

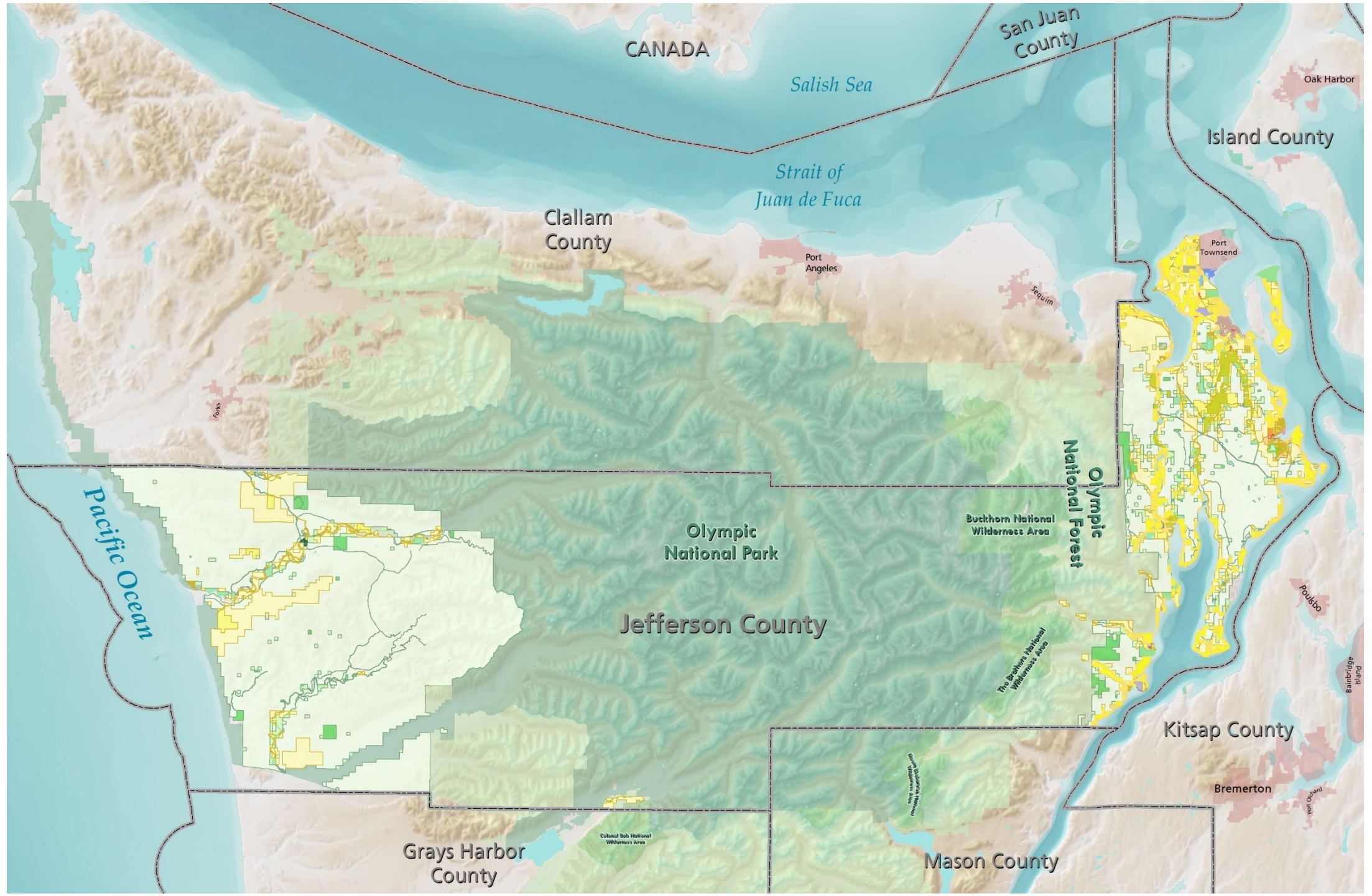
Jefferson County Shoreline Master Program Monitoring and Adaptive Management

Shoreline Master Program and No Net Loss of Shoreline Functions and Processes

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Jefferson County Monitoring

Enhancing Shoreline Protection Grant (aka No Net Loss Grant)

- Assessed implementation of an updated SMP
 - Planner review of application
 - Applicant compliance with permit conditions

Five Steps:

1. Determine the Reasons for Monitoring
2. Establish Key Objectives and Study Questions
3. Design the Monitoring Program
4. Determine the Monitoring Time Frame
5. Evaluate Results and Make Recommendations

Determine the Reasons for Monitoring

Purpose: Assess shoreline protection in Jefferson County through the shoreline permitting process.

