

Kitsap County Department of Community Development
Toward a Natural Resources Asset Management Plan for Kitsap County
Workshop Agenda

Date: June 3, 2019

Location: Kitsap County Administration Building, 619 Division Street, Port Orchard, Commissioners Chambers

Meeting Room: 380

Goals:

- 1) Review current progress in developing the framework for the Kitsap County Natural Resources Asset Management Plan's (KNRAMP).
- 2) Discuss how year one accomplishments and deliverables will help to further develop the KNRAMP moving forward and ensure alignment with the broader NTA effort.
- 3) Discuss parties' ongoing roles in the KNRAMP development and implementation.

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|----------|--|
| 9:30 AM | <p>Welcome and Updates - Elizabeth McManus (Facilitator, Ross Strategic)</p> <ul style="list-style-type: none"> • 2020 Salish Sea Ecosystem Conference – Update on session proposal for KNRAMP |
| 9:45 AM | <p>Cartegraph in practice: Walking through Examples of KNRAMP Ecosystem Service and Attribute Monitoring – Angela Gallardo (Kitsap County Public Works), Ryan Huffman (Kitsap County Public Works), All</p> <ul style="list-style-type: none"> • Walk through some KNRAMP examples added to Cartegraph and discuss how monitoring and assessment of ecosystem services and attributes would take place |
| 10:30 AM | <p>Synergies between KNRAMP and NTA – Dave Ward (Kitsap County)</p> <ul style="list-style-type: none"> • Overview on NTA scope of work, expected roles, and 6-12-month goals • Connections with the KNRAMP <p><i>Materials: NTA Statement of Work, Draft KNRAMP Policy Document, Funding and Financing Sources for Payments for Ecosystem Services</i></p> |
| 10:45 AM | <p>Break</p> |
| 11:00 AM | <p>Reviewing current progress and opportunities for the next year – Melia Paguirigan (WEC), Max Webster (WEC), All</p> <ul style="list-style-type: none"> • Overview of accomplishments and activities to date • What are the 5 big takeaways from year one work? • What are the 5 big opportunities for the next year? • What success looks like in the next 18 months and how next year will bring us closer to that vision? <p><i>Material: Final Draft KNRAMP Framework, Draft KNRAMP Generic Framework</i></p> |

| | |
|----------|---|
| 11:45 AM | Phase II Transition - Work Moving Forward: Thoughts from the Suquamish Tribe, Port Gamble S'Klallam Tribe, and Kitsap County - All <ul style="list-style-type: none">• What has been the most interesting to you from year-one work?• What do you see as key opportunities for the next year? Where do you most see value to focus on, as we continue the KNRAMP development? |
| 1:00 PM | Next Steps - All <ul style="list-style-type: none">• Next steps for summer months• Scope of Year 2• Path forward: Timeline/Roles <p><i>Material: 2019 Pisces Foundation Proposal</i></p> |
| 1:30 PM | Adjourn |

DRAFT

STATEMENT OF WORK

Developing a Natural Resources Asset Management Program

Project Tracking number (NTA ID): 2018-0321

Sub-recipient: Kitsap County

Sub-recipient Contact: Dave Ward, dward@co.kitsap.wa.us, 360-620-3695, 619 Division Street MS-36, Port Orchard WA 98366

Stormwater Strategic Initiative (SI) Grant Program Representative: Lola Flores

Effective Date:

Expiration Date (no more than two years from Effective Date): 6/30/2021

Not to exceed: \$ 375,000

Tracking information:

| | |
|------------------------------------|---|
| NTA number: | 2018-0321 |
| STORET ID (if applicable) | |
| Strategic Initiative | Stormwater |
| Selected by SIAT or LIO? | SIAT |
| Vital sign links: | Chinook, Land Development and Cover, Shoreline Armoring |
| Implementation Strategy alignment: | Stormwater, Habitat |
| LIO geographies: | West Central, Hood Canal |
| Amount of dollars leveraged? | \$250,000 |
| Number of positions supported? | 6 positions totaling 1 FTE |

The following Statement of Work is based on the recipient's Near-Term Action (NTA) proposal, which is referenced in the 2018 Puget Sound Action Agenda.

OVERVIEW

Project overview, based on your NTA proposal divided into a short and long description.

Project Short Description (No more than 500 characters)

Kitsap County and its project partners will develop a Natural Resources Asset Management system to assist local governments with fiscal, permitting, and management decisions related to natural resources, and to improve citizen awareness of ecosystem services. The project will result in an asset management framework that relies on existing data, is portable to other local governments, and is sustainable for mid-sized local governments.

Project Long Description (No more than 4,000 characters)

Kitsap County and its project partners will develop a Natural Resources Asset Management system to assist local governments with fiscal, permitting, and management decisions related to natural resources, and to



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improve citizen awareness of ecosystem services. The project will result in an asset management framework that relies on existing data, is portable to other local governments, and is sustainable for mid-sized local governments.

Initially, the system will be set up for streams, marine shorelines, and forests. Other assets considered for future work include wetlands and open space. The system will be designed to accommodate future valuation of assets to enable life-cycle cost analysis and comparisons of grey versus green infrastructure for the provision of ecosystem services. Ecosystem services considered in the program model include provisioning (e.g., food, materials), regulating (e.g., flood control, erosion control), cultural (e.g., recreation, heritage), and supporting (e.g., nutrient cycling, forage fish productivity, biological diversity) services.

The project is divided into two phases: System setup and ongoing asset monitoring. System setup includes: 1) identify assets to track, 2) identify appropriate measurement units, 3) identify attributes used to characterize and track the condition of each type of asset, 4) compile data sets for attributes, 5) conduct an initial assessment of ecosystem services and establish baseline levels of service, 6) determine desired levels of service (based on science and social factors), and 7) conduct a threat assessment based on the desired levels of service and threats to each asset.

The ongoing asset monitoring phase is the body of work we expect to roll forward indefinitely, once the system is established. It is an adaptive management loop that includes: 1) monitor the condition of each asset and compare to the baseline and desired levels of service, 2) assess whether the asset is functioning at the desired level of service or is on trajectory to the desired level of service, 3) if not, then diagnose the problem and determine the appropriate corrective action, 4) identify resources and implement the corrective action, and 5) loop back to step 1. The program model also includes assessment of whether further protective measures are warranted and, for each corrective action, implementation, effectiveness, and validation monitoring.

GOALS & MEASURABLE OBJECTIVES

Bulleted list of goals and objectives, based on your NTA proposal (no more than 1,000 characters, please)

Goal 1:

Design and develop a Natural Resources Asset Management system to assist local governments with fiscal, permitting, and management decisions related to natural resources, and to improve citizen awareness of ecosystem services. Design the system to accommodate future valuation of assets to enable life-cycle cost analysis and comparisons of grey versus green infrastructure for the provision of ecosystem services.

Objectives:

- 1.1) Identify assets to track.
- 1.2) Identify appropriate measurement units.
- 1.3) Identify attributes used to characterize and track the condition of each type of asset.
- 1.4) Compile data sets for attributes.
- 1.5) Conduct an initial assessment of ecosystem services and establish baseline levels of service.
- 1.6) Determine desired levels of service (based on science and social factors).
- 1.7) Conduct a threat assessment based on the desired levels of service and threats to each asset.

Goal 2:

Put the Natural Resources Asset Management system into action and begin implementation of the ongoing adaptive management loop.

Objectives:

- 2.1) Monitor the condition of each asset and compare to the baseline and desired levels of service.
- 2.2) Assess whether the asset is functioning at the desired level of service or is on trajectory to the desired level of service.
- 2.3) Assess whether further protective measures are warranted.
- 2.4) Diagnose problems and determine the appropriate corrective action (e.g., project, program, policy, code, grey vs green).
- 2.5) Identify corrective action.
- 2.6) Continue the ongoing adaptive management loop.

