Port Susan Marine Stewardship Area Conservation Action Plan

Progress Tracker

*Last updated 8/17/2022*

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| Progress Legend | | | |
| Needs refinement/consider relevance | No progress made; needs attention | Some progress made; not meeting targeted goals | Progress is on-track or complete |
| *Before tagging progress color, review “Opportunities to Support Progress” for actions to solicit updates on progress to-date.* | | | |

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| Conservation Target 1: River Delta | | | | | |
| *Objective* | *Strategic Action* | *2012 Opportunity Rank* | *Opportunities to Support Progress* | *Actions Completed To-Date* | *Action Metrics (if applicable)* |
| **Objective 1:** Increase delta complexity of approximately 100(+/-) acres between South Pass and Hat Slough and improve flood conveyance by creating a restoration project that increase freshwater inputs to the mudflats by 2020. | **Strategic Action 1:** Develop agreements and incentives for landowners to redistribute flood water into new distributary channels on their land by 2015. | High | Seek updates from Snohomish County’ Sustainable Lands Strategy. In 2012, there were plans for the Stillaguamish Watershed Council partners to solicit interest from local delta landowners (particularly those who have known stormwater flooding issues)  Upcoming project to track: Channel Migration Easements (Snohomish County). As of 2022, this is still a pilot program in the Lower Skykomish | Ag Resilience Plan, Snohomish Conservation District |  |
| **Strategic Action 2:** Design and build appropriate (historic) distributary channels to convey flood water to 200 (+/-) acres of mudflat by 2020. | High | Seek updates from Snohomish County’ Sustainable Lands Strategy  Upcoming projects to track:Zis a ba II (2024 or 2025), Stillaguamish Tribe; Port Susan Bay Estuary Restoration, The Nature Conservancy | Port Susan Bay Estuary Restoration Project, Port Susan Bay Preserve (2012, The Nature Conservancy) | 150 acres of estuary restored |
| Livingston Bay Pocket Estuary Restoration (2012, The Nature Conservancy) | 10 acres restored |
| Greenwood Creek Enhancement Project (2014, Tulalip Tribes, Snohomish County SWM, Snohomish MRC) | 1 barrier culvert replaced |
| Zis a ba Estuary Restoration (2017, Stillaguamish Tribe) | 87 acres of estuary restored |
| Kristopherson Creek Fish Passage Barrier Removal Project (2018, Snohomish Conservation District) | 1.6 miles of stream made accessible |
| Leque Island Restoration Project (2019 WA Department of Fish and Wildlife) | 250 acres of estuary restored |
| Martha Creek Pocket Estuary Restoration (2021, Tulalip Tribes) | .2 acres of estuary restored  .1 miles of stream restored |
| **Strategic Action 3:** Work with the Snohomish Conservation District and WSU Snohomish County Extension Agriculture Educators to improve BMPs in new and existing channel drainage areas to meet all DOE water quality regulations by 2020. | High | Seek updates from the Snohomish Conservation District  Upcoming project to track: Pollution Identification and Correction (PIC) Phase 3, Snohomish Conservation District  Consider adding new partners and refining this action. There is a new funding landscape and stakeholder engagement efforts |  | *Percent of property owners in new and existing channel drainage areas that received education and outreach and have implemented BMPs* |
| **Objective 2:** Reduce the delivery of flood water to the whole delta area to accommodate more productive agriculture that allows farmers to return a portion of their land to natural functioning conditions (either buffer or marsh). Goals for marsh and buffers are consistent with salmon recovery plan of restoring a minimum of 315 acres of estuarine area by 2016. | **Strategic Action 1:** City of Stanwood and Snohomish County solidify wetland protection, connection, and restoration components as part of stormwater retrofits in Comprehensive Plans by 2015, to create increased water storage in agricultural fields and decrease runoff. | High | Seek updates on discussions with the City of Stanwood. Connect with Kevin Hushagen, Public Works Director, City of Stanwood  Project to track: Irvine Slough Retrofit, City of Stanwood | Irvine Slough Retrofit (2022, City of Stanwood) |  |