- County SMP includes no net loss of shoreline functions.
- County SMP does not include indicators of shoreline function.



Establish Key Objectives and Study Questions

Objectives:

- Identify and monitor indicators of shoreline function
- Develop tools to assist planners reviewing shoreline applications
- Develop a database to track shoreline permitting applications, permitting decisions, and monitoring results
- Prepare a standardized shoreline monitoring field form
- Conduct monitoring site visits to verify compliance with permit conditions and approved site plan as well as post development conditions for no net loss indicators
- Prepare written guidance and templates for applying no net loss indicators that could be used by other local jurisdictions
- Provide technical assistance to property owners and professionals

Establish Key Objectives and Study Questions

Key Questions:

- Are submitted shoreline applications complying with SMP policies and regulations?
- Are shoreline permittees complying with the shoreline permit requirements?

Assumptions:

- Monitoring program should be designed for use in showing compliance during periodic review and update of SMP.
- Permits issued in compliance with the SMP should result in NNL of natural shoreline functions and processes.

Design the Monitoring Program

Shoreline Permit Review

Prepare a shoreline permitting form for planners:

- Jefferson County form based loosely on Clallam County NNL form
- Page 1: application number, applicant information, project information, shoreline information
- Page 2: preliminary review for compliance with NNL
- Pages 3-7: detailed review for stormwater and critical areas
- Pages 8-19: detailed review of shoreline modifications
- Page 20: planner signature



