Kitsap County Natural Resource Asset Management Project

Presentation By:

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South Sound Science Symposium, Shelton WA

October 20th, 2022

Image credit: Marinas.com

"A community that embraces sustainability must continually improve the relationship between the developed and natural environment. This includes **managing the natural environment as an essential asset alongside other assets** like roadways, buildings, capital facilities and revenue. The natural environment provides services and economic benefits which require planning, coordination, monitoring, and supportive fiscal policies and strategies."

Source: Kitsap County Comprehensive Plan Chapter 3 - Environment

Framework Goals

Manage natural assets, similarly to other assets, by employing a systematic process for making strategic and risk-informed decisions about natural assets to ensure a sustainable delivery of services alongside other county services.

Project Goals

The Core Team is working to collaboratively **develop and implement a framework** for the county to proactively manage **shorelines, streams, and forests** in a way that prioritizes the benefits they provide and safeguards them for the future.
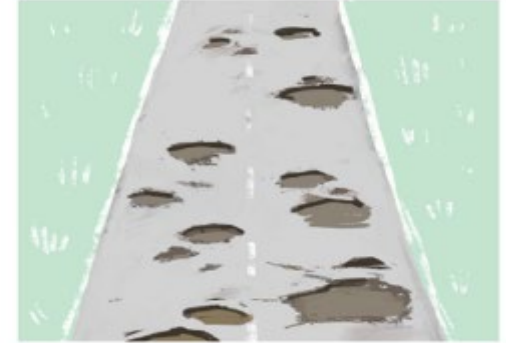
Natural asset management draws from the principles and practices of traditional asset management.

Concepts like 'levels of service' that are commonly used to manage built assets can be applied to natural assets to support monitoring and investment to improving asset condition.

Road with
A rating

Road with
F rating

River with
A rating

River with
F rating

Image credit: Washington Environmental Council

Local governments need approaches for managing natural assets and the benefits they provide.

- Many ecosystem services are also essential public services

- Natural assets provide essential services and are often not adequately considered in local planning and land use policy

- Disconnect between land use planning and ecosystem recovery planning

- Climate change impacts and environmental degradation

- Responsibility to uphold treaty rights and work in partnership with Tribes and First Nations to recover ecosystems

Image credit:
City of Calgary
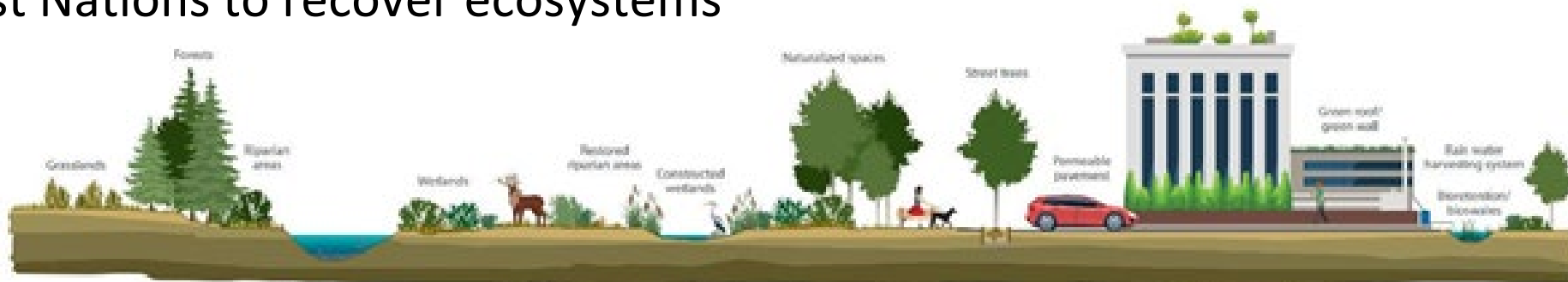
Natural Assets
Wetlands, Forests, Stream, etc.

Enhanced Assets
Rain Gardens, Bioswales, Urban Trees, etc.

Engineered Assets
Green Roofs, Water Harvesting System, etc.

Image credit: blog.readytomanage.com

Image credit: conservationbytes.com

Image credit: Financial Times

Natural asset management is a structured approach for local governments to manage natural assets to support thriving ecosystems and communities.

