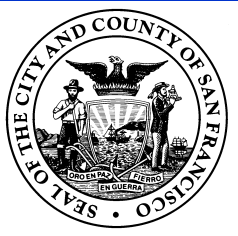


# Resilient San Francisco

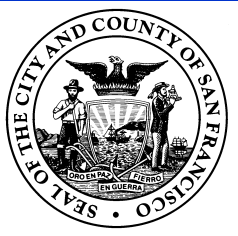
## Advancing San Francisco's Climate Adaptation Plan

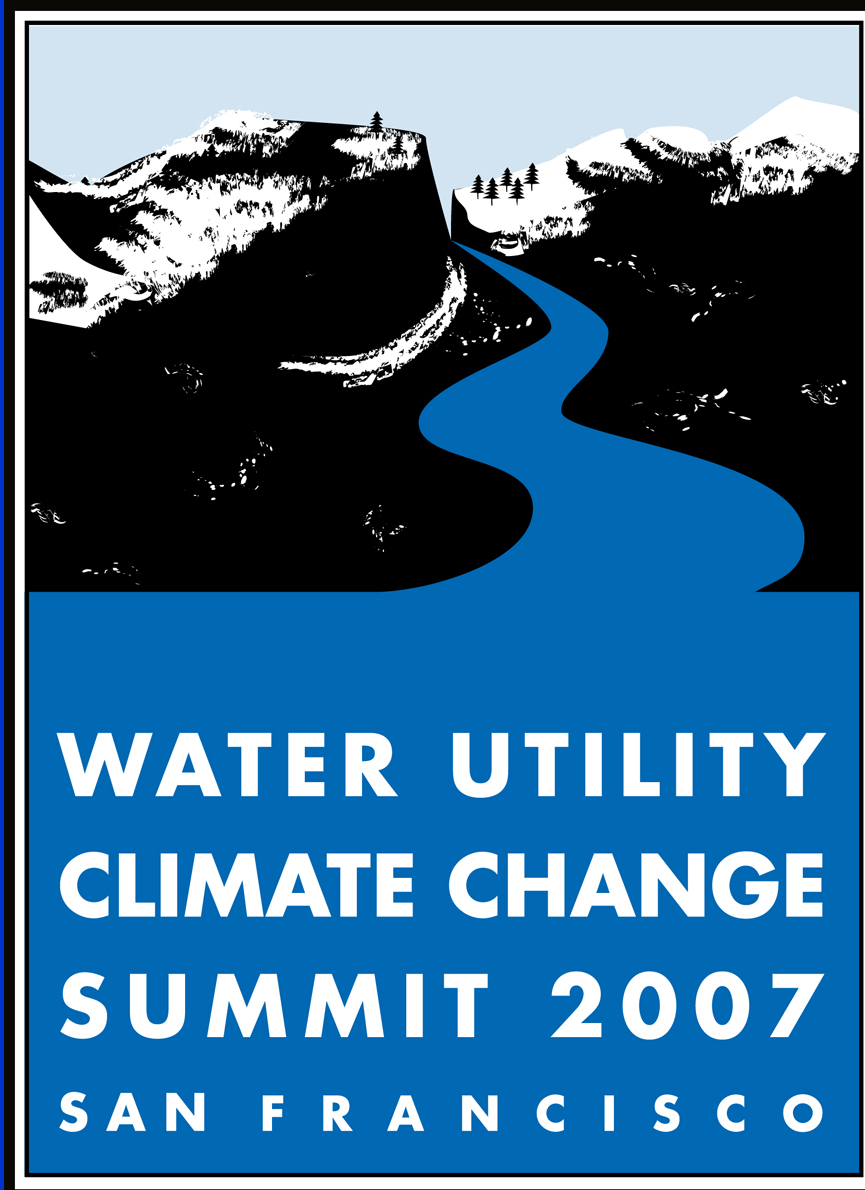
Wade Crowfoot, Office of Mayor Gavin Newsom  
BAAQMD Conference: May 4, 2009



