

Welcome

YOU ARE IN THE RIGHT SPOT. WE WILL START AT 9:00 AM.



Permit Implementation Monitoring Tools

MARCH 10, 2021

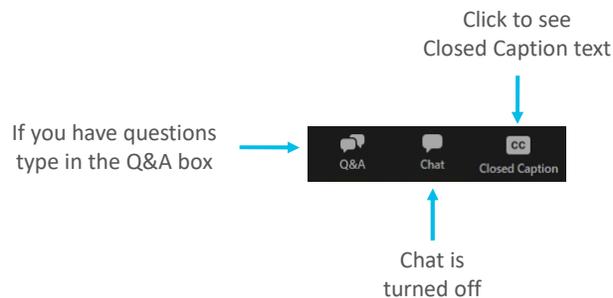


2021 Critical Areas and Shoreline Monitoring & Adaptive Management Online Workshops



Welcome to
Permit Implementation Monitoring Tools

2021 Critical Areas and Shoreline Monitoring & Adaptive Management Online Workshops



2021 Critical Areas and Shoreline Monitoring & Adaptive Management Online Workshops

How to Successfully Protect Critical Areas and Shorelines: A Step-by-Step Introduction to Monitoring and Adaptive Management

JANUARY 13, 2021

Washington Department of FISH and WILDLIFE
Washington State Department of Commerce
DEPARTMENT OF ECOLOGY
State of Washington

Click in between to change size

Maria Kibene, Director
SCOTT KIBENE

5

Visit Project Website for More Information

https://www.ezview.wa.gov/site/alias_1992/37576/overview.aspx

ezview Critical Areas Adaptive Management Training Workshops (Portal ID #1962)

Overview Contacts Events 2021 Workshops Library

2021 Workshops

Do you want to know if your critical areas and shoreline regulations are working as intended? Or how to effectively track special permit conditions and mitigation requirements?

Please join us for an in depth review of best practices, case studies, resources, and tools to enhance monitoring and adaptive management efforts for your critical areas and shorelines.

As a follow-up to our 2018 workshops, this 11-week webinar series features expert guest speakers, opportunities for peer-to-peer learning, information sharing, and individual technical assistance.

Earn AICP continuing education credits for your attendance!

Click on a link below to register. (Most sessions are 90 minutes. A couple sessions may go up to 2 hours.)

- Adaptive Management Workshop 1 – How to Successfully Protect Critical Areas and Shorelines: A Step-by-Step Introduction to Monitoring and Adaptive Management
- Adaptive Management Workshop 2 – Setting the Stage: Successful adaptive management and critical areas monitoring opportunities
- Adaptive Management Workshop 3 – Wetlands
- Adaptive Management Workshop 4 – Geologically Hazardous
- Adaptive Management Workshop 5 – Fish and Wildlife Habitat Conservation Areas
- Adaptive Management Workshop 6 – Frequently Flooded Areas
- Adaptive Management Workshop 7 – Critical Aquifer Recharge Areas (CARAs)
- Adaptive Management Workshop 8 – Shoreline
- Adaptive Management Workshop 9 – Permit Implementation Monitoring Tools
- Adaptive Management Workshop 10 – CAO Performance Indicators
- Adaptive Management Workshop 11 – Adaptive Management Interactive Workshop

6

2021 Critical Areas and Shoreline Monitoring & Adaptive Management Online Workshops



This project has been funded wholly or in part by the United States Environmental Protection Agency under assistance agreement PC-01J2230116-05251 through the Washington Department of Fish and Wildlife.

The contents of this document do not necessarily reflect the views and policies of the Environmental Protection Agency or the Washington Department of Fish and Wildlife, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

7

Workshop Wednesday Series Lineup

Register using Zoom.



January 13 - 9:00 a.m. - 11:00 a.m.
How to Successfully Protect Critical Areas and Shorelines: A Step-by-Step Introduction to Monitoring and Adaptive Management



February 24 - 9:00 a.m. - 11:00 a.m.
Critical Aquifer Recharge Areas (CARAs)



January 20 - 9:00 a.m. - 11:00 a.m.
Setting the Stage: Successful adaptive management and critical areas monitoring program basics



March 3 - 9:00 a.m. - 11:00 a.m.
Shorelines



January 27 - 9:00 a.m. - 11:00 a.m.
Wetlands



March 10 - 9:00 a.m. - 11:00 a.m.
Permit Implementation Monitoring Tools



February 3 - 9:00 a.m. - 11:00 a.m.
Geologically Hazardous Areas



March 17 - 9:00 a.m. - 11:00 a.m.
CAO Performance Indicators



February 10 - 9:00 a.m. - 11:00 a.m.
Fish and Wildlife Habitat Conservation Areas



March 24 - 9:00 a.m. - 11:00 a.m.
Adaptive Management Interactive Workshop



February 17 - 9:00 a.m. - 11:00 a.m.
Frequently Flooded Areas

Note: Workshop names may change but topic will stay the same.

