

The background of the slide is a close-up photograph of water with numerous small, concentric ripples. The water is a light blue-grey color, and the ripples create a textured, wavy pattern across the entire frame.

# **HUMBOLDT BAY SEA LEVEL RISE ADAPTATION PLANNING PROJECT**

**Adaption Planning Working Group**

**AGENDA**

**April 24<sup>th</sup> 2013**

# **DESIRED OUTCOMES**

- Awareness of SLR Adaptation and Hazard Mitigation Planning Resources**
- Establish Inundation Mapping Tides and Inundation Depths**
- Agree on APWG's Meeting Schedule**
- Agree on APWG's Goals and Objectives**
- Agree on a Robust Stakeholder and Public Outreach Process**
- Agree on How to Proceed with Adaption Planning Process, and Next Steps**

# **AGENDA**

- 1. Introductions**
- 2. California's SLR Adaption Planning Resources**
- 3. Hazard Mitigation Planning Resources**
- 4. Vulnerability Assessment**
- 5. 2013-2015 Meeting Schedule**
- 6. Goals and Objectives**
- 7. Stakeholder and Public Outreach**
- 8. Adaptation Planning Process, Next Steps**

# **California's SLR Adaption Planning Resources**

- **California Climate Action Team & Climate Action Initiative:  
2012 California Climate Adaptation Planning Guide**
- **Coastal and Ocean Resources Working Group for the CAT:  
2013 State of California Sea-Level Rise Guidance Document**
- **California Coastal Commission:  
2013: California Coastal Commission Strategic Plan 2013-2018**
- **San Francisco Bay Conservation and Development Commission:  
2012: Adapting to Rising Tides Assessment**
- **State Lands Commission  
2009: Sea Level Rise Preparedness**
- **California Energy Commission  
2012: Adapting to SLR: Guide for California's Coastal Communities**

