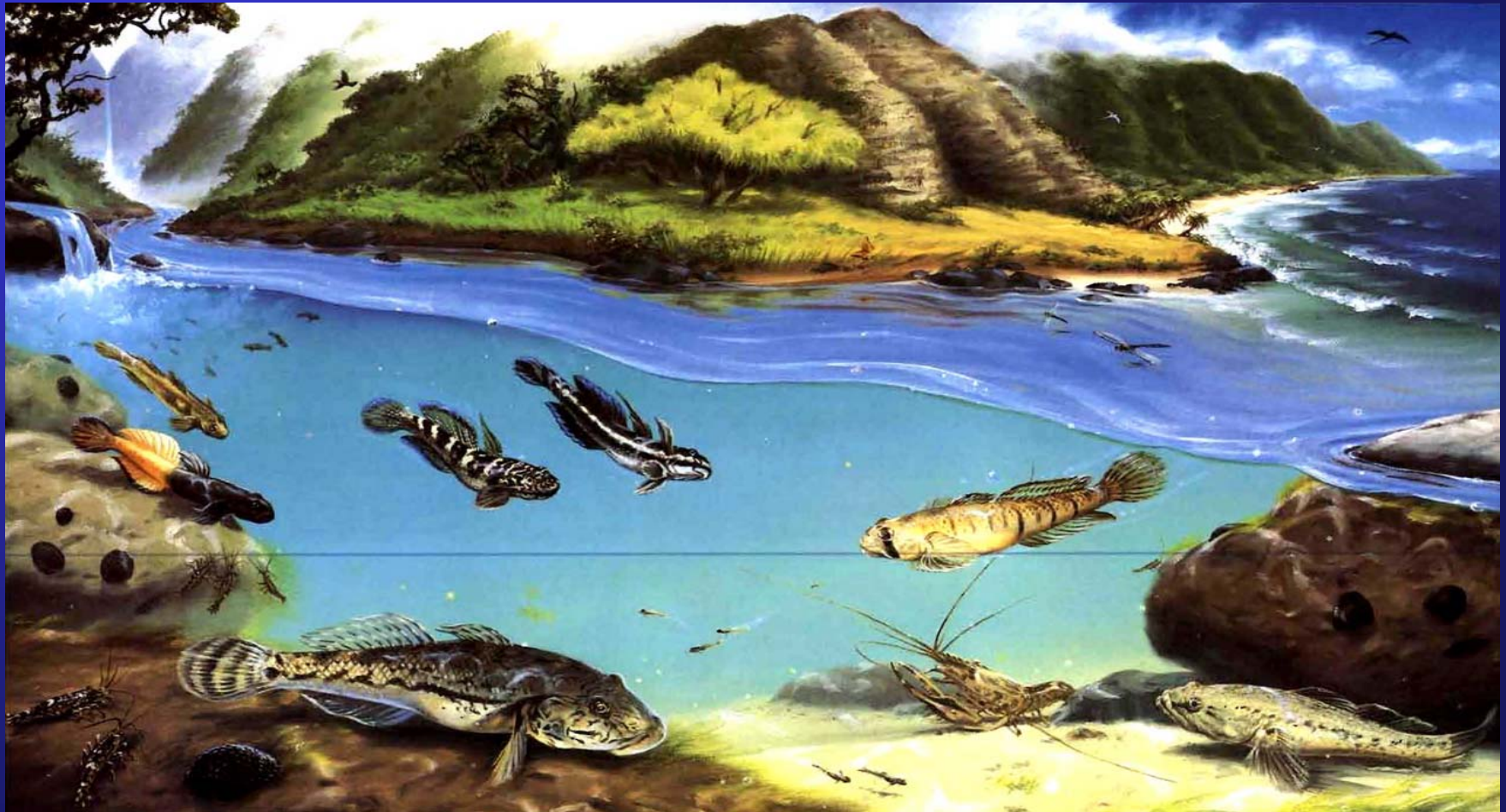


The Hawaii Fish Habitat Partnership & the National Fish Habitat Action Plan



*Pacific Islands Fish and Wildlife Service Office
Habitat Conservation Division*



National Fish Habitat Action Plan

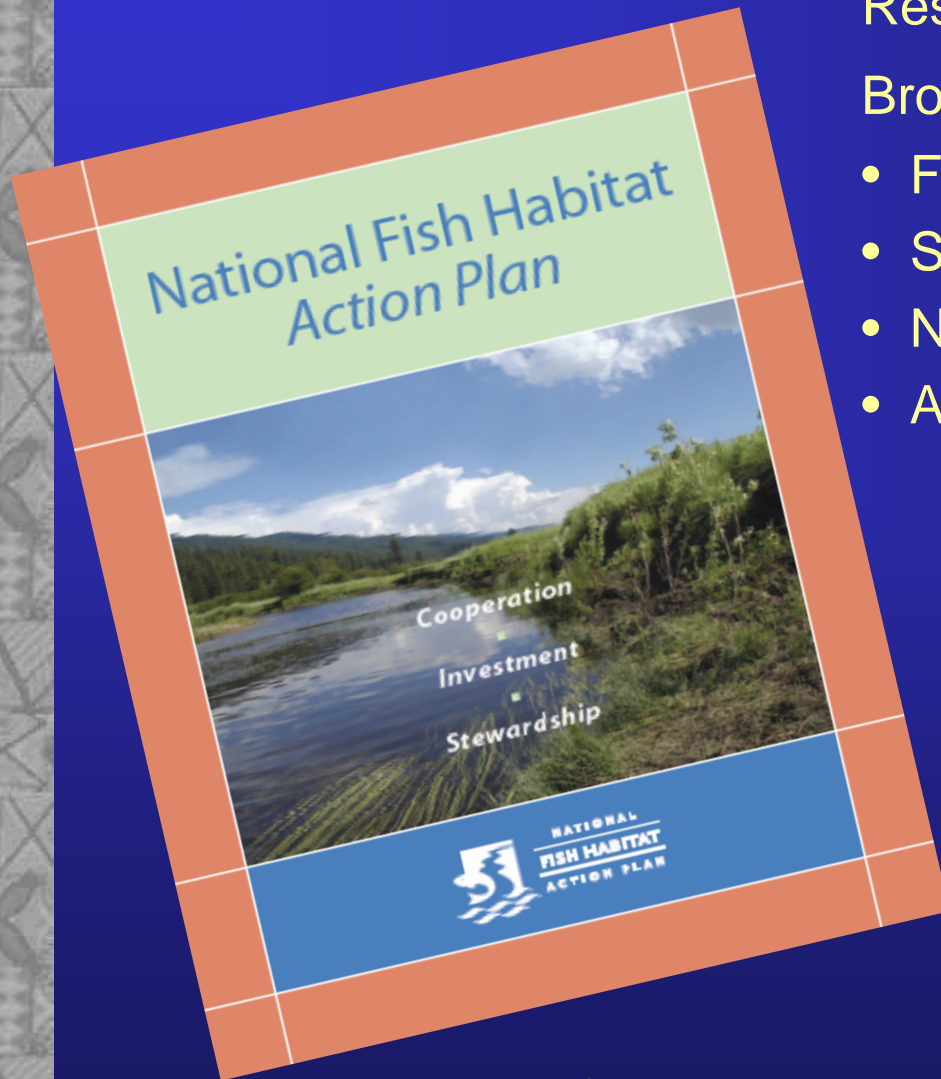
Response to aquatic resource decline

Broad stakeholder input:

- Feds
- State Fish and Wildlife Agencies
- NGOs
- Angling groups

The Need

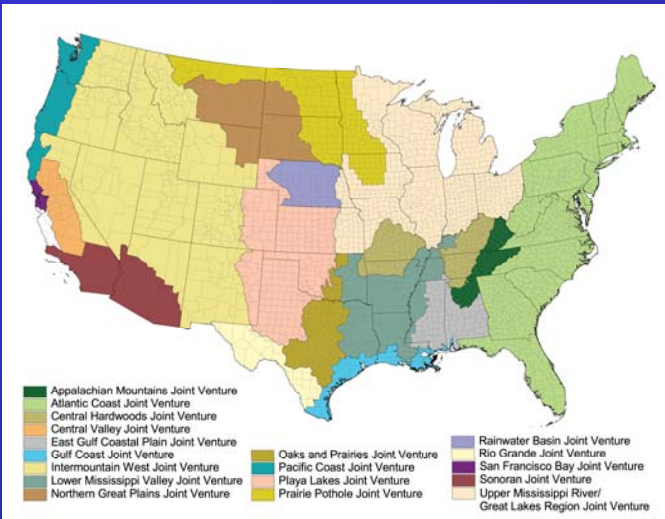
- 123 aquatic freshwater species have become extinct in North America since 1900.
- 39% of the 822 native freshwater fish species in the United States are at risk of extinction.
- 43% of all Federally listed Threatened and Endangered species rely upon wetland habitats and more than 50% of the Nation's wetlands have been destroyed.
- 35% of our Nation's coasts are in "fair" condition



www.fishhabitat.org



NFHAP Model : Wetland Joint Venture Program



North American Waterfowl Management Plan

25 Regional Wetland Joint Ventures

Coordinated restoration & management of
15.6 million acres
\$25 billion in joint funding



Nu'u Makai Wetland, Maui (acquisition)

Mana Plain, Kauai (restoration)

Huleia NWR, Kauai (management)

Kilauea NWR, Kauai (acquisition)