Sources: Asset Management BC, Municipal Natural Asset Initiative
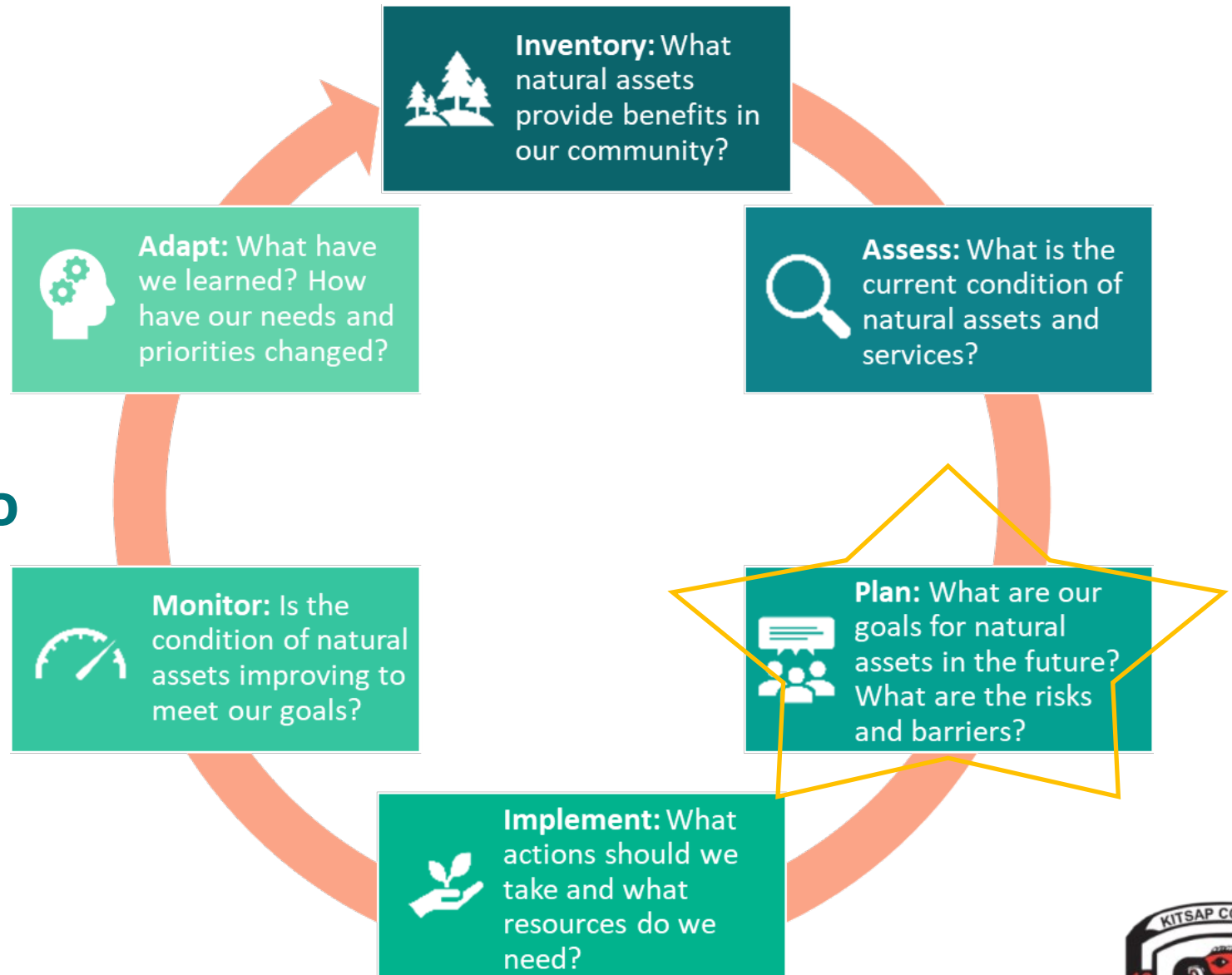
Attributes of Natural Assets

Streams

Attributes
- Riparian Vegetation
- Biological Condition
- Water Quality
- Fish Passage