# **California's SLR Adaption Planning Resources**

- Caltrans:**

- 2011: Guidance on Incorporating Sea Level Rise**

- Department of Fish and Wildlife:**  
**Climate Science Program**

- San Diego:**

- 2012: Sea Level Rise Adaptation Strategy for San Diego Bay**

- City of Santa Barbara:**

- 2012: Santa Barbara Sea Level Rise Study**

- San Luis Obispo County:**

- 2012: Developing Adaptation Strategies for San Luis Obispo County**

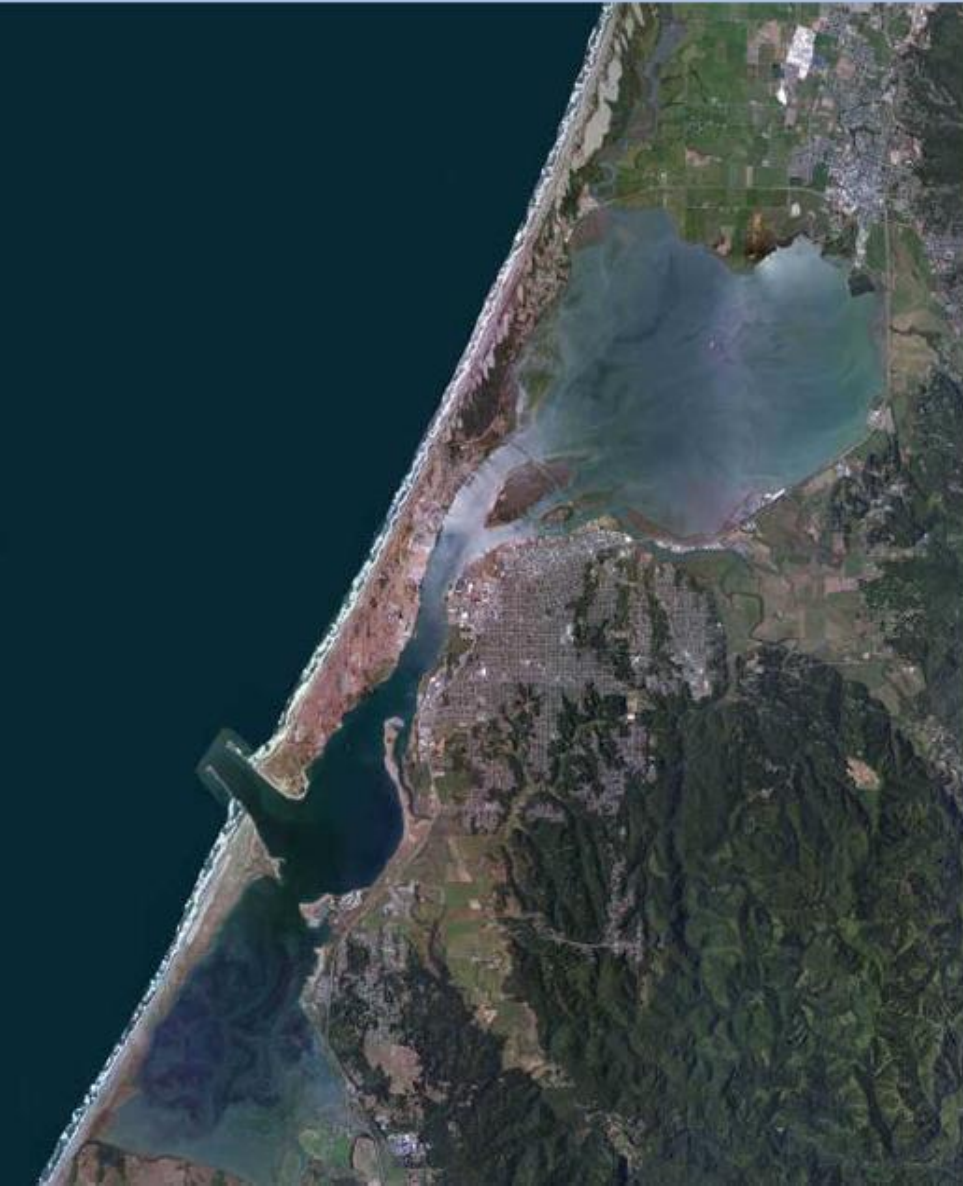
- NOAA Coastal Services Center:**