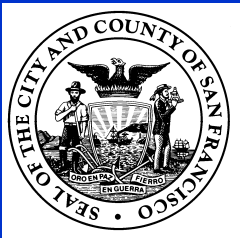
# San Francisco's move to adaptation in context

- San Francisco Climate Action Plan (2004): 20% reduction in carbon emissions below 1990 levels by 2012.
- Almost 100% of our focus has been on mitigation
- Growing sophistication of our capital planning system within City Government
- San Francisco PUC a leader in early thinking on adaptation
- Other local jurisdictions are racing forward on adaptation planning: King County (WA.), New York City, Chicago





**WATER UTILITY  
CLIMATE CHANGE  
SUMMIT 2007  
SAN FRANCISCO**



# Water Utility Climate Alliance

- Formalized February 2008
- Chaired by San Francisco PUC, includes New York City, Denver, Metropolitan, San Diego County, Seattle, Portland, Southern Nevada
- Focus: Adaptation response, GHG leadership
- Committees:
  - 1) Science
  - 2) Decision Support
  - 3) Greenhouse Gas Emissions
  - 4) Communications



# Why Adaptation?

## Likely changes to our local environment

- Rising sea levels
- Increased frequency of extreme weather events
  - Storm surges
  - Intense precipitation
  - Heat waves
- Increase variability of precipitation
- Decreased snowpack in the Sierra Mountains



# Why Adaptation?

## Our vulnerabilities to these weather changes

### Planning

- Large portion of our city at low lying levels
- Key upcoming developments are along the Bay shore

### Infrastructure

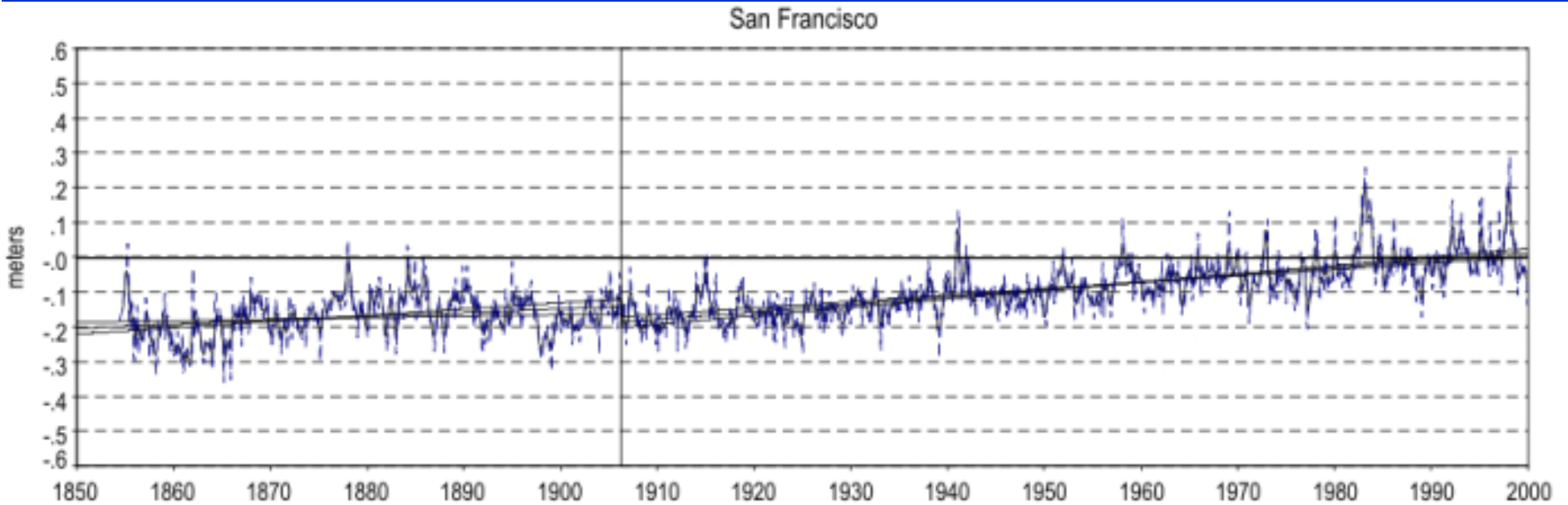
- Aging Port piers and seawalls
- Wastewater system that could be infiltrated by rising sea levels