Additional Information:
- Fish Distribution

Forests

Attributes
- Forest Cover
- Successional Class

Shoreline

Attributes
- Shoreline Armor
- Riparian Vegetation
- Shellfish Growing Area

Additional Information:
- Eelgrass, Forage Fish, Feeder Bluff

Ecosystem Services of Natural Assets

Streams

Services

- Key species presence
- Ground and surface water
- Stream flow regulation
- Fish and wildlife habitat

Forests

Services

- Water cycle
- Wildlife habitat
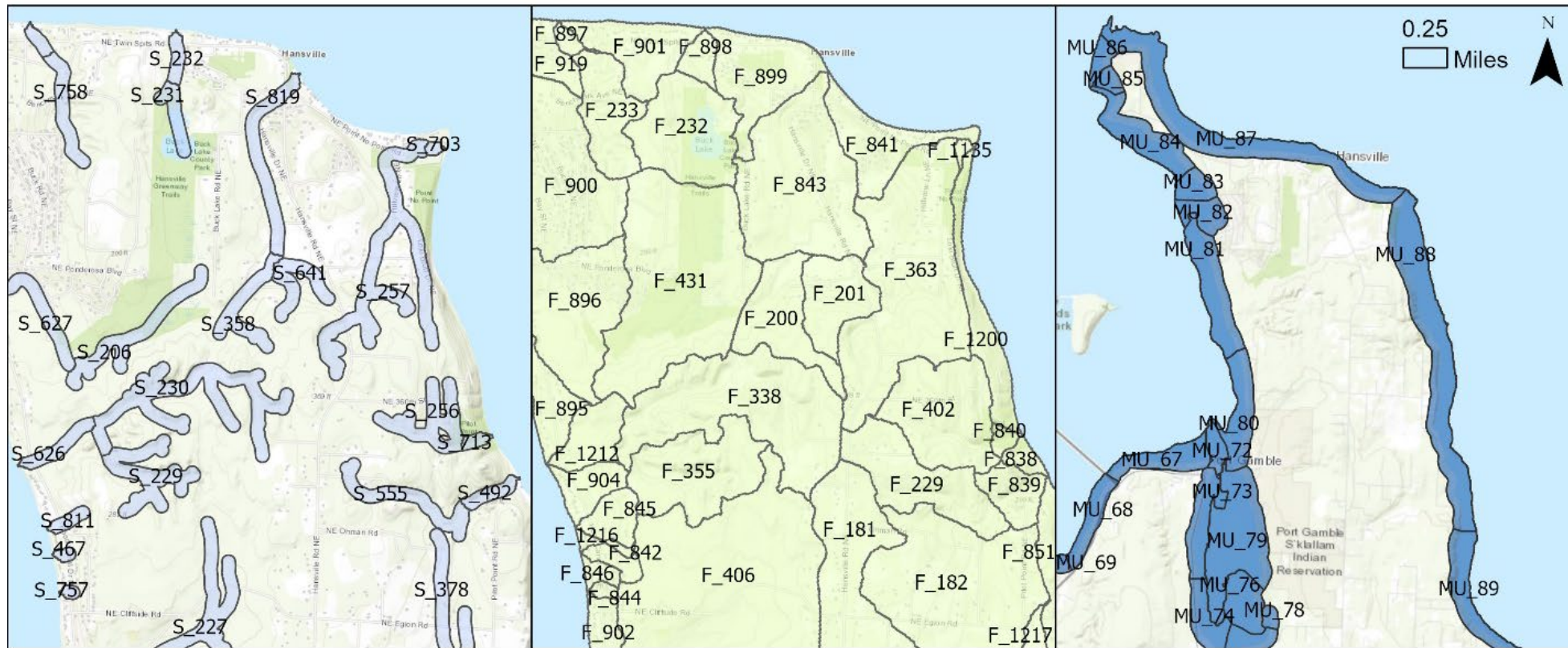- Climate resilience

Shoreline

Services

- Food web and habitat
- Sediment supply
- Shellfish and seafood
- Climate resilience

Management Units

Management units - the spatial foundation of the KNRAMP system and provide the "container" for assessing the condition of natural assets and applying targets.

