



<http://www.digthatcrazyfarout.com/digitalweek/OmearaGroveWEB.jpg>

HUMBOLDT COUNTY FISHERIES: THE STATE OF OUR SALMON

Analysis conducted by Ali Freedlund.

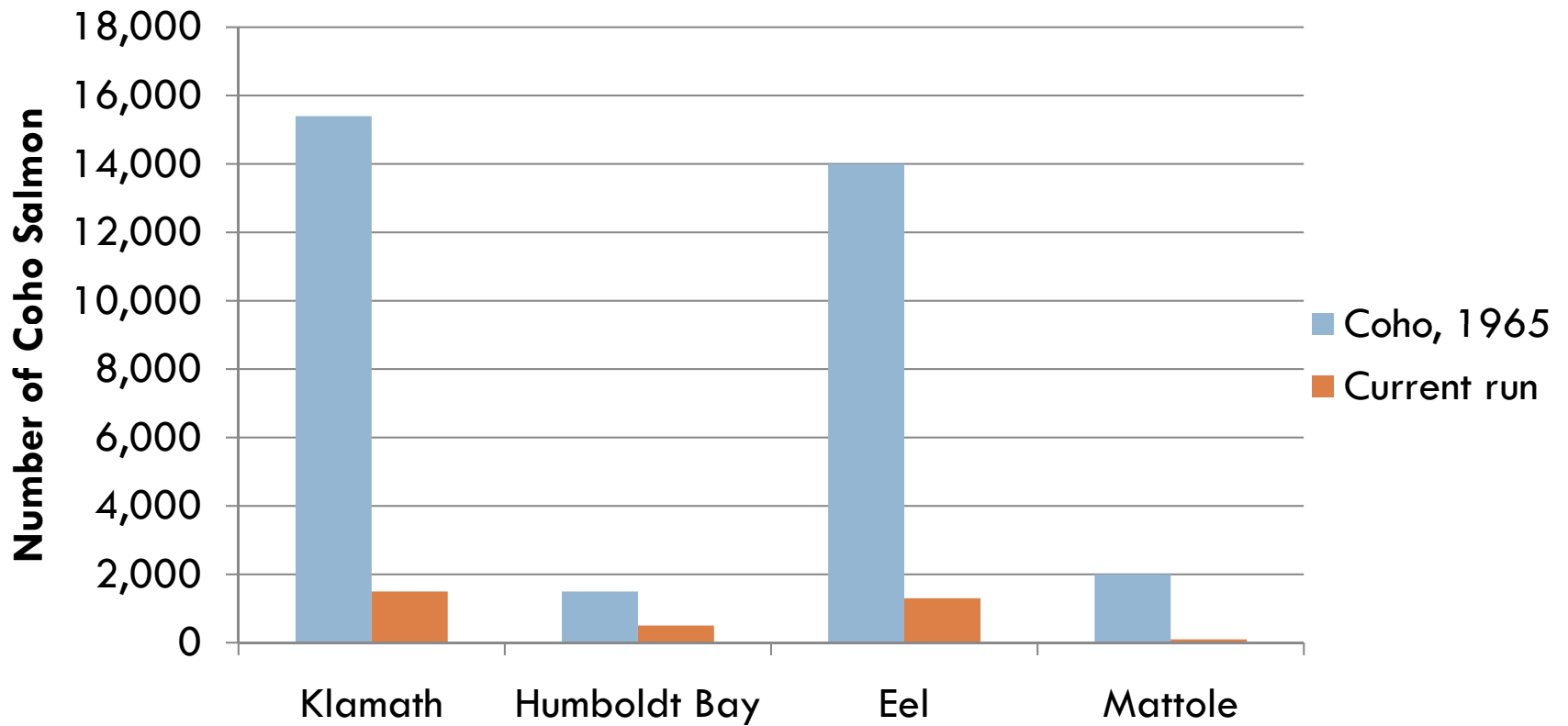
Humboldt County Salmon

- Humboldt County has the second and third largest salmon bearing basins in California
 - ▣ Majority (over 50%) of Humboldt-caught salmon originated in the Sacramento River and over 1/3 of salmon landings in Eureka were estimated to come from the Klamath
- Many of our salmon stocks are considered functionally independent
- Humboldt Count salmon are valuable in many ways

