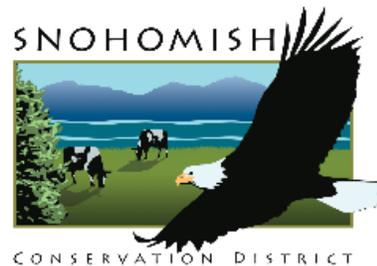
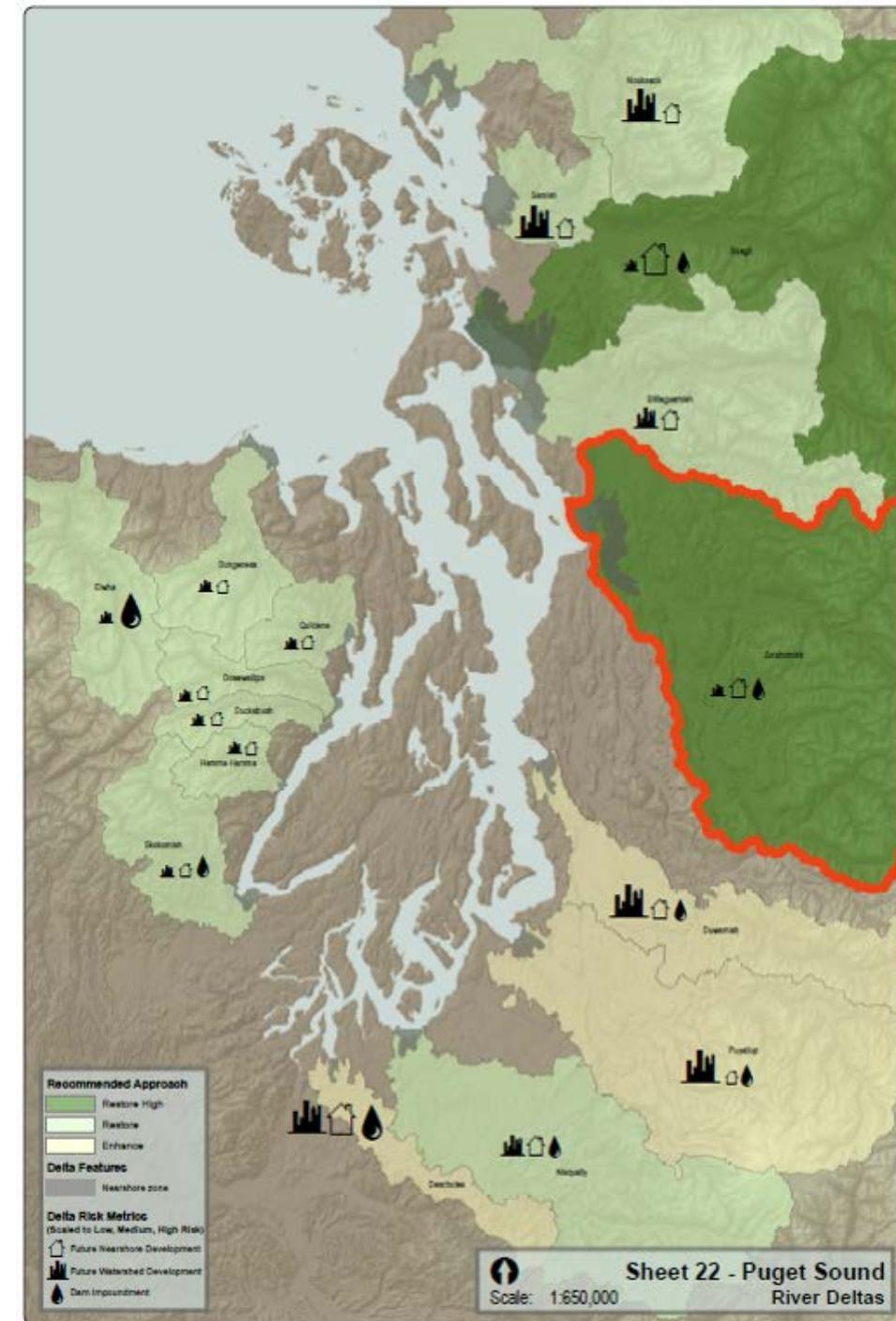


Ebey Island and Snohomish Delta Planning

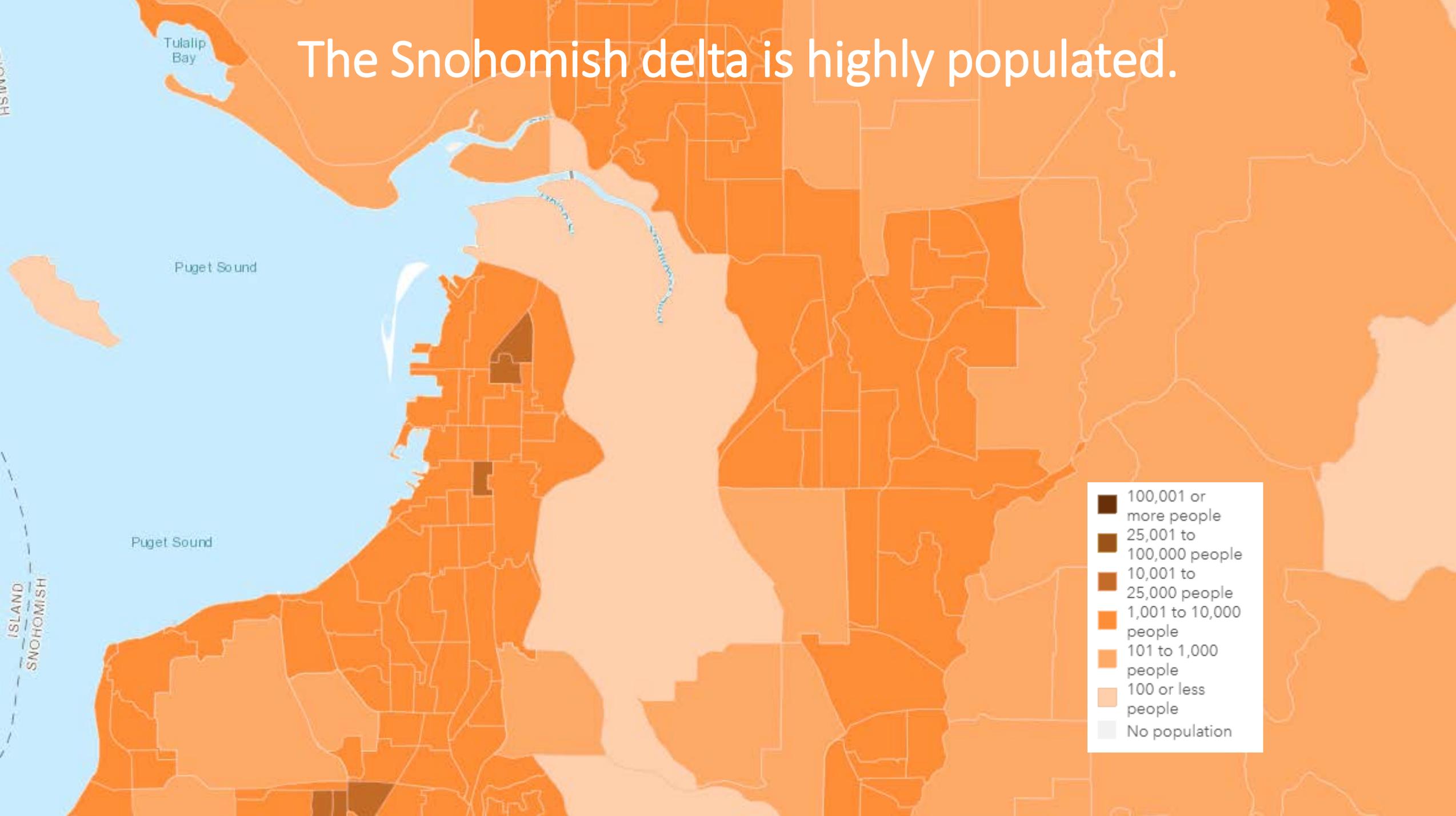


The Snohomish delta is significant at a Puget Sound and nation-wide scale.