Data Source: NHD HR PLUS (USGS)   Data Source: NHD HR PLUS (USGS)   Data Source: Beach Strategies (Coastal Geologic)

Levels of Service (LOS)

Desired LOS - The expected performance of assets and represent a commitment of a local government that will inform asset management and financial plans (MNAI 2022)

Low level of service   High level of service

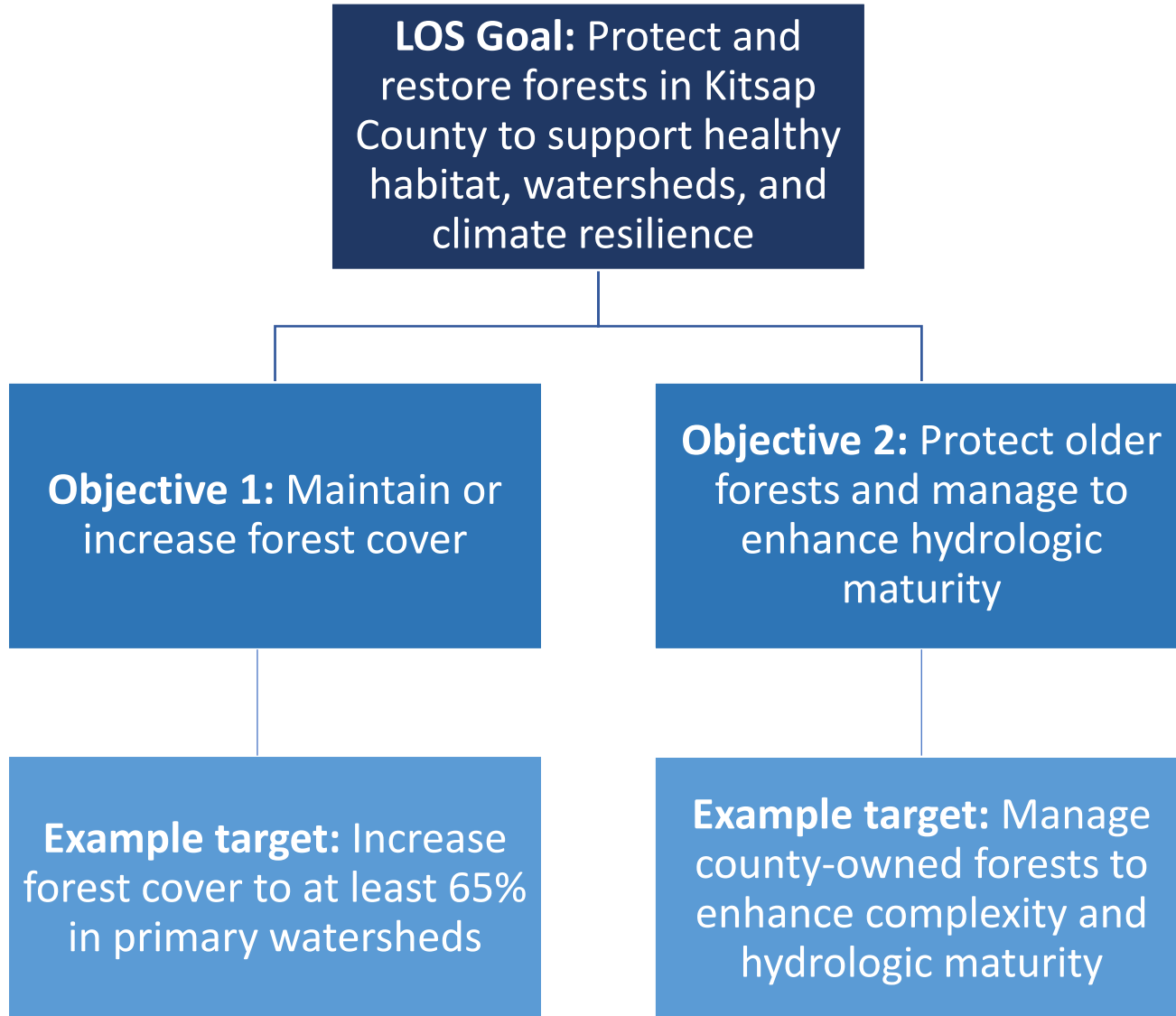| 0 | Overall Condition Index | 100 |

Degraded condition:
- Limited riparian tree cover
- Low B-IBI
- High bacteria
- Barriers to fish passage

Good condition:
- Significant riparian tree cover
- High B-IBI
- Low bacteria
- No barriers to fish passage