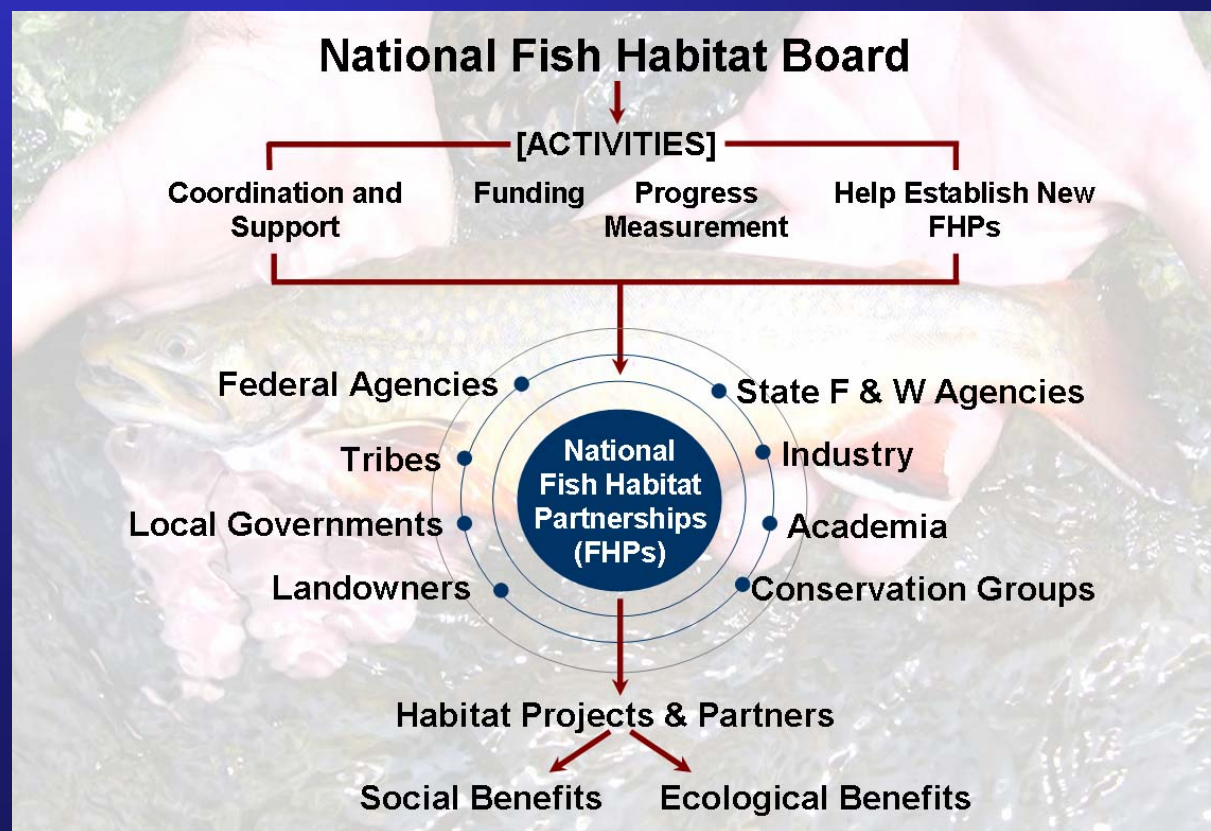
477 acres

\$4 million in joint funding



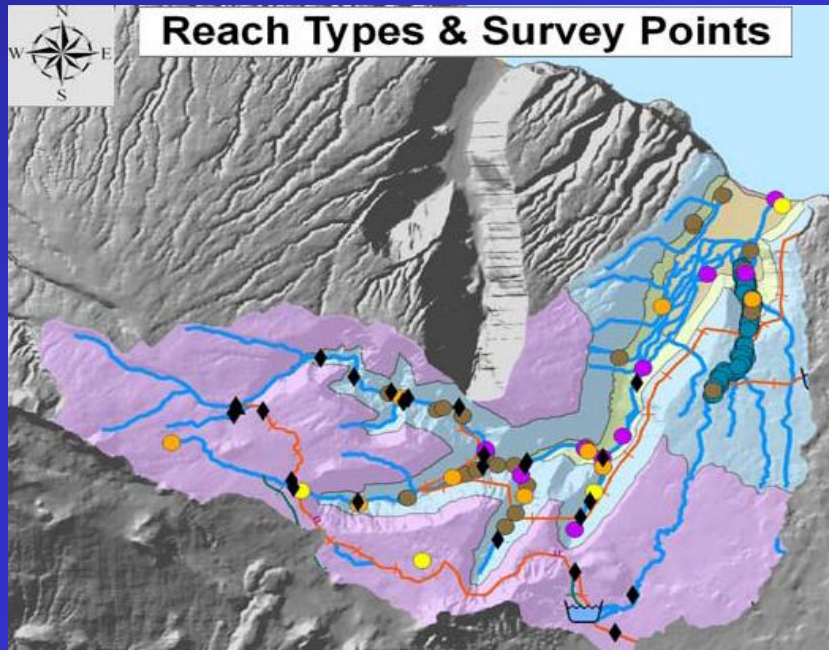
National Fish Habitat Action Plan Goals

- Protect and maintain intact and healthy aquatic systems.
- Prevent further degradation of fish habitats.
- Reverse declines in the quality and quantity of aquatic habitats.
- Increase the quality and quantity of fish habitats that support fish and other aquatic species.



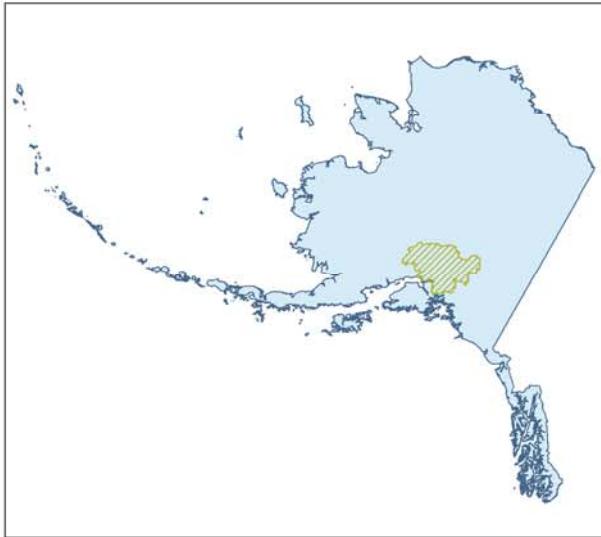
What do Fish Habitat Partnerships do?

- Set priorities through strategic planning
- Coordinate and seek resources for projects
- Prioritize projects for funding
- Evaluate results and report outcomes

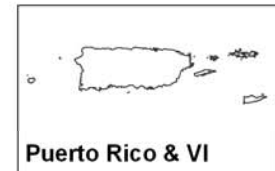
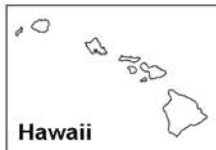
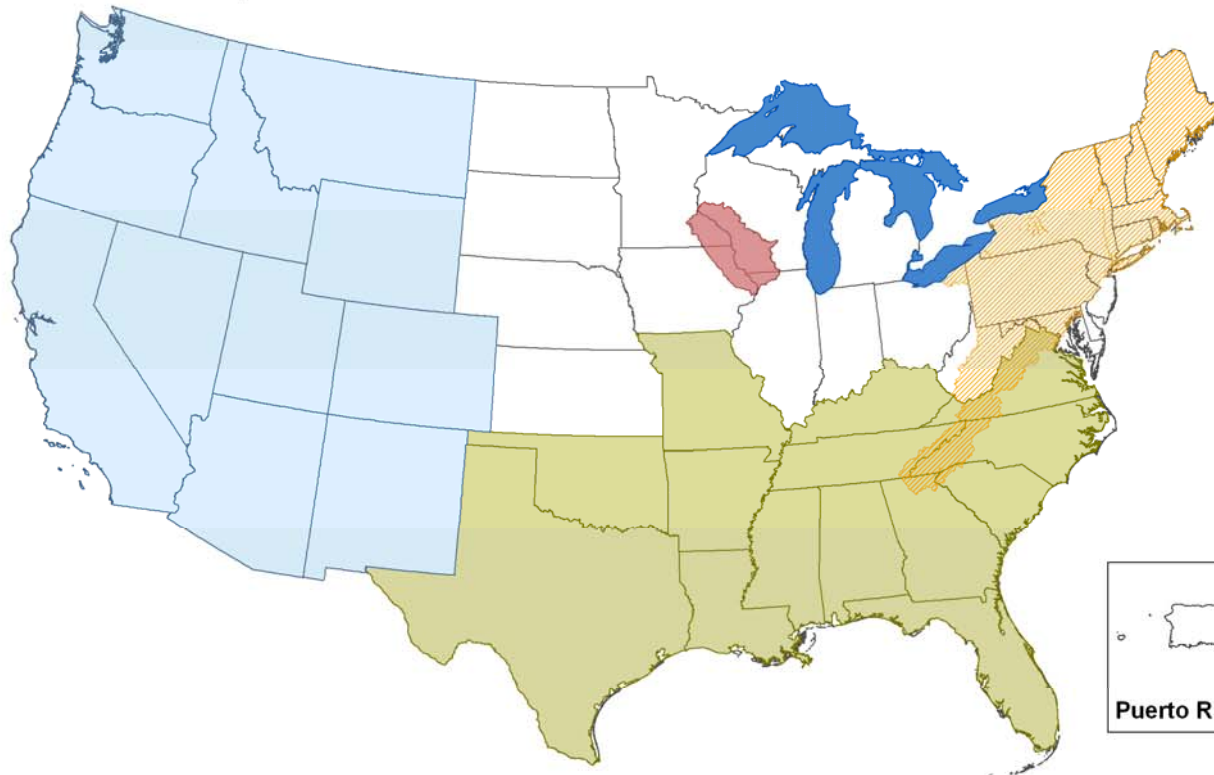