Questions Asked

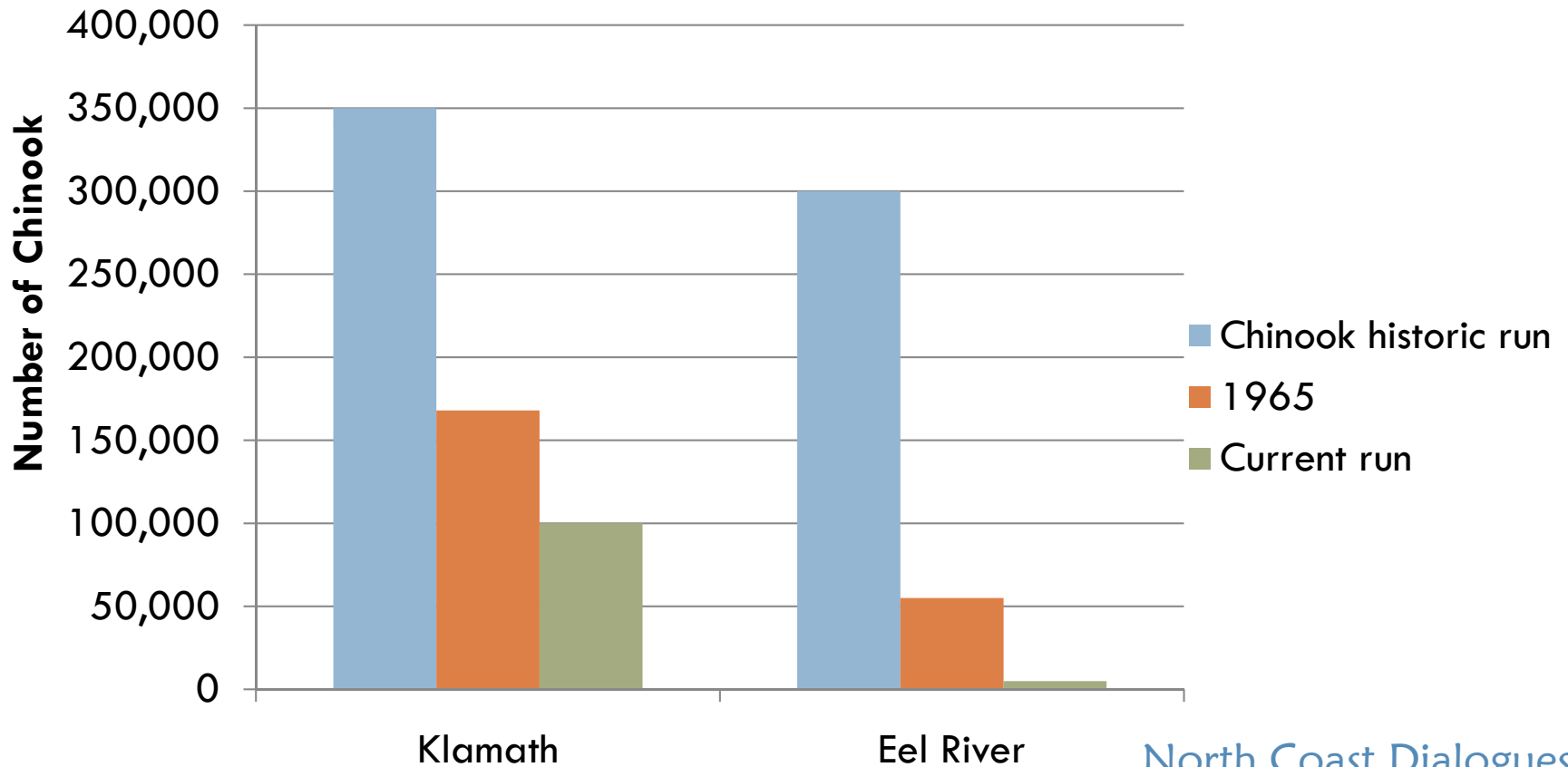
- What is the **current state of salmon stocks** in Humboldt County?
- What are the **major threats** to salmon?
- What **opportunities** exist to protect or restore salmon fisheries?

Where are the Coho?