8

American Planning Association Education Credit

GO TO: [HTTPS://PLANNING.ORG/EVENTS/EVENTMULTI/9210027/](https://planning.org/events/eventmulti/9210027/)

The screenshot shows the American Planning Association (APA) website. The header includes the APA logo, the tagline 'Creating Great Communities for All', and navigation links for 'About APA', 'Join', and 'Log In'. A search bar is present with the text 'Enter keyword or phrase' and a 'Search' button. The main navigation menu includes: Membership, Knowledge Center, Education and Events, AICP, Policy and Advocacy, Career Center, In Your Community, Connect with APA, and APA Foundation. The left sidebar lists 'Education and Events' with sub-links for Online Education, Educational Events, National Planning Conference, Policy and Advocacy Conference, Speaker Directory, Burnham Forum, and Calendar of Events. The main content area displays the event title '2021 Critical Areas and Shorelines Monitoring and Adaptive Management Online Workshops' under the breadcrumb 'Home > Education and Events > Educational Events >'. Below the title, it identifies the 'APA Washington Chapter' and provides event details: #9210027, Wednesday, February 3, 2021, 9 a.m., and Wednesday, March 24, 2021, 11 a.m. PDT in Olympia, WA, United States. An 'OVERVIEW' section states that the event is in partnership with the Washington State Department of Ecology and the Washington State Department of Fish and Wildlife, and is an 11-week webinar series for local government planners.

9

Land Acknowledgment

Discover which tribal lands you reside on text your zip code to (907) 312-5085.



10

Poll



?

What size jurisdiction do you work with?

?

What is your role?

?

How long have you worked on critical areas?

11

Meet Your Presenters



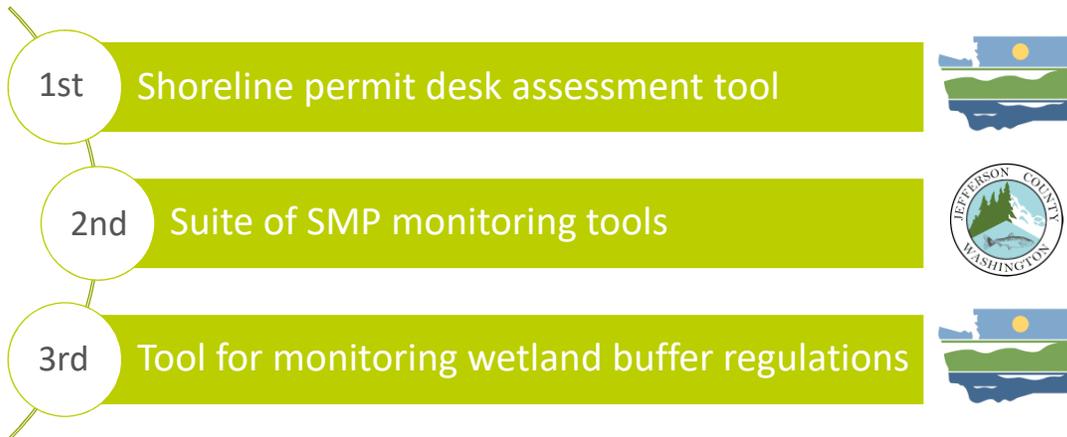
Carolyn Chase is a planner with the Department of Ecology's Shorelands and Environmental Assistance Program. Her work focuses on developing strategies and processes for understanding how effectively Shoreline Master Programs are being implemented across the state and supporting efforts to increase compliance. Previously, Carolyn has worked as an environmental and land use planner, transit planner, and Safe Routes to School program coordinator. She graduated from the University of Pennsylvania with a Master of City and Regional Planning degree and holds a B.S. in Environmental Science from Western Washington University. Carolyn is a native Washingtonian who is passionate about the state's rural communities and natural beauty.



Misty Blair is the statewide Shoreline Management Policy Lead with the Washington State Department of Ecology. The Shoreline Management Policy Lead deals with complex shoreline management issues; researching, developing and implementing new shoreline planning policies, procedures and initiatives; coordinating shoreline planning and permitting activities to ensure statewide consistency; and providing technical support and guidance to SEA program planning staff statewide. Misty has been with Ecology for 6 years and previously worked in environmental planning/permitting for the City of Tacoma. She has a BS in environmental policy and land management from the University of California, Berkeley (2002).

12

Roadmap



13

Download tools here:

https://www.ezview.wa.gov/site/alias_1992/37662/2021_workshops.aspx



14

Get creative



- Perfect plug-and-play tool may not exist
- Local CAO and SMP regulations vary
- Reasons for monitoring vary
- Tools can be adapted

15

Tools seen today help with:

1. **Permit implementation monitoring** asks: (1) whether the local government issued a permit consistent with the regulations; and (2) whether the projects as built comply with all of the conditions noted in the permit.
2. **Effectiveness monitoring** continues to ask the two permit implementation monitoring questions above over a longer period of time. The data is not about the individual permit, but whether and how to adaptively manage the system.