Fish Habitat Partnerships

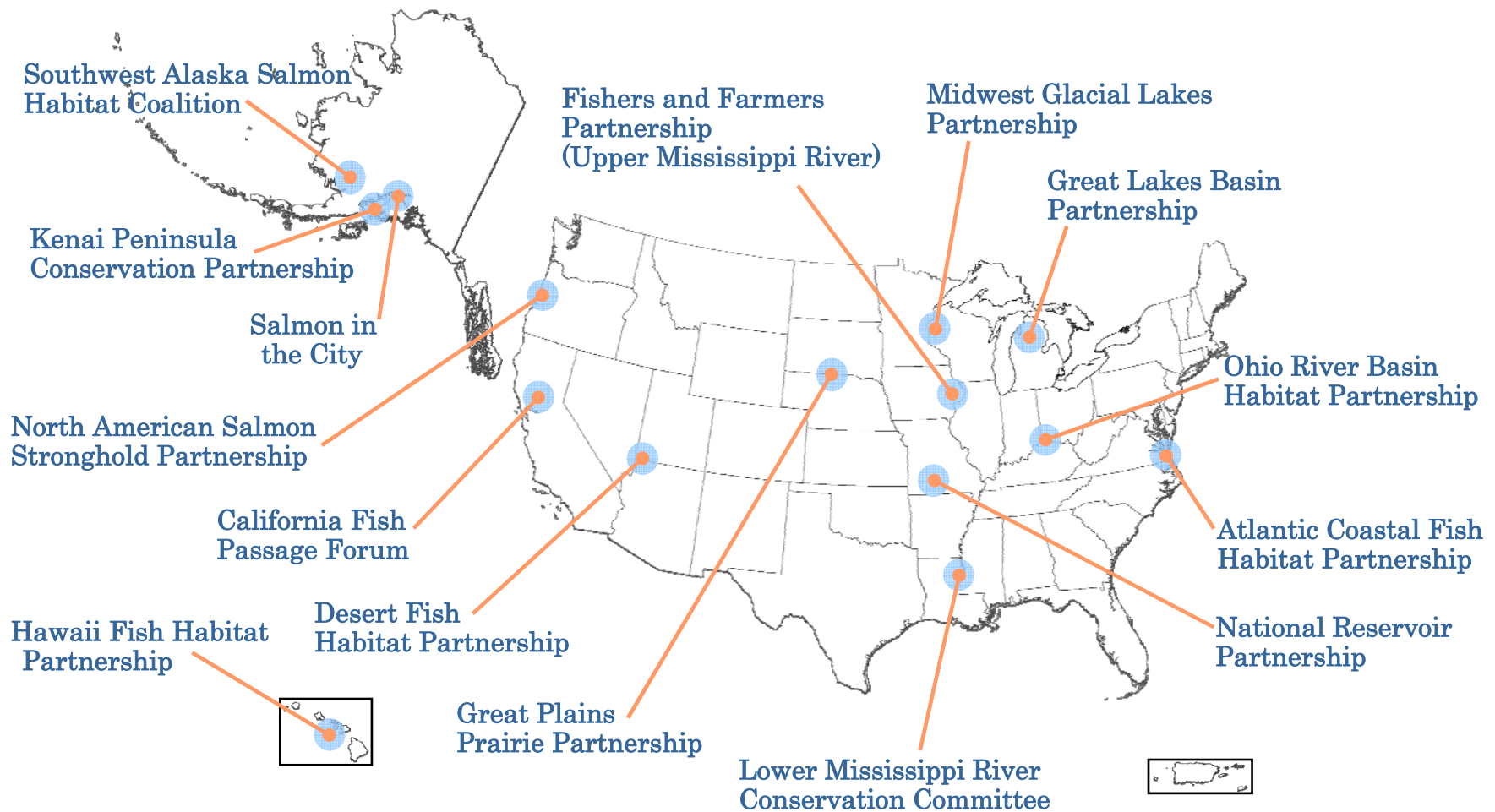
March 2008



-  Southeast Aquatic Resources Partnership
-  Eastern Brook Trout Joint Venture
-  Western Native Trout Initiative
-  Driftless Area Restoration Effort
-  Matanuska-Susitna Basin Salmon Conservation Partnership



“Candidate” Fish Habitat Partnerships



2008 – Nationwide \$3 million

NFHAP Board recognition contingent upon meeting the following criteria:

Strong and diverse partnerships

- FHPs are self-identified, self-organized, and self-directed communities of interest.
- FHPs will involve diverse groups of public and private partners that are focused on conservation of fish habitat to achieve results across jurisdictional boundaries and land ownership types.
- FHPs will have a high level of commitment from their respective member entities, to ensure development and implementation of strategic plans that are consistent with membership organization priorities.
- FHPs will have governance structures that reflect the range of all partners and promote joint strategic planning and decision-making by the partnership.