### Resource Scarcity

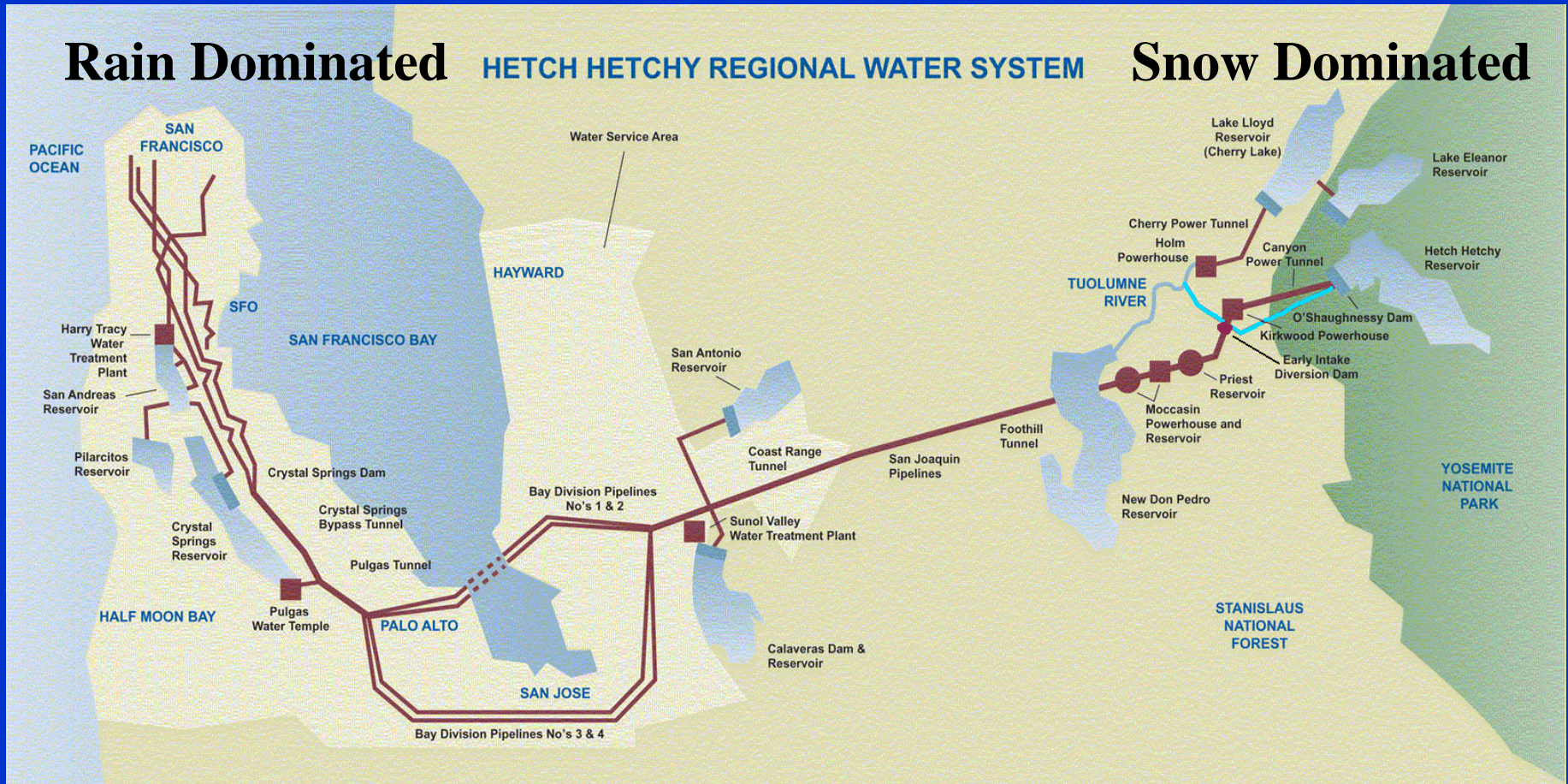
- Dependency on Sierra snow to provide drinking water