TASKS & DELIVERABLES

Kitsap County (hereafter referred to as the RECIPIENT) will manage all aspects of the project including execute sub-contracts; manage sub-contractors; project invoicing and fiscal management; and draft deliverables for review. The RECIPIENT will email all deliverables and invoices to the Stormwater SI Grant Program Representative. The following are the tasks, deliverables, and deadlines associated with this sub-award:

▶▶ TASK 1. Project Development

This task must be completed before initiating any other work under this sub-award. Work completed on other tasks prior to completion of Task 1 may be ineligible for reimbursement.

1.1 DETAILED PROJECT PLAN (DPP)

The RECIPIENT will prepare a detailed project outline and timeline to describe project expectations and outcomes. The detailed project plan will also identify how the objectives of the project will be evaluated, including quantifiable performance measures and targets. As part of developing the detailed project plan, Kitsap County staff will meet with their Stormwater SI Grant Program Representative to discuss the project goals, tasks, timeline, and shared workload. Stormwater SI staff will have the opportunity to provide input on the plan and establish mutual expectations.

The RECIPIENT should provide relevant spatial data for their project and this should be identified in the detailed project plan. The RECIPIENT should consult with Stormwater SI staff and spatial analysts where appropriate to determine the spatial data, associated metadata, and data storage location that are relevant for the project. Project coordinates (latitude, longitude) should be submitted in decimal degrees.

1.2 QUALITY ASSURANCE PROJECT PLAN (QAPP) DEVELOPMENT

Per EPA sub-award terms and conditions, the RECIPIENT must submit a Quality Assurance Project Plan (QAPP) or QAPP waiver to the Washington State Department of Ecology’s NEP Quality Assurance Coordinator (NEP QC) using EPA’s NEP guidance for QAPPs. See <http://www.ecy.wa.gov/programs/eap/ga/docs/NEPQAPP/index.html>. If a QAPP is required, the RECIPIENT will work with the NEP QC to develop and approve the QAPP.

Work related to collecting environmental data may not begin until the QAPP or waivers are completed and approved. The detailed project plan (Task 1.1) may be appended to the QAPP waiver form in lieu of completing page 2.

| Task Number | Deliverable | Estimated Cost | Target Completion Date |
|-------------|--|----------------|---------------------------------|
| 1.1 | Detailed project plan (DPP) and timeline uploaded to EAGL. | \$3,000 | 60 days after notice to proceed |
| 1.2 | QAPP Waiver Determination Form submitted to NEP QC and uploaded to EAGL. If QAPP is required, submit to QC and once approved by NEP QC upload to EAGL. | \$2,000 | 60 days after notice to proceed |

TOTAL ESTIMATED COST FOR TASK 1: \$5,000

▶▶ TASK 2. Project Administration/Management

This task describes the data collection and reporting requirements associated with this sub-award.

2.1 PROJECT FACTSHEET

The RECIPIENT will create a project factsheet (using provided template) and submit it in MS Word with the first quarterly progress report. These will be made publically available.

2.2 QUARTERLY PROGRESS REPORTS/PAYMENT REQUESTS (PRPR)

The reporting period is synced to inform the Grant Program's EPA reporting schedule; therefore it is critical that the RECIPIENT upload these reports to the Grant Program according to the following schedule. The RECIPIENT will upload all quarterly progress reports and payment requests (PRPR) to EAGL. The RECIPIENT shall carry out all work necessary to meet ECOLOGY grant or loan administration requirements. Responsibilities include, but are not limited to:

- A description of the work completed in the reporting period, including total spending by the project sponsor and any partners and any completed deliverables.
- The status and completion date for the project activities and near-term deliverables.
- Description of any problem or circumstances affecting the completion date, scope of work, or costs.
- Evidence of satisfactory completion of all the reporting requirements relevant to the reporting period (see below 2.2.1, 2.2.2, 2.2.3).

| | | |
|--------------------------|-------------------------|---------------------------------|
| First Reporting Period: | January 1 – March 31 | Report due by April 15 |
| Second Reporting Period: | April 1 – June 30 | Report due by July 15* |
| Third Reporting Period: | July 1 – September 30 | Report due by October 15 |
| Fourth Reporting Period: | October 1 – December 31 | Report due by January 15 |

The Final Report (2.3) replaces the Quarterly report in the final quarter of the grant.

*State fiscal year closeout. Please ensure all invoices for work performed through June 30 are submitted by July 15.

Reporting requirements:

2.2.1 EPA FEATS REPORTING

Complete semi-annual FEATS (*Financial and Ecosystem Accounting Tracking System*) progress reports, as well as a final FEATS report. The final FEATS report, reflecting the final project billing, will be provided by the RECIPIENT during project closeout, within 60 days of the expiration of the grant, and will describe the entire project, highlighting project outcomes and discussing lessons learned.

| | | |
|--|------------------------|---------------------------------|
| FEATS Reporting Periods: | | |
| | April 1 – September 30 | Report due by October 15 |
| | October 1 – March 31 | Report due by April 15 |
| Draft final FEATS report completed by: | [End Date of Grant] | |

2.2.2 PUGET SOUND PARTNERSHIP NTA REPORTING

NTA owners are required to report on the following:

- Implementation status of their actions on a semiannual basis
- Financial status of their actions on an annual basis

NTA progress reporting completed twice annually (spring & fall)

NTA financial reporting completed between: annually (summer)

2.3 FINAL PROJECT REPORT

A final report will be written by the RECIPIENT that describes the methods, results, lessons learned and recommendations for future work. The final report will evaluate the success of achieving the performance measures identified in the detailed project plan. Included with the final project report will be an updated Project Factsheet (see 2.1).

| Task Number | Deliverable | Estimated Cost | Target Completion Date |
|-------------|--|----------------|--|
| 2.1 | Project Factsheet | \$2,000 | First quarterly progress report |
| 2.2 | Quarterly progress reports | \$18,770 | October 15, 2019 January 15, 2019 April 15, 2020 July 15, 2020 October 15, 2020 January 15, 2020 April 15, 2021 July 15, 2021 |
| 2.3 | Final report including Final FEATS and updated factsheet | \$5,000 | July 15, 2021 |
| | Draft factsheet | | May 15, 2021 |
| | Final factsheet | | July 15, 2021 |

TOTAL ESTIMATED COST FOR TASK 2: \$25,770

▶▶ TASK 3. Asset Management System Design and Set-Up

3.1 SYSTEM DESIGN

The RECIPIENT will design and develop a natural asset management system (system) using the County’s existing Cartegraph GIS-based technology. The RECIPIENT will design the system to inventory and track natural assets such as streams, forests, marine shorelines, wetlands, and open space. It will be designed to track attributes that are descriptive of each asset and enable tracking of the condition of each asset. The asset management system will rely upon existing, vetted, and periodically refreshed data-sets from a variety of sources to enable assessment of an asset’s changing condition, assessment of ecosystem service delivery, and determination of desired and existing levels of service. The RECIPIENT will initially identify attributes, ecosystem services, and desired levels of service through a collaborative, stakeholder-based process funded under a separate grant; final selection will be made under this agreement based on the initial results. The RECIPIENT will develop the system in a manner to allow for eventual ecosystem service valuation and assessment of mitigation costs.

3.2 SYSTEM SET-UP

Using the County’s Cartegraph system, create the assets and attributes identified in the system design phase. Begin aggregation of existing data sets and input into the Cartegraph system.

3.3 SYSTEM TESTING

Develop a protocol to test the asset management system for each asset to validate that system reports are producing the expected results. Run test reports based on the protocol. Field verify that system reports for at least two measurement units for each asset align with field conditions.