Geographic focus

- FHPs will be place-based, i.e. have geographically defined boundaries. However, an FHP may be geographically discontinuous; examples include partnerships focused on system types, such as reservoirs, natural lakes, or urban estuaries. The geographic scope of two or more FHPs may overlap.
- The scope of issues and priorities addressed by an FHP should be nationally significant, by virtue of uniqueness, geographic size, or per other criteria identified by the Action Plan Science and Data committee.

Strategic planning

- Consistent with national goals, FHPs will identify strategic fish and aquatic habitat priorities for their partnership area in the form of geographic focus areas or key stressors or impairments to facilitate strategic planning and decision-making.
- Each FHP must have or must demonstrate significant progress toward development of a strategic plan that focuses on addressing causes of system decline rather than simply treating symptoms.

Capabilities for scientific assessment

- Organizations involved in each FHP will have capabilities to measure and demonstrate progress – through existing programs where possible – using science-based resource assessment, project evaluation, and reporting of outcomes in coordination with the Board.
- FHPs will adopt and use the national science assessment framework established by the Board's Science and Data Committee for resource assessment and project evaluation.



The Hawaii Fish Habitat Partnership: Aquatic Resource Conservation in Hawaiian Streams and Estuaries

“The Hawaii Fish Habitat Partnership seeks to cooperatively develop and implement aquatic conservation projects in Hawaiian streams and estuaries through the support and participation of government agencies, non-governmental organizations, and the private sector.”



Estuaries



Streams



Address threats to aquatic systems by:

Finding common interests between partners

Coordinating/leveraging multiple funding sources

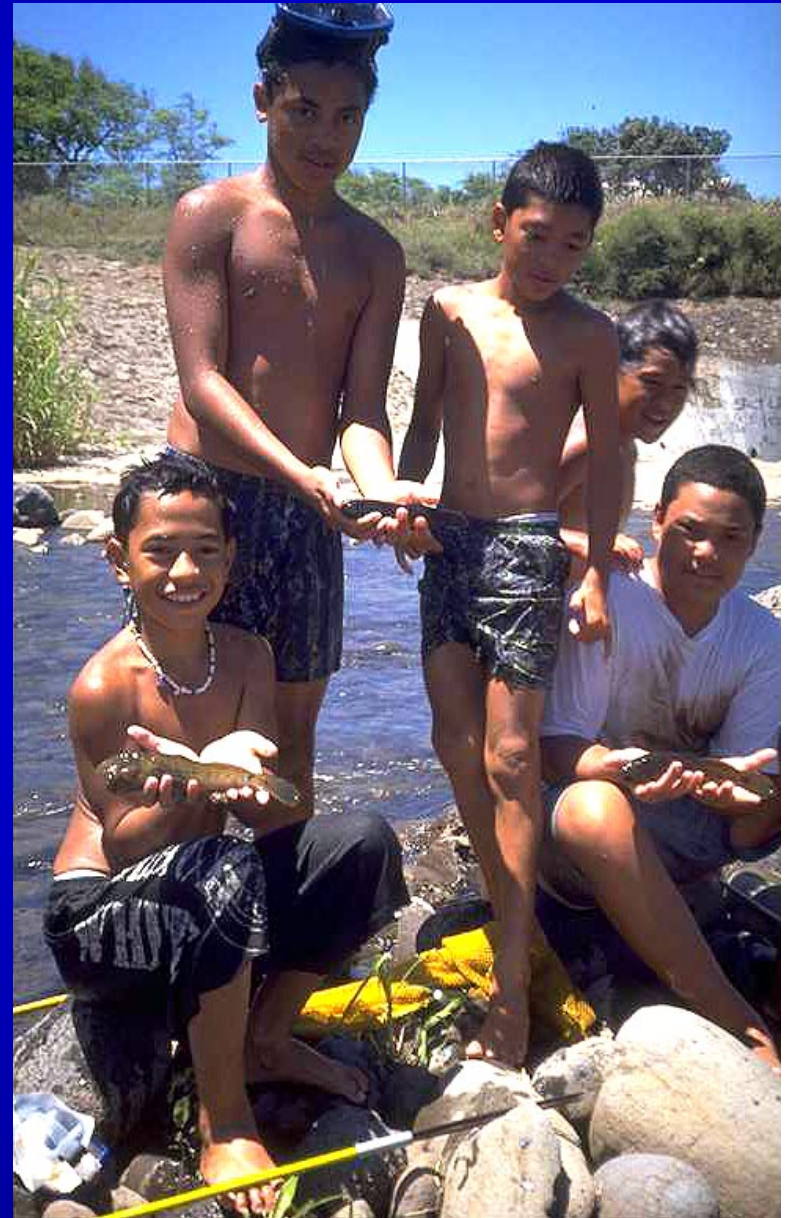
Applying sound science to identify problems and evaluate results

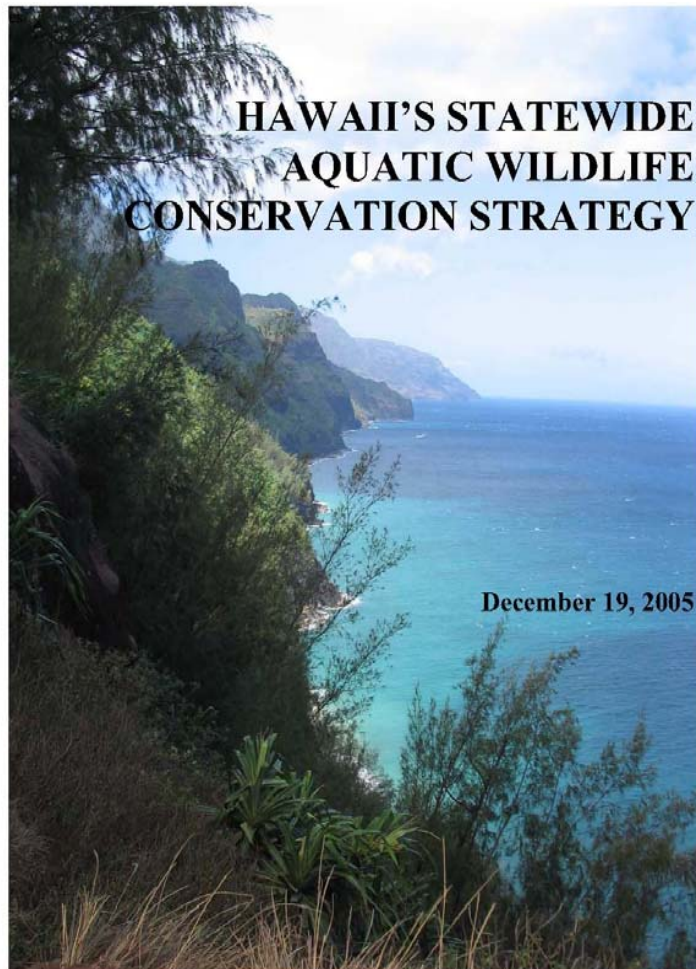
Encouraging public-private participation