Desired Level of Service – Forest Assets

LOS Goal: Protect and restore forests in Kitsap County to support healthy habitat, watersheds, and climate resilience

Objective 1: Maintain or increase forest cover

Objective 2: Protect older forests and manage to enhance hydrologic maturity

Example target: Increase forest cover to at least 65% in primary watersheds

Example target: Manage county-owned forests to enhance complexity and hydrologic maturity

Desired level of service challenges:

- Geographic and temporal scales? Rural vs. Urban? Short term vs long-term?
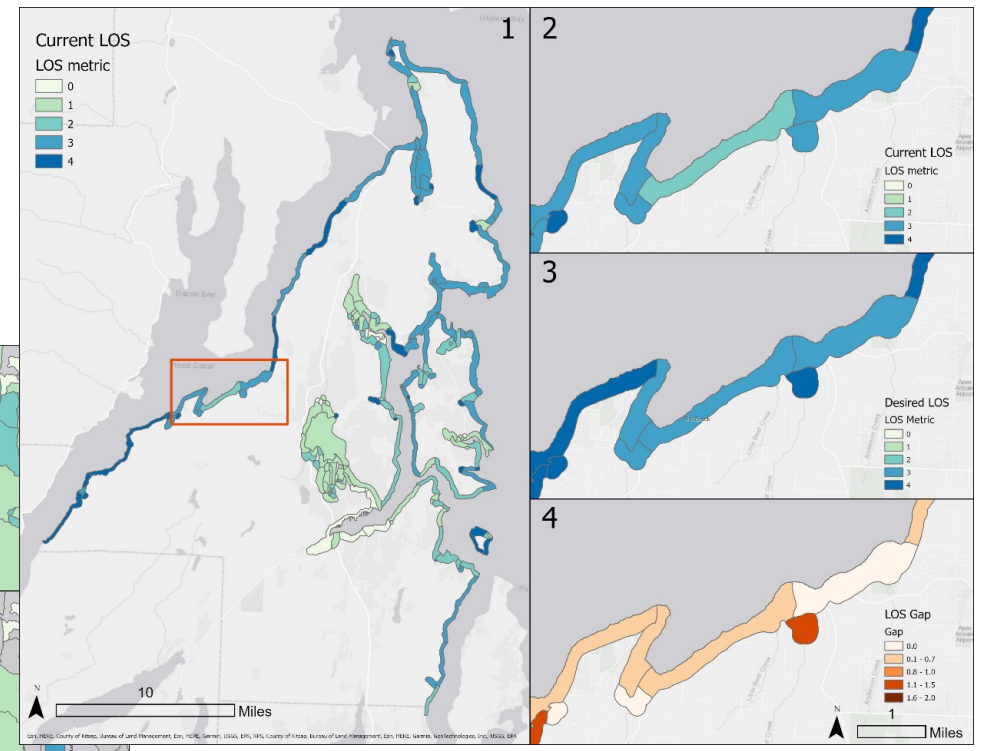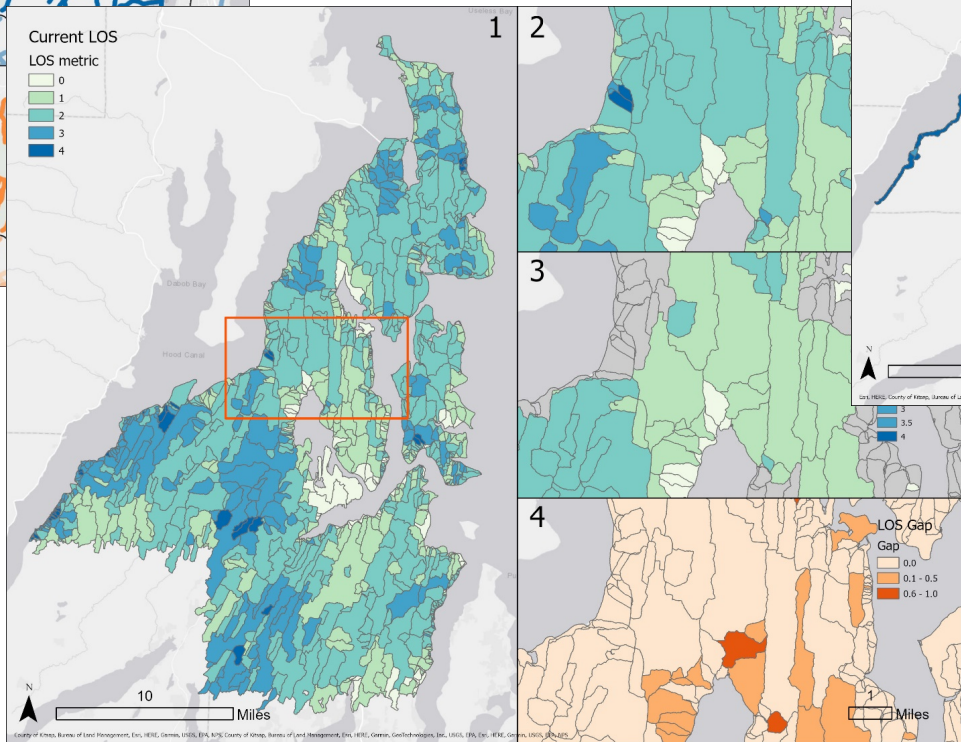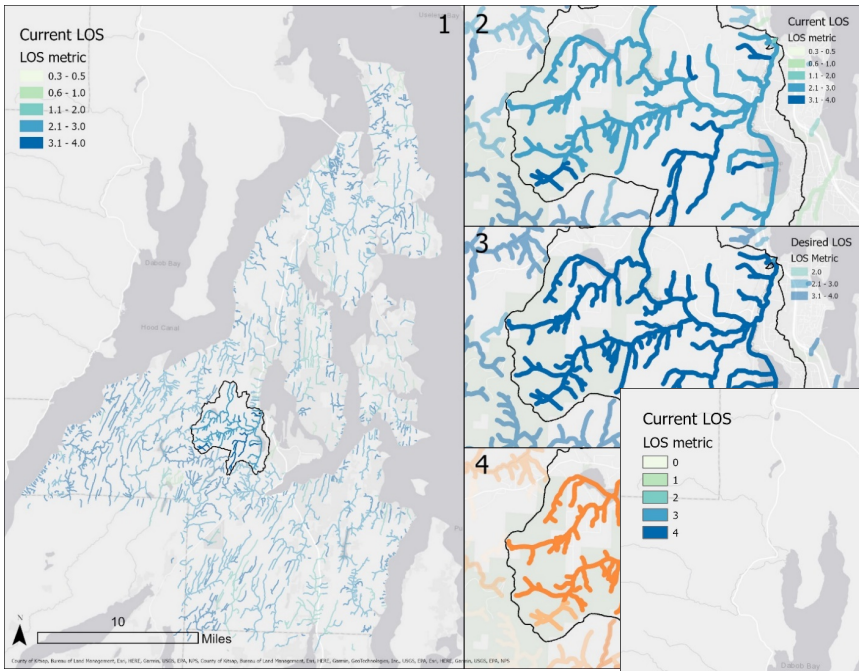