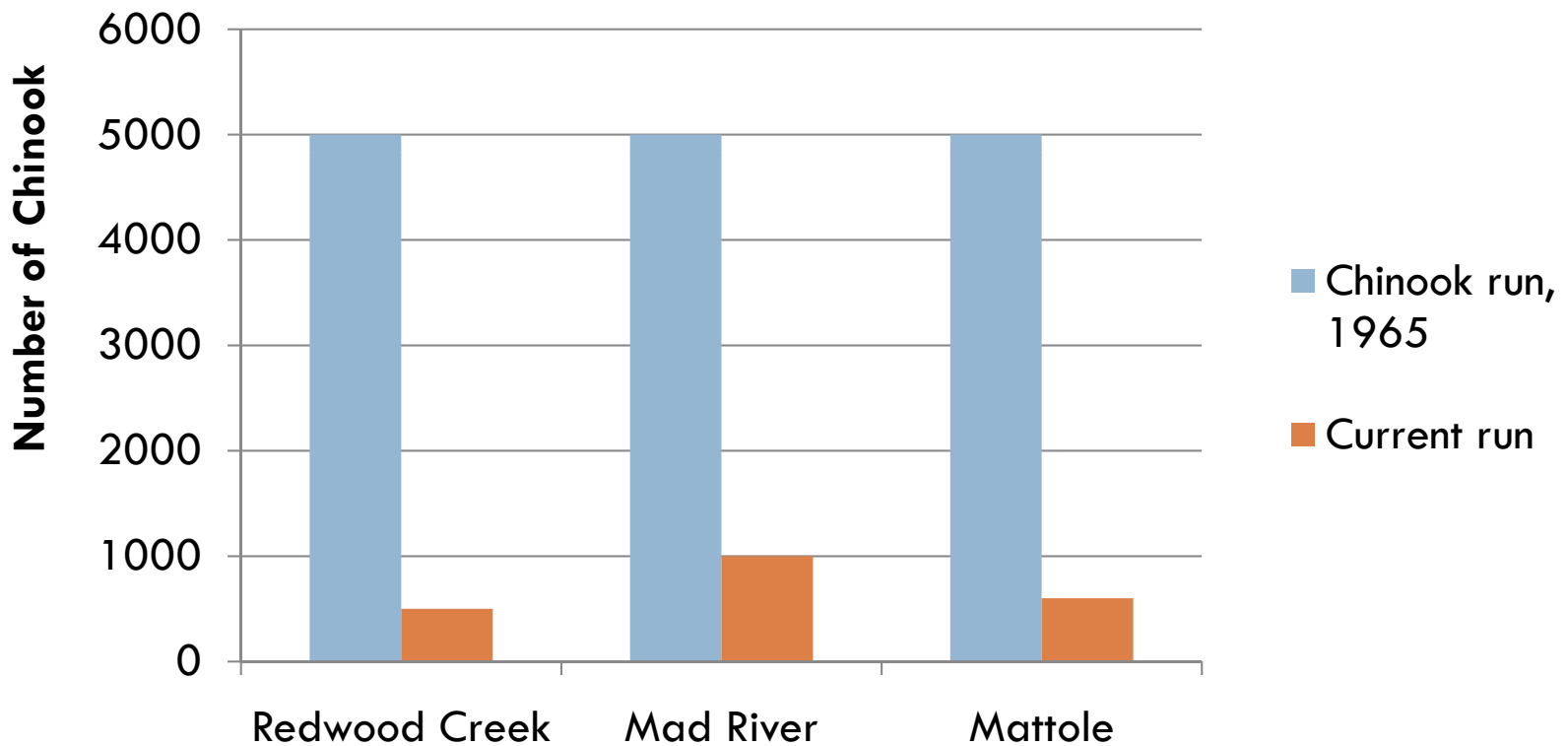


Chinook Numbers