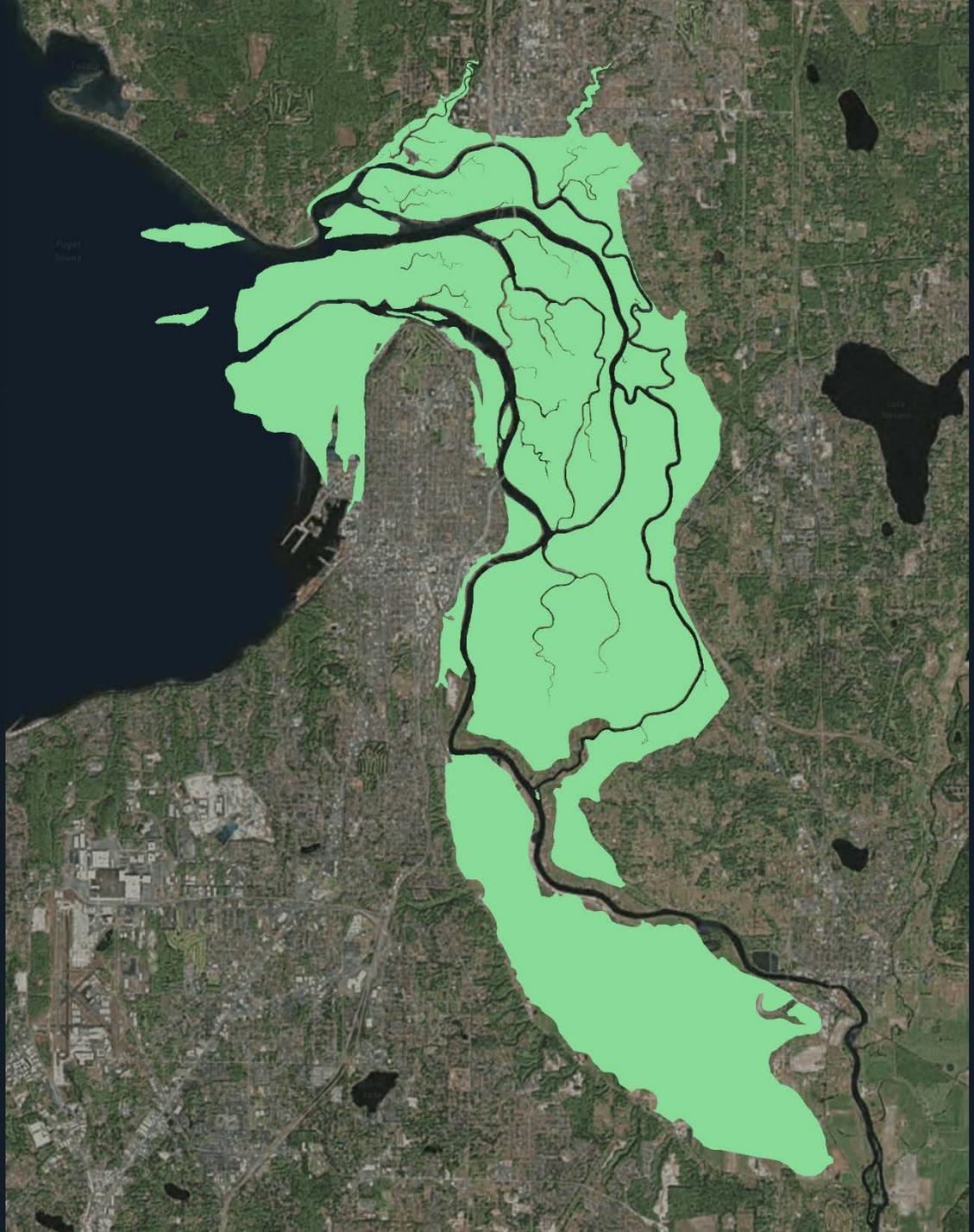
- **2nd largest watershed** in Puget Sound – 1,856 square miles.
- 1 of only 2 deltas that PSNERP Strategies Report recommends as “**High Priority Restore**”.
- 25-50% of coho in Puget Sound come from the Snohomish.
- 1 of 7 Resilient Lands and Waters designated nationwide by Obama Administration.



The Snohomish delta is highly populated.



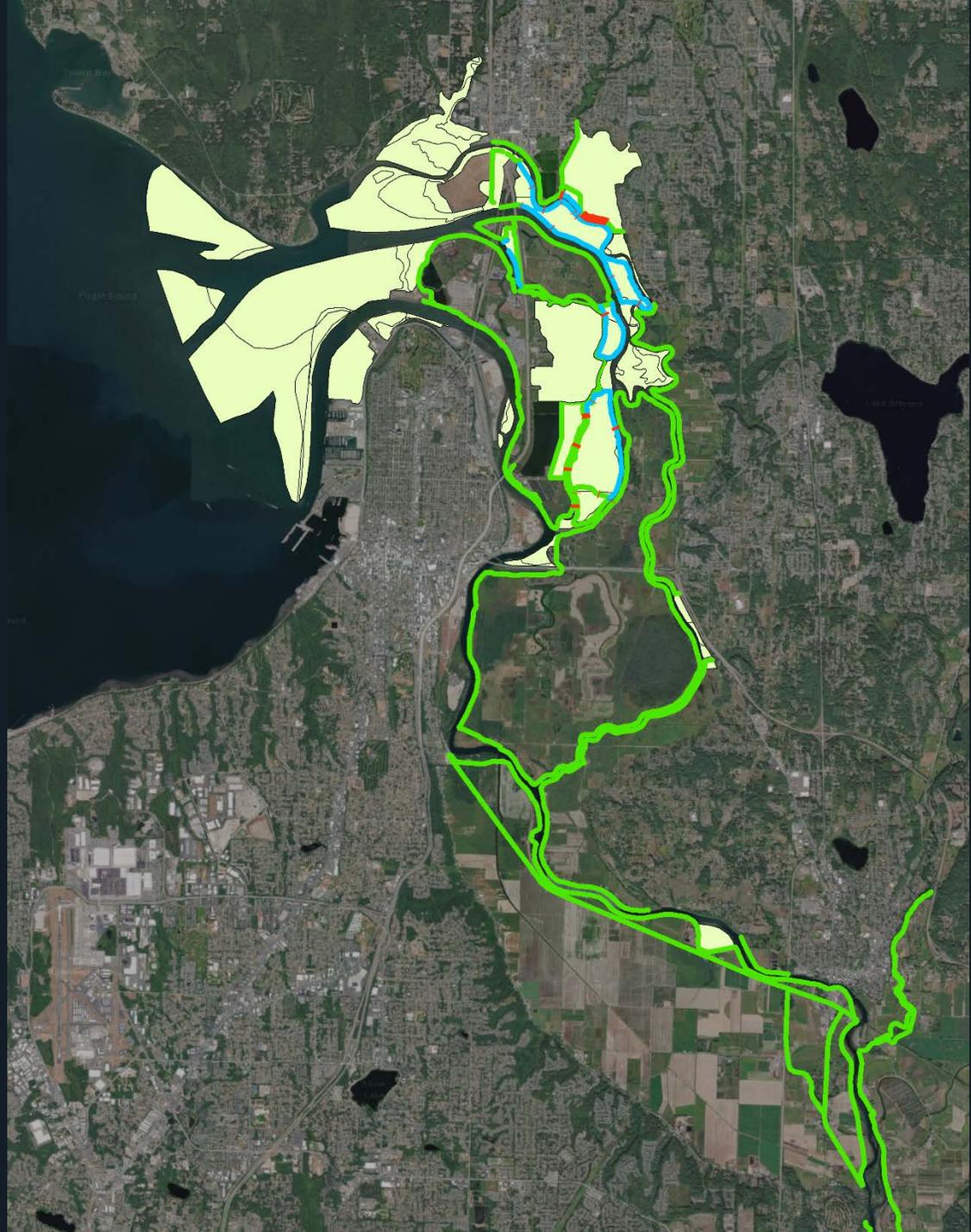
Ecosystem processes
are degraded.