- 2012: Incorporating Sea Level Change Scenarios at the Local Level**

# **California's Hazard Mitigation Planning Resources**

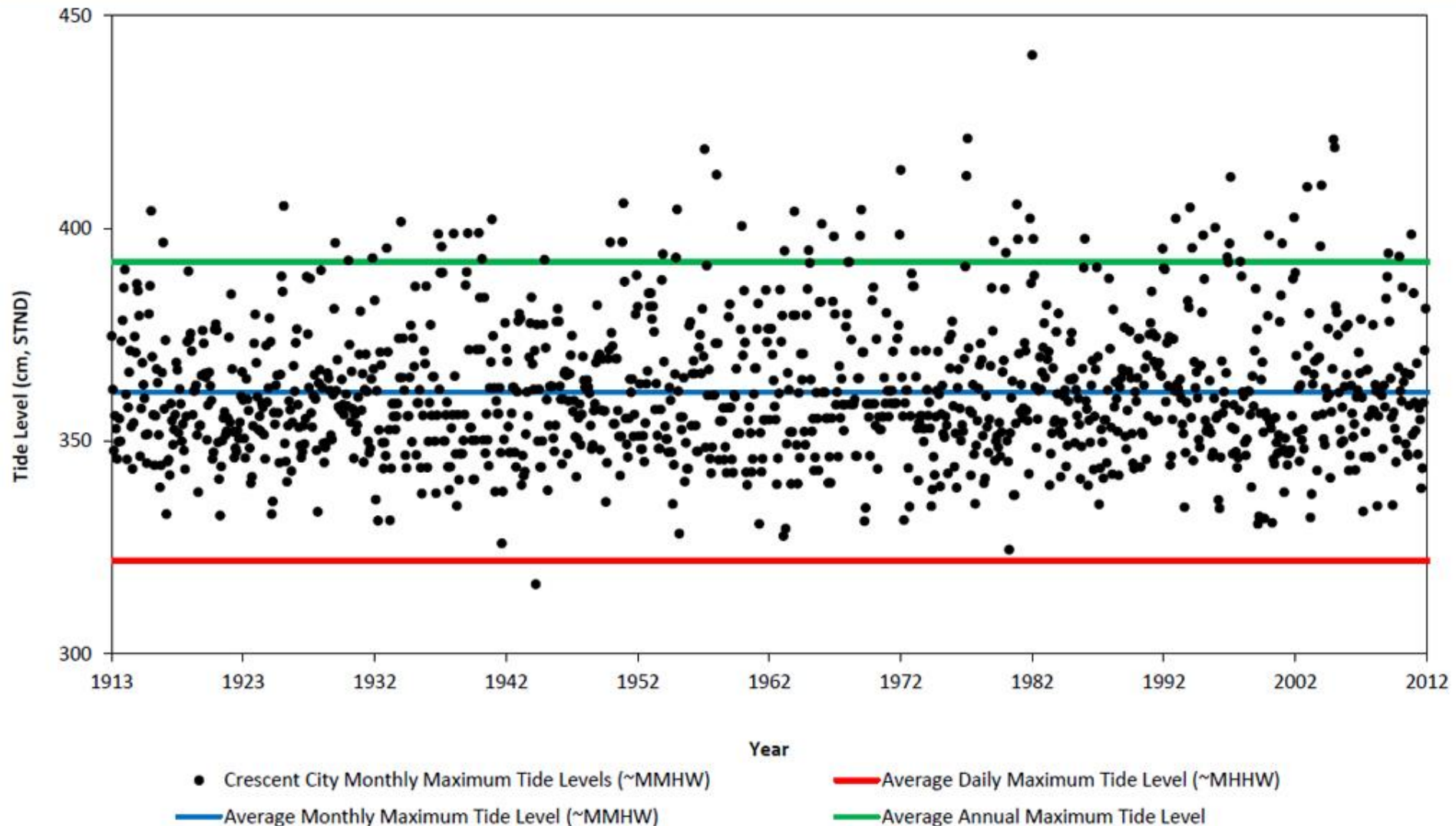
- Cal EMA State Hazard Mitigation Plan: 2010**
- Humboldt Operational Area Hazard Mitigation Plan Update: 2013**
- Department of Water Resources Statewide Flood Management Planning Program: California's Flood Future: Recommendations for Managing the State's flood Risk: 2013**
- FEMA's Proposed Detailed Flood Study for Humboldt Bay to Update the Flood Insurance Rate Map**