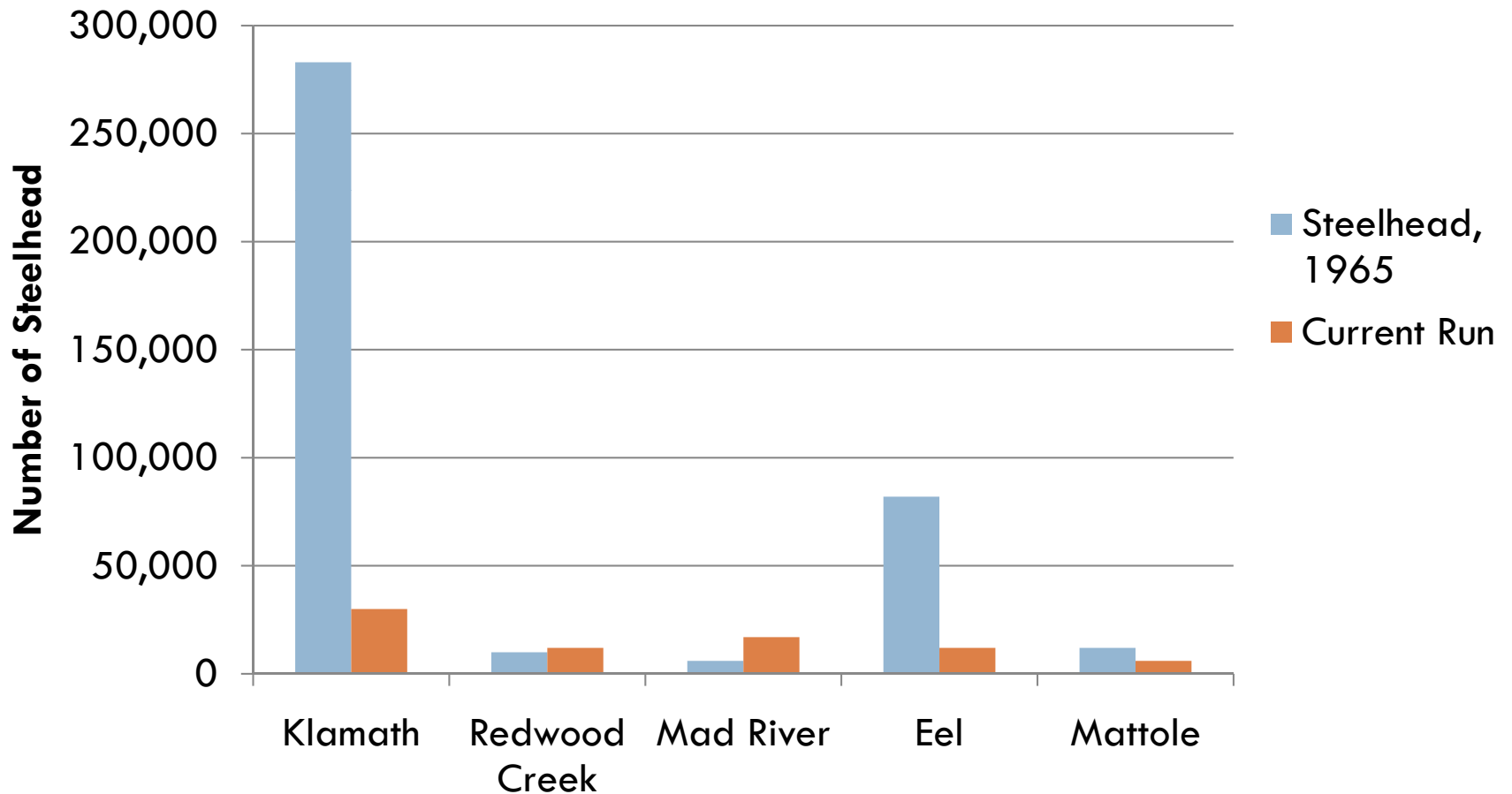
Chinook in Humboldt County's Two Largest Basins



