



**COUNTY OF SAN MATEO**  
Inter-Departmental Correspondence  
Office of Sustainability



**Date:** April 25, 2016  
**Board Meeting Date:** May 10, 2016  
**Special Notice / Hearing:** None  
**Vote Required:** Majority

**To:** Honorable Board of Supervisors

**From:** Reyna Farrales, Deputy County Manager  
Jim Eggemeyer, Director, Office of Sustainability

**Subject:** Status Report on the County's Sea Level Rise Vulnerability Assessment and the Youth Exploring Sea Level Rise Science Project (YESS)

**RECOMMENDATION:**

Accept this informational report on the progress of the County's Sea Level Rise Vulnerability Assessment and the Youth Exploring Sea Level Rise Science Project.

**BACKGROUND:**

San Mateo County is the most vulnerable county in the State to sea level rise due to the County's unique location between the San Francisco Bay and the Pacific Coast. The County has \$24 billion of assets at risk from sea level rise and over 100,000 people at risk from 3 feet of sea level rise (Huere et al. 2016). Even without sea level rise, San Mateo County is at significant risk to flooding and erosion. A large storm today can put at risk wastewater treatment plants, transportation networks, hazardous sites, and businesses, as well as several of the County's own facilities.

Awarded a grant from the California State Coastal Conservancy, the Office of Sustainability is conducting a vulnerability assessment to understand what is at risk throughout the County from flooding and erosion today and with sea level rise. The study area includes the entire bayshore and the coast north of Half Moon Bay. The project started in June 2015 and will be complete by early fall 2016. Arcadis Consulting and AECOM are conducting the technical portion of the study.

The YESS project is a part of the Office of Sustainability's outreach efforts to raise awareness about sea level rise.

Funding sources for the pilot year of the YESS project include California Coastal Conservancy grant in Marin County and \$12,000 in San Mateo County District 3 Measure A funds.

## **DISCUSSION:**

### **Sea Level Rise Vulnerability Assessment Overview**

The Office of Sustainability, in collaboration with the State Coastal Conservancy and technical consultants have completed a number of specific work tasks and products since June 2015 as part of the vulnerability assessment, including:

- Establishing a Technical Working Group, Policy Advisory Committee, with representation from each of the 20 cities, as well as Special Districts, state and federal agencies, businesses, community groups, and other stakeholders
- Leading weekly interdepartmental sea level rise meetings
- Developing an outreach strategy and convened a Community Task Force to encourage public engagement on the issue
- Completing an inventory of assets at risk by city (in draft form)
- Identifying 30 representative assets for detailed analysis
- Completing site visits and interviews for the 30 assets

### **YESS Project Overview**

YESS is an experiential education program that gives high school students the opportunity to explore why sea level rise is happening and how it could affect their lives. YESS allows those who will be most impacted by climate change – young people – to have a voice on the issue and to spark a broader conversation about risk and resiliency. Accomplishments to date, include:

- In the 2015 – 2016 school year, YESS staff worked with Half Moon Bay High, Woodside High, and Redwood High to provide approximately 40 hours of hands-on learning and field-based activities to 100 high school science students
- Students have collected images of king tides and conducted interviews with local residents on flood risk perceptions and sea level rise
- YESS staff developed Next Generation Science Standards and Common Core-aligned curriculum, which is usable by any high school science teacher in California
- Local artist Christina Conklin created an interactive field guide to the area around Cooley Landing, which the County can use in future outreach activities

### **Next Steps**

The Office of Sustainability has identified several potential next steps for taking action to prepare for sea level rise, shown below. Staff are in the process of finalizing these steps and they include:

- Completing the vulnerability assessment for south of Half Moon Bay
- Conducting further analysis of County facilities and unincorporated areas
- Preparing a county policy on sea level rise and guidance for addressing sea level rise in County projects

- Developing an adaptation strategy for unincorporated areas and implementing pilot projects

The YESS project team will conduct an evaluation of the pilot program, adjust the curriculum as needed, and publish a 'toolkit' for teachers and planners interested in replicating the program. The goal for the 2016-2017 year is to expand the YESS project to additional schools in San Mateo County.

**FISCAL IMPACT:**

There is no fiscal impact associated with this status report.