

Project Information Sheet

Applicant: Mason Conservation District

Strategic Initiative: Habitat protection and restoration

Priority NTA: *Expand the Shore Friendly (Mason) Program across South Sound Conservation Districts*

Ecosystem threat summary

“More than 700 miles of Puget Sound’s 2,500 miles of shorelines have been hardened by the construction of concrete or rock bulkheads, and that mileage is increasing by 1 to 2 miles each year (2014/2015 Action Agenda).” Ongoing installation of hard armor, vegetation removal, and residential development along the marine shoreline are primary ecosystem stressors related to population growth around Puget Sound. While most residential parcels have short lengths of shoreline, the cumulative impact of degradation is significant. These ecosystem threats impact both natural shoreline habitat *and* critical coastal processes. A growing number of species are threatened, endangered, and in decline as a result of nearshore alterations that degrade forage fish spawning areas and cause declines in shoreline food and cover. Typical coastal erosion processes such as sediment deposition are disrupted due to hard armor installation. Without a concerted, strategic effort to work with private residential shoreline landowners, this cycle of alterations, impacts, and degradation will further degrade marine shorelines and critical habitat. This proposal addresses the following sub-strategies and cross-cutting strategies:

Sub-strategies: B1.3, B2.1-3, B3.1, B5.3, C2.2-3 and **Cross-cutting strategies:** A2, D5.2, D5.3, D6.1-2, D7.4

Project Description

Shore Friendly Mason is a new program at Mason Conservation District that will be fully established by late summer 2016 (funded by the last NEP Puget Sound Marine and Nearshore Grant Program). The over-arching, long-term goal of the Shore Friendly initiative is to broaden local homeowner access to unbiased, non-regulatory, professional technical assistance for marine shorelines in order to reverse the trend of shoreline armoring and degradation. This program focuses on the PSP Recovery Target: *From 2011 to 2020 the total amount of armoring removed should be greater than the total amount of new armoring in Puget Sound.* The Shore Friendly program integrates social marketing research from WDFW with local priorities to (1) address shoreline stewardship and (2) develop armor removal projects. Targeted efforts focus on priority areas/sites identified through WDFW shoreline parcel segmentation research, PSNERP prioritization, the Nearshore Project Selection Tool and other refined GIS assessment resources being developed by the Squaxin Island Tribe. The program provides these targeted shoreline homeowners with direct technical support, resources and information as it facilitates behavior-changes *away* from shoreline armoring and habitat degradation. The program offers site-specific erosion evaluations that often end up preventing new hard armor installation and instead result in shoreline planting projects, drainage improvements, or exploration of soft shoreline protection alternatives. Local response has been extremely enthusiastic. Within the first year, Mason CD assessed over a mile of shoreline at 30 private residential properties, averted new hard armor installation along 2,735 LF of currently natural shoreline (by evaluating site conditions and discussing alternative management options) and identified willing partners for armor removal on 2 residential parcels. We successfully secured partial funds for project construction after designs are complete this winter. This NTA proposal expands the Shore Friendly Mason program and tools into other South Sound Conservation Districts, extending our regional impact. It is the first step towards a vision of Shore Friendly programs in all 12 partnering Puget Sound Conservation Districts. Each program would be tailored to the needs and gaps of their region, to best complement existing nearshore initiatives.

Part 1. Program Expansion: The Shore Friendly program is proving to be a strategic and effective tool to address the threats and pressures facing the nearshore environment on residential properties.

Expanding this program across the South Sound area will build positive momentum in support of Sound-wide behavior change. Expansion efforts will be locally-adapted to complement existing initiatives and will focus on integrating with and filling gaps in site-specific technical support and outreach to support project identification and development. Thurston and Pierce Conservation Districts are ready to begin their own initiatives, building on local partnerships and the tools, experience, and momentum established in Mason County. Working to reverse the impacts of armoring will take time, skilled collaboration, and examples of alternative erosion management techniques – as well as increased tolerance for natural erosion. The Shore Friendly program effectively addresses these needs.