16

Ongoing vs. occasional permit tracking and monitoring programs

- Occasional (i.e., a backwards assessment of permits issued over some period of time)
 - Examples: prior to CAO update, prior to SMP periodic update, established regular interval, before and after changes to public outreach and education, etc.
- Ongoing (i.e., monitoring incorporated into normal operations)
 - Examples: City of Kirkland (Webinar 1) and Clark County (Webinar 2)
 - https://www.ezview.wa.gov/site/alias_1992/37662/2021_workshops.aspx
- Ongoing, term-limited (e.g., internship duration, grant period, etc.)
 - Example: Jefferson County

17

Acronyms

- NNL – No Net Loss
- RUE – Reasonable Use Exception
- SMP – Shoreline Master Program
- SMA – Shoreline Management Act
- OHWM – Ordinary High Water Mark

18

Poll



?

If you had funds to start a new, or expand an existing, monitoring and adaptive management program, where would you prioritize spending?

Staff time, Consultant services
Program planning, Permitting software, Unsure
Other – use Chat to share with the group

19

Shoreline desk assessment tool

Implementation and effectiveness monitoring

Tool collects qualitative data on . . .

1. Shoreline authorizations (exemptions & permits)
2. Uses & modifications
3. Permit processes
4. Pre-permit communications
5. Location
6. Public access

21

Tool collects qualitative data on . . . (continued)



7. The 5 categories of projects that may require documentation of NNL
8. Potential losses of shoreline ecological functions
9. Mitigation
10. Cumulative impacts

22

Live tool demonstration

23

The importance of good notes

- Add notes on “permit details” sheet
- Saves time by eliminating need to re-review records
- Allows trends to be identified
- Examples shown here

The record and the HE Decision document disagree about the presence of Critical Areas, that development will occur landward of the OHWM, and that mitigation is required. A mitigation plan is proposed by the applicant's agent but the HE approved the proposal with no mitigation. No Staff Report could be found to clarify this disparity.

No compensatory mitigation but applicant will help implement restoration.

Staff report does not consider cumulative impacts of additional like requests in the area. Instead, findings point to on-site mitigation as evidence that there will be no cumulative impacts.

24

Tool considerations

1. Occasional monitoring tool
2. Recommend a timeframe that allows a census (100%) of shoreline authorizations (permits and exemptions)
3. Limit timeframe to authorizations issued under a Comprehensively Updated SMP
4. Desk assessment not performed by permit reviewer (bias)
5. Average review time: 1.5 hrs/permit

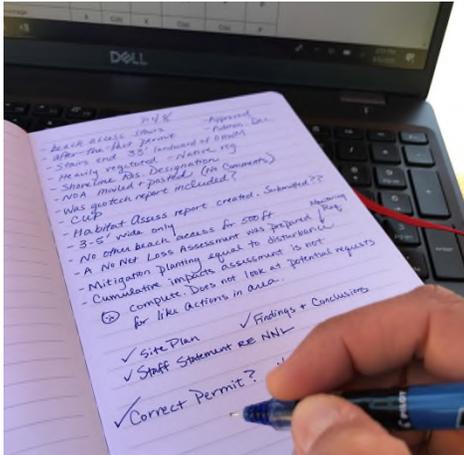
25

Two versions of the tool

- Ecology version → Local Gov't version
 - What's working?
 - Where are the gaps?
- Data-driven approach to supporting local SMP implementation.
- Question sets differ between two versions.

26

Populating the tool with questions



Strategies:

1. Limit subjectivity with neutral questions
2. Break down complex questions
3. Pre-defined responses for each question
4. Match complexity of question with appropriately nuanced response sets

27

Key question: no net loss

Did the project meet the no net loss standard required by the SMA?

28

Key question: no net loss

Did the project meet the no net loss standard required by the SMA?



- Staff determination of NNL?
- In-buffer/water development?
 - Net new impervious surfaces in buffer?
 - Native vegetation clearing in buffer?
 - New sf over-water structure?
- Mitigation sequencing evident?
- Compensatory mitigation?
- Was there a permit condition requiring comp mit?
- Unavoidable impacts identified?
- Site-specific report?
- Mitigation in-kind?
- Monitoring of mitigations?

29

Mitigation sequencing question and response

- If development is occurring waterward of the OHWM or within a buffer, is there evidence of mitigation sequencing in project design?