Ecosystem processes
are degraded.



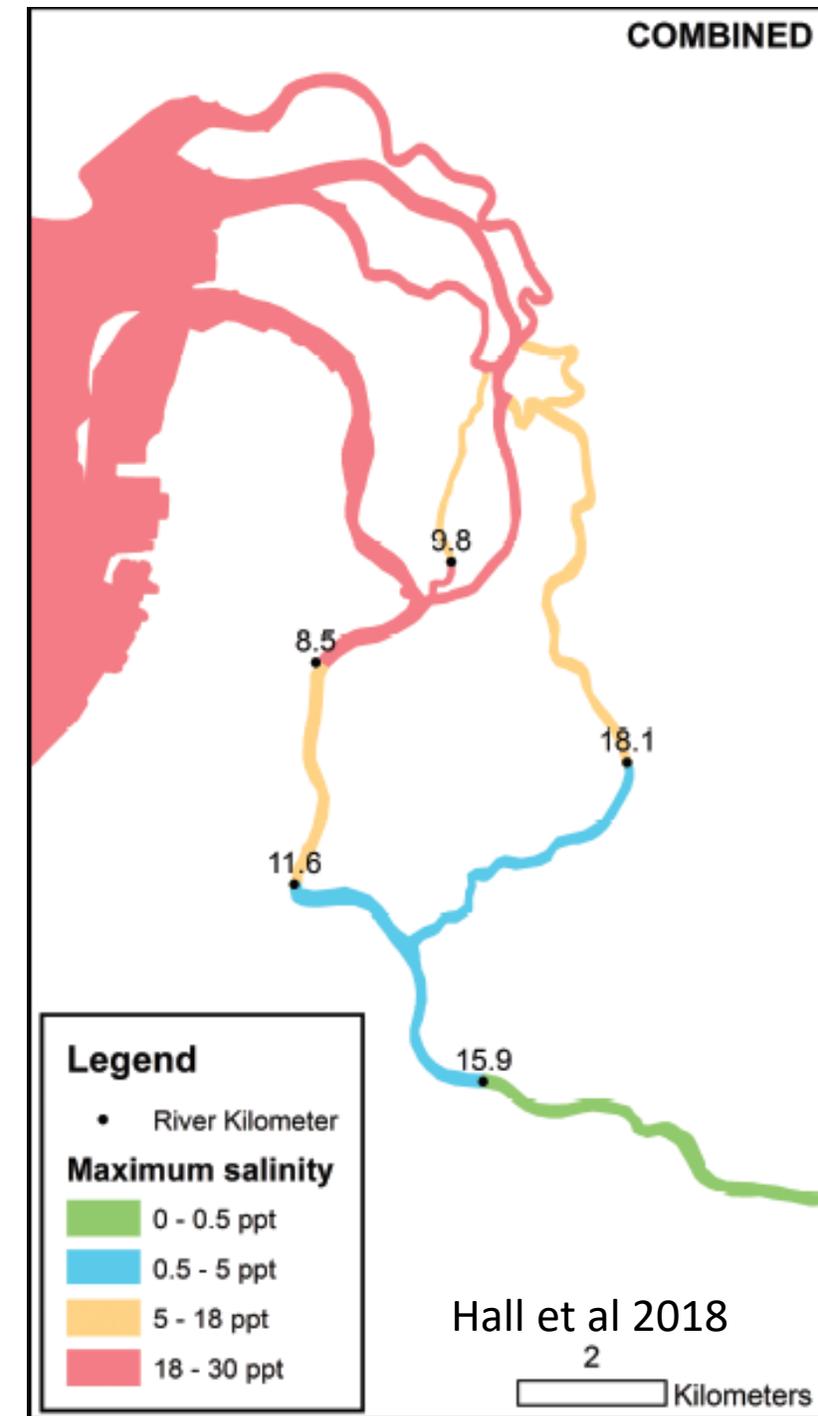
Ecosystem processes
are degraded.



Tidal wetlands have been lost at varying degrees by category.

Tidal Wetland	Historic Area (sq km)	Current Area (sq km)	Change
Tidal Freshwater	53.07	5.18	Loss (-90% Area)
Oligohaline Transition	13.13	0	Loss (-100% Area)
Estuarine Mixing	9.5	2.95	Loss (-69% Area)
Euryhaline Unvegetated	8.95	10.2	Gain (14% Area)
Totals	84.65	18.3	