Design the Monitoring Program

Develop a Database to Track all Shoreline Permits

| Clipboard | | Alignment | | Number | | Styles | | Cells | | Editing | | | | | | | | |
|-----------|----------|-------------|-------------|---------|----------|--------|--------------------|---|---------|------------|---|---|---|---|---|---|---|---|
| A7 | | | | | | | | | | | | | | | | | | |
| | A | B | C | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y |
| 1 | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | |
| 4 | | APPLICATION | | | TRACKING | | MONITORING | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | |
| 6 | Sequence | MLA Number | Case Number | Planner | Form | To ESA | Location | Project | Process | Site visit | Comments | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | |
| 8 | 1 | MLA14-00025 | SDP14-00007 | DWJ | X | X | B, C | garage w/ workshop and tank | I | 3/23/2016 | 3/14/16 - septic finaled; building not started; 3/23/16 - nnl monitoring site visit based | | | | | | | |
| 9 | 2 | MLA14-00032 | SDP14-00008 | DWJ | X | X | III | olympia oyster habitat enhancement | I | 6/8/2016 | | | | | | | | |
| 10 | 3 | MLA01-00308 | SDP14-00009 | DWJ | X | X | CC, DD | replace large woody debris | I | 7/14/2015 | dwj to check if started and if okay to go on property 6/30/15; dwj ok'd as a public acce | | | | | | | |
| 11 | 4 | MLA14-00035 | SDP14-00010 | JP | X | X | Snow Creek 1 | remove sediments from fish trap area | I | | | | | | | | | |
| 12 | 5 | MLA14-00070 | SDP14-00011 | DWJ | X | X | FFF | maintenance dredge of marina | II | 7/14/2015 | art burke ok'd access - wants to be out there when we are there 7/8/15 | | | | | | | |
| 13 | 6 | MLA14-00039 | SDP14-00012 | DWJ | X | X | A to L, DuR1, DoR1 | guardrail maintenance | I | 8/20/2015 | go as needed 7/8/15 | | | | | | | |
| 14 | 7 | MLA14-00044 | SDP14-00013 | JP | X | X | BB, CC | paradise bay road maintenance | I | 8/20/2015 | wsdot confirmed work has been completed | | | | | | | |
| 15 | 8 | MLA14-00045 | SDP14-00015 | DWJ | X | X | H | maintain pier and dock at state park | I | 8/28/2015 | alex said project has been completed 7/8/15 | | | | | | | |
| 16 | 9 | MLA14-00057 | SDP14-00016 | JP | X | X | X | replace hood canal bridge anchor cables | I | | not considered - probably cannot see much | | | | | | | |
| 17 | 10 | MLA14-00061 | SDP14-00017 | DLF | X | X2 | V | marina dredge and dredge disposal | II | | 3/16/16 - permitting hung up at other agencies (work may not start before end of gra | | | | | | | |
| 18 | 11 | MLA14-00065 | SDP14-00018 | DLF | | | | stream revetment and fill for sfr | | | | | | | | | | |
| 19 | 12 | MLA14-00080 | SDP14-00020 | JP | X | X | CC | repair six creosote piles | I | 3/22/2016 | project has not been started as of 8/17/15 | | | | | | | |
| 20 | 13 | MLA14-00085 | SDP14-00021 | DLF | X | X | CCC | dock and piling replacement | I | | | | | | | | | |
| 21 | 14 | MLA14-00089 | SDP14-00022 | MF | X | X | YY | mooring buoy | II | 8/16/2016 | | | | | | | | |
| 22 | 15 | MLA14-00094 | SDP14-00023 | DLF | X | X | Q, R, S | eelgrass restoration | I | 8/16/2016 | | | | | | | | |
| 23 | 16 | MLA14-00105 | SDP14-00024 | JP | X | X | WEST END | fish passage culvert replacement | I | | 3/16/16 - dnr says project is complete | | | | | | | |
| 24 | 17 | MLA14-00108 | SDP14-00025 | DWJ | X | X | V | restore picnic area | I | | site visit made 11/9/16, work not started; work not started per paul gronwell 8/26/15 | | | | | | | |
| 25 | 18 | MLA14-00110 | SDP14-00026 | JP | X | X | BBB, CCC | shoreline restoration | I | 11/8//2016 | soonest project will start is summer 2016 | | | | | | | |
| 26 | 19 | MLA15-00003 | SDP15-00001 | DLF | X | X | AA | replace drainage improvements | I | 8/20/2015 | diana brown provided access permission 8/19/15 | | | | | | | |
| 27 | 20 | MLA14-00012 | SDP15-00002 | JP | X | X | BBB | mitigate clearing for new sfr | I | 8/20/2015 | call barbara with time | | | | | | | |
| 28 | 21 | MLA15-00016 | SDP15-00003 | DWJ | X | X | A | replace floating dock | I | 8/28/2015 | alex said project has been completed | | | | | | | |
| 29 | 22 | MLA15-00020 | SDP15-00004 | MF | X | X | PP | mooring buoy | II | | having problems at the corps | | | | | | | |
| 30 | 23 | MLA15-00013 | SDP15-00005 | AB | X | X | BeausiteL | enlarge existing trail for ada compliance | I | 8/24/2015 | ab to check if started and if okay to go on property 6/30/15 | | | | | | | |
| 31 | 24 | MLA15-00022 | SDP15-00006 | JP | X | X | Snow Creek 1 | remove sediments from fish trap area | I | 7/14/2015 | cheri scalf ok'd site visit - to be conducted at end of day - call her with time 7/8/15 | | | | | | | |
| 32 | 25 | MLA15-00025 | SDP15-00007 | MF | X | X2 | W | repave boat ramp | I | | 3/16/16 - project still needs federal permitting - maybe in June or July | | | | | | | |
| 33 | 26 | MLA15-00030 | SDP15-00008 | DWJ | X | X2 | D | new sfr | III | | BLD 16-00197 withdrawn so this approved permit will is no longer proposed for const | | | | | | | |
| 34 | 27 | MLA15-00031 | SDP15-00009 | MF | X | X2 | I/J | restore to pre-development conditions | I | 11/7/2016 | 8/9/16 - per Julian, contracting going slow so it has not started; 3/16/16 - per Mendy, J | | | | | | | |
| 35 | 28 | MLA15-00032 | SDP15-00010 | AB | X | X1 | DoseR 1 | cut logs w/ pieces to remain in river | I | 3/23/2016 | | | | | | | | |
| 36 | 29 | MLA15-00044 | SDP15-00012 | JP | X | | P | buffer reductions for new sfr | III | | 11/3/16 - property owner did not authorize DCD to be on property, would want to be | | | | | | | |
| 37 | 30 | MLA15-00050 | SDP15-00013 | AB | X | X1 | GGG | replace bulkhead | I | 3/22/2016 | | | | | | | | |

Design the Monitoring Program

Identify Indicators of Shoreline Function

- All Shorelines:
 - Riparian Vegetation
 - Overwater/In-water Structures
- Marine
 - Areas of eelgrass and kelp
 - Shoreline Stabilization
 - Beach Access Structures
- River/Stream
 - Unaltered Floodplain/CMZ Area
 - Impervious Surface Cover
- Lake
 - Water Quality
 - Impervious Surface Cover

Design the Monitoring Program

Develop a Field Monitoring Form

- Shoreline permit number, date of site visit, staff present
- Project information and shoreline information
- Construction status
- Photo log
- NNL indicators assessment for pre- and post-development conditions
- Site observations and additional general comments