| **Strategic Action 2:** Retrofit Stanwood developments with low impact development (LID) techniques by 2020. | Medium | Seek updates on discussions with the City of Stanwood. Connect with Kevin Hushagen, Public Works Director, City of Stanwood  Project to track: Irvine Slough Retrofit, City of Stanwood | Irvine Slough Retrofit (2022, City of Stanwood) |  |
| **Objective 3:** Work with farmers, researchers and marketers to develop profitable and environmentally sustainable opportunities to farm under the changing conditions in the Stillaguamish Delta. | **Strategic Action 1:** Farm Link connects Snohomish Farm Incubator (farm hands-on training center, including classes on regulations and ecosystem processes) graduates with Stillaguamish properties to encourage incoming farms to promote stewardship and environmentally friendly productivity techniques. | Medium | Seek updates on funding for Farm Incubator program  Connect with Lisa Neunzig and Snohomish Conservation District about the Incubator Resource Center |  |  |
| **Strategic Action 2:** WSU Snohomish County Extension Agriculture and Snohomish Conservation District conduct outreach to teach environmental stewardship and productivity techniques for farmers to respond to growing demand for local food produced with good environmental stewardship techniques (and increase profitability by 10-20% overall). | Medium | Port Susan Food and Farming Center no longer in existence  Seek updates from the Snohomish Conservation District  Seek updates from Sustainable Lands Strategy and Community Floodplain Solutions  Consider refining strategy and adding more partners – there is a new funding landscape and stakeholder engagement efforts | Snohomish County Agriculture Resilience Plan (2019, Snohomish Conservation District) | *Number of acres of farmland that are using environmentally sustainable techniques* |
| **Strategic Action 3:** Promote local sustainable seafood harvesting options for salmon, clams and crustaceans. | Low | Investigate other existing communication materials for sustainable seafood harvesting for salmon and crustaceans  To track: Stillaguamish Tribe’s plans for Triangle Cove. As of 2022, no apparent plans for commercial shellfish aquaculture  Consider adding additional context for connections to Water Quality | Shellfish Foraging Guide to Port Susan and South Skagit Bay (2014, Pacific Shellfish Institute) | N/A |
| Port Susan Shellfish Dinner (2012, 2014, 2015, 2016, 2018, Snohomish County SWM) | N/A |
| **Objective 4:** In areas that have degraded flood protection infrastructure, construct set back dikes that ensure that fields behind the setbacks will be better protected and return a portion of the original property to tidal marsh in partnership with the Sustainable Lands Strategy (SLS), Stillaguamish River Flood Control District, and the Stillaguamish Technical Advisory Group (STAG). | **Strategic Action 1:** Evaluate areas with high salinity due to frequent tidally influenced river flooding. | None | Seek updates from the Sustainable Lands Strategy | Ag Resilience Plan, Snohomish Conservation District  Groundwater study including salinity, Snohomish Conservation District |  |
| **Strategic Action 2:** Construct set back dikes that protect property. | None | Seek updates from the Sustainable Lands Strategy  Consider follow up with the Stillaguamish Tribe, The Nature Conservancy, and the Tulalip Tribes | Port Susan Bay Estuary Restoration Project, Port Susan Bay Preserve (2012, The Nature Conservancy Snohomish Co)  Martha Creek Pocket Estuary Project | 2012: 150 acres of estuary restored (how many dikes were constructed?) |
| **Strategic Action 3:** Restore areas on the waterward side of the dike. | None | Seek updates from the Sustainable Lands Strategy.  Consider follow up with the Stillaguamish Tribe, The Nature Conservancy, and the Tulalip Tribes | Port Susan Bay Estuary Restoration Project, Port Susan Bay Preserve (2012, The Nature Conservancy Snohomish Co)  Martha Creek Pocket Estuary Project | 2012: 150 acres of estuary restored |
| *Objective Summary* | | | | | |
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| Conservation Target 2: Chinook Salmon | | | | | |