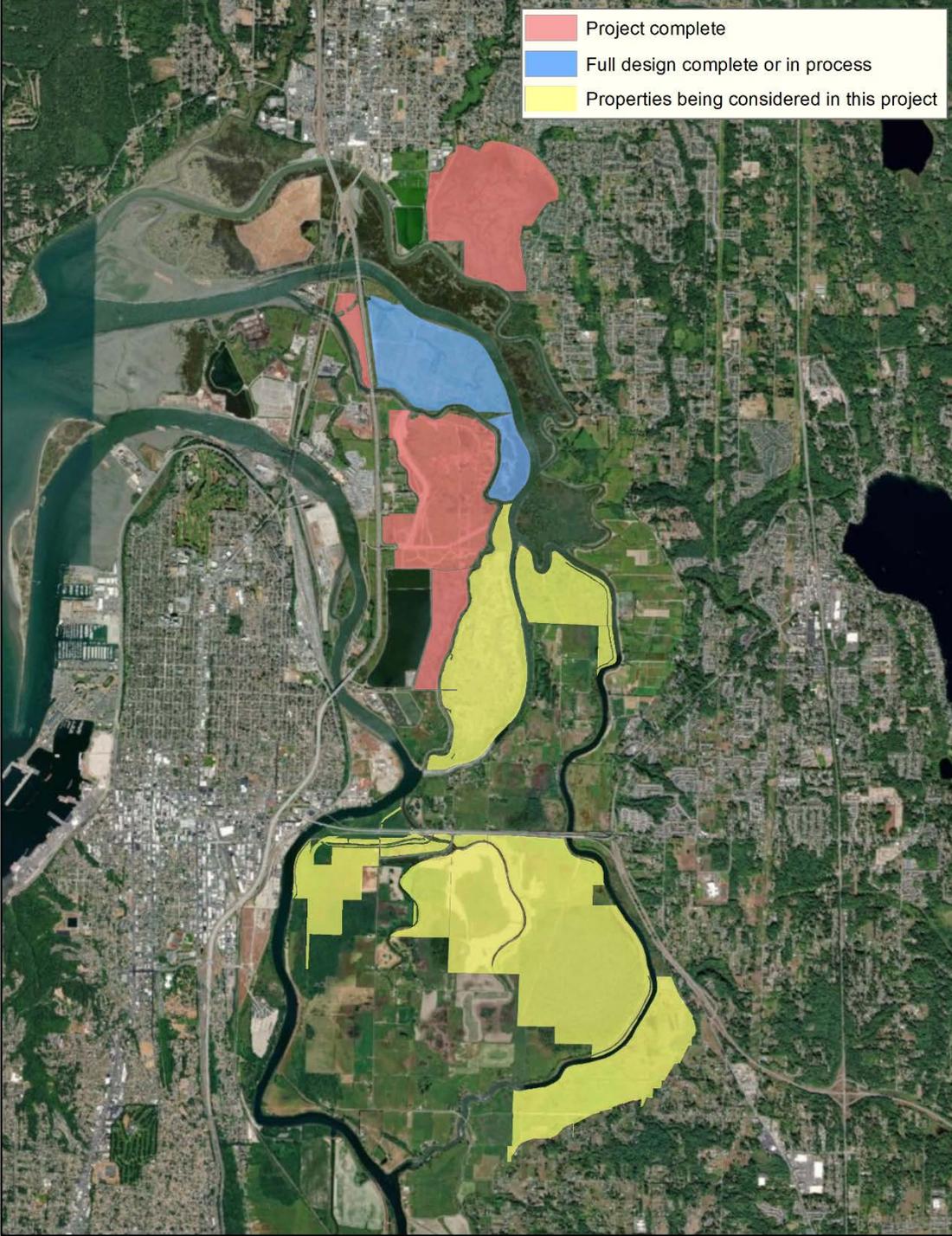
Simensted et al 2011-01.



But there is hope...



...though Chinook are at less than 10% of historic populations.



Many estuary projects have been **completed** or **designed** in the last 20 years.

Note that they are in the lower delta, high salinity.

There is momentum and opportunity to keep doing estuary restoration projects:



Sustainable Lands Strategy and other watershed forums provide productive operating environment.

Public land ownership in historic river delta.

Robust monitoring program funded, in part, by ESRP (NOAA, Tulalip Tribes, Snohomish County, USGS).

But...we don't know what the next big project will be.



No new projects are underway.

It takes 5-20 years to complete a large project from start to finish.

Snohomish County is facing budget cuts and won't be developing projects on their own for the foreseeable future.

A landscape photograph of a river or estuary. The water is calm, reflecting the sky and the surrounding trees. On the left, there are several tall, dark evergreen trees. In the center and right, there are more trees, some of which appear to be dead or dormant, with bare branches. The sky is filled with soft, grey clouds. The overall scene is serene and natural.

Project Purpose:

Queue up the next large estuary project in the Snohomish delta.

Ebey Island and Snohomish Delta Planning

Oblique Aerial View

Property boundary lines are approximate.

Puget Sound

City of Everett

Spencer Island

North Tip
Ebey Island

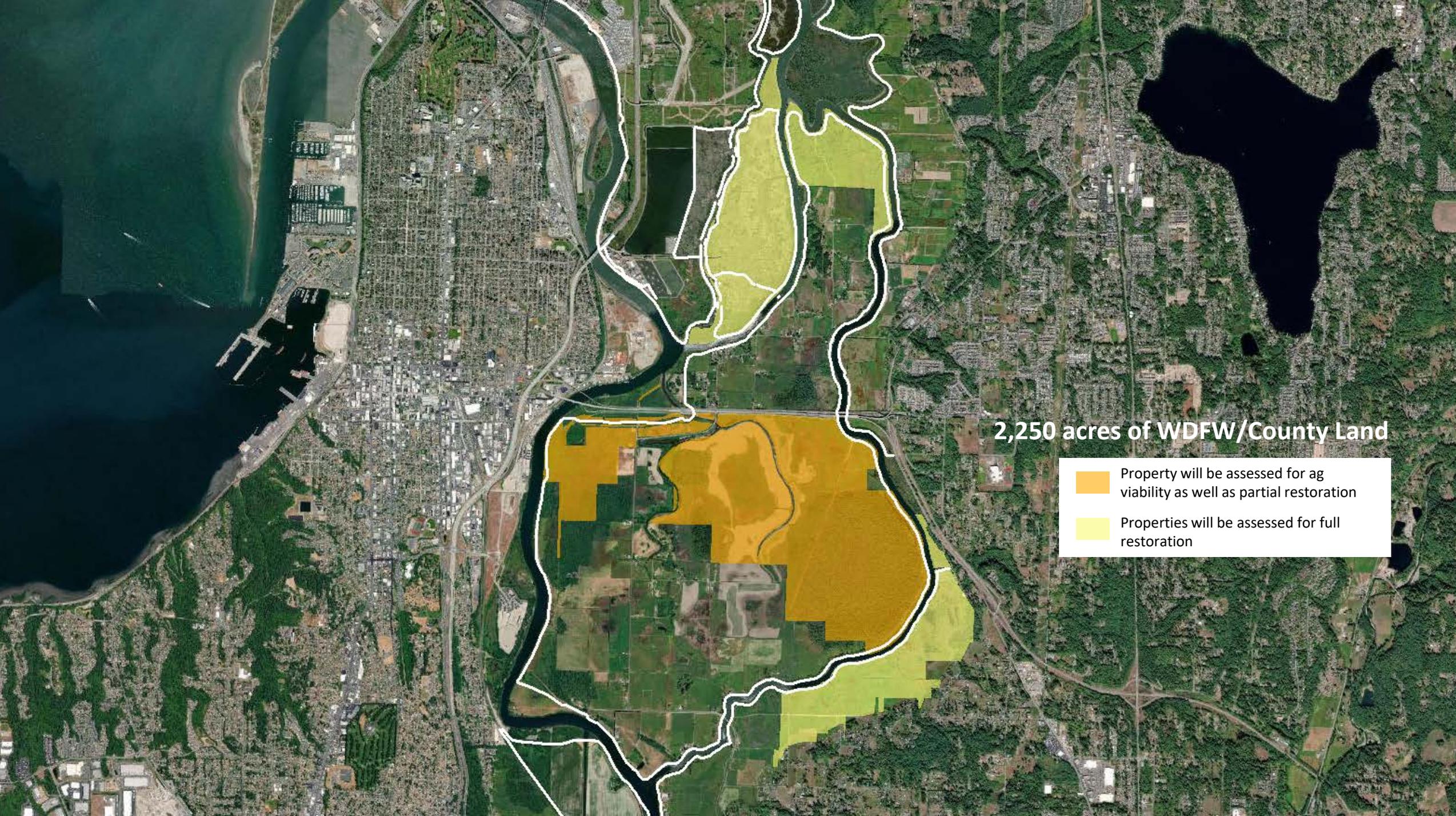
WDFW Ebey
Island

DD6

Approach:

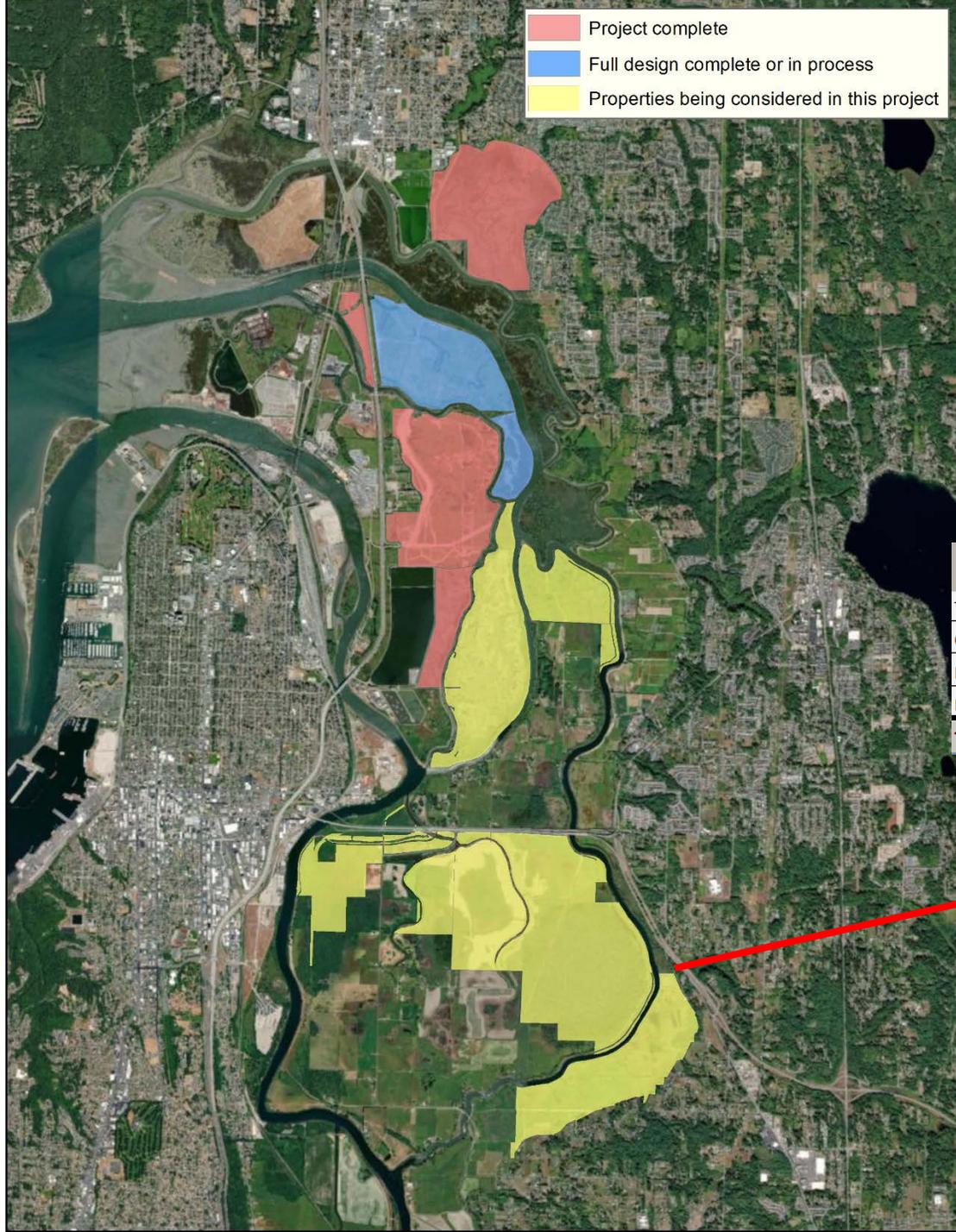
Investigate a broad area of public land where previous feasibility studies and monitoring efforts identify potential for significant ecosystem restoration.





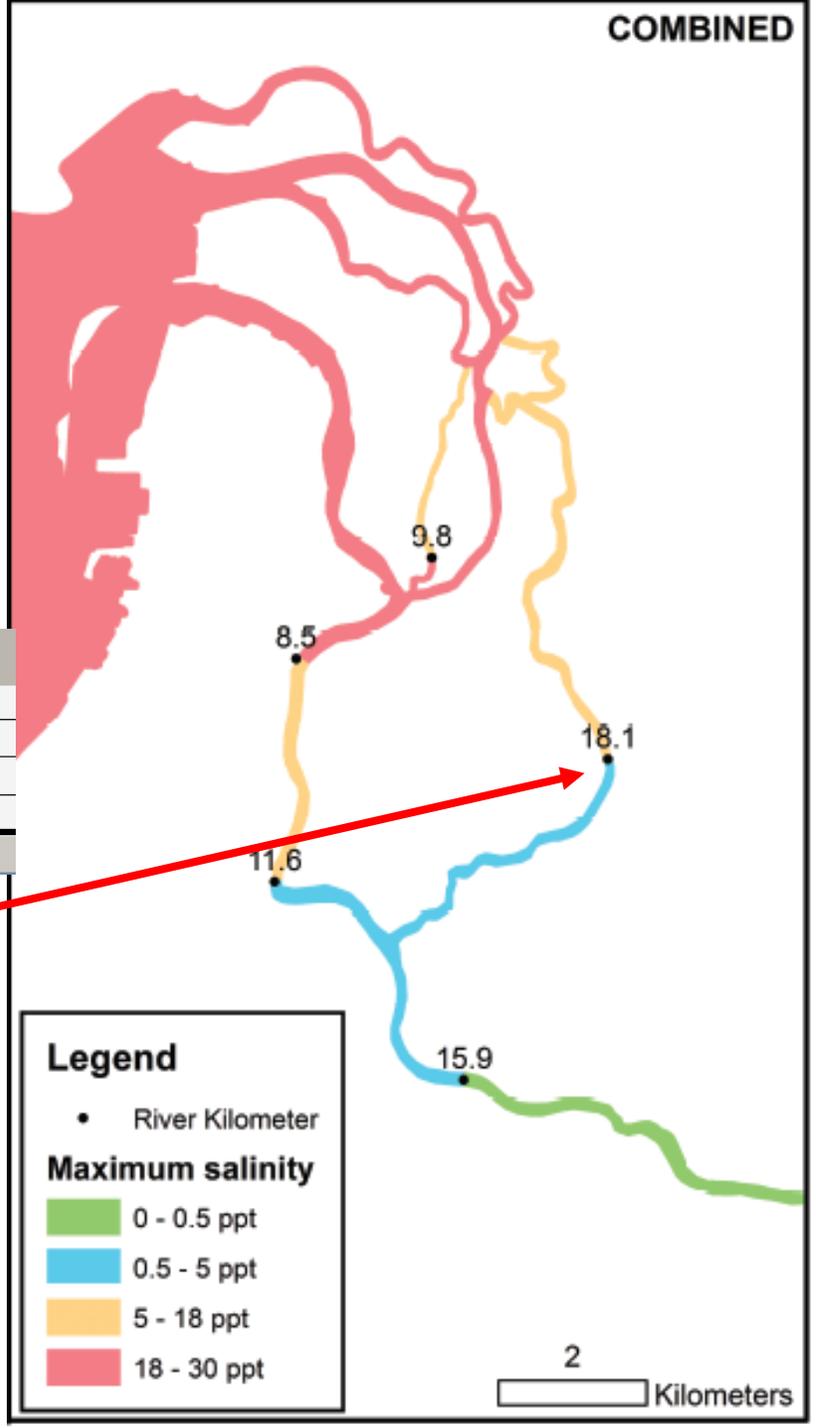
2,250 acres of WDFW/County Land

-  Property will be assessed for ag viability as well as partial restoration
-  Properties will be assessed for full restoration