Part 2. Project Development & Design: Conservation Districts will collaborate with shoreline contacts to identify armor removal projects in each focus area. Final projects will be selected using the tools outlined above, in addition to landowner willingness. Six new projects will be 100% designed and ready for construction. Project implementation will be included in a successive proposal with local partners.

Armor Removal: Mason Conservation District will implement 2 armor removal/soft shore protection projects. These designs are currently underway; partial implementation funding has been secured and we seek additional funds to complete the projects.

Part 3. Shoreline Preservation: The final piece of this proposal will develop innovative options for shoreline preservation to permanently protect coastal processes and habitats in priority reaches. Mason Conservation District will partner with Capitol Land Trust to lead this effort and explore tools to achieve nearshore protection – including already-developed shorelines that still have functional coastal processes, such as bluff-backed beaches. With our growing list of shoreline contacts interested in stewardship, the Conservation Districts can connect the Land Trust with homeowners for input and perhaps even potential projects to conserve critical habitat.

Major Tasks

I. Shore Friendly Program Expansion

- **Expand the Shore Friendly program** to Thurston and Pierce Conservation Districts. We will share a fully-developed marine shoreline technical assistance and social marketing program that can be adapted locally, including print and web resources; site assessment tools; training and capacity development; and design and engineering services. We will familiarize local County Planning Departments with the program to connect local landowners to program resources when they are in the pre-permit phase. We will continue to broaden our partnership with WA SeaGrant's *Green Shores for Homes* initiative, building local familiarity and participation in South Sound.
- **Implement social marketing initiatives** in each Conservation District that further shoreline management behavior change goals. These initiatives will establish new shoreline contacts, make technical assistance and resources available for stewardship, and will identify new projects for armor removal and/or redirect people towards soft shore protection alternatives where feasible. Shore Friendly site assessments take a holistic approach to shoreline management guidance - we consider site development, vegetation, shoreline and beach management, habitat enhancement, and storm water as interlocking aspects of an integrated shoreline system that together inform erosion evaluations, site assessments, and long-term management recommendations.

AHSS Sub-strategies: *B1.3 -Improve, strengthen and streamline implementation and enforcement of laws, regulations, and permits that protect the marine and nearshore.., B3.1. Protect intact marine ecosystems particularly in sensitive areas and for sensitive species; B5.3- Prevent and rapidly respond to the introduction and spread of terrestrial and aquatic invasive species; C2.2. Prevent problems from new development at the site and subdivision scale; C2.3. Fix problems caused by existing development.*

Cross-Cutting Sub-strategies: *The Shore Friendly Mason Program integrates each of the following cross-cutting strategies: A2 – Protect and restore upland, freshwater, and riparian ecosystems; D5.2 – Behavior Change- collaboratively develop and promote science-based targeted communication and behavior change strategies across the region; D5.3 – Enable and encourage residents to take informed stewardship actions addressing infiltration, pollution reduction, habitat improvement, forest cover, soil development, critical areas, and reductions in shoreline armoring. D7.4 – Provide public information conduits connecting individuals to local activities, resources... Shore Friendly tools include web resources under development at the local and regional levels that connect shoreline homeowners to technical assistance via the 12 Puget Sound Conservation Districts. This also connects landowners to local resources such as information, direct technical assistance, and cost-share or mini-grant programs that enable behavior change via action. Although our project branding uses “Shore Friendly,” we can integrate “Puget Sound Starts Here” branding to embrace the complimentary nature of these highly-visible public awareness efforts. D6.1 and D6.2 Sub-strategies are therefore relevant.*

II. Shoreline Armor Removal / Soft Shoreline Protection - Project Development & Execution

- **Build 2 designed projects and design at least 6 new projects.** Our goal is to design 2 new projects in each of Mason, Thurston, and Pierce Counties. The selected sites will aim to be consistent with PSNERP prioritization goals, the Nearshore Project Selection Tool, local Salmon Recovery Plan goals, etc. - as well as feasibility from an engineering/design and public education perspective. In Pierce County we have 3 willing landowners identified in Vaughn Bay and Mayo Cove. In Mason County we have 3 willing landowners located in Case and Hammersley Inlets. We anticipate similar success in Thurston County after launching their Shore Friendly program. In addition, **two shoreline armor removal/soft shore alternative projects** (currently in design phase) will be constructed by June 2018. Constructed projects will include landowner commitments, maintenance plans, and ongoing support.