# What we are doing

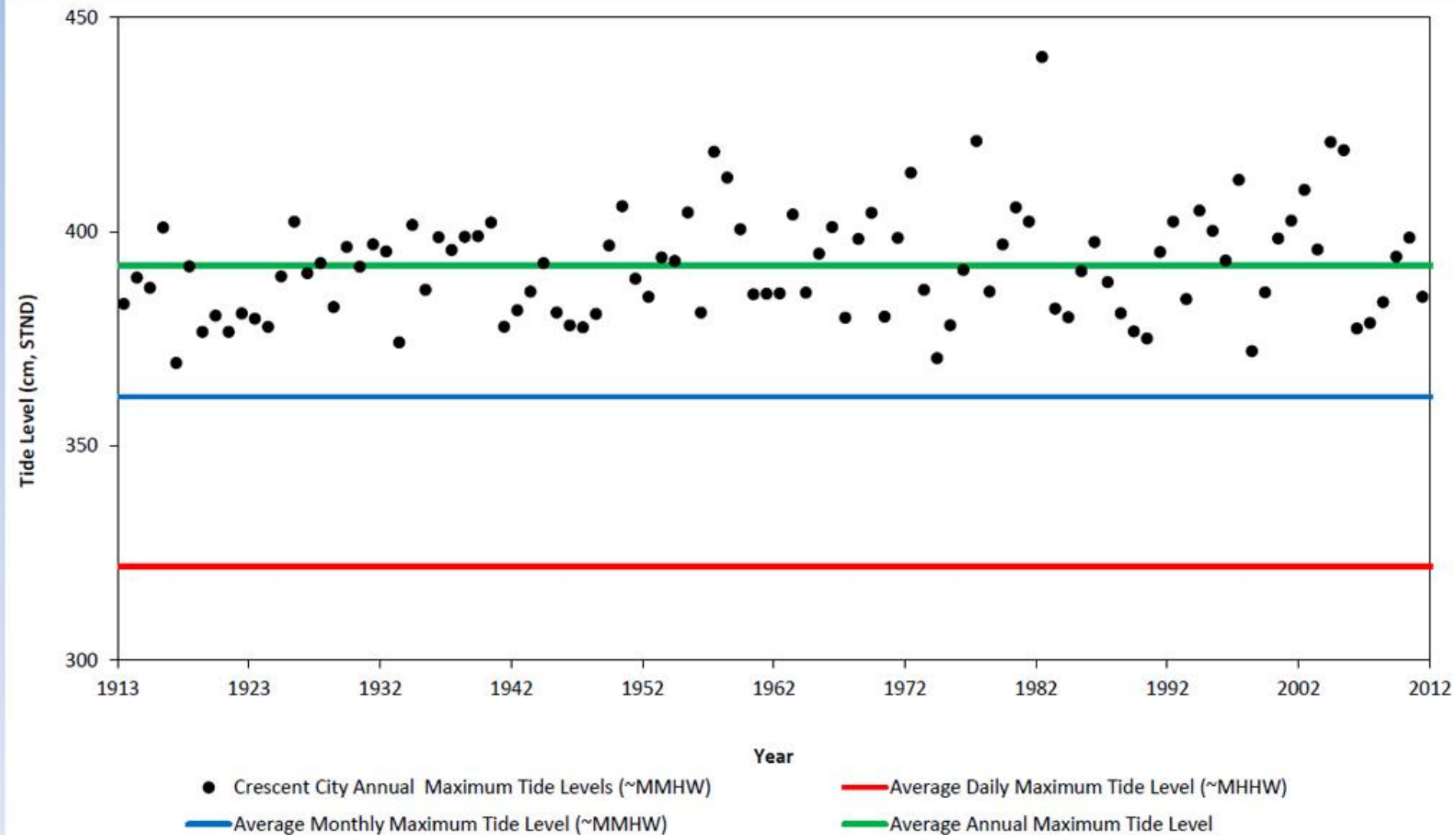


- Project DEM. Whelan Gilkerson (PWA) is working on developing Project DEM for modeling and mapping using LiDAR, bathymetry, soundings, hyperspectral data.
- Groundwater modeling. Dr. Robert Willis reviewed literature to assess similar studies. Waiting on Project DEM.
- Sea Level Rise Scenarios. JKA reviewed and summarized (in progress) SLR scenarios for Humboldt Bay Region.
- Tidal Boundary Condition. JKA is developing 100-yr hourly sea level series for Crescent City Tide Station.