Providing leadership

Promoting cooperation

Engaging communities





HAWAII'S STATEWIDE AQUATIC WILDLIFE CONSERVATION STRATEGY



Department of Land and Natural Resources
Division of Aquatic Resources
1151 Punchbowl Street, Room 330
Honolulu, HI 96813

By:

Dwayne Meadows¹, Austin Kane¹, Christen Mitchell², and Christine Ogura²

¹ Pacific Cooperative Studies Unit, University of Hawai'i and Hawai'i Division of Aquatic Resources.

² Pacific Cooperative Studies Unit, University of Hawai'i and Hawai'i Division of Forestry and Wildlife, Room 325.

Recommended Citation

Meadows, D.W., A. Kane, C. Mitchell, and C. Ogura. 2005. *Hawai'i's Statewide Aquatic Wildlife Conservation Strategy*. Pacific Cooperative Studies Unit, Technical Report 137. Honolulu, Hawai'i. 124 pp.

Available online at: <http://www.botany.hawaii.edu/faculty/duffy/techrep.htm>

Cover photo courtesy Dwayne Meadows.



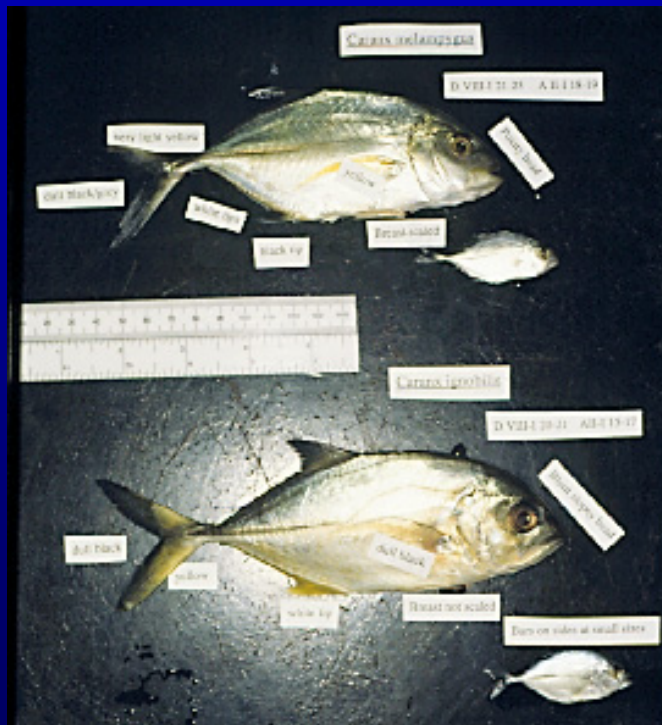
Statewide Aquatic Conservation Strategy: Key threats to freshwater species and habitats



- Instream structures and barriers including stream diversions, dams, channel alteration, and road crossings
- Introduced aquatic invasive species
- Increased urbanization resulting in polluted runoff and hydraulic change and resulting loss and degradation of freshwater habitat
- Suspended sediment input due to agriculture and forestry management
- Unregulated harvesting for fishes and invertebrates for consumption and retail sale (example: anchialine pond shrimp)
- Recreational overuse including trampling and tourism-related impacts
- Feral ungulates impacts including trampling, uprooting, and vegetation change and soil erosion
- In-stream flow requirements adequate to insure the biological integrity of stream communities not yet established

Stream-mouth Estuaries

- ~30 streams form estuaries at their confluence with the sea.
- Important nurseries for recreational fishery resources
- Located in coastal areas near towns and harbors
- Channel alteration, bank hardening common
- Invasive plants—hau, mangrove widespread



Fish Species of the Hanalei Estuary

- Thirty-one species
- ~50% of these species occur in estuary as juveniles
- ~50% these species have commercial or recreational value

KUHLIDAE

Kuhlia sandvicensis

MUGLIDAE

Mugil cephalus

Neomyxus leuciscus

Moolgarda engeli

MULLIDAE

Mulloidichthys flavolineatus

Mulloidichthys vanicolensis

Parapeneus porphyreus

ELEOTRIADAE

Eleotris sandwicensis

GOBIIDAE

Awaous guamensis

Stenogobius genivittatus

Oxyurichthys lonchotus

Bathygobius cocosensis

CARANGIDAE

Caranx ignobilis

Caranx melampygus

Scomberoides lysan

LUTJANIDAE

Lutjanus fulvus

CLUPEIDAE

Herklotsichthys

quadrimaculatus

ENGRAULIDAE

Encrasicholina purpurea

SYNODONTIDAE

Synodus ulae

HEMIRAMPHIDAE

Hemiramphid sp.

ATHERINDAE

Atherinamorus insularum

Preresus insularum

CHAETODONTIDAE

Chaetodon lunula

Chaetodon miliaris

CICHILIDAE

Tilapia sp.