3.4 TRANSITION TO ONGOING OPERATION

Identify next steps to continue building upon the asset management system and infilling data gaps.

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| Task Number | Deliverable | Estimated Cost | Target Completion Date |
|-------------|---|----------------|------------------------|
| 3.1.1 | Logic model describing the initial asset management system setup, ongoing asset monitoring, and adaptive management. | \$3,000 | July 31, 2019 |
| 3.1.2 | Structural model describing the conceptual relationships between assets, attributes, and ecosystem services. | \$3,000 | July 31, 2019 |
| 3.1.3 | Confirmed list of assets to track. Initially, assets are assumed to be streams, forests, and marine shorelines. These may be revised depending on community discussions and availability of appropriate data. | \$2,000 | July 31, 2019 |
| 3.1.4 | Final list of potential descriptive attributes and attributes that indicate the condition of each asset. | \$10,000 | December 31, 2019 |
| 3.1.5 | Final list of identified ecosystem services provided by each asset. | \$5,000 | December 31, 2019 |
| 3.1.6 | Definition of appropriate measurement units (i.e., size, resolution) to be tracked for each asset. | \$12,000 | December 31, 2019 |
| 3.1.7 | Identification of existing, appropriate data sets used to populate the attributes. Data sets will be evaluated and selected based on availability, cost, repeatability, consistency of updates, confidence in the data and data provider, resolution of data, applicability to purpose, and other factors to be determined. | \$34,500 | March 31, 2020 |
| 3.1.8 | Written report describing the method for determining the desired levels of service. | \$17,051 | June 30, 2020 |
| 3.1.9 | Written report describing the initial baseline levels of service based on preliminary runs of the asset management system. | \$20,000 | October 30, 2020 |
| 3.1.10 | Initial risk assessment based on the desired levels of service and threats to each asset. | \$10,000 | December 31, 2020 |

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| 3.2.1 | Written report of assets and attributes as entered into Cartegraph. | \$62,000 | March 31, 2021 |
| 3.2.2 | Written summary report of data entered into Cartegraph. | \$58,850 | March 31, 2021 |
| 3.3.1 | Written testing protocol to validate that system reports are producing the expected results. | \$12,000 | March 31, 2020 |
| 3.3.2 | Written report of testing and field verification outcomes. | \$6,000 | June 30, 2020 |
| 3.4.1 | List of priority data gaps. | \$2,000 | June 30, 2020 |
| 3.4.2 | Logic model describing the relationship of the asset management system outputs and effectiveness monitoring for shoreline, critical area, and stormwater regulations. | \$3,000 | June 30, 2020 |
| 3.4.3 | Logic model and written approach for future ecosystem service valuation. | \$3,000 | June 30, 2020 |

TOTAL ESTIMATED COST FOR TASK 3: \$263,401

▶▶ TASK 4. Technology Transfer and Knowledge Exchange

4.1 TECHNOLOGY TRANSFER PLAN

The RECIPIENT will develop and implement a technology transfer plan to disseminate information and structural components of the asset management system to other local governments and land use agencies. The plan will include: an assessment of Puget Sound local governments that are technically capable of importing the asset management system, and the coverage of the data sets used, to evaluate the potential for broader application; presentations on the asset management system at three or more conferences including the Salish Sea Ecosystem Conference; a website with downloadable information to facilitate technology transfer; at least two workshops demonstrating the asset management system for external audiences.

| Task Number | Deliverable | Estimated Cost | Target Completion Date |
|--------------|---|----------------|------------------------|
| 4.1.1 | Technology transfer plan. | \$5,000 | December 31, 2020 |
| 4.1.2 | Written evaluation of dissemination potential. | \$8,000 | March 31, 2021 |
| 4.1.3 | Presentations at three or more conferences including the Salish Sea Ecosystem Conference. | \$10,829 | June 30, 2021 |
| 4.1.4 | Technology transfer website. | \$39,816 | June 30, 2021 |

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| 4.1.5 | Two asset management workshops for external audiences. | \$17,184 | June 30, 2021 |
|--------------|--|----------|---------------|

TOTAL ESTIMATED COST FOR TASK 4: 80,829

| | |
|----------------------------|-----------|
| Total Grant Amount: | \$375,000 |
|----------------------------|-----------|

▶▶ PROJECT BUDGET

Please report the total budget for this project: by task (first table) and by object (second table). Both tables are necessary given the multiple reports that will have to be completed throughout the project.

| Developing a Natural Resources Asset Management Program | | | |
|---|---------------------------|------------------------------------|---------------------------|
| TASKS (Divide total project budget by task) | TOTAL PROJECT COST | **TOTAL ELIGIBLE COST (TEC) | TOTAL GRANT AMOUNT |
| 1 - Project Development | \$5,000 | \$5,000 | \$5,000 |
| 2 - Project Administration/Management | \$25,770 | \$25,770 | \$25,770 |
| 3 – Asset Management System Design and Set-up | \$263,401 | \$263,401 | \$263,401 |
| 4 – Technology Transfer and Knowledge Exchange | \$80,829 | \$80,829 | \$80,829 |
| | | | |
| | | | |
| | | | |
| TOTAL | \$375,000 | \$375,000 | \$375,000 |
| ** The DEPARTMENT's Fiscal Office will track to the Total Eligible Cost. | | | |

Project budget by Item (will be used mainly for FEATS reports)

| Item (Divide total project budget by item) | TOTAL PROJECT COST | **TOTAL ELIGIBLE COST (TEC) | TOTAL GRANT AMOUNT |
|---|---------------------------|------------------------------------|---------------------------|
| Personnel | \$184,204 | \$184,204 | \$184,204 |

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|-----------------------------|------------------|------------------|------------------|
| Fringe Benefits | \$55,262 | \$55,262 | \$55,262 |
| Travel | \$6,000 | \$6,000 | \$6,000 |
| Equipment | \$2,000 | \$2,000 | \$2,000 |
| Supplies | \$90,000 | \$90,000 | \$90,000 |
| Contracts | \$0 | \$0 | \$0 |
| Other | \$5,000 | \$5,000 | \$5,000 |
| Total Direct Charges | \$342,466 | \$342,466 | \$342,466 |
| Indirect Charges | \$32,534 | \$32,534 | \$32,534 |
| TOTAL | \$375,000 | \$375,000 | \$375,000 |
| | | | |

WHY KITSAP COUNTY?

Puget Sound's health declines as the region's population grows and climate changes. Forest cover continues to decrease in Western Washington and the Puget Sound region is the most at risk for land conversion. More growth and development brings more impervious cover which can cause more pollutants to enter the Puget Sound. Riparian habitat which impacts things like water quality, stream temperature and bank stability has greatly decreased throughout time (State of Our Watersheds, 2016). Each of these structures on the landscape are critical to ecosystem services like availability of salmon to harvest and healthy and abundant water that both people and salmon depend on. Under current trends however, we are in danger of losing salmon runs that have fed and defined our region for generations.

In 1991, salmon in the Pacific Northwest were declared endangered species by the federal government. Overtime, more salmon species have been added to the list. Salmon have many threats they are up against, including habitat loss, climate change, fish passage barriers, access to spawning and rearing habitat, predators and invasive species (State of Our Salmon, 2018). While some progress has been made, further damage is outpacing successes. According the Puget Sound Vital Signs, Chinook salmon population abundance is below the 2020 target and not improving (State of Our Sound Report, 2017). This greatly impacts Washington State's constitutional obligation to uphold treaty rights and maintain that tribes can fish and harvest in their usual and accustomed places.