■ Project complete
■ Full design complete or in process
■ Properties being considered in this project

Tidal Wetland	Historic Area (sq km)	Current Area (sq km)	Change
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Totals	84.65	18.3	



COMBINED

Legend

- River Kilometer

Maximum salinity

- 0 - 0.5 ppt
- 0.5 - 5 ppt
- 5 - 18 ppt
- 18 - 30 ppt

2 Kilometers

Approach: Form strategic partnerships



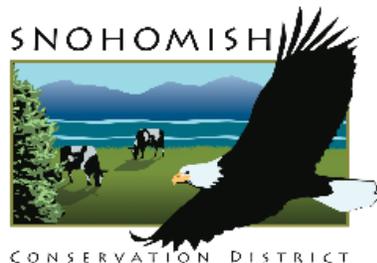
Landowner, project manager



Landowner, ongoing monitoring



Neighbor relationships, engineering



Neighbor relationships, engineering, ongoing monitoring

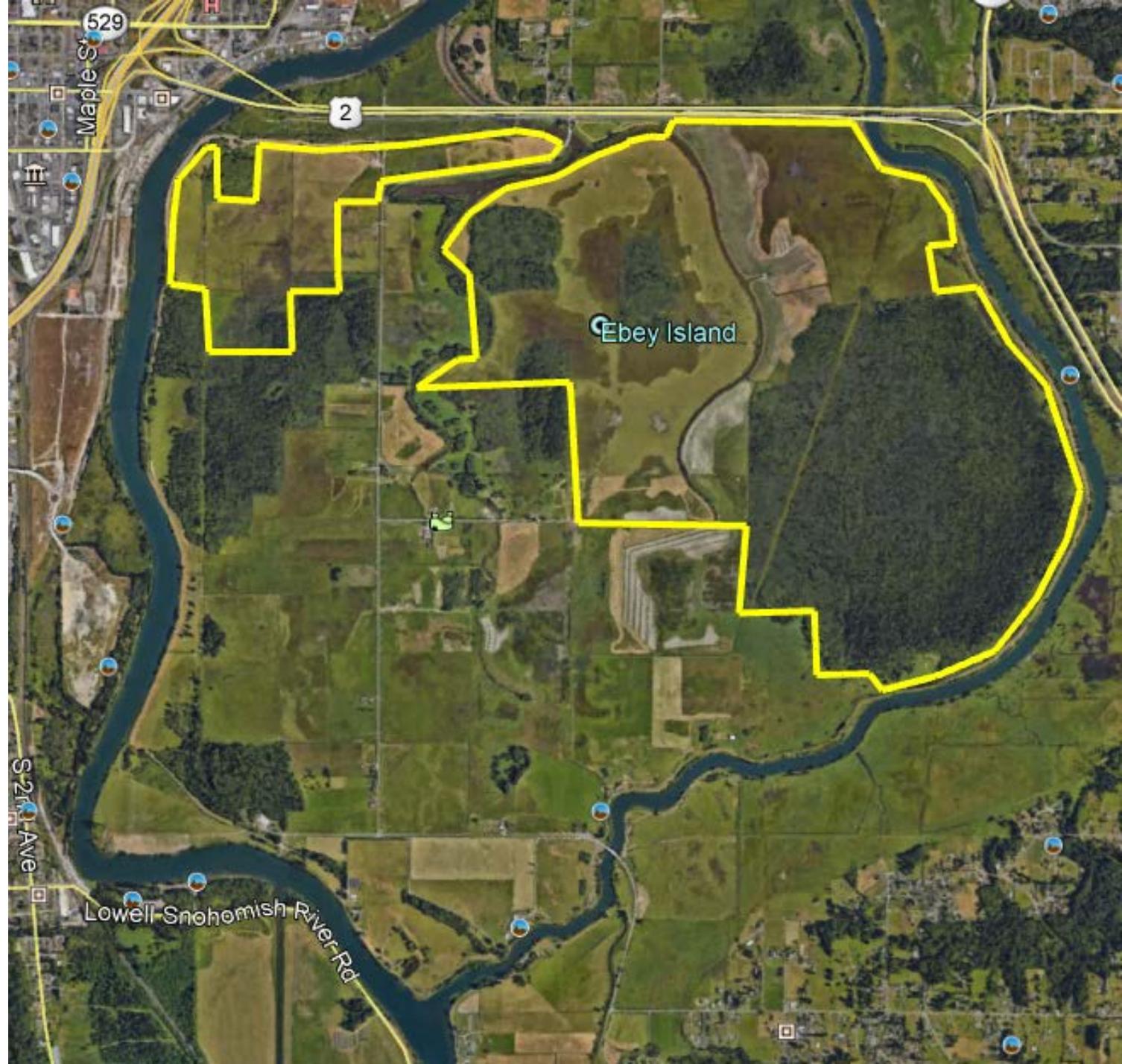
Approach:

Utilize existing information, collect new data to fill in gaps where needed.