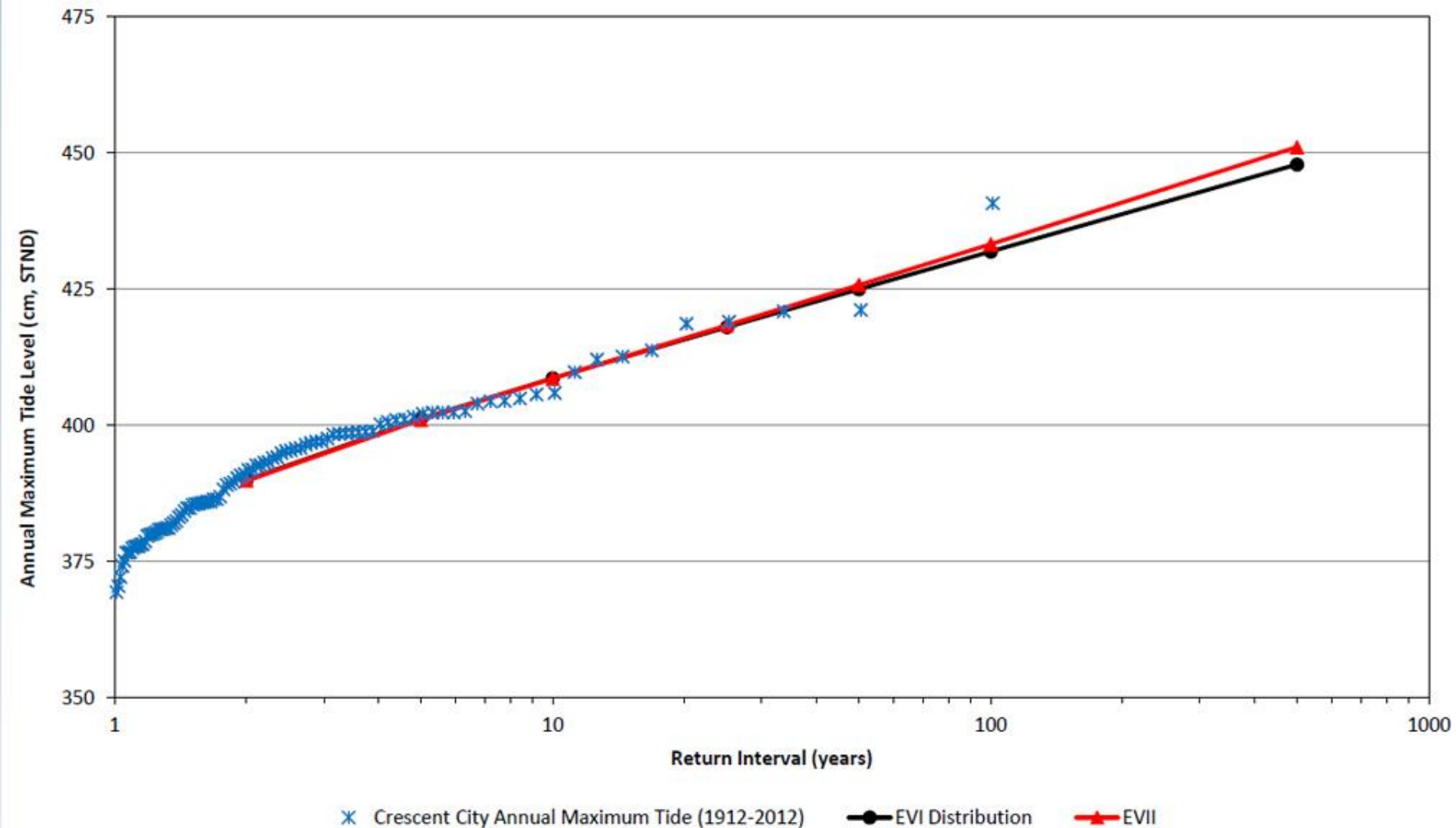
# Crescent City Tide Levels



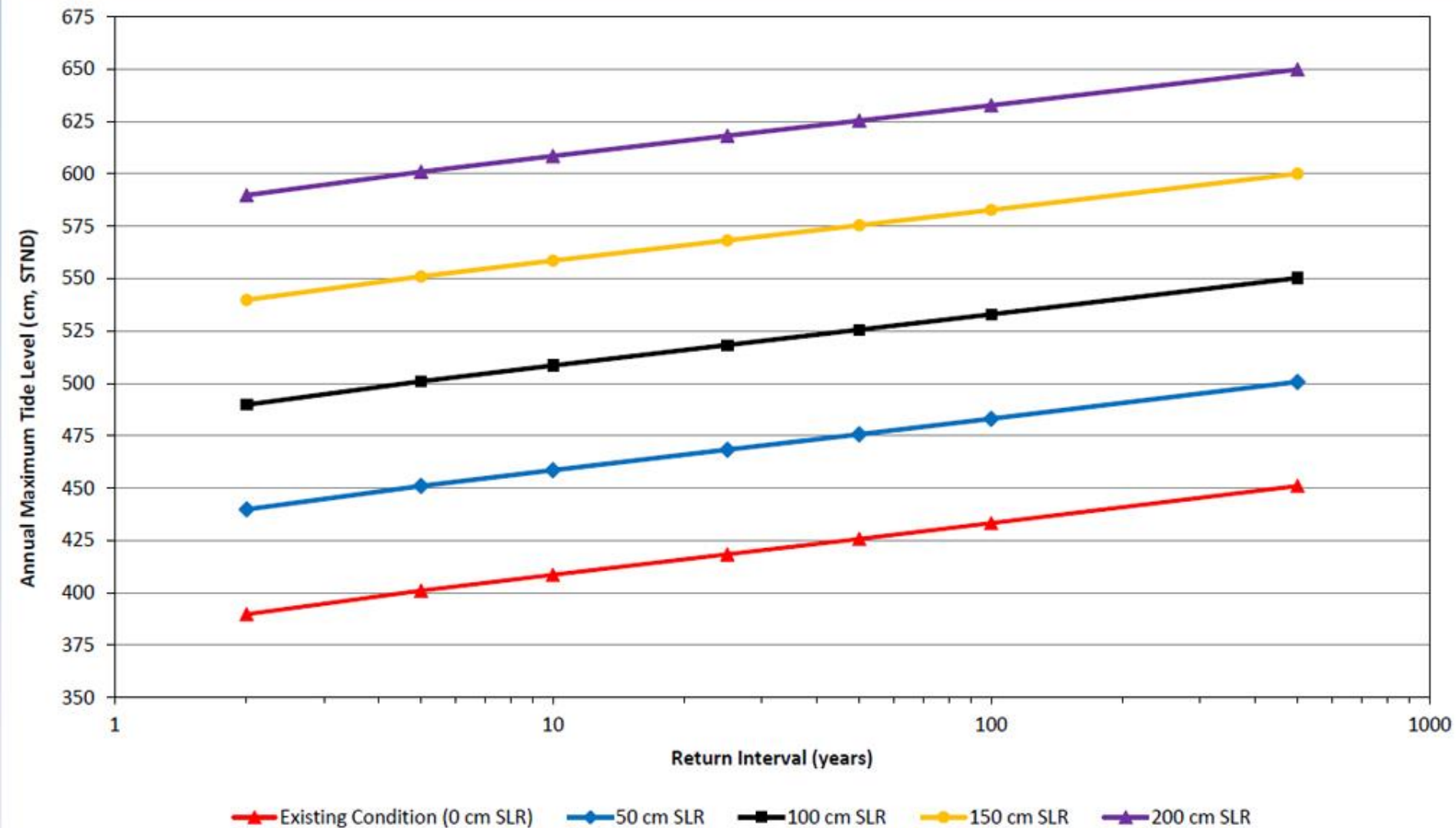
# Crescent City Tide Levels



# Crescent City Tide Levels



# Crescent City Tide Levels



# **Vulnerability Assessment Update**

- Draft Inundation Mapping: 1 to 2 months**
- Inundation Mapping Tides:  
MMMW, MAHW, and 100 year Tide**
- Inundation Depths: 0.0 (existing conditions),  
0.5, 1.0, 1.5, and 2 meter SLR Increments**
- Inundation Mapping will be in ArcGIS Format**

# Meeting Schedule: 2013-2015

<b>2013</b>	<b>2014</b>	<b>2015</b>
2/27	2/26	
4/24	4/30	
6/26	6/25	
8/28	8/27	
10/30	10/29	
12/18		1/7

# **Humboldt Bay Sea Level Rise Adaptation Planning Project**

## **Purpose**

**The purpose of the project is to support informed decision-making and encourage a unified, consistent regional adaptation strategy to address the hazards associated with sea level rise in the Humboldt Bay region.**

# **Humboldt Bay Sea Level Rise Adaptation Planning Project**

## **Goals**

- Understand the current hazards associated with coastal flooding in the Humboldt Bay region and the predicted future effects of continued sea level rise.
- Gather the most current technical information regarding historical and future sea level rise in the Humboldt Bay region and the contributing effect of vertical land motion.
- Implement a robust public outreach program to share information and gather public input.
- Understand the linkages between sea level rise adaptation planning and related planning efforts.
- Identify opportunities for integrated adaptation strategies and coordinated response efforts across jurisdictional boundaries.

# **Humboldt Bay Sea Level Rise Adaptation Planning Project Stakeholder and Public Outreach**

- **Adaptation Planning Working Group:**  
County, Eureka, Arcata, District, and CCC
- **Stakeholders:**  
Land Management-Wiyot Tribe, HBNWR, NCRA, DFW,  
Caltrans, and BLM;  
Resource Regulatory-DFW, USFWS, and NMFS;
- **NGO:** Sea Grant, Farm Bureau, Buckeye Conservancy,  
Humboldt Baykeeper, and Audubon
- **Public:**

# **SEA LEVEL RISE ADAPTATION PLANNING PROCESS**