Water quality in the Puget Sound is largely impacted by pollutants that enter watersheds through stormwater runoff, which greatly harms salmon. The overall water quality index is below the 2020 target and is not improving. Freshwater impairments are below the 2020 target, and progress has had mixed results, while overall marine water quality continues to be in decline (State of Our Sound Report, 2017). Expansion of residential and commercial land also alters flow regimes and impairs ecosystem services such as downstream flood protection and drinking water supplies. While growth is expected, it needs to be managed in a way that maintains natural resources and the ecosystem services they provided that are needed to support that growth.

The Kitsap Peninsula is uniquely located between the Hood Canal to the west and Puget Sound to the East. Kitsap County is similar to an island in that it relies mostly on groundwater for drinking water due to the lack of large rivers or mountains with snowpack. As of 2017, Kitsap County has a population of 266,414 (CITE CENSUS). Throughout the 2016-2036 period the County is predicted to gain 80,438 additional residents (Kitsap2035, Countywide Population and Housing Growth). As the population continues to grow natural resources and the ecosystem services they provide will need to be planned for and managed to meet expected growth needs.

Every day, people rely on roads to get from home to work and they rely on pipes for drinking water. Roads and pipes are capital facilities that are considered 'assets,' which requires governments to strategically plan for and manage them to meet the needs of residents. People depend on the ecosystem services that natural resources provide in their everyday lives as well. From clean drinking water, to an ability to use culturally important plants and animals- natural resources are critical natural infrastructure that need to be planned and managed for in line with physical infrastructure such as roads and pipes.

Level of service standards are used to measure how well capital facilities are meeting the needs of residents and are adjusted with relation to growth. Investments in upgrades or new infrastructure are

made to maintain existing levels of service. Washington Environmental Council (WEC) is evaluating the levels of service provided by streams, forests and marine shorelines, similar to those used in capital facilities planning. WEC is working closely with Kitsap County, the Suquamish Tribe and Port Gamble S'Klallam Tribe to evaluate levels of service provided today and systems under which the County could institutionalize and restore preferred levels of service over time (CITE GENERIC FRAMEWORK).

Kitsap County is at the forefront of passing environmentally progressive policies that recognize natural resources as essential assets to residents. For example, the Water as a Resource Not a Waste Stream Resolution passed in 2009 and the updated environmental goals and public policies included in the 2016 Comprehensive Plan Update establish the need to develop a program to manage natural resources as essential assets. While the County is responsible for “no net loss” of critical areas as required by the Washington Growth Management Act, they have committed to going beyond and aiming rather for “net gain.” The Natural Resources Asset Management Program is an opportunity to implement policies that recognize streams, forests and shorelines as ‘natural assets’ and better protect them so that people can continue to benefit from their ecosystem services throughout time.

THE STATE OF KITSAP COUNTY NATURAL RESOURCE PROTECTION

There are already programs in Kitsap County that serve as proof of concept for how incorporating an ecosystem service approach can result in successful protection and management of natural assets. The Kitsap County Raingarden Program, guided by the Water as a Resource resolution, offers private residential landowners financial incentives and technical assistance to install rain gardens on their property. Rain gardens offer many benefits to humans and the surrounding environment. They protect from flooding during heavy rainfall, reduce strain on stormwater systems, avoiding costly capital projects, filter pollutants before reaching the Puget Sound, promote groundwater recharge, increase habitat for wildlife and pollinators and require less maintenance than lawns. While raingardens are built green infrastructure, they do aid in the protection of natural assets. The Shore Friendly program also focuses on the ecosystem services that humans gain from removing shoreline armoring on their property. Removing unneeded shoreline armoring can reduce the risk of erosion and protect native species and forage fish habitat. Although Shore Friendly is an incentive program previously funded through the National Estuaries Program, shoreline management in general is guided by the Shoreline Management Act. The Pollution Identification and Correction Program, guided by the Clean Water Act, uses long term monitoring to identify pollution sources and identify corrective action. It is used to protect areas where people harvest shellfish and enjoy other water recreation. Each of these programs recognizes the important role that natural assets play in providing essential benefits to humans and implement actions to ensure that those benefits are available now and into the future.

SCOPING A NATURAL RESOURCES ASSET MANAGEMENT PROGRAM

Natural assets expand across multiple jurisdictions and property owners, which makes it difficult to comprehensively manage them. Recognizing this challenge, one of the goals of this project was to ensure that it could be a model for other municipalities to implement their natural resource management policies. To address this, the project started with interviews of 16 key stakeholders as

identified by the project partners to identify the potential challenges and opportunities of a Natural Resources Asset Management Program. Interviewees included tribal governments, municipalities, non-profits, public utilities, government councils and various county department staff. The purpose of the interviews was to understand their views and ideas about framing a Natural Resources Asset Management program in Kitsap County (CITE INTERVIEW QUESTIONS). Information from the interviews was used to guide the scope of work (CITE INTERVIEW SYNTHESIS). Some of the main messages from the interview were that the Program could:

- Create an overarching framework for informing long term decision-making and priority-setting in a comprehensive way
- Incorporate ecosystem services into planning and budgeting more effectively
- Support statutory environmental requirements
- Develop strategies to communicate more clearly and effectively with the public about natural assets and why investment in them is needed

In addition stakeholders identified that the Program needs to:

- Be feasible, sustainable and measureable as well as scalable and replicable at the City and Tribal level
- Acknowledge that asset management of natural resources will be a complex process
- Call for regular and clear communication with stakeholders and close collaboration across all the Kitsap County jurisdictions

Overall the Program was seen as an opportunity to improve human well-being, create more visibility and support for natural resource protection and restoration and incorporate more rigorous approaches to implement County policies. The interview process was critical for guiding the scope of work as well as anticipating the needs of those impacted by the Program.

IDENTIFYING THE KNOWLEDGE GAPS

Initial research was done to identify asset management programs that define a level of service for natural assets as well as projects that incorporated ecosystem services into decision-making more broadly. To the best of our knowledge, there have been no efforts to apply an asset management system to streams forests and shorelines with defined levels of service based on the ecosystem services the natural assets provide. While monetary valuing of ecosystem services was the most common method for incorporating ecosystem services into decision-making, there were many challenges associated with implementation. Program partners discussed that attaching monetary values might not create the correct incentives and was difficult in the context of resources without economic proxies like sense of place or cultural importance. Although the other ecosystem service efforts examined varied in scope, valuation and strategy from this project, there were still lessons to be learned from the challenges and opportunities they experienced.

INSERT FRAMEWORK EXAMPLES TABLE

CONVENING KEY PARTNERS FOR PROGRAM VISIONING

A consensus-based approach was agreed upon early on in the process, which was reinforced through the in-person workshops. Partners convened at four workshops to discuss key decision-making points for developing the Program. The dialogue and activities at the workshops were critical to better defining the direction and structure of the framework and for coming to agreement on particular aspects of the Program (CITE WORKSHOP SYNTHESIS).

The overall goals of the workshops were to develop a shared vision for the Program, share tools and examples for guiding the scope of work and present potential structures, processes and frameworks for developing a Natural Resource Asset Management Program.

The County shared that they envisioned the Program assisting them in management decisions such as land use and that defining a level of service for natural resources could help them identify where to allocate financial resources appropriately. While the County had considered more traditional valuation of natural resources, they determined that an asset management program would create more cohesion across county departments by aligning with existing systems. Overall it was also decided early on that the Program be kept simple, with a manageable scope and scale that could be sustained over time with existing resources.

Throughout the process, the project partners were able to share and respond to the information and ideas presented, for continual development of the Program vision. The Suquamish Tribe highlighted that the tribal values are strongly connected to the use of natural resources. Looking at places that are used by tribes for their cultural, economic, and recreational activities would help identify the areas that are important to them and need to be maintained and/or restored. The Port Gamble S'Klallam Tribe reinforced that the program needed to take a comprehensive approach to natural resource management in order to be successful. They suggested considering a strategy that would prioritize key watersheds as well as incorporate a way to maximize conservation development to avoid development in areas critical for ecosystem services. Each of the project partners were critical for providing technical expertise and insight into implementation.

