San Francisco Bay Environmental Action Plan (SEAP)

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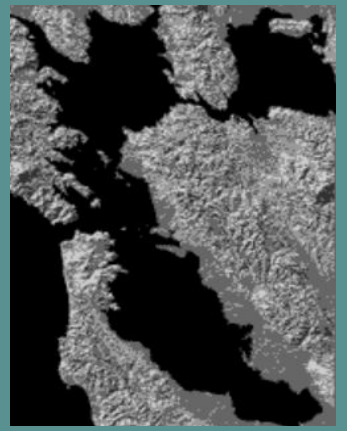
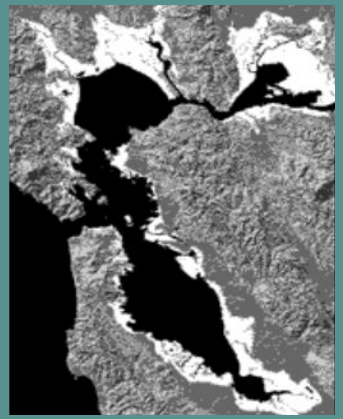
History of the Bay

- ~10,000 years old
- Flooded river canyon that formed as a result of rising sea levels
- 1961: Save the Bay
  - Protect, Restore, Celebrate
- 1965: McAteer-Petris Act
  - Prevented filling
- 1968: SF Bay Plan



1849



1965

2020

Governance of the Bay

Bay Model Alliance

“Operated by the Bay Ecotarium in collaboration with the U.S. Army Corps of Engineers, the Alliance is dedicated to providing free, accessible waterfront education focused on the San Francisco Bay and the Sacramento-San Joaquin River Delta System.”

San Francisco Bay Facts/GIS Mapping

- Upper watershed drains 40% of California landmass
- Home to more than 500 species of wildlife
- Consists of 3 main bays
    - San Francisco, San Pablo, Suisun

Mission Statement

The goal of the San Francisco Bay Environmental Action Plan (SEAP) is to improve the overall water quality of the San Francisco Bay Delta watershed. The Action Plan will target three main areas of concern in order to improve the overall health of the bay by 2035.

Problem 1: Pollutants

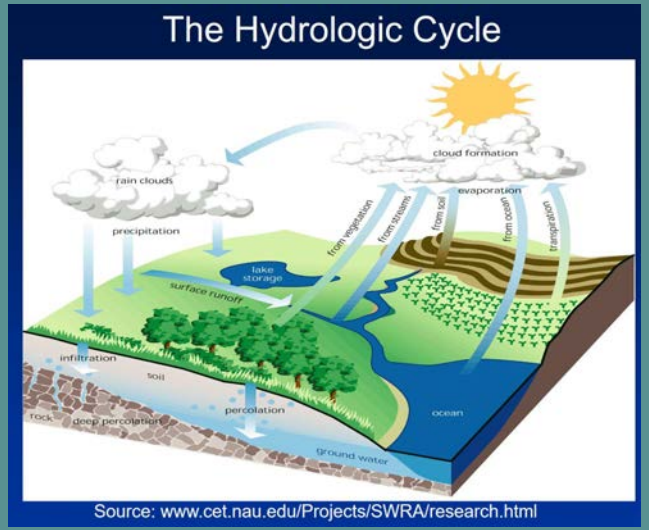
- SF Bay currently exceeds ‘safe’ levels of many contaminants
  - Including pesticides and metals
- Serious bacteria pollutant levels
  - Caused by sewage spills
  - Endangers aquatic life
  - Improve sewage infrastructure
- Trash racks on any inlet structures

Problem 2: Invasive Species

- Invasive species compete with native plants and animals
  - Deprives them of nutrients necessary for survival
- Can be difficult to identify the entry point of invasive species
  - Commonly transported on the bottom of ships, or accidental releases of non-native aquatic species.
- Two invasive species of main concern in the San Francisco Bay area are:
  - Bullfrog
  - Largemouth Bass
- There are some ways these common causes can be mitigated:
  - Clean off bottom of ships entering from foreign locations
    - Clean out of the water
    - Will remove invasive species
  - Educate the public on what species are native to the area
    - Reduce the accidental release of non-native species into the wild

Problem 3: Runoff

- Runoff enters the Bay and causes erosion and flooding
  - Due to excessive impervious cover
- Goal is to reduce total runoff
  - Runoff natural control technologies and systems
- Examples include: riparian buffers, introduction of native plants in areas of concern, addition of pervious surfaces



Economics

- Potential costs include:
  - Trash and pollutant clean up costs
  - Invasive species removal costs
  - Cost of native species plants
- Costs funded by grants, donations, etc.
- Reduce cost by involving volunteers and other stakeholders

Conclusion/Recommendations

- Target 3 main pollutant groups ⟹ improve the overall health of the San Francisco Bay
- Aim for low cost solutions to problems
- Utilize SF Bay protection groups that already exist (Save the Bay)