

We Were Warned

By Nicole Minieri

In November 2009, millions of moviegoers worldwide gazed at the big screen to watch "2012," an end-of-the-world science fiction blockbuster that depicts a chain of horrific global cataclysms and then illustrates the terrifying struggles of the heroic survivors. The international box office smash, which received multiple awards for its impeccable sound and visual effects, also reminded mankind that natural disasters are becoming more profound as a direct effect of global warming. While most catastrophic events will remain beyond human control in the future, countless other major calamities can be prevented, such as the creeping sea level rise that stands to impose devastating changes to just about every city that fronts the San Francisco Bay, including Redwood City.

"We are very concerned that our region is particularly vulnerable to sea level rise because we have so much low-lying land around the bay," explained Will Travis, executive director of the San Francisco Bay Conservation and Development Commission (BCDC). "There are 240 square miles of the bay that have been filled in the past century and a half with landfill projects. And they have been filled, generally speaking, just high enough to get above sea levels of the past. As the sea level accelerates in the future, there are a lot of areas that will be vulnerable to flooding if steps are not taken to protect it. At the present time there are only, as I recall, two FEMA [Federal Emergency Management Agency] certified levees in the Bay Area, so there are a lot of areas that are low-lying that don't have adequate protection."

And providing sufficient protection to the Bay Area has been the main objective of the BCDC, created as a temporary state agency by the McAtter-Petric Act in 1965. Once established, the BCDC was put in charge of preparing a concise, comprehensive, long-term plan that would help regulate new development in and around the bay, particularly landfill projects. The San Francisco Bay Plan was completed in January 1969 and contained policies on critical issues pertaining to the safe and sensible use of the bay. The plan also incorporated rigid guidelines to help determine what permit applications would be approved for projects that were within the commission's jurisdiction, which includes the bay and any salt ponds, wetlands, waterways and lands that come within 100 feet of the bay.

Four decades later, the BCDC continues to spearhead outstanding efforts in protecting the bay and has already initiated the process of amending the original San Francisco Bay Plan. Amendments to the plan would involve making changes to existing policies that govern permit applications that fall into the commission's jurisdiction and adding a new segment to the plan that specifically addresses climate change and strategies for acclimating to dangerous sea level rise. "The BCDC is developing an overall strategy that would involve local governments, state and federal agencies, the business community, investors and insurers to decide which areas to be protected, where the money will come from to pay for that protection and how will the money be raised and administered," said Travis.

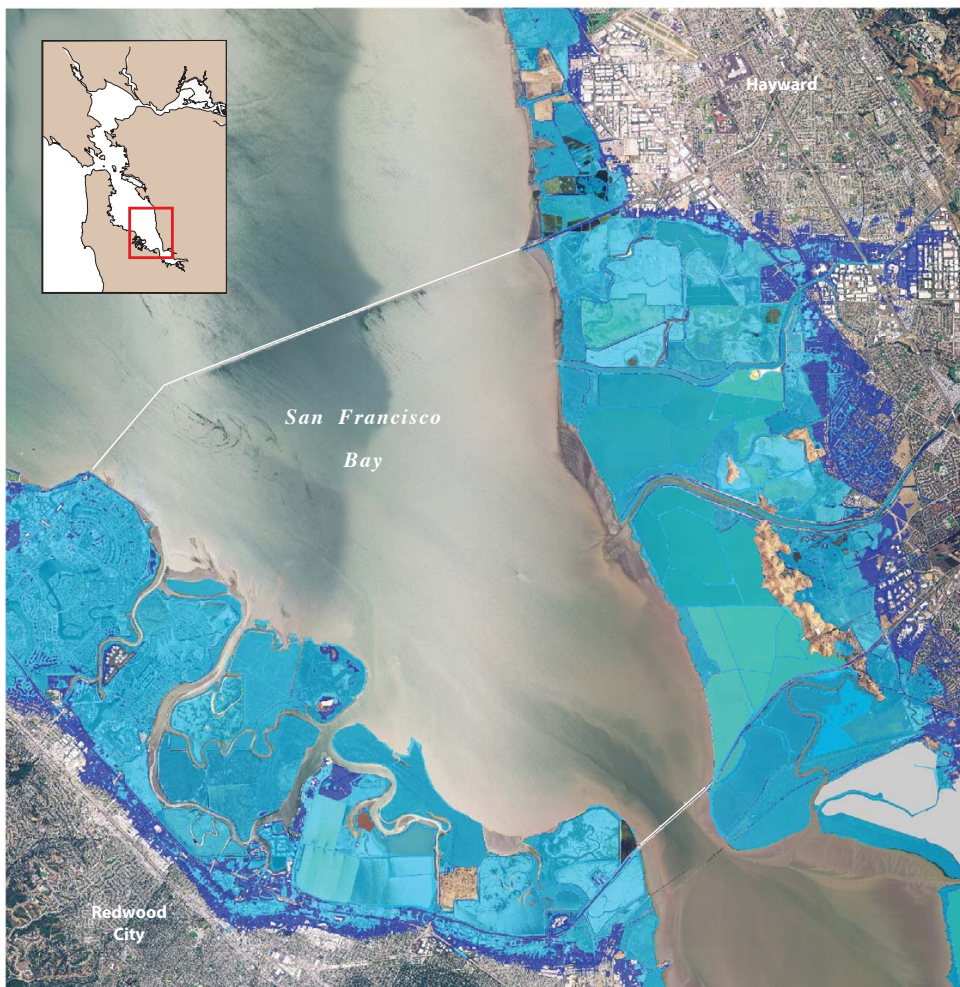
"The BCDC staff and commissioners should be congratulated for leading the way in educating the public about the threat of sea level rise, and we look forward to seeing the final Bay Plan Amendment," added Jay Reed, director of communications and strategic planning at DMB Saltworks. "Based on BCDC's projections, the existing threat to Redwood City is significant, and the time is now to start defining the exact extent of that risk locally. It is our understanding that Redwood City has more linear shoreline than any other city in San Mateo County. An examination of the maps issued by BCDC shows that a 16-inch rise in bay waters could flood portions of Highway 101 and reach into homes and businesses located inland of 101, extend into downtown Redwood City and impact the entire Redwood Shores community. Redwood City could lose significant property to the rising sea, and the Port of Redwood City appears very much at risk [for entire flooding]."