| *Objective* | *Strategic Action* | *2012 Opportunity Rank* | *Opportunities to Support Progress* | *Actions Completed To-Date* | *Action Metrics (if applicable)* |
| **Objective 1:** Remove all project area waters from the Clean Water Act 303(d) list for nutrients and prevent agrochemicals from entering project area waters by 2017. | **Strategic Action 1:** Snohomish Conservation District promotes a comprehensive approach to land management for farm owners to include agriculture, habitats and water quality BMPs that incorporates education, grant funds, and other resources or partners to implement BMPs by 2015. | Very high | Seek updates from Snohomish Clean Water District Advisory Board and Snohomish Conservation District | Discretionary Fund for projects that reduce fecal coliforms, Snohomish County  Small project landowner incentives, Snohomish County  Ag Resilience Plan, Snohomish Conservation District | *Number of farmers reached with comprehensive land management message. Number of farmers that implemented BMPs from comprehensive land management effort.* |
| **Strategic Action 2:** Prevent introduction of priority commercial/residential landscaping chemicals into surface waters by 2015. | High | Seek updates from Snohomish Conservation District and Snohomish County/Camano Island ECO Net  Consider seeking updates from Department of Agriculture and Department of Ecology |  | *Number of commercial and residential landowners applying landscaping chemicals. Level of top 3-5 chemicals in Mussel Watch samples.* |
| **Strategic Action 3:** Increase landowner awareness of environmental stewardship as it relates to water quality through education and outreach partnership efforts. | High | Coordinate with Sustainable Land Strategy and future activities for Community Floodplain Solutions | Snohomish County Financing Options for Health Onsite Seward Systems (OSS) 2016 – 2017  Lower Stillaguamish Pollution Identification and Correction Program 2017 (PIC 1, PIC 2, PIC 3)  Shellfish Dinners, Snohomish County  Discretionary Fund projects including pet waste and outreach, Snohomish County  Port Susan Owner’s Manual, WSU Snohomish County Extension | *Level of awareness of landowners about environmental stewardship as it relates to water quality.* |
| **Objective 2:** Encourage and/or maintain 90% of future growth in the lower Stillaguamish watershed within the Urban Growth Areas (UGAs) by 2020. | **Strategic Action 1:** Address vesting laws on lands critical for salmon through sun-setting or other mechanism by 2015. | Low-Medium | It is unlikely vesting laws will be revised |  |  |
| **Strategic Action 2:** Re-visit grandfathered non-conforming lots on Ag-10 zoned lands. | None |  |  |  |
| **Strategic Action 3:** Local governments develop incentive programs to encourage the maintenance of ecosystem goods and services (ex: flood storage, forest cover and clean water) by 2016. | High | Coordinate with Snohomish County Planning and Development Services  Incentive program work is now more on the state level  Encourage Snohomish County to use the Conservation Priority Index model to determine which parcels have highest value for the identified ecosystem services. Invite landowners to participate in the CPI incentive program | Discretionary Fund, Snohomish County  SWM Small Projects Funds, Snohomish County  Grants, Snohomish Conservation District | *Number of acres of forest in protected status through incentive program in Port Susan MSA.* |
| **Strategic Action 4:** Outside of the UGA, limit future growth by making access to water utilities stricter by closing sensitive basins (where water rights are already over appropriated) to future exempt wells. | None | Consider seeking update from Department of Ecology regarding identification of sensitive basins.  Water code to require connection to water systems when available. Q1 2023 potential adoption |  |  |
| *Objective Summary* | | | | | |
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| Conservation Target 3: Beaches/Forage Fish | | | | | |
| *Objective* | *Strategic Action* | *2012 Opportunity Rank* | *Opportunities to Support Progress* | *Actions Completed To-Date* | *Action Metrics (if applicable)* |