Other Chinook Basins



Steelhead



Threats to Salmon

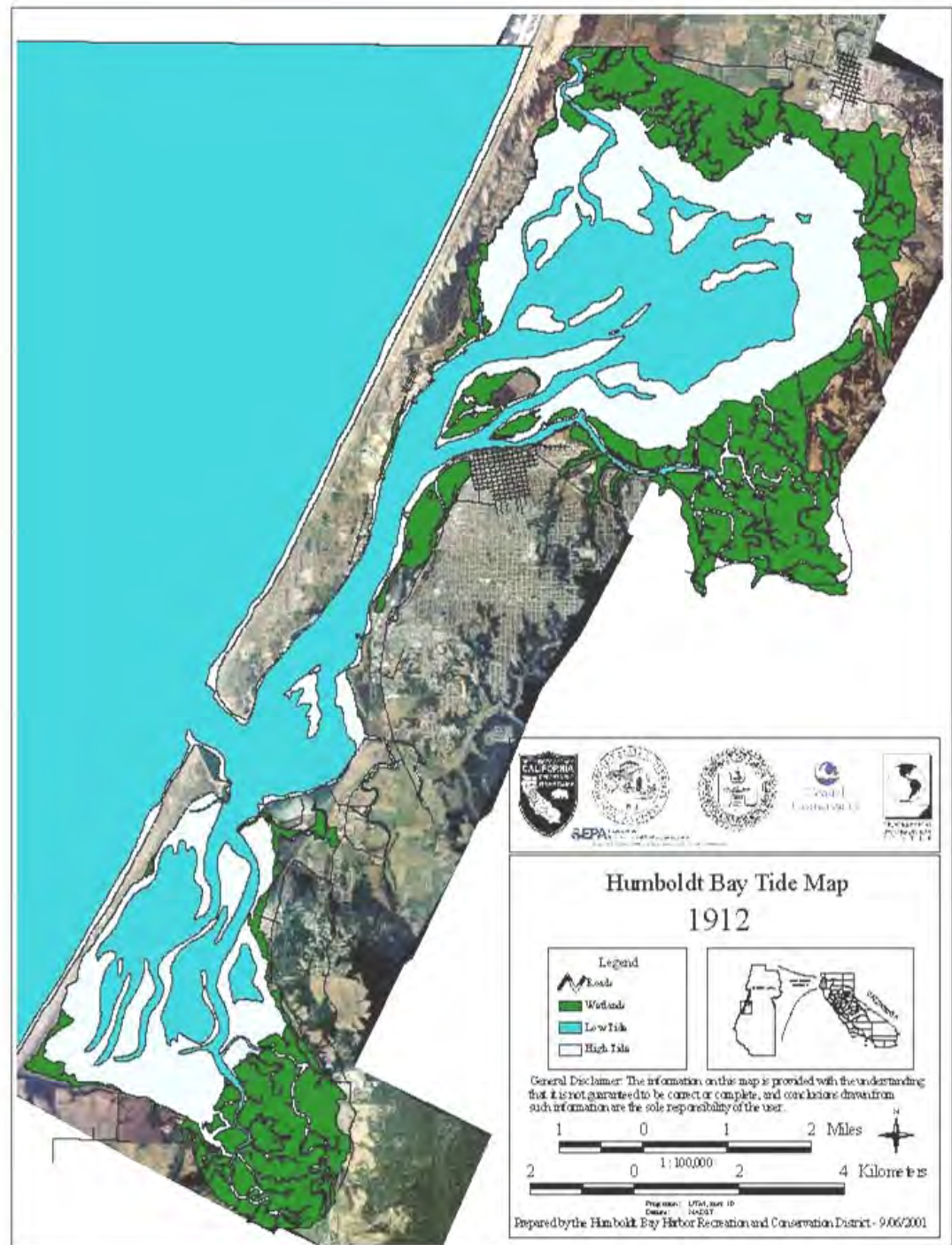
- Degradation of Stream and Estuary Habitat
- Pollutants from storm-water runoff (pesticides, heavy metals, petroleum products, fertilizers and other agricultural wastes, etc.)
- High sediment loads
- Higher in-stream temperatures/climate change
- Ocean conditions
- Predation: High ocean mortality
- Invasive species
- Dams and major diversions
- Unmonitored small diversions
- Over fishing
- Gravel Mining
- Deforestation for development
- Fish migration barriers

