2021 South Sound Science Symposium Project Summary

Title: Kitsap County Natural Resource Asset Management Project

Authors: Medina M, Dohrn C, Huffman R, Ward D, Roberts M

Organizations: Kitsap County, Washington Environmental Council, Port Gamble S'Klallam Tribe and Suquamish Tribe

Project website: https://actionagenda.pugetsoundinfo.wa.gov/Project/Detail/12983
Project contact email: mmedina@co.kitsap.wa.us

Project Summary: The Kitsap Natural Resource Asset Management Program (KNRAMP) aims to improve natural resource management decision making and improve community awareness of ecosystem services. In this project, ecosystem services are broadly defined as the benefits provided by nature. KNRAMP builds on the County's existing public works asset management system, which is used to track and manage built capital assets and turns it toward natural assets. While many efforts have tried to create an economic framework to account for ecosystem services provided by natural assets, the Kitsap Natural Resources Asset Management Program (KNRAMP) is taking an innovative approach to develop and use the level of service provided by natural assets to guide management decisions. Levels of service are metrics used to evaluate the condition of a natural asset and the ecosystem services it provides; level of service must support the needs of residents at current and projected demand.

The asset management system is initially including streams, marine shorelines, and upland forests, but may be expanded to include other important natural assets in the future. To develop the system, we're defining ecologically relevant spatial management units, identifying key indicators of natural resource condition, integrating existing spatial data, and assessing baseline and desired levels of service for natural assets that are guided by input from partners and community members.

Ongoing monitoring of natural assets is expected to roll forward indefinitely once the system is established. Adaptive management of the system includes: 1) monitoring each asset compared to baseline and desired levels of service, 2) assessing whether each asset is functioning at the desired level of service, and 3) diagnosing problems and determining appropriate corrective actions.

In the current phase of the project, the County and its collaborators have been analyzing level of service in GIS and working to ensure that the integration of GIS products and asset management software is sustainable for long-term asset monitoring. A sustainable asset management system requires regularly updated indicator data (e.g., fecal coliform and B-IBI data, etc.) that illustrates the current condition of the asset.

By developing, implementing, and adaptively managing the system, project partners aim to provide a mechanism for prioritizing the protection and restoration of ecosystem services.

2021 South Sound Science Symposium Project Summary

KNRAMP will provide a model for an affordable asset management framework that relies on existing data, is portable to other local governments, and is sustainable for mid-sized local governments.
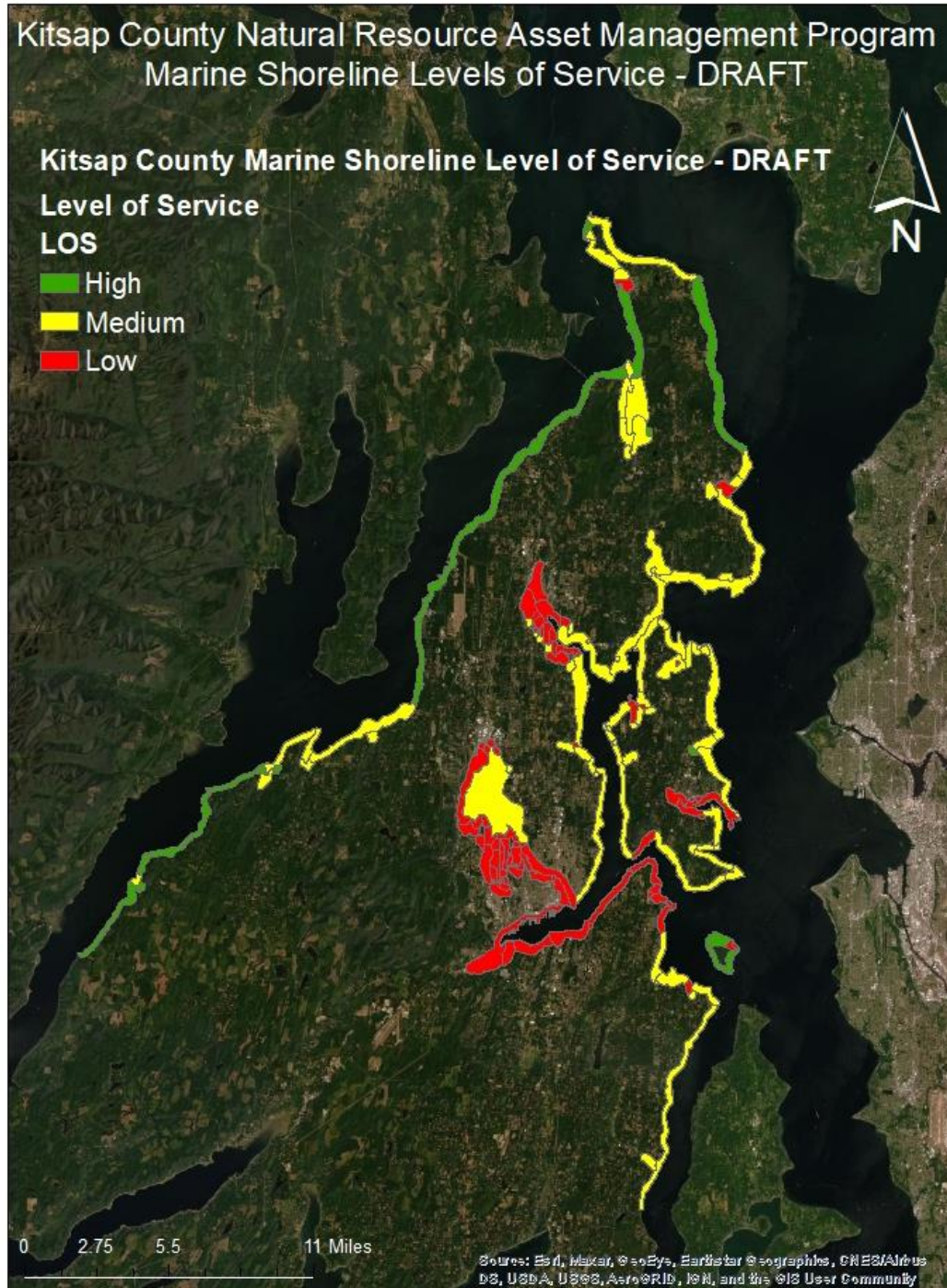

Figure. Kitsap County's Natural Resource Asset Management Program evaluates three natural asset, upland forest, streams, and marine shoreline. This map shows the results of the level of service ecosystem services provided by the marine shoreline in Kitsap County by drift cell.