| **Objective 1:** Protect 100% of remaining natural shoreline. Where instances of armoring are legally permissible under the single-family exemption in State law, encourage soft shore armoring. | **Strategic Action 1:** Strengthen Island County’s SMP to reduce hard armoring and increase Snohomish County’s and Island County’s enforcement by 2020 to ensure objective one is met. | Very high | Minimal opportunity for bulkhead removal identified, and minimal remaining natural shoreline exists | Shoreline parcels analysis for bulkhead removal and protection, Snohomish MRC | *Number of permits approved that allow hard armoring.* |
| **Strategic Action 2:** Encourage Snohomish and Island Counties to adopt new or existing soft-shore armoring design standards. | High |  | Snohomish County adopted requirements to use soft-shore armoring over hard-shore armoring, 2012 | *Design standards adopted in Snohomish and Island Counties.*  Design standards adopted. |
| **Strategic Action 3:** Implementation of education programs targeted at contractors, engineers, realtors and landowners to encourage soft shore armoring and bioengineering and raise awareness about the impacts of shoreline hardening by 2015 and prevent future armoring. | Very high |  | Shore Friendly workshops  Soft-shore armoring booklet sent to landowners  SHARP, NW Straits Commission, Workshops with Island and Snohomish County, some targeted to realtors | *Number of attendees at educational programs/workshops.* |
| **Strategic Action 4:** Change Island County permitting requirements to increase permitting standards for new or enhanced hard armoring and evaluate Snohomish County permitting requirements to determine if standards for new or enhanced hard armoring are adequate. | High | LIOs getting ready to release guidance for bulkheads. 1-page recommendation report expected in mid- 2022. | Shoreline Management Act | *Permitting requirements changed.* |
| **Strategic Action 5:** Change permit requirements to shift burden of proof from permitter to landowner to require a review process that includes onsite meetings by interested parties similar to forest resources process. | Low | Strategic Action on hold due to low opportunity rank. The following action steps will be revised based on future discussions.  Action Steps:  1. Provide educational workshops for permitting authorities to verify knowledge of armoring impacts, and increase scrutiny when issuing permits for new or enhanced hard armoring. | MRC hosted workshops for Planning an Development Service Department, 2013-2014, Snohomish and Island Counties |  |
| **Strategic Action 6:** Protect unarmored shoreline parcels in Port Susan through acquisition. | Medium | Work with Tribes and others such as The Nature Conservancy and Whidbey Camano Land Trust to identify unarmored shoreline for acquisitions. | Puget Sound Kelp Conservation and Recovery Plan, Department of Natural Resources  Tringle Cove acquisition, Stillaguamish Tribe | *Linear feet of unarmored shoreline acquired.* |
| **Objective 2:** Enhance functionality of 25% of marine vegetated buffers, on public and private lands, by conserving existing buffers and restoring degraded habitat by 2020. | **Strategic Action 1:** Restore 25% of degraded buffers to functional buffers within 100 feet of the marine shoreline by 2020. | Very high | Partner with Snohomish Conservation District to develop new grant funds for outreach, planning, and implementing riparian restoration.  Work to engage with willing landowners.  Work with SCD, Island County and Snohomish County Native Plants Stewards to explore plant donations to landowners who are interested in restoring buffers on their properties. | Shore Friendly Workshops | *Acres in protected status within 100 feet of marine shoreline. Acres restored/enhanced.* |
| **Strategic Action 2:** Island County SMP amends public and private regulations and incentives for tree and buffer protection by 2014. | Medium | Encourage Island County to develop regulations and incentives for tree and buffer protection in SMP. |  | *Percent of newly developed properties that comply with buffer regulations. Number of landowners who take advantage of buffer incentives.* |