POTENTIAL OPTIONS FOR DEFINING A LEVEL OF SERVICE FOR STREAMS, FORESTS AND SHORELINES

Washington Environmental Council (WEC) presented initial examples of how to define a level of service for streams, forests and shorelines (CITE MEMO). The goal was to discern if there were particular indicators that serve as 'master switches' for getting at ecosystem function. While the examples were grounded in science and existing environmental standards, the thresholds were arbitrary. Eventually, where to delineate level of service thresholds will be a policy decision informed by science and public and stakeholder input. In addition to individual indicators, WEC also presented a strategy that would examine levels of service through aggregating geospatial data. This exercise was a starting place for identifying priority ecosystem services and determining a tiered structure for evaluating the functioning of natural assets.

AN OVERALL FRAMEWORK FOR DEVELOPING A NATURAL RESOURCES ASSET MANAGEMENT PROGRAM

INSERT LOGIC MODEL

SYSTEM SETUP

The setup of the Natural Resources Asset Management System will depend on available data. Decision will need to be made on what assets to track based on the ecosystem services they provide, what scale is appropriate and what attributes are the most relevant. For this project forests, streams and shoreline are the natural assets of focus based on the role they play in water quality and salmon recovery.

Determining the desired level of service for each natural asset is the core of the Program. Given that level of service is guided by the ecosystem services that natural assets provide, it will be critical to gather public input on what ecosystem services are most important to the community. While initial thinking around how to define level of service, was done in year one of the Project, it will be the main focus of year two.

ONGOING ASSET MONITORING

After careful consideration and decisions have been made on how to set-up the system, the implementation and ongoing monitoring follows a fairly straightforward adaptive management approach. If the natural asset is function at the desire level of service, action to maintain and potentially take further protective measures may be appropriate. If the natural asset is not functioning at the desired level of service, the impact will need to be diagnosed and a corrective action determined. Determining a corrective action will need to be systematic and transparent to ensure that investments are justified. This project has discussed options around a prioritization matrix or criteria develop through a standard operating procedure. Once a corrective action has been implemented, the asset management framework will ensure ongoing monitoring.

FURTHER REFINEMENT OF A NATURAL RESOURCES ASSET MANAGEMENT FRAMEWORK

Assets are individual structures that exist along a value chain and provide a service which is capable of maintaining, creating or depreciating value overtime. In economic terms, the function of this change in value is to provide or limit the owner of the asset's access to financial resources for the creation of new wealth or to maintain a quality of living.

As the product of various cycles (solar, water, nutrient, etc.) maintained by the stocks and flows of various resources, ecosystems embody natural economies of their own. In this way, natural resources can be thought of as natural assets which provide value through the production of ecosystem services which are foundational for the wellbeing of human communities. Therefore, creating a system which accounts for value of ecosystems as natural assets and which provides a means of prioritizing and

directing investment into their ability to maintain or enhance certain values, which are critical to human wellbeing, is one strategy to enhance environmental outcomes.

However, there are several key challenges to establishing a natural asset management strategy that need to be addressed. Chief among these concerns is the ability to define what constitutes a natural asset as well as determining what data exists to examine the value of that asset in addition to its ability to provide a desirable level of ecosystem service function overtime.

DEFINING NATURAL ASSETS

Defining natural assets should account for the natural processes that are necessary to achieve desired ecosystem service outcomes. In this way, a first task is to decide what ecosystem services matter most and to determine how those services are produced on the landscape.

For this project, a wide range of desirable ecosystem services were considered but two priority areas emerged as the driving motivation for a natural asset assessment. The first of these areas focused on achieving water quality objectives towards the goal of supporting salmon recovery. This goal is also driven by Kitsap County's "Water is a Resource" policy, which directs county land managers to treat water as a resource rather than a waste product and to preserve natural hydrologic function (CITE WATER AS A RESOURCE). The second of these areas concerns providing an effective tool for monitoring the County's Critical Areas as required by the Growth Management Act in order to protect the services they provide. These areas include: wetlands, fish and wildlife habitat areas, geological hazardous areas, frequently flooded areas and critical aquifer recharge areas (KITSAP CAO). This project will also include natural assets that are not located within Critical Areas.

By establishing these framework goals and understanding natural history and biological site potential of Kitsap County, three main natural assets were identified are critical features for maintaining critical areas protections and recovering water quality and salmon populations. Those three assets are forests, streams and riparian areas and shorelines.

CHART ROLE THAT FORESTS, STREAMS AND SHORELINES PLAY AND PROVIDING FOR ECOSYSTEM SERVICES

ECOSYSTEM SERVICE INDICATORS AND ATTRIBUTE IDENTIFICATION

A challenging factor for natural asset management is that ecosystems are complex, behave nonlinearly and are the products cycles and relationships that can be obscure or difficult to track without intensive monitoring. Still, despite the dynamic nature of ecosystems, there are logic models that help us to infer development pathways that follow from disturbance and which describe the quality of ecosystem service function that can be expected at any given stage of an ecosystems development. This is particularly true of forest ecosystems where forest stand dynamics and development pathways for different forest types are well developed and understood based on forest type, disturbance, site conditions, floristics and competition (CITE OLIVER & LARSON, FRANKIN).

PROCESS, STRUCTURE, FUNCTION, SERVICE MODEL IMAGE

An understanding of these development pathways, and, the structures on the landscapes that they produce, allows for land managers to infer what the impacts are expected to be from land use and disturbance and how those impacts will influence the quality of ecosystem services. Identifying these structures is critical for natural asset management because they serve as proxies to describe the overall health and function of the ecosystem at large.

CHART OF POTENTIAL INDICATORS

These indicators of ecosystem service function can also be thought of as the key components or attributes of an asset that determine its ability to maintain, create or depreciate the value of a system overtime. In other words, principle attributes describe enough of the quality of the ecosystem for land managers to make informed decisions about when and how to best intervene to best protect ecosystem services. These attributes can also be identified and translated into spatial data that can be monitored and evaluated overtime.

COUNTY'S ASSET AND ATTRIBUTE MODEL

IDENTIFYING DATA NEEDS

Identifying focal attributes comes as the result of an understanding of the ecosystem and key functions as well as an understanding of what data exists out there and how that data might be put to work to describe overall ecosystem service function. For this project, this knowledge came not only from significant research but also from interviews with key stakeholders representing local governments, Tribes and conservation non-profits.

LIST OF ATTRIBUTES AND SERVICES IDENTIFIED THROUGH INTERVIEWS

DATA COLLECTION & CLEANING

After identifying potential attributes to describe ecosystem service function, various different spatial databases were collected to evaluate their utility for informing a natural asset management program focused on forests, streams and shorelines. Critical to this assessment were requirements from the county that the overall system should be designed to be low cost, easy to use, accessible, replicable and adaptive. Additionally, data needed to reflect ecosystems and influences on ecosystems at the landscape scale.

Overall, data describing key attributes of ecosystem service function was collected from a variety of different sources including from the County's own GIS database. By-and-large though, the majority of this data came from external sources such as state and federal agencies. What is true of all of these data sources though is that they are regularly updated and maintained to provide reasonable accuracy that can be incorporated into decision making.

LIST OF DATA SOURCES EVALUATED

Once collected, the data, which included many national and statewide data sets, was scaled to match the political boundaries for Kitsap County. Additionally, extra or unusual data included within the attribute tables of different GIS shapefiles were removed.