Changes in Stream and Estuary Habitat

1912

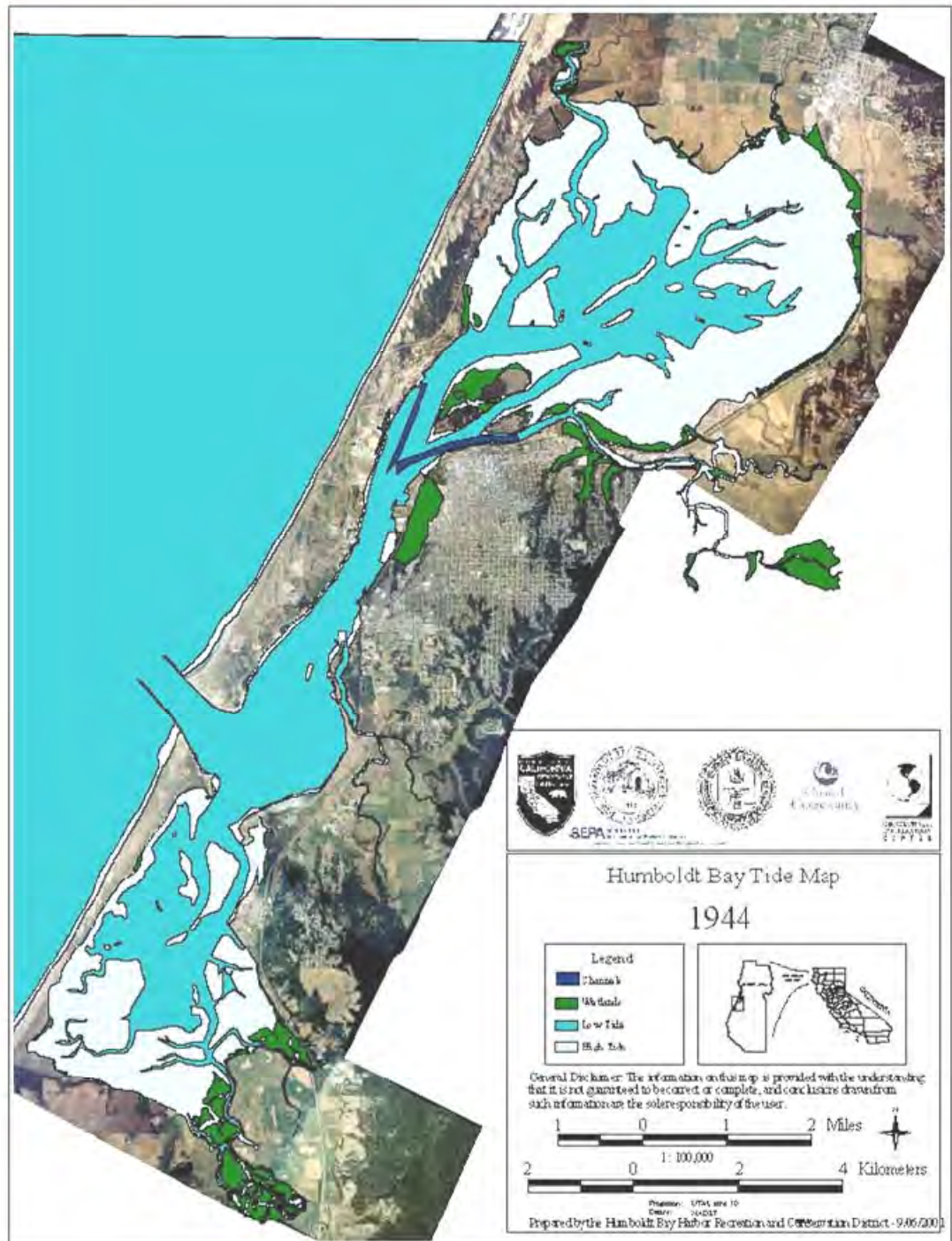
North Coast Dialogues

Fisheries Analysis



Changes in Stream and Estuary Habitat

1944



North Coast Dialogues

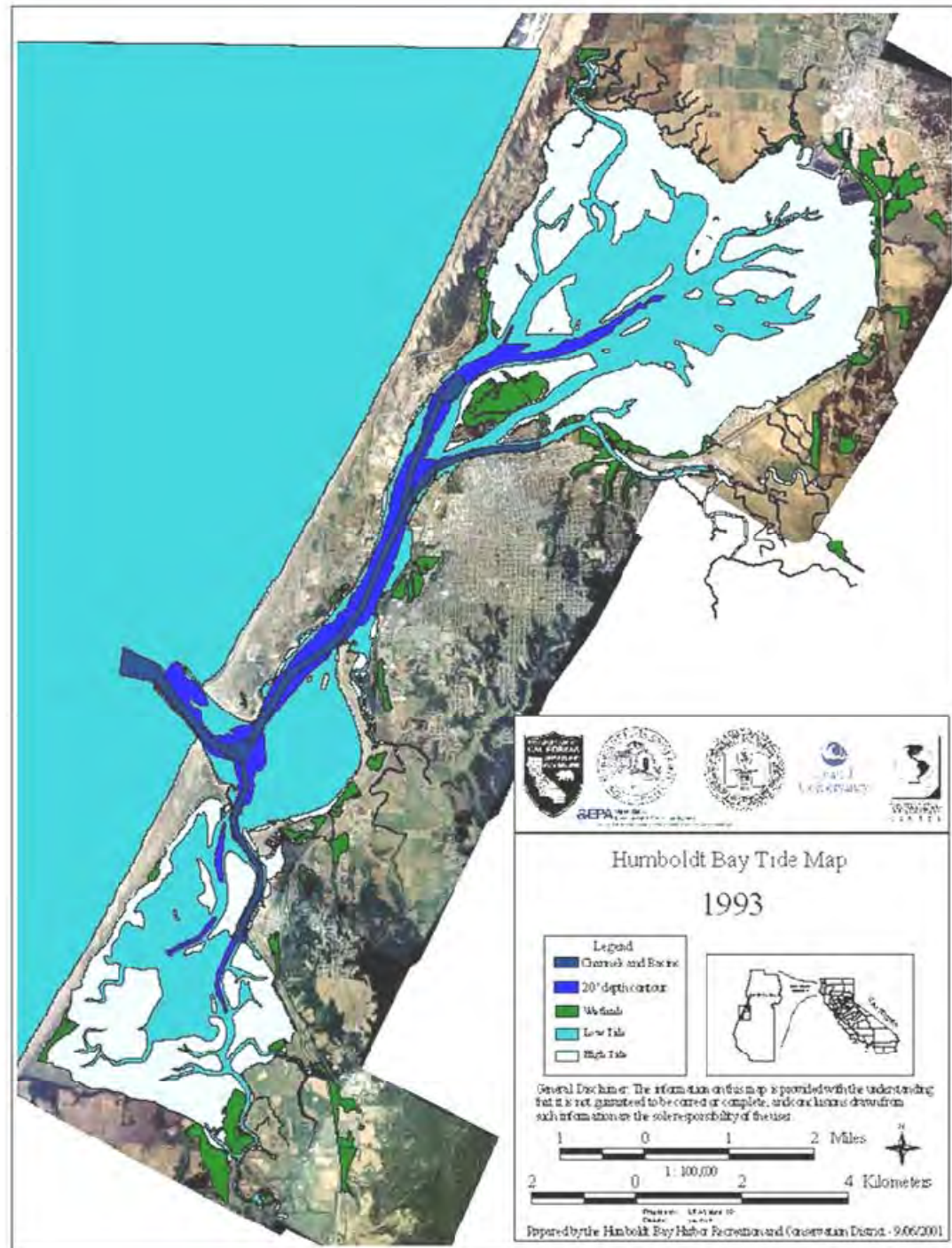
Fisheries Analysis

Changes in Stream and Estuary Habitat

1993

North Coast Dialogues

Fisheries Analysis



Pollutants from storm-water runoff

- ❑ “most stream quality indicators decline when watershed impervious cover exceeds 10%, with severe degradation expected beyond 25%.”

Opportunities

- ❑ Removing the Klamath dams (and other fish migration barriers)
- ❑ Returning critical water to the Eel
- ❑ Monitoring other water diversions to ensure enough water for fish
- ❑ Ensuring essential habitat in estuaries/wetlands
- ❑ Incorporating storm-water filtration systems, green design materials and riparian setbacks in development designs.
- ❑ Continue to treat sediment sources and minimize impacts to salmon from agriculture, gravel mining and forest management.

Watershed Restoration

- ❑ Between 1995 and 2002, Humboldt County generated more than \$65 million for restoration.
- ❑ 2002 alone generated more than 300 new restoration jobs in the public, private and tribal sectors.

Conclusions

- ❑ The more we can protect our forested landscape from development, the better for salmon survival.
- ❑ The more we can maintain or improve on water quality and quantity, the better for salmon survival.
- ❑ The more we design water infiltration systems and use low impact green materials in construction, the better for salmon survival.
- ❑ Klamath and Eel river dams are major impediments to recovering fisheries.
- ❑ The more we provide high-quality habitat (riparian setbacks and wetlands protections), the better for salmon survival.