| **Strategic Action 3:** Island and Snohomish Counties develop a comprehensive education and outreach plan to enhance marine buffers by 2020. | High |  | Shore Friendly Workshops | *Outreach and education plan implemented.*  Shore Friendly outreach and education implemented. |
| *Objective Summary* | | | | | |
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| Conservation Target 4: Dungeness Crab | | | | | |
| *Objective* | *Strategic Action* | *2012 Opportunity Rank* | *Opportunities to Support Progress* | *Actions Completed To-Date* | *Action Metrics (if applicable)* |
| **Objective 1:** Maintain population structure by reducing take of undersized crabs by at least 50% of WDFW 2011 reported level by 2015 and reduce incidence of Dungeness crab mortality in derelict gear by 50% of WDFW 2011 levels by 2020. | **Strategic Action 1:**  Implement comprehensive outreach plan to maintain good population structure and reduce loss of fishing gear by 2013 using WDFW crab endorsement funds. | Very High | Seek updates from with Department of Fish and Wildlife  Project to continue to track:Crabscape cord and educational materials to crabbers | Crabber Education – Sound Water Stewards, Northwest Straits Commission, Island County MRC | *Numbers of recreational and commercial crabbers with inappropriate gear.* |
| **Strategic Action 2:**  Increase enforcement efforts in Port Susan by 2015 in conjunction with statewide efforts by WDFW. | Medium | Seek updates from Department of Fish and Wildlife and Stillaguamish Tribe |  | *Percent of undersized crab found in recreational and commercial catch.* |
| **Strategic Action 3:**  By 2015, conduct biennial crab pot removal in Port Susan and reduce new pot loss by 50% using WDFW funds from crab endorsement. | Medium | Seek updates from Department of Fish and Wildlife and Stillaguamish Tribe | Derelict Crab Pot Removal (2013 and 2021, Stillaguamish Tribe) | *Number of derelict pots. Number of derelict pots removed.*  2013, 45 crab pots and 1 crab ring removed |
| *Objective Summary* | | | | | |
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| Conservation Target 5: Embedded Invertebrates | | | | | |
| *Objective* | *Strategic Action* | *2012 Opportunity Rank* | *Opportunities to Support Progress* | *Actions Completed To-Date* | *Action Metrics (if applicable)* |
| **Objective 1:** Improve health of eastern soft shell clam and sand shrimp populations. | **Strategic Action 1:** Develop and institutionalize a Co-management Plan for Eastern soft shell clams and local data. | None | Seek updates from Tulalip Tribes regarding eastern soft shell population surveys  Consider recontextualizing with human wellbeing, connections with water quality |  |  |
| **Strategic Action 2:** Develop and institutionalize a Co-management Plan for sand shrimp. | None | Consider recontextualizing with human wellbeing, connections with water quality |  |  |
| **Objective 2:** Maintain homeostatic pH levels in Port Susan in perpetuity. | **Strategic Action 1:** Develop and implement an early warning pH monitoring system to trigger action when TBD threshold is reached. | None | Follow up with Stillaguamish Tribe on the Hydro Lab water quality buoy and any progress made on real-time monitoring  Project to track: Snohomish MRC is considering real-time monitoring  Consider recontextualizing this strategy with other factors (temp, water quality, etc.) and food web linkages. Redefine objective for pH monitoring and actions that would be triggered if pH threshold reached. |  | *pH levels in Port Susan.* |
| **Objective 3:** Eradicate *Spartina* in Port Susan. | **Strategic Action 1:** Snohomish and Island County Noxious Weed Control Boards, The Nature Conservancy, Stillaguamish Tribe, and WSU Snohomish County Extension coordinate to continue the monitoring and treatment of *Spartina*. | Very high | Seek updates from Stillaguamish Watershed Council regarding monitoring efforts and partner coordination | Stillaguamish Chinook Salmon Recovery Plan Spartina Target from 2013 is “Maintain current density range (0.4-2.56 solid acres). Total Eradication was not deemed feasible at that time. | *Area of* Spartina *infestation in Port Susan.* |
| *Objective Summary* | | | | | |
| Thumbs up sign with solid fill | While some progress has been made… | | | | |