LESSONS FROM CONSERVATION PLANNING: ECOSYSTEM SERVICE INDEX

There are many lessons from conservation planning that inform the manner in which a natural asset program can be established and data evaluated in order to prioritize interventions of the landscape to protect ecosystem service function. One such example is to use raster-based GIS data to create an index of landscape values to spatially describe where and how certain values are held in place.

This approach uses a digital image which is comprised of various different pixels coded with a value to express a specific landscape feature such as forests, grasslands or developed areas. With GIS software, these values can be reclassified to reflect the relative value of the feature in producing a specific landscape value. Once this process is completed with various different data layers, those layers can be summed together to create a composite or aggregate layer that translates each new pixel into a value which reflects a predetermined quality range.

IMAGE OF HOW SPATIAL RECLASSIFICATION WORKS

This analysis relied heavily on spatial data products created by the Multi Resolution Land Characteristics Consortium (MLRC) such as the National Land Cover Database (NLCD), Coastal Change Analysis Program (C-CAP) and LANDFIRE. These data resources are important not only because they are updated on a regular basis (every 5 years) but also because they are all projected at the same spatial resolution which makes manipulation and the ability to compare different layers against one another much easier.

TESTING ECOSYSTEM SERVICE INDEX: CHICO CREEK TEST

While this project has not progressed to a point where a definitive ecosystem service index for Kitsap County could be agreed upon, a test index was created to reflect certain possibilities using such a process to evaluate ecosystem service function in the Chico Creek Watershed.

For this test, the following attributes were used to see how they could be used to predict what areas of the landscape were best for producing a wide variety of ecosystem service values: Percent canopy cover, slope, existing vegetation height and percent canopy cover within a 200ft riparian buffer. The relative value of each attribute was determined through a combination of a literature review and reference to existing County environmental policies.

TEST ATTRIBUTES AND VALUES CHART

The study area for this test consisted of the Chico Creek Watershed. After gathering the data, a modeling process was followed in the ArcGIS environment to convert existing spatial data for forest canopy cover, slope, vegetation height and riparian forest into comparable data to create ecosystem service index. This process assumed that these factors were the most important for determining the presence of a wide variety of ecosystem services including: wildlife habitat, watershed protection and carbon sequestration.

MODELING PROCESS CHART

The results of this test produced a visual index on a 1-5 quality scale which approximates the ability of different parts of the landscape to produce ecosystem services. This map was then overlaid with various vector based data to make interpretations about the impact of certain activities on landscape function. These vector based data include: forest practices applications, building footprints, tax parcels, forestland ownership, roads and forest health impacts.

CHICO TEST PICTURES

SUPPLEMENTAL AND GROUND BASED DATA

There are many cases where available spatial data may not be enough. In these cases, information provided by spatial data can be supplemented by field-based surveys. The information collected from these field based surveys can then be translated and stored as spatial data.

CHART DATA RESTRICTIONS AND LIMITATIONS FOR DIFFERENT ASSETS

FITTING TO ASSET MANAGEMENT SOFTWARE

For the purposes of this project however, conducting a landscape GIS assessment alone is not enough. Rather, the collected GIS data needs to be integrated into the County's existing system for asset management.

Currently, Kitsap County uses the Cartegraph Operations Management System to conduct all of its asset management for existing capital facilities such as roads, sewers and catchment basins. Cartegraph's easy to use interface in which capital facility work cycles can be tracked and monitored so that the asset manager knows when to schedule repair and replacement. Cartegraph also provides the option for reviewers to provide a quality score for each facility upon inspection based on established guidance and standard operating procedures. In a similar fashion, by integrating nature assets into this management platform, the county can do a better job of tracking and maintaining the quality of ecosystem services.

Cartegraph uses vector-based GIS data (points, lines and polygons) to indicate the location of an asset and to store data about the quality of that asset. Importantly, Cartegraph does not allow for the manipulation of raster-based GIS data within its interface. That said, raster-based GIS data can be viewed as a base map underlying any vector based data. This limitation provides two options for the user. Either ecosystem service index can be created in an external GIS program, such as ArcGIS, and then uploaded into Cartegraph as a base map, or, the various layers that would be used to create an index can be uploaded as base maps separately and the indexing can occur within the Cartegraph system through its internal ranking system. Once these evaluation layers have been incorporated into Cartegraph, vector-based data can be added on to indicate priority areas or the locations for specific planned interventions, such as, the purchase of a conservation easement, invasive species control or a restoration planting.

In cases where spatial data is not enough to make an informed decision, Cartegraph allows for this data to be supplemented by field based data. In these cases, a natural asset inspector would use a similar process for evaluating other capital facilities to follow established guidance and standard operating

procedures to upload relevant ground-based data into the system that could be incorporated into a comprehensive ranking and evaluation process.

LOOKING TO YEAR TWO

The main focus of year two of the Kitsap Natural Resources Asset Management Program will be to come to decisions around defining a level or service for natural assets, what ecosystem services to prioritize and what attributes are relevant. At the same time the project team hopes to start sharing out about the project to generate interest and encourage similar efforts. As the first of its kind, the Program will be comprehensive and innovative step forward for natural resource management.

DRAFT



2019 Pisces Foundation – Water Program – Urban Water Strategy

Proposal Summary

Partner Organizations: Washington Environmental Council (grantee) with in-kind collaboration from Kitsap County Department of Community Development. *Collaborators:* Suquamish Tribe Fisheries Department and Port Gamble S’Klallam Tribe Natural Resources.

Name of project city, with city population: Kitsap County (population 251,133 in 2017)

Grant purpose: Evaluate ecosystem services to support a Natural Resources Asset Management Program for Kitsap County, Washington, that values water as a resource

Total project budget: \$500,000. *Total grant request:* \$125,000

Project summary

In the Puget Sound region, we are in danger of losing salmon runs that have fed and defined our region for generations, and tribal treaty rights are at risk. While some progress has been made, further damage is outpacing successes. Residential and commercial land development alters flow regimes and impairs ecosystem services, such as downstream flood protection and drinking water supplies. Local governments need a mechanism for considering the indispensable ecosystem services that natural resources provide, to prompt restoration efforts.

The purpose of this project is to develop frameworks to help Kitsap County implement a one-water strategy, with the ultimate goal that development does not impact ecosystems. Local governments currently use a “levels of service” framework to consider growth impacts of the built environment on road and water infrastructure, but natural resources are not included in this system. WEC will work with the public and key stakeholders to define and evaluate desired “levels of service” provided by streams, forests, and marine shorelines, and integrate these into existing planning and decision-making processes. WEC will continue to work closely with the County and Suquamish and Port Gamble S’Klallam Tribes to apply the best available science and public input to evaluate levels of service provided today and systems through which the County could institutionalize and restore preferred levels of service over time.

Brief summary of outcomes achieved: All outcomes from Year 1 were achieved – Stakeholder interviews (Year 1 Objective 1A), Framework Report (2A, 2F), Consultation Workshops (2E), Policy and Funding Options (3A).

Organizational Overview

Washington Environmental Council is a nonprofit, statewide advocacy organization that has been driving positive change to solve Washington’s most critical environmental challenges since 1967. Our mission is to protect, restore, and sustain Washington’s environment for all. WEC’s Puget Sound Program advocates for strategic clean water and healthy habitat solutions; we build grassroots support, connect communities in recovery efforts, and fight for better policy enforcement. The federally recognized Suquamish Tribe and Port Gamble S’Klallam Tribe maintain treaty rights to hunt and fish at all usual and accustomed places, including on and around the Kitsap Peninsula. The tribes operate multiple businesses, including seafood products, and they are committed to maintaining a healthy ecosystem. The Kitsap County Department of Community Development works to enable the development of quality, affordable, structurally safe and environmentally sound communities.