# Monthly Mean Sea Level, Presidio, San Francisco 1854 -- 2000

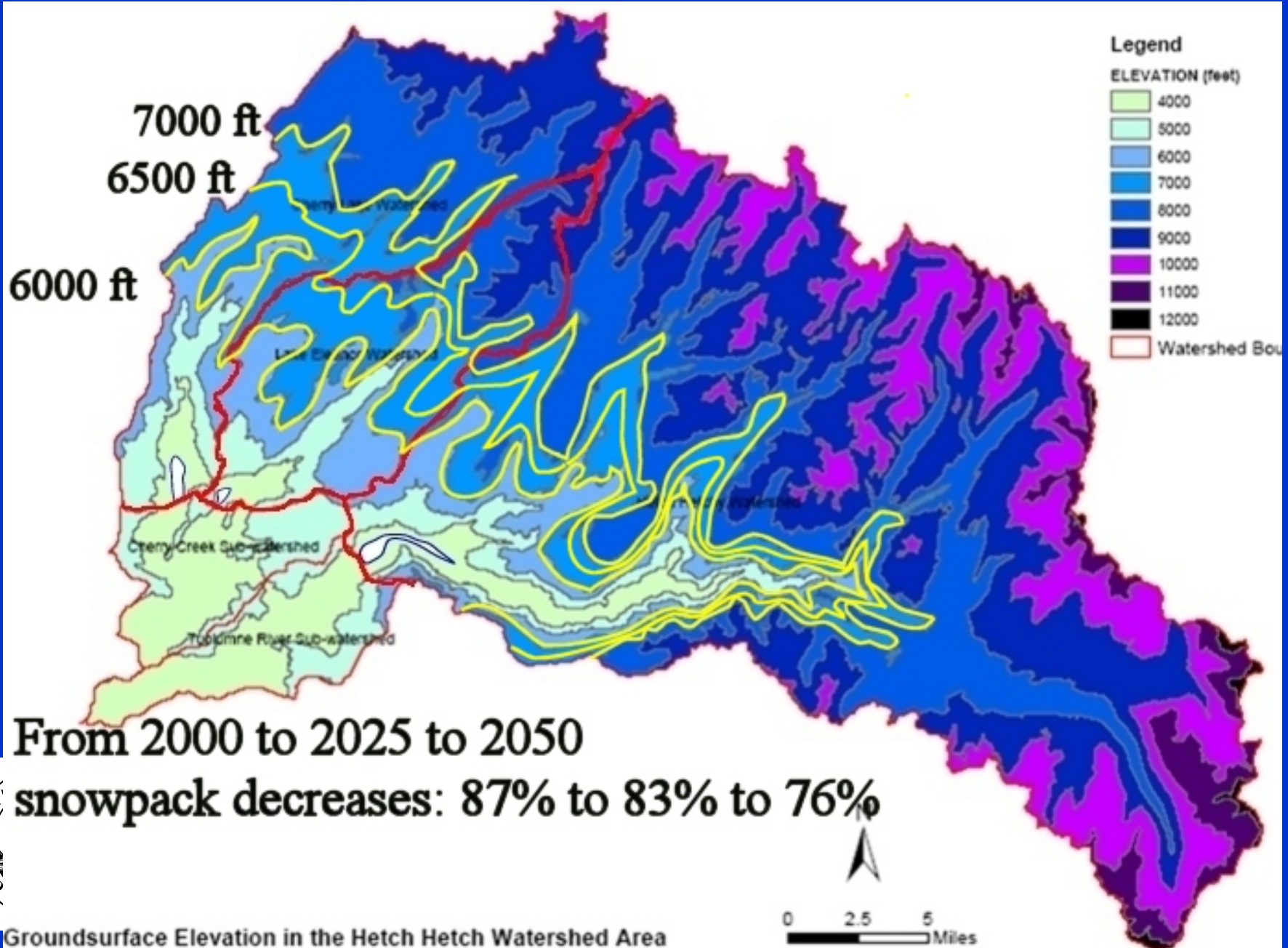


# SFPUC Water System



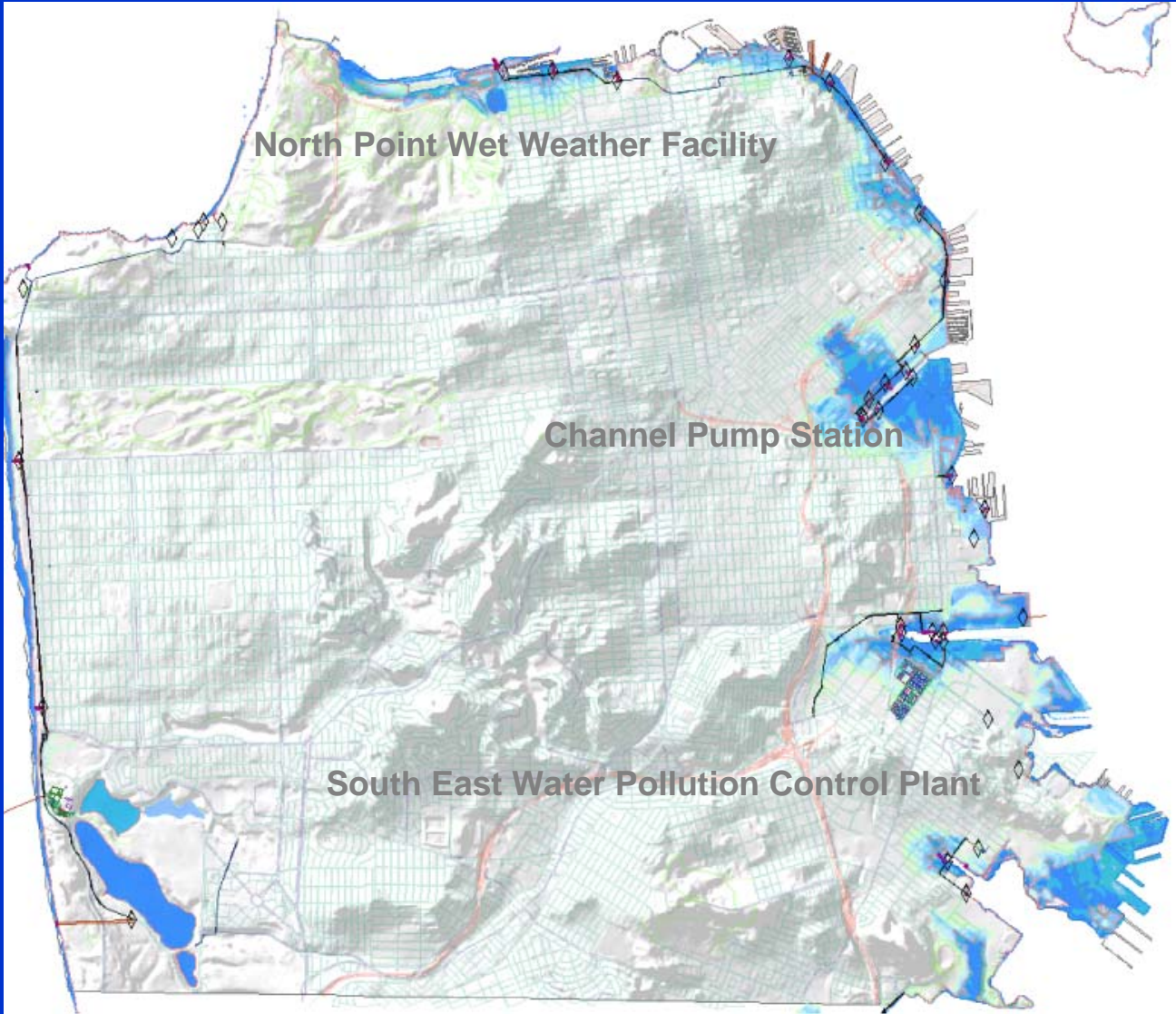


# Effect of Rising Snowline



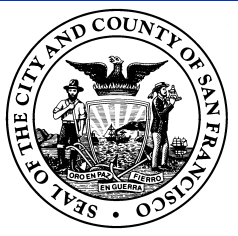
Groundsurface Elevation in the Hetch Hetchy Watershed Area