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| Conservation Target 6: Shorebirds | | | | | |
| *Objective* | *Strategic Action* | *2012 Opportunity Rank* | *Opportunities to Support Progress* | *Actions Completed To-Date* | *Action Metrics (if applicable)* |
| **Objective 1:** Maintain quality and quantity of mudflats and intertidal marsh by allowing habitat migration in the face of sea level rise (in perpetuity). | **Strategic Action 1:** Set back dikes in delta areas with failing infrastructure to restore a portion of delta habitat (overall goal is a minimum of 315 acres by 2016) and offer increased protection to agricultural lands. | Medium | Seek updates from Sustainable Lands Strategy | Port Susan Bay Estuary Restoration Project, Port Susan Bay Preserve (2012, The Nature Conservancy Snohomish Co) | 2012: 150 acres of estuary restored |
| Livingston Bay Pocket Estuary Restoration (2012, The Nature Conservancy Island Co)  Zis a ba Estuary Restoration (2017, Stillaguamish Tribe) | 2012: 10 acres restored |
| **Strategic Action 2:** Limit future development in floodplain migration area. | Medium | Seek updates from Stillaguamish Tribe on current protection of floodplain area in Port Susan |  | *Acres of land converted to development in floodplain.* |
| **Objective 2:** By 2014, orchestrate local, State, and Federal response to mitigate unintended damages from spill response related impacts to intertidal habitats. | **Strategic Action 1:** Ensure that Snohomish and Island Counties have personnel or volunteers trained and coordinated in response in response tactics to the standards/levels of high risk spill areas. | Medium |  | Near-term action project (Chrys Bertolotto, WSU Ext Beach Watchers)  WSU recorded trainings  Snohomish MRC geographic response plan updates | *Number of volunteers trained for readiness in the event of a major oil spill for Snohomish and Island Counties.* |
| *Objective Summary* | | | | | |
| Thumbs up sign with solid fill | While some progress has been made… | | | | |

Additional Actions Completed in Port Susan

In addition to the progress made towards the strategic actions identified for each Conservation Target, additional work has been advanced within Port Susan that expands beyond the original objectives and strategic actions identified in the 2012 CAP. In particular, actions related to **climate change, water quality, human wellbeing, and sea level** rise fall outside of the objective and strategic action structure of the CAP but are nonetheless important to track. These actions include:

* The Nature Conservancy (TNC) Port Susan Bay Restoration:
  + TNC is working to restore key ecological processes to 150 acres of estuarine tidal habitat in Port Susan through the construction of distributary and blind tidal channel excavations. To accomplish this, TNC tested a novel approach in August 2022 to use explosives to create tidal channels as opposed to more traditional excavation methods. This method leads to reduced disturbances to the surrounding ecosystem during construction and leads to decreased project costs.
* United States Geological Survey – Coastal Habitats in Puget Sound (CHIPS) Project:
  + Led by USGS researcher Dr. Eric Grossman, the CHIPS project is an effort to model the transport of sediment and contaminants in coastal waters throughout Puget Sound. The project examines the movement of sediment from river systems into coastal areas and the effects sediment has on water quality, submerged vegetation, and habitat quality.
* Washington Sea Grant Sea Level Rise Projections:
  + Washington Sea Grant has led efforts to model sea level rise across Washington shorelines. This effort has provided local resource managers with information on projected sea level rise values and management options to adapt to expected future conditions.
* Snohomish County Stillaguamish Watershed Vulnerability Assessment
  + Snohomish County is developing a vulnerability assessment for communities in the Stillaguamish Watershed to better understand the challenges facing individuals and communities considering anticipated climate impacts. This work will examine how restoration activities contribute towards enhancing the resilience of communities in the watershed.