POMACENTRIDAE

Abudefduf abdominalis

Abudefduf sordidus

SPHYRAENIDAE

Sphyrna barracuda

ACANTHURIDAE




Acanthurus blochii

Acanthurus triostegus

Ctenochaetus strigosus



Hawaii Fish Habitat Partnership Development

-  Kick off meeting Sept 10th, 2007
-  Strategic planning workshop Feb 5th, 2008
-  Candidate request to National Board April 2008








Partners

- U.S. Fish and Wildlife Service, Pacific Island Fish and Wildlife Office
- Hawaii Department of Land and Natural Resources Division of Aquatic Resources, Division of Forestry and Wildlife
- Commission on Water Resource Management
- U.S. Dept. Agriculture Natural Resources Conservation Service
- Hanalei American Heritage River Program
- Hawaii Association of Watershed Partnerships
- East Maui Watershed Partnership
- Partners
- Hawaii Department of Land and Natural Resources, Division of State Parks
- Hawaii Department of Health, Environmental Planning Office - Stream Bioassessment Program
- National Oceanic and Atmospheric Administration - National Marine Fisheries Service
- National Ocean Service -Pacific Island Service Center
- Environmental Protection Agency - Pacific Islands Contact Office
- US Forest Service, Southwest Forestry Experiment Station, Institute of Tropical Forestry
- U.S. Geological Survey, Water Resources Division, Pacific Islands Water Sciences Center
- University of Hawaii, Hilo, Cooperative Studies Unit
- Kohala Watershed Partnership
- Koolau Mountains Watershed Partnership
- Hawaii Department of Health, Clean Water Branch
- Kamehameha Schools
- Maui Land and Pineapple, Inc.
- U.S. Army Garrison Hawaii
- Office of Hawaiian Affairs
- Hawaii Pacific University
- University of Hawaii, Manoa, Department of Zoology,
- Institute of Marine Biology



Start-up Funding

-  Support for ½ time coordinator (FWS Fisheries Division)
-  Grant support to DAR for Atlas development
-  Student summer hire
-  UH-HIP intern program
-  Co-located at DAR Hilo