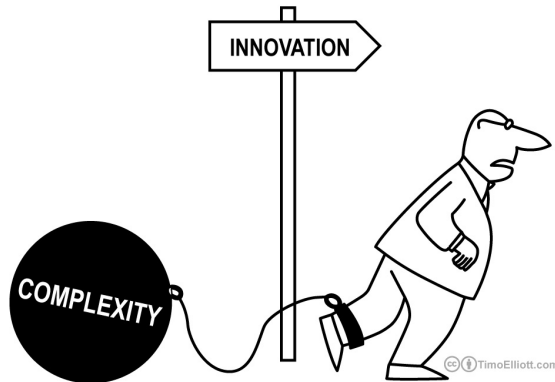- Process for formalizing and adopting LOS?

Levels of Service (LOS)

Marine Shoreline Asset Results

Forest Asset Results

Riparian Asset Results

Limitations to Operationalizing Natural Asset Management

- Emerging discipline

- Data and information gaps

- Clear definitions

- Natural resource manager silos

- Staff capacity

- Relationships with neighboring and overlapping jurisdictions

- Effective and equitable stakeholder/rightsholder engagement

- Support through funding and research

- Equitable decision-making processes

Thank you!!

Kitsap County

Port Gamble S'Klallam Tribe

Suquamish Tribe

Washington Environmental Council

Ross Strategic

Funders: EPA National Estuary Program