Ebey Island

- 1,285 acres of WDFW ownership
- Recent acquisition
- 2011 Feasibility Study



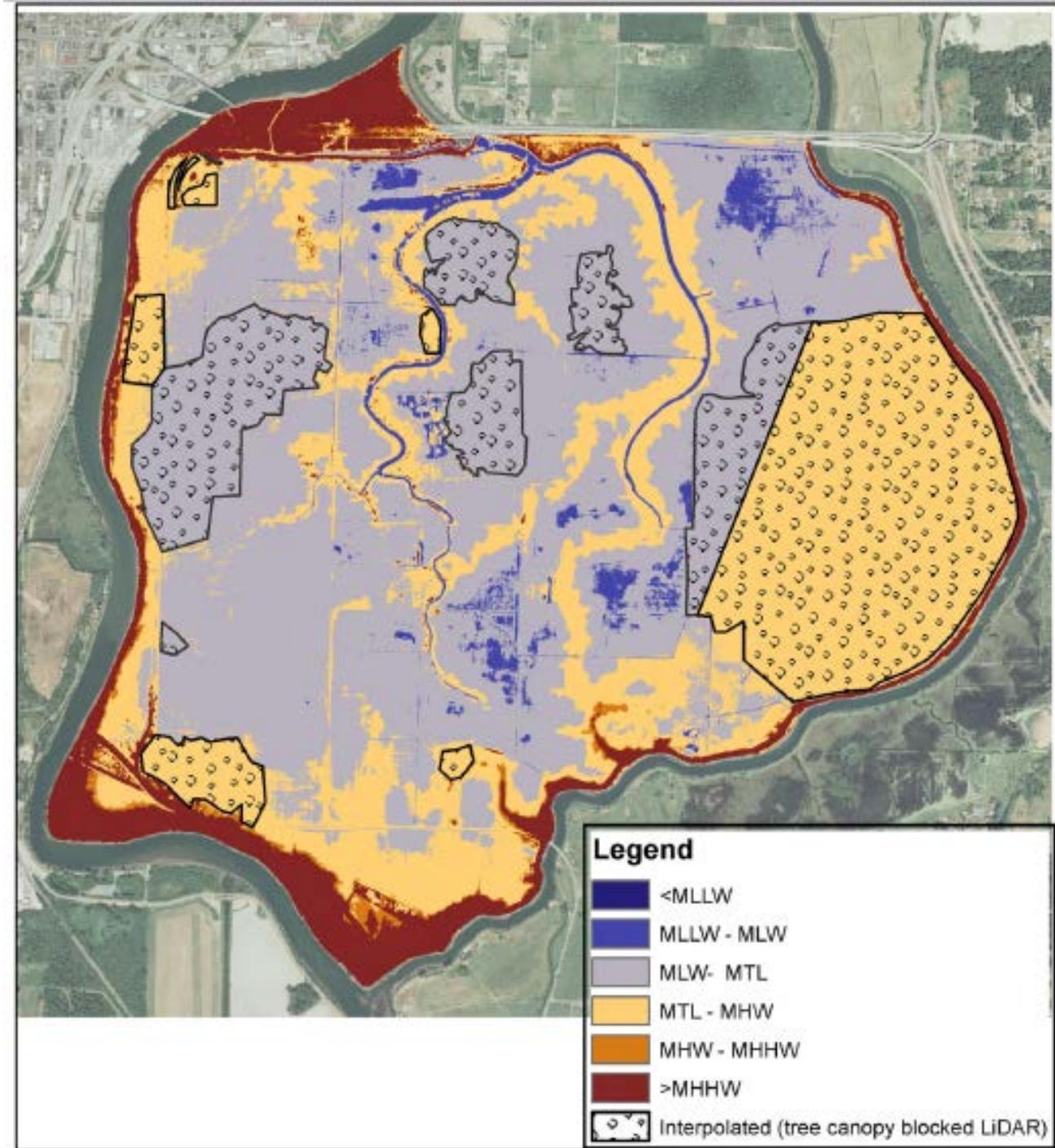
Ebey Island

Feasibility report results:

- Tidal restoration is possible technically.
- Capacity for up to 1.3 million Chinook smolts.
- Social and economic constraints.

Recommendation:

- Explore other land uses until social and economic constraints ease.



Ebey Island

What has changed since 2011?

- Additional WDFW land acquisition
- Other projects in delta
- New dike district commissioners
- Sustainable Lands Strategy
 - Upgrades needed to continue farming
- Agriculture Resilience Planning
 - Is Ebey the right place for investing in agriculture improvements?

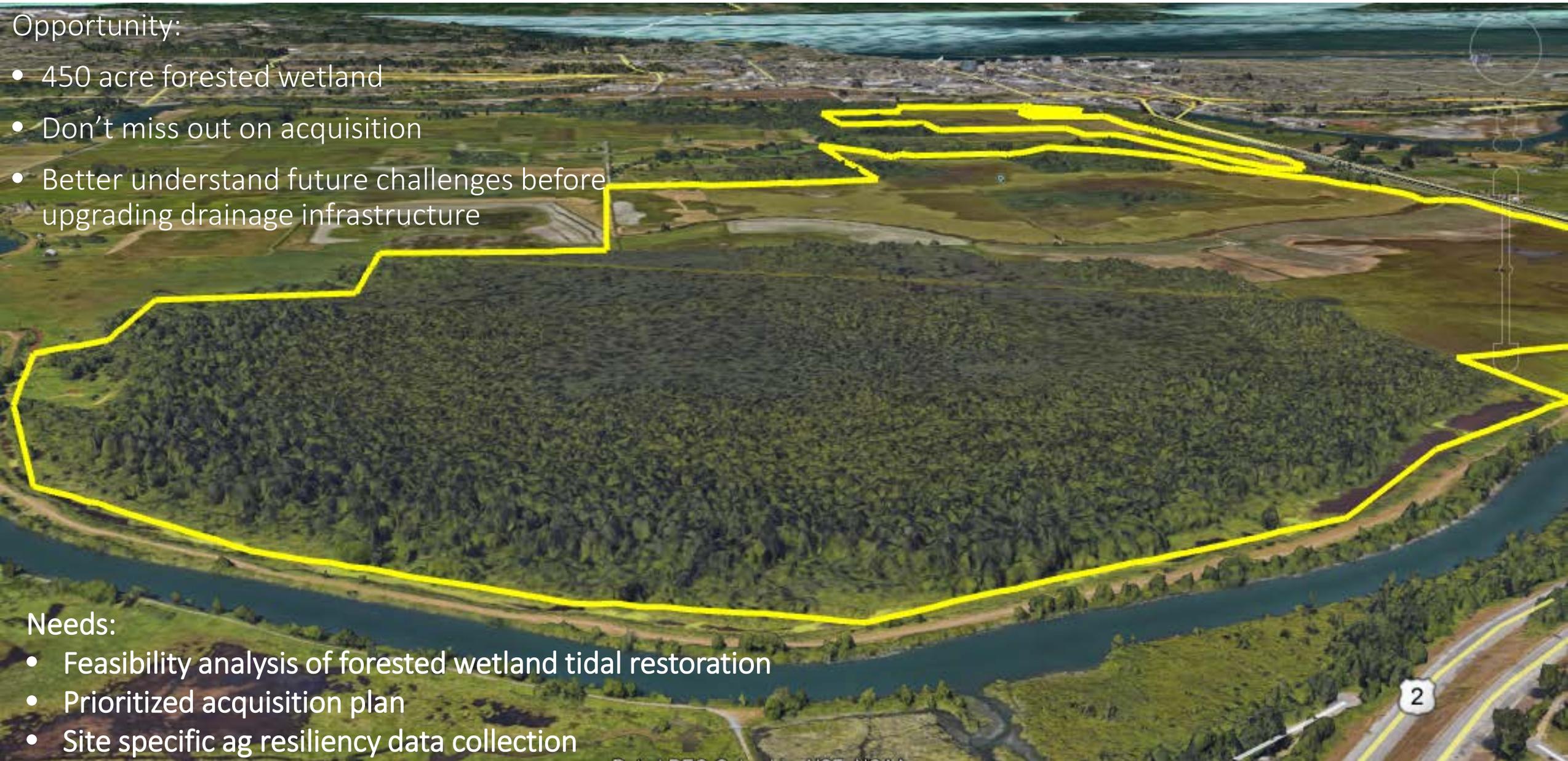


Opportunity:

- 450 acre forested wetland
- Don't miss out on acquisition
- Better understand future challenges before upgrading drainage infrastructure

Needs:

- Feasibility analysis of forested wetland tidal restoration
- Prioritized acquisition plan
- Site specific ag resiliency data collection



North Tip Ebey Island

300 acres, 190 County owned

Capacity for up to 87,000
Chinook smolts

2011 Report: Dike district
commissioners supportive

Needs:

- Land acquisition –OR–
- Do 190 acres of county property now?