HFHP Projects: *Upstream Fish Passage*



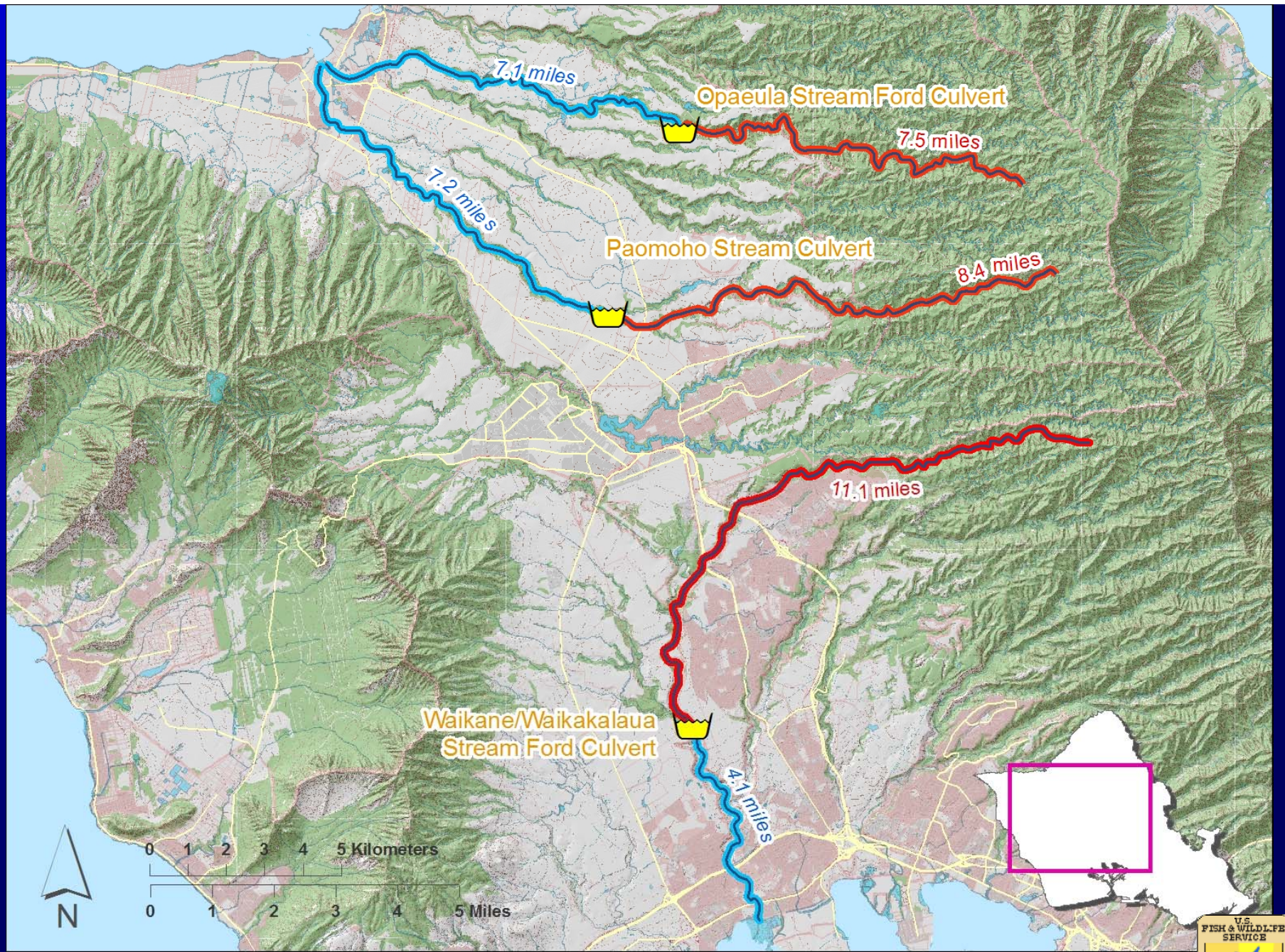
Opaulea Stream



*Waikele/
Waikakalaua*



*Poamoho
Stream*

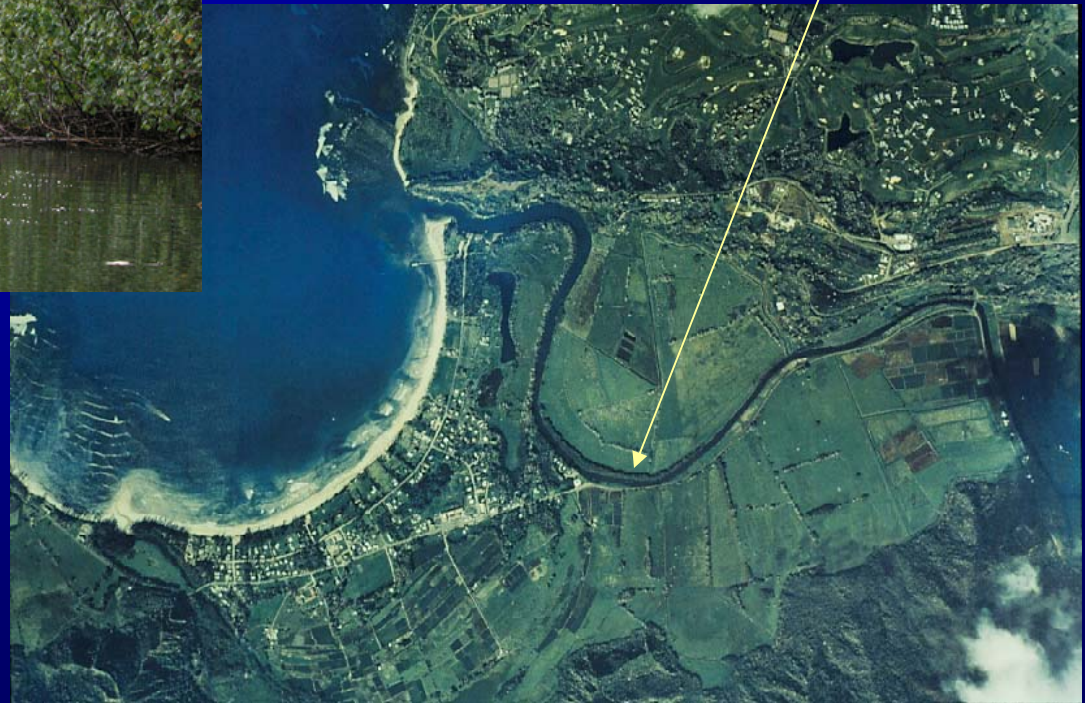


HFHP Projects: *Streambank Vegetation Management*



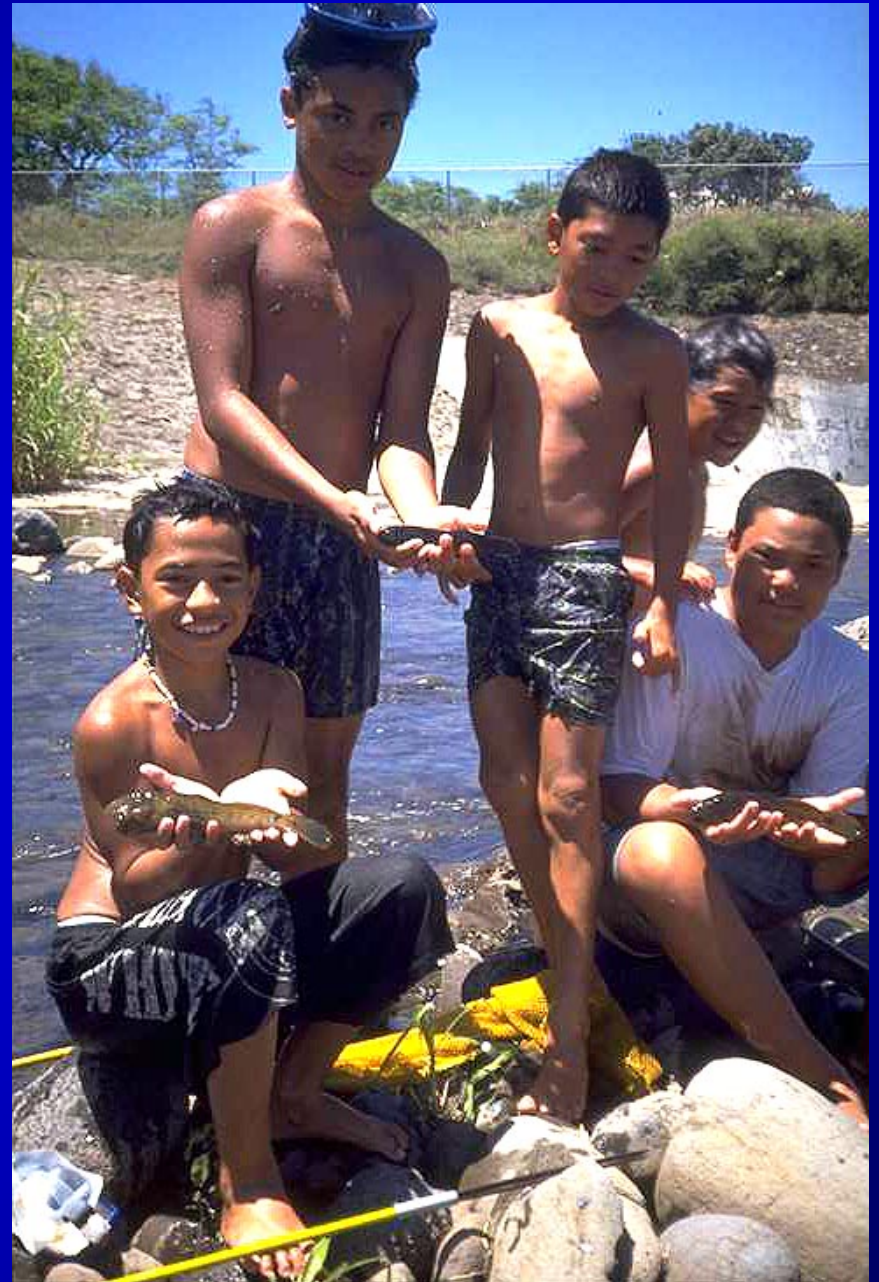
*Kahana Stream:
hau bush*

*Hanalei River:
hau bush*



Aquatic habitat conservation opportunities

- Stream channel restoration
- Stream flow restoration
- Invasive species control
- Habitat assessment & reporting
- Candidate conservation
- Estuaries – stock enhancement, recreation/fishery development



Next Steps

- Continued FHP development with partners
- Steering committee – MOU
- Strategic Plan
- Application to NFH Board
- Coordinator position - funding
- Project development & implementation