Design the Monitoring Program

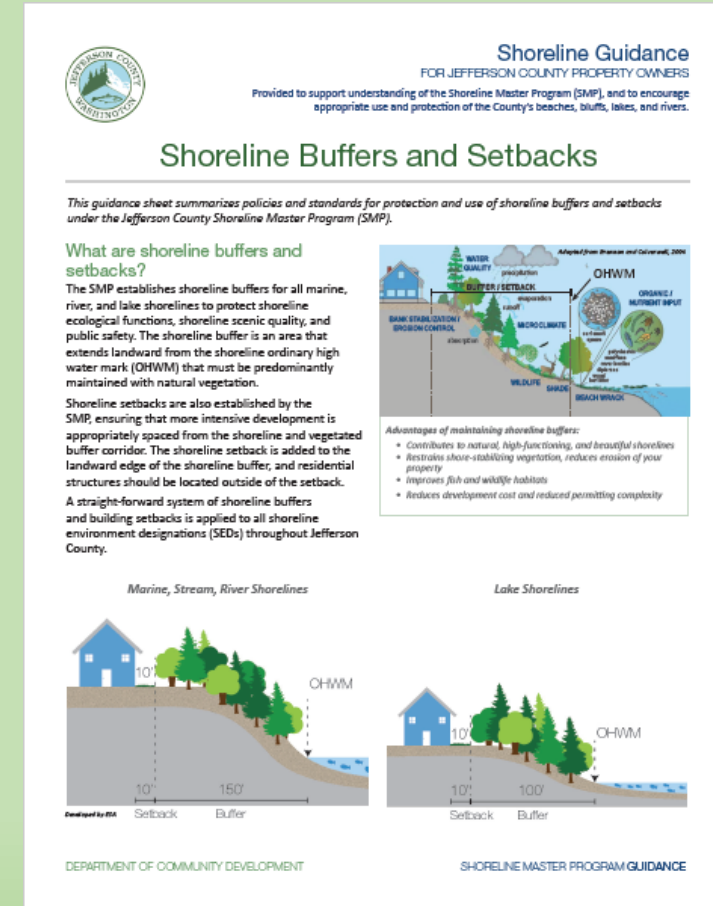
Create Monitoring Database

| | A | B | C | D | E | F | G | H | I | J | K | L | M | AA | AB | AC | AD | AE | AF | AG | AH | AI | | | | |
|----|---|--------------------------------|---|------------------|-------------------|--|--|----------------|-------------------------|-----------------|--|---|---|---|---|--|--|--|----|----|----|----|--|--|--|--|
| 1 | Jefferson County Shoreline Development Activities - NNL Checklist and Site Review Tracking Matrix (updated thru November 8, 2016) | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | NNL Checklist Information (Basic Project Information) - MARINE SHORELINES | | | | | | | | | | | | | | Indicator - Overwater/In-water | | Site Visit / NNL Observations | | | | | | | | | |
| 3 | Case # | Landowner Name | Project Address | Parcel Number | Type of Ownership | Development Type | Development Summary | Shoreline Type | Waterbody Name | Shoreline Reach | Pre-development number of structures by type | Post-development number of structures by type | | Describe any variations from permit. | Describe any mitigation. | Is the project a restoration project? (If yes, describe type, area, etc.) | Other shoreline development components with implications for NNL? If yes, describe. | Additional Comments | | | | | | | | |
| 4 | BLD14-00469 | David & Diane Bowe | 107 Burnt Tree Lane, Quilcene, WA, 98376 | 501 041 039 | Private | Residential-Primary Structure | New SFR | Marine | Fisherman Harbor (Hood) | T | N/A | N/A | | None | N/A | No | No | Concern about future need for armor at Landslide buffer zone reduced from 30'-to geotech report. | | | | | | | | |
| 5 | SDP 14-00009 | Ludlow Bay Village Association | N/A--open space tracts | 968 600 069 | Private | Shoreline Stabilization - Nonstructural | Nonstructural stabilization along community open space shoreline | Marine | Port Ludlow Bay | CC & DD | N/A | N/A | | Length of armoring (90') is shorter than length permitted | N/A | No | No | Applicant most likely used same permit as permitted project in 2000 (never built). was new construction or replacement (| | | | | | | | |
| 6 | SDP 14-00011 | Cape George Colony Club | N/A--Marina | N/A--Marina | Private | Dredging/Disposal/Over water Structure- | Dredging and disposal; maintenance of docks, seawall | Marine | Discovery Bay | FFF | Existing marina with docks and floats | Only maintenance performed; no change | | Built to 8 feet waterward, 10 feet high; permitted to | N/A | No | Eelgrass & kelp present in dredge disposal area & down drift; possible smothering during disposal | New rock goes to edge of drop-off causing break of drift cell. As Jetty is built high Permitted under maintenance | | | | | | | | |
| 7 | SEP 14-00128 | Steven & Deborah Sampson | 1681 Oak Bay Road, Port Hadlock, 98339 | 960 300 015 | Private | Residential-accessory structure (septic) | Septic system modification. | Marine | Oak Bay | HH | N/A | N/A | | None | N/A | No | No | Concrete vertical bulkhead extends approx. 100 feet. Overgrown, rotted wood stairs in front of bulkhead. Overgrown with RUUR, RUAR, HEHE. | | | | | | | | |
| 8 | BLD14-00215 | Paul & Susan Barlock | 140 N Bay Way, Port Ludlow, 98365 | 976 800 015 | Private | Residential-Accessory Structure | Replace stairs to beach | Marine | Oak Bay | GG | N/A | N/A | | Increase in stairway width, number of landings, and addition of 10' X 10' deck at top of bluff. | None - County signed off on permit without requiring additional mitigation. | No | Unpermitted construction of 10' X 10' deck at top of bluff. | | | | | | | | | |