Spencer Island

- 400+ Acres
- WDFW/County co-management
- Restoration history
- PSNERP List of 36, Conceptual Design Report
- Initial outreach completed

Need: Funding Strategy Decision



DD6

Full county ownership = 445 acres
Alternative shown = 242 acres, \$5.2 million (2012)

NEEDS: Consensus to move forward with this alternative
--OR--
Cost effective strategy for utilities

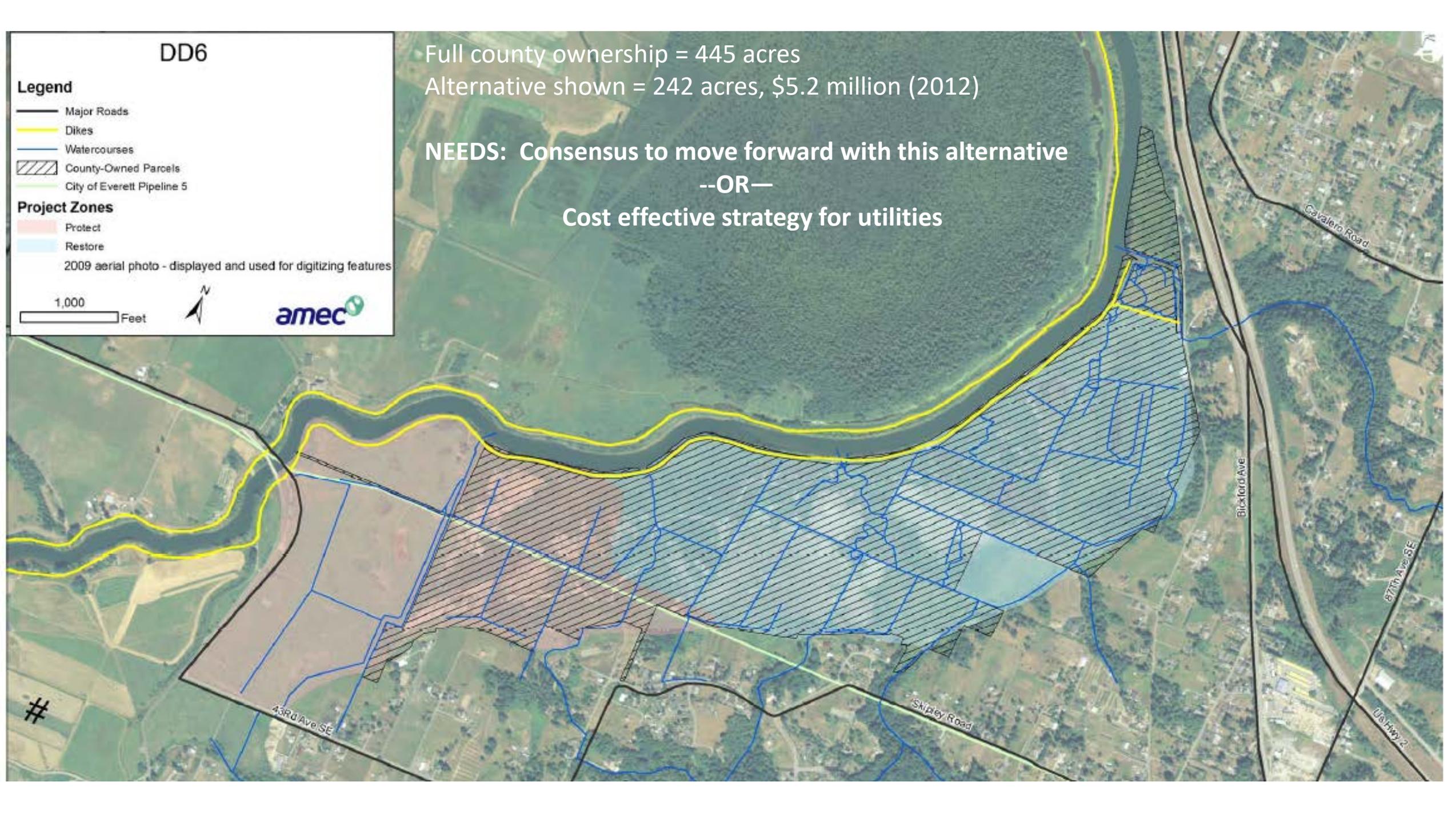
Legend

- Major Roads
- Dikes
- Watercourses
- County-Owned Parcels
- City of Everett Pipeline 5

Project Zones

- Protect
 - Restore
- 2009 aerial photo - displayed and used for digitizing features

1,000 Feet



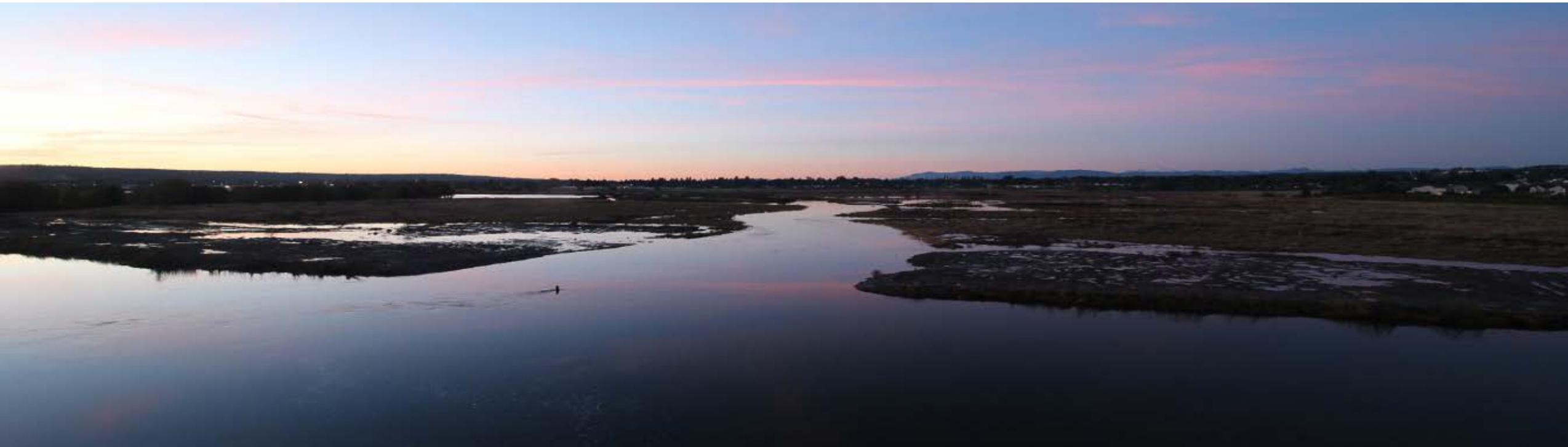
Project Elements

Technical:

- Agriculture resiliency data collection on Ebey Island
- Preliminary engineering

Communication for Decision Making:

- Stakeholder/landowner information sharing and consensus building
- SLS Project Integration Team



Outcomes:

- Broad support for the next large estuary project.
- A playbook of actions approved by landowners for community partners to advance.



Questions?