AHSS Sub-strategies: *B2.2 – Implement prioritized nearshore and estuary restoration projects..., B2.3 – Remove armoring, and use soft armoring replacement or landward setback ..., B3.1. Protect intact marine ecosystems particularly in sensitive areas and for sensitive species. This task also addresses nearshore and riparian limiting factors identified in the **Salmonid Habitat Limiting Factors Water Resource Inventory Area 14, Kennedy-Goldsborough Basin** report, pp. 48-49, including habitat degradation, altered nutrient cycling and reduced organic matter from vegetation clearing, reduced natural erosion and deposition processes, and reduced LWD recruitment.*

III. Critical Marine Shoreline Habitat and Process Preservation - Strategy Development

- Collaborate with local partners to develop a strategy and tools for the permanent protection of priority marine nearshore reaches that support habitat and processes. This will include priority feeder bluff reaches as well as important habitat areas like known forage fish spawning beaches. This effort will consider the complexities and opportunities for nearshore conservation on already-developed (or developing) parcels, in addition to intact, undisturbed sites, because in many areas the most valuable remaining shorelines are already developed to some extent, but processes such as sediment deposition continue. However, such processes are continually threatened by interventions such as shoreline armor installation when properties change hands. Identifying and developing new or innovative tools to help permanently protect critical shorelines supporting coastal processes and habitat must become part of the overall strategy for conservation around Puget Sound. This effort can move the South Sound towards the Recovery Target: *protection of 10% of bluff-backed beaches.*

- Capitol Land Trust will partner with Mason Conservation District in leading this process, drawing on additional partners to achieve the following: (1) identification of priority shoreline reaches to preserve in support of critical coastal processes and habitats (on developed and undeveloped sites); (2) exploration of criteria and innovative tools to enable permanent conservation (given the aforementioned challenges of developed shorelines in critical reaches); (3) development of a conservation easement template specific to priority marine nearshore sites; and (4) a summary of the strategy development process. Mason, Thurston and Pierce Conservation Districts will help to identify critical shoreline conservation areas and to facilitate conversations with shoreline landowners.

AHSS Sub-strategies: *B2.1-Permanently protect priority nearshore physical and ecological processes and habitat, including shorelines..., B2.2-Implement prioritized nearshore and estuary restoration projects..., B3.1. Protect intact marine ecosystems particularly in sensitive areas and for sensitive species.*

Budget

Task 1 Program Expansion	\$ 251,700
Task 2 Project DD and Construction	\$ 176,356
Task 3 Preservation Strategy	\$ 52,223
Total Project Cost	\$ 480,279

Project Schedule

- **Year 1:** Expand program to Thurston and Pierce CDs; training to develop technical assistance capacity; provide engineering support; identify priority areas and use social marketing tools to establish shoreline contacts and projects; begin shoreline preservation strategy development; complete construction of 2 designed armor removal/soft alternative projects.
- **Year 2:** Continue to develop and locally adapt Shore Friendly program; expand effort as appropriate; implement stewardship projects with landowners (planting projects, drainage improvements, invasive weed removal, beach habitat enhancement, etc.); design 6 armor removal/soft shore protection projects for later construction; conclude shoreline preservation strategy process.
- **(Future Phase II: (June 2018-June 2020) - prepare a second proposal to further broaden the impact of the Shore Friendly Initiative by (1) implementing 6 armor removal projects designed in Phase 1; (2) identifying and designing additional projects, and (3) continuing program expansion into Island, Jefferson, King, San Juan, and Snohomish Conservation Districts.)**

Project Partnerships and Roles

Mason Conservation District: coordinate expansion, share resources, provide training, technical, and engineering support.

Thurston Conservation District: integrate a new Shore Friendly program into local CD services; begin project identification and development with support from Mason CD.

Pierce Conservation District: integrate a new Shore Friendly program into local CD services; begin project identification and development with support from Mason CD.

Capitol Land Trust: develop critical shoreline preservation strategy and tools with partners.