# Wastewater Structures at Risk with Sea Level Rise of 3 feet



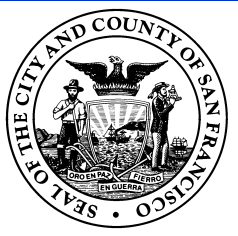
# *Potential Goals of Resilient San Francisco*

- Adopt uniform climate change projections for San Francisco (& Bay Area?)
- Create coordinated adaptation plans for all stakeholders responsible for critical infrastructure (public and private)
- Draft design guidelines for new infrastructure
- Incorporate climate change adaptation into existing capital planning processes

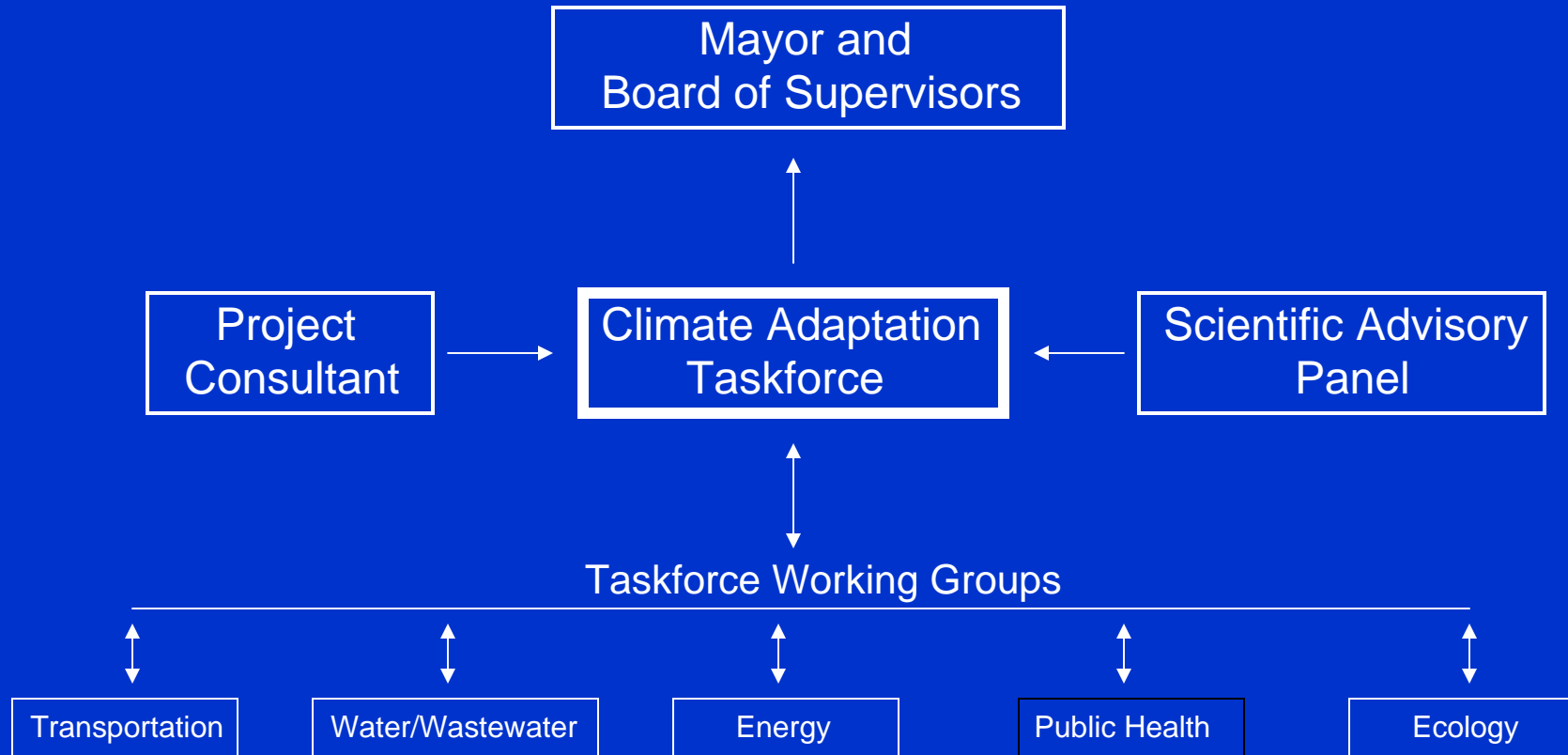


# Groups within the Adaptation Planning Process

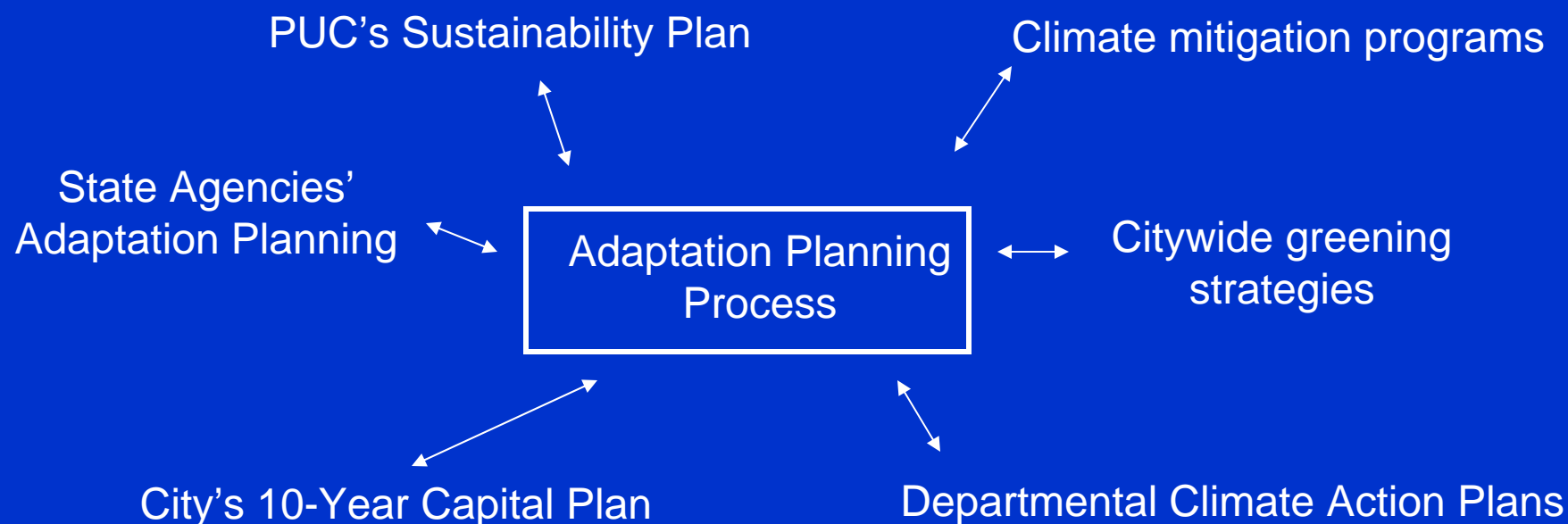
- Climate Adaptation Taskforce: Key City and non-governmental stakeholders, will develop Adaptation Plan's recommendations.
- Taskforce Working Groups: Will consider climate change's impact on areas of the built environment. Includes participants that may not be part of the larger Taskforce.
- Project Consultant: Identifies anticipated climate impacts on San Francisco including the range and probability of these impacts, helps Taskforce understand how these impacts inform long-term planning.
- Scientific Advisory Panel: Directs consultant to existing data and analysis on regional climate impacts, reviews projections of anticipated impacts, and provides ongoing technical expertise to Taskforce.



# Adaptation Planning Structure



# Other plans and strategies that Adaptation Plan must consider



# Boston Group: Keys to success

- Government champion
- Broad team composition (public, private, academic)
- Senior-level involvement from stakeholders
- Well-structured process