Main Proposal

Project Strategy or Theory of Change

WEC and our project partners are working to develop a shared vision for a Natural Resources Asset Management Program in Kitsap County. In our pilot year, we found that there is strong stakeholder interest in taking this approach to asset management, but the County has never quantified the ecosystem services provided by Kitsap's natural resources or used that information to set desired levels of service. We have identified key decision points for incorporating ecosystem services into County decision making moving forward, which will strongly depend on public involvement and buy-in. In Year 2, we will focus on determining desired levels of service for natural assets through a combination of scientific analysis and public input (see Appendix A: Logic Model). We will also continue to explore funding options as a key component of project success.

Tribal leadership is critical to shaping this program. In Year 2, WEC will work closely with the Suquamish Tribe and Port Gamble S'Klallam Tribe to further refine the framework by identifying the natural assets and ecosystem services that are important for tribal communities.

Kitsap County has been awarded a \$375,000 grant under the Puget Sound National Estuary Program (NEP). The County will operationalize natural resources asset management and monitoring through its Cartegraph Operation Management software, and will share details with other municipalities. The County's NEP grant complements Objectives 1, 2, and 3 in this proposal.

What need or gap is the project work addressing in the sector it is intended to influence?

Kitsap County lacks a system that incorporates ecosystem services into decisions now and in the future. The project will address the threats posed by increasing residential and urban land cover, including altered peak and low flows.

How will the project activities and outputs address that need within the project timeframe?

This year, we are focused heavily on stakeholder and public engagement, determining desired levels of service, and building tools to support the program's sustainability, replicability, and scalability. An effective Natural Resources Asset Management Program requires not only scientific justification, but also public input; both are critical to determining a desired level of service. Over time, the county will use this information to weigh the impacts of land use decisions and capital infrastructure planning to best protect the function of natural assets and their ability to regulate water, mitigate against climate impacts, reduce natural hazards, and provide cultural and recreational benefits that support community well-being.

Brief Summary of Progress and Accomplishments

We made good progress in our pilot year, completing all outcomes from the initial proposal. A key accomplishment was creating a space for collaboration among project partners around natural resource management. Our partners have affirmed that WEC's liaison role is critical to the collaboration's success. Through consultation workshops, we developed a framework to set up and operationalize a Natural Resources Asset Management Program for Kitsap County. This enabled us to hone in on specific decisions and technical information needed to develop and refine the Program in Year 2, and to maintain strong communications with the public. The funding options we identified were particularly well received by the project partners, who remain committed to keep the project on track through 2021.

Project Goals/Objectives, Activities/Outputs, and Outcomes/Targets:

Objective 1: Maintain a broad and shared understanding of the values of the Natural Resources Asset Management Program

Activity 1A: Research and vet options for public and stakeholder engagement to determine their expectations for natural asset functioning. Develop examples of other stakeholder and publically informed ecosystem service efforts to help identify best practices for engaging external groups and capturing information in a way that is equitable and representative of all residents.

- Outcome/Target= Options for engaging the public and stakeholders for a decision from the project team (Kitsap County, Suquamish Tribe, Port Gamble S’Klallam Tribe, WEC).

Activity 1B: Design and implement a process for gathering information on public and stakeholder values and expectations regarding natural asset functioning.

- Outcome/Target= The overall engagement processes and necessary input needed for defining ‘levels of service’ for streams, forests, and shorelines in Activity 2B.

Activity 1C: Engage the public and stakeholders on the value of the Kitsap County Natural Resources Asset Management Program and establish a communications strategy to share information with internal and external audiences about the Program. This activity will facilitate a more streamlined way to exchange knowledge and prompt replicability for Objectives 2 and 3.

- Outcome/Target= A cohesive and consistent messaging strategy for talking about the benefit and viability of an ecosystem service approach and Natural Resources Asset Management Program
- Outcome/Target= A standardized vocabulary and language for talking about the Program with internal and external audiences

Activity 1D: Apply the strategy and standardized vocabulary from Activity 1C to various communication tools developed in close collaboration with partners and complementary to the Kitsap County grant products described in Activity 2B.

- Outcome/Target= Multiple one-pagers, infographics, presentations, or other communication tools have been developed

Objective 2: Develop a tiered structure for evaluating natural asset functioning in Kitsap County within existing County policy frameworks

Activity 2A: Work with the Suquamish Tribe, Port Gamble S’Klallam Tribe, and other tribes as appropriate to identify geographies of particular value for ecosystem services and desired level of service.

- Outcome/Target= Memo summarizing tribal information resources and guidance for ecosystem services

Activity 2B: Develop and apply the technical basis for evaluating ecosystem services in a tiered ranking structure. Tiers will reflect the current conditions of natural resource asset functioning and provide a target level of service for desired future conditions. Rely on available spatial data and field based surveys for future monitoring and evaluation. Refine metrics for identifying the level of service provided by each natural resource type. Work closely with Kitsap County, which will implement level of service metrics for natural assets under the separately funded NEP grant, and ensure consistency with existing County capital facilities planning and management.

- Outcome/Target= Create an annotated bibliography of published studies for streams, forests, and shorelines as natural assets.
- Outcome/Target= Develop Standard Operating Procedures (a tool the County already uses for gray infrastructure) for natural resources to define current and desired levels of service.

Activity 2C: Continue to consult with the local governments and tribes throughout the process. Workshops supplement written feedback on interim materials and provide critical opportunities to resolve differences in approaches and needs among the tribes and County.

- Outcome/Target= Feedback and quarterly consultation workshops with local governments and tribes to vet and adapt draft information

Activity 2D: Work with Kitsap County to update the elected County Commissioners as appropriate.

- Outcome/Target= County Commissioners have been educated on approach.

Objective 3: Position Kitsap County as a regional example of how to move beyond a “no net loss” land management philosophy

Activity 3A: Share project status with stakeholders from the initial scoping interviews in Year 1, and consult on replicability. Find opportunities to present early work from Kitsap Program to other cities and counties in the region to gauge interest and inform what it will take to scale up the Program.

- Outcome/Target= Hold Conference presentations or other outreach with at least 5 additional county and city governments

Activity 3B: Continue to develop funding tools to maximize usability by Kitsap County and other Puget Sound governments.

- Outcome/Target= Create a tool for determining practical solutions for funding natural asset management and protection

Activity 3C: Consolidate a suite of tools/materials to assist Kitsap County and other Puget Sound local governments to replicate and institutionalize a Natural Resources Asset Management Program and make available in an easily accessible and adaptable online web portal. Complement a work product the County will complete under its NEP grant, which will provide the details of natural asset management.

- Outcome/Target= A landing page for multiple resources and key documents for implementing a Natural Resources Asset Management Program, including but not limited to a summary of local policy needs, annotated bibliography, datasets, and funding solutions.

Project Analysis

What factors will contribute to success? What are the main challenges and risks to success with this project? What is your strategy to overcome these risks and challenges?

The primary challenge overall remains that no organization in the nation has operationalized ecosystem services of natural assets using a level of service framework. We have overcome the “known unknowns” by building a shared vision of success for the Program through continued dialogue between project partners. In Year 2, we anticipate negotiating compromises around how ecosystem services are prioritized and how level of service is defined. We will continue conversations among project partners, including workshops, and engage the public firsthand to overcome this challenge.

Organizational Capacity

Mission and primary activities of Washington Environmental Council

Washington Environmental Council’s mission is to protect, restore, and sustain Washington’s environment for all. WEC’s efforts focus on four primary areas: Acting for Climate and Clean Energy; Preventing New Fossil Fuel Infrastructure; Protecting and Restoring Puget Sound; and Sustaining Our Evergreen Forests. Since WEC’s inception, coalition building and collaboration have been at the core of our work. WEC’s 2016-2020 strategic plan centers racial equity and environmental justice in how we do our work.

