace in November 2015, said they were kept in the dark about the dangers from rising seas in the city’s fastest-growing neighborhood. Mission Bay is home to residential towers, offices, medical and research facilities, and the city’s new

emergency services center.

District 10 Supervisor Malia Cohen, who represents the city’s southeastern shore, said she was not aware of the draft report’s findings before the board signed off on the Warriors’ and Giants’ plans.

“I was not consulted in the drafting of the documents,” Cohen said. “Of course, I am interested and concerned by the looming impact of sea level rise.”

PUBLIC WORKS PROJECTS FORESEEN

The Mission Creek Sea Level Rise Adaptation Study presented strategies for massive public works projects that might be needed to fortify the shoreline against sea level rise. Ideas included reinforcing seawalls, building a tidal gate, creating offshore structures to lessen waves’ impact and elevating Third Street as a kind of levee. In one scenario, a large section of the neighborhood closest to the bay could be retrofitted to flood occasionally. That area would include the Warriors arena.

The report cites a 2012 study by the National Research Council which found that global warming could raise bay waters above the current street level at Mission Bay in just a few decades. In an extreme scenario, builders engineering new structures could expect San Francisco Bay to

rise 4.6 feet above current high tide, plus 3.4 feet of storm surge, scientists found. Much of Mission Bay lies below the 8-foot level.

The Mission Creek report warned forcefully against complacency: “The slow pace of sea level rise does not communicate a sense of impending threat; however, that danger could materialize in this community. It is urgent that work on solutions begins now because major developments in the inundation zone are currently being planned or built. It can take years or decades to conceptualize, design, earn public support, fund, permit and construct major capital shoreline projects.”

Fuad Sweiss, the mayor’s adviser on sea level rise, said the study is part of the city’s broader resiliency planning process. Its recommendations include public-works projects that would extend beyond any individual development or even the borders of the recently established 303-acre Mission Bay neighborhood.

He said the original six-month timeline for the report was overly ambitious for a project of this magnitude because it required fact-checking, consultation with many departments and new imaging data

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Much of Mission Bay and South of Market could flood by 2100 if sea rise and storm surge exceed 8 feet above current high tide, as some models predict. Red points indicate new development projects, including the Golden State Warriors arena and Mission Rock mixed-use development. Illustration by Marcea Ennamorato and HyunJu Chappell // Public Press SOURCES: Sea rise data from U.S. Geological Survey; rendered building images from Google Earth

ABOUT THIS PROJECT

In 2015, the Public Press first reported on how rising seas could inundate coastal land in the Bay Area. Since then, we have discovered that state regulation of waterfront development has loosened, while local governments have been slow to respond.

Parts of the California Environmental Quality Act that cities have used to compel adaptation to climate change face persistent attacks from the building industry. In San Francisco, officials actively promote large developments on the bay despite dire warnings from climate scientists.

For this issue, we found that cities bordering San Francisco Bay have approved eight large developments in zones that could flood within decades — besides the 27 we mapped previously.

To gauge how interpretation of state environmental law is changing, we searched public databases of active construction projects, and dozens of lawsuits and environmental impact reports filed with local planning agencies. To investigate a delayed report on flood risk, we used public records requests to track emails among local agencies.

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