| 9 | SDP 14-00012 | WSDOT | N/A--Hwy 101 MP 301.81 to MP 321.46 | N/A--Public Road | Public | Transportation | Replace guardrail and posts | Marine/River | Hood Canal | A-L | N/A | N/A | | None | N/A | No | No | Replacement of guardrails and/or posts. Same footprint. No removal of vegetation. | | | | | | | | |
| 10 | SDP 14-00013 | Jefferson County | N/A--Paradise Bay Road MP 0.37 to MP 1.53 | N/A--Public Road | Public | Transportation | Shoulder paving, drainage improvements, striping, guardrails, | Marine | Paradise Bay | BB & CC | N/A | N/A | | None | N/A | No | No | Roadwork isolated from stream and wetlands. No removal or excavation. Very small piece of wetlands in jurisdiction. No construction at culverts. | | | | | | | | |
| 11 | SDP 15-00001 | Diana Brown & John Weida | 320 Tala Shore Drive, Port Ludlow, 98365 | 998 200 304 | Private | Filling/Excavation of Shoreline - septic | Drainage improvements to protect existing septic system. | Marine | Hood Canal | AA | N/A | N/A | | None | N/A | No | Stormwater run-off from neighborhood directed on to property and pipe-directed onto bluff face. Could exacerbate slope | Extra pipe at site; work may continue to unlikely since engineer signed off on work. | | | | | | | | |
| | SDP 15- | Barbara | 33 Elston Ave, Port | | | Residential Development | Mitigation for removing vegetation from FWHCA & landslide hazard area relating | | Admiralty | | | | | | | Yes (corrective mitigation, for violation); owner cleared/placed fill within protected | Yes, plants extremely small; plant mortality present at time of site visit and more expected. County passed habitat | Planting plan has large area that is "flooded" by large cobblestone 10' x 20'. Maybe improve | | | | | | | | |
| | < | > | Marine | River | Lake | Summary Tables (Pivot) | Restoration Actions | Sheet2 | (+) | : | < | | | | | | | | | | | | | | | |

Design the Monitoring Program

Other Grant Components:

- Technical assistance
- Prepare written guidance and templates for applying NNL indicators that could be used by other local jurisdictions
- Enforcement



Determine the Monitoring Time Frame

- Grant Started: 2010
- Locally Approved SMP: December 7, 2009
- SMP Effective Date: February 21, 2014
- Grant End Date: December 31, 2016

Evaluate Results and Make Recommendations

The good news:

- Planners generally reviewed proposals consistent with SMP
- Developers generally constructed project per the permit conditions and approved site plan
- Results indicate:
 - Permits issued under the SMP permits protecting natural shoreline ecological functions and processes
 - Baseline conditions are maintained

However, opportunities for improvement exist...

Evaluate Results and Make Recommendations

- Conduct site visits during application review
- Pull previous files, especially for maintenance and repair shoreline exemptions
- Better imagery/aerial photographs
- Require applicant to show limits of construction and have stormwater calculations for land disturbance and impervious surfaces agree with proposal drawings
- Require installation of orange construction barrier fencing prior to any clearing, grading, or other land alteration

Evaluate Results and Make Recommendations

- Marine Biologist
- Fisheries Biologist
- Wildlife Biologist
- Wetlands Biologist
- Geologist/Coastal Geologist
- Stormwater Engineer
- Hydrologist
- Arborist



A photograph of a forest with several large, mature trees in the background and dense, low-lying vegetation in the foreground. The trees have thick, textured bark. The undergrowth consists of various green plants and shrubs, some with small yellow flowers. The lighting is soft, suggesting an overcast day or a shaded forest interior.

Questions?