Key staff, external partners, and collaborators

Mindy Roberts (Puget Sound Director) will serve as the overall project manager and oversees coordination with Kitsap County and both tribes. She will also provide expertise in stream ecology, marine shorelines, and water policy. Lisa Remlinger (Evergreen Forest Program Director) will oversee the forest elements, providing expertise in

Washington Environmental Council

2019 Proposal to the Pisces Foundation

February 1, 2022

forest health, policy, and funding. Max Webster (Forest Policy Manager) and Melia Paguirigan (Natural Resources Policy Manager) will lead the technical research on frameworks, tiering structures, and valuing ecosystem services. Elizabeth McManus and Dana Stefan from Ross Strategic Consulting will provide facilitation expertise for workshops and guidance throughout the public process.

Dave Ward serves as the Planning and Environmental Programs Manager for the Kitsap County Department of Community Development and provides expertise on county code and Puget Sound recovery. Tom Ostrom is the Suquamish Tribe’s Salmon Recovery Manager and provides expertise in salmon recovery and stream ecology. Paul McCollum is the Port Gamble S’Klallam Tribe Natural Resources Director and provides expertise in salmon recovery and stream ecology.

Please list all other funders (anticipated or committed) for this project, including what level of funding you anticipate from them. Optionally, you may also share organizational funders and their levels of support.

The project budget of \$500,000 includes \$375,000 to support Kitsap County’s work (funded by NEP) and \$125,000 to support WEC’s work. The budget primarily covers four WEC staff members’ time, as well as contractor costs to support the research and facilitation needs associated with this project; direct project expenses for travel, professionally facilitated feedback and consultation workshops; and indirect expenses.

Funders that support WEC’s organizational operations and our Puget Sound and Forestry program work include:

| 2019 Operating Support, Puget Sound, and Forestry Funders | | | |
|---|-----------|------------------|---------------|
| Funder | Amount | Stage | Restriction |
| Brainerd Foundation | \$50,000 | Awarded | Operating |
| Bullitt Foundation | \$120,000 | Proposal Pending | Multi-Program |
| Burning Foundation | \$15,000 | Pledged | Puget Sound |
| Harder Foundation | \$35,000 | To be submitted | Operating |
| Horizons Foundation | \$30,000 | To be submitted | Operating |
| Norcliffe Foundation | \$20,000 | Awarded | Puget Sound |
| RealNetworks Foundation | \$10,000 | Pending | Puget Sound |
| Russell Family Foundation | \$85,000 | Pending | Puget Sound |
| The Rose Foundation | \$25,000 | Pending | Puget Sound |
| Satterberg Foundation | \$100,000 | Pending | Operating |
| Tortuga Foundation | \$20,000 | To Be Submitted | Puget Sound |
| Weyerhaeuser Family Foundation | \$30,000 | Pending | Forestry |
| Wiancko Charitable Foundation | \$15,000 | Awarded | Puget Sound |

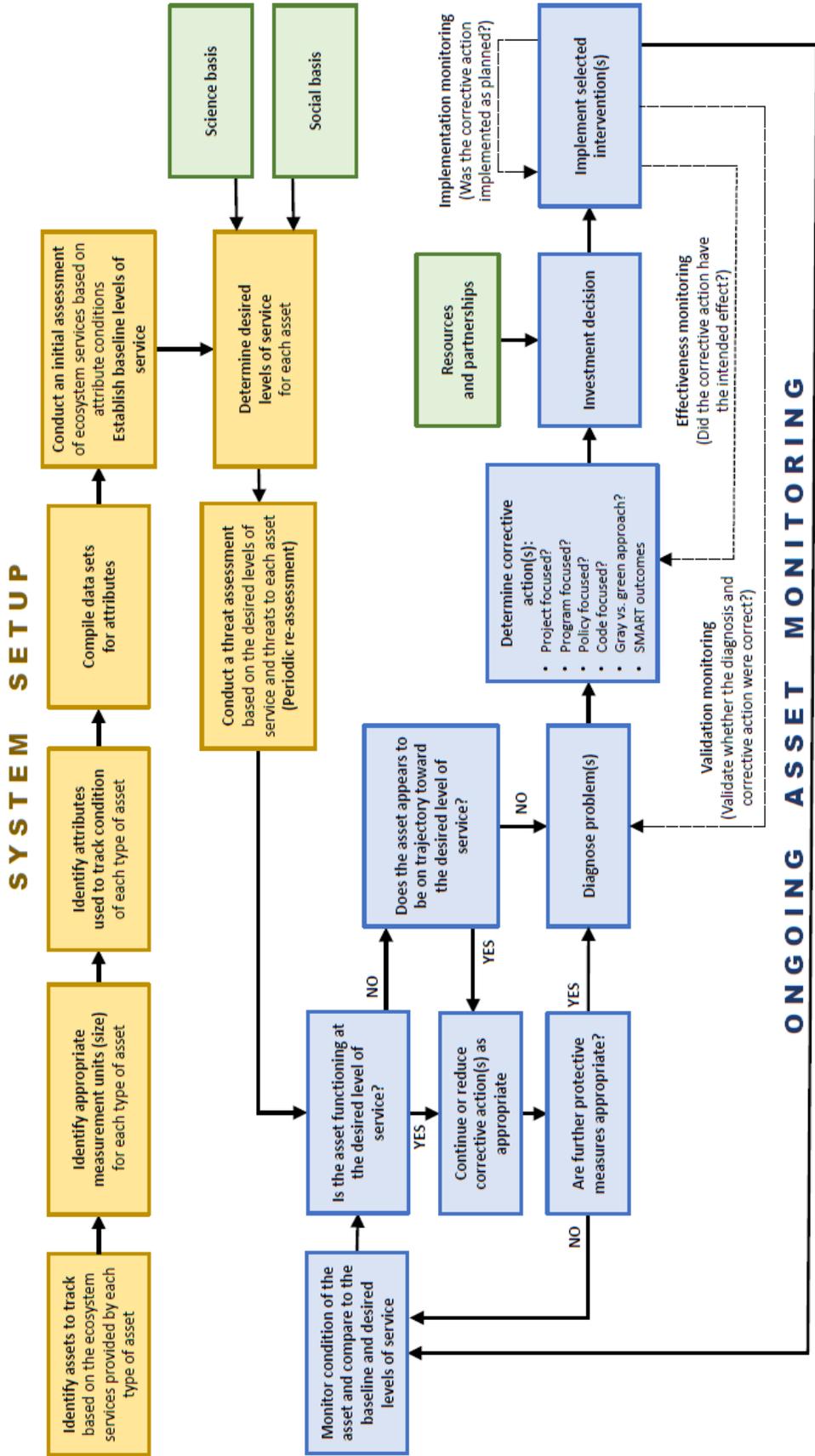
If your lead grantee organization has a fiscal sponsor, please clearly indicate the name of the fiscal sponsor, the name of the sponsored project, and the date the partnership began.

WEC is a 501(c)(3) organization and does not require a fiscal sponsor.

References

- Dave Ward (dward@co.kitsap.wa.us, 360-620-3695) – Kitsap County, Department of Community Development, Planning and Environmental Programs Manager
- Tom Ostrom (tostrom@suquamish.nsn.us, 360-384-8446) – Suquamish Tribe, Fisheries Department, Salmon Recovery Manager
- Paul McCollum (paulm@pgst.nsn.us, 360 731-7435) – Port Gamble S’Klallam Tribe, Natural Resources Director
- Steven Whitney (swhitney@bullitt.org, 206-343-0845) – Bullitt Foundation, Senior Program Officer

Kitsap County Natural Resources Asset Management Logic Model



4/18/2019