bcfdc
San Francisco Bay
Conservation and Development Commission

Area vulnerable to an approximate 16 inch sea level rise
Area vulnerable to an approximate 55 inch sea level rise
No data

0 1.5 3 MILES

SHORELINE AREAS VULNERABLE TO SEA LEVEL RISE: CENTRAL BAY SOUTH



Unfortunately what's really daunting for the Port of Redwood City and other surrounding high-risk coastal pockets is that water levels in the bay have already increased nearly 8 inches over the past century. And according to a report released by the BCDC in April 2009, after reviewing compiled data and extensive scientific research on weather pattern change, scientists firmly agree that the San Francisco Bay has the potential to rise approximately 10 to 17 inches by 2050, 17 to 32 inches by 2070 and 31 to 69 inches by the end of this century. "What the BCDC's process has made inescapably clear is that the threats to Redwood City are real and extensive," said Reed.

While the BCDC is proactively developing strategies and while meetings to address the prophesied flood crisis are finally being scheduled in several cities, DMB Saltworks and the Port of Redwood City are the only two entities that have produced concrete proposals thus far. "We are definitely aware of the projected impact of the sea level rise on Redwood City," said Mike Giari, executive director of the Port of Redwood City. "We are looking to address the sea level rise on a project-to-project/facility-to-facility basis, and the first project will be to rebuild wharves one and two." When completed, the wharves and adjacent sea wall should provide ample protection to the Port of Redwood City for a projected 50-year sea level rise or 16 inches of uninvited water. "There are definitely other areas of the BCDC report that need to be evaluated before we can address further issues, but at least we are paying close

attention and are starting out by project-to-project," added Giari.

On the other hand, DMB, an Arizona-based developer with a proven track record of creating attractive and lucrative environments, has proposed their Saltworks 50/50 Balanced Plan, which encompasses more than 2.2 square miles of property and includes a built-in transit-oriented community. "As part of our Saltworks proposal, DMB has included flood protection measures to protect the Saltworks community. The Saltworks plan includes a levee that will be built around the entire site that will protect the entire community," explained Reed. "The plan will also create hundreds of acres of wetlands and new habitat that will act as a partial buffer against rising bay waters. But with the awareness BCDC has brought to this threat to Redwood City (regardless of the approval of Saltworks), we want to be part of a broader solution for Redwood City at large. Our investment in a Saltworks levee system could be leveraged, we believe, as the catalyst for a regional system."

However, the Saltworks project is under heavy fire for proposing to build a fully functional community on such volatile property in the first place. The Saltworks proposal has basically segued into a five-year heated debate between DMB with its partner Cargill, a Minnesota-based agribusiness that is the landholder, and the rest of the world, literally. Local residents, business owners, state regulators and public agencies have been busy protesting, saying that the undeveloped salt pond site should be used for the complete restoration of



Various locations around Redwood City that experience flooding every year. Is this a forecast of what other areas will look like?

wetlands, which will essentially act as a natural barrier against dramatic flooding. And although there seems to be valid pros and cons to both sides of this controversy, maybe it's time to put ill feelings aside and join forces in order to come up with fresh, viable resolutions that will be effective in saving Redwood City from being 6 feet under water, because time is running out!

"Should we retreat from areas of Redwood City threatened by rising bay waters, or should we support policies that would protect these urban areas from a rising bay? This is the central question that we must answer in order to create a local solution and local plan to deal with the impacts of a rising bay," explained Reed. "As proposed today, the Saltworks levee alone won't provide a solution to the larger Redwood City issue of rising bay waters that will impact many homes, businesses and highways. But Saltworks has the resources and willingness to bring real solutions to this and other issues in Redwood City."

But no matter how much combined effort is diligently put into protecting Redwood City from intensified flooding in the coming decade, if the 45 cities that front the bay do not follow suit, then all of our efforts will definitely be useless, because a major flood in one city will easily flow to the next. "This is everyone's problem that certainly needs to be looked at very soon," said Redwood City Mayor Jeff Ira. "And most importantly, we need cooperation from everyone in order to protect the entire Bay Area from the future risk of general flooding."

The urgency of the situation is evident because global warming is already creating other problems that are threatening to our area. For instance, many inland neighborhoods, such as East Bayshore and Friendly Acres in Redwood City, have been experiencing severe flash flooding, resulting in costly damage to property and infrastructure, and a host of other troubles like mold and disease. And even though this type of flooding comes from normal, heavy rainfall, global warming is the main culprit in the increased level of intensity of such storm systems over the last decade.

In a promotional trailer for the movie "2012," viewers see a series of intense shots of huge floods, tsunamis and tidal waves annihilating cities across the world. Although the scenery in Redwood City in 2070 may not be as severely affected, our circumstances will definitely be just as devastating if we keep focusing on the wrong issues while we put off trying to remedy time-sensitive critical issues, such as the accelerating sea level rise crisis in the San Francisco Bay. It's rather interesting that the tagline to the movie is "We Were Warned!" Ironically, so were we.