Y	Yes
Weak Application	Unpersuasive attempt to avoid and minimize impacts
N	No
CNBD	Cannot be determined
NA	Not Applicable

30

Challenges and opportunities

- Outdated permit database
- Paper files stored across state
- Coronavirus sped up acceptance and storage of digital submittals



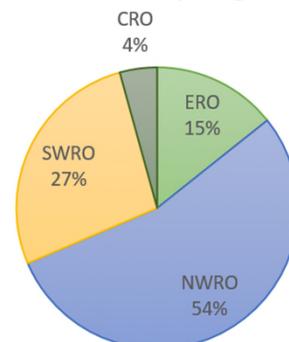
31

Status of tool development

- 70 permits reviewed
- Opportunity sample
- Methodology considerations moving forward:
 - Random sample
 - Geographic spread
 - Result validation (second reviewer to ensure same results)
- Preliminary “test” phase results

Count %

Permits by Region



Values

32

Results: Development type

Was development typified by new development, replacement, etc.?

Dev. Type?	Count	%
ENV RSTR	3	4%
NA	2	3%
NEW	32	46%
NEW RPLC	15	21%
RDEV	6	9%
REPAIR	1	1%
REPAIR & RPLC	1	1%
RPLC	10	14%
Grand Total	70	100%

33

Results: Variances

For permits that included a variance, how often was mitigation sequencing evident?

Permit Issued (Multiple Items)

Mitigation sequencing?	Count	%
CNBD	2	15%
N	2	15%
NA	1	8%
Y	8	62%
Grand Total	13	100%

34

Results: Cumulative impacts

For CUPs and VARs, how common was it for cumulative impacts to be assessed?

Permit Issued (Multiple Items)		
Cum. Impacts Assessment	Count	%
CNBD	2	6%
N	11	35%
Y	18	58%
Grand Total	31	100%

35

Results: Mitigation sequencing

For permits that included development waterward of the OHWM or within a buffer, how often was mitigation sequencing evident?

In-buffer/water DEV'T? Y

Mitigation sequencing?	Count	%
CNBD	13	25%
N	11	21%
Y	26	50%
Weak Application	2	4%
Grand Total	52	100%

36

Results: Mitigation implementation

For permits that included compensatory mitigation, how many included a permit condition requiring mitigation implementation?

Does application incld comp mit? Y

Permit cond req comp mit? <input type="checkbox"/>	Count	%
Future Mit Plan Req	1	3%
N	5	16%
Y	24	77%
Blanket	1	3%
Grand Total	31	100%

37

Results: Mitigation monitoring

How often was monitoring required for permits that included mitigation planting?

Monitoring? <input type="checkbox"/>	Count	%
CNBD	6	18%
N	8	24%
Y	19	58%
Grand Total	33	100%

38

Next steps

1. Complete desk assessments in 2021
2. Identify solutions and actions to address compliance needs



American Lake (Source: Chase)

39

Poll



Does your community create a digital or paper record of shoreline exemptions to document review?

Yes, always, Sometimes
No, Unsure, N/A to my role

40

WAC 173-26-191(2)(a)(iii) SMP Administrative provision requires documentation of your review

(D) Documentation of project review actions and changing conditions in shoreline areas.

- Master programs or other local permit review ordinances addressing shoreline project review shall include a mechanism for documenting all project review actions in shoreline areas.
- Local governments shall also identify a process for periodically evaluating the cumulative effects of authorized development on shoreline conditions.
- This process could involve a joint effort by local governments, state resource agencies, affected Indian tribes, and other parties.

Track and monitor

Evaluate and adaptively manage

Collaborate

41

Focus on implementation



42

Ecology's possible adaptive management strategies

1. New or updated guidance
2. Development of additional compliance tools & resources for local governments
3. New and expanded training opportunities
4. Outreach and education products
5. Rulemaking

43

Current adaptive management outcomes

- Tool development has influenced:
 - Implementation guidance



Yakima River (Source: Department of Ecology)

44

Current adaptive management outcomes

Substantial Development Permit	
SDP ID	4766
SPTS Project ID	THIESSEN
Revision Number	ORIGINAL PERMIT
Issuing Agency Permit Number	SDP 04-2020
Issuing Agency Action	APPROVED
Permit Description	CONSTRUCT A 9,656 SQUARE FOOT
Permit Filing	1/21/2021
Permit Filing Date	1/21/2021
Package Complete	1/21/2021
WA ECY Action	FILED
Filing Letter Mailed	1/22/2021
Appeal Period Ends	2/11/2021

Tool development has influenced:

- Shoreline permit tracking system updates

Problems identified with our current system –

- Not being able to search for or filter lists of permits based on certain attributes.
- Need to be able to upload and store permit related documents.
- Does not capture enough of the useful information contained in the permit file – qualitative data.

Current adaptive management outcomes

Permit Information

Coastal Zone Flag

Issuing Agency
** Please Select **

Region
** Please Select **

County
** Please Select **

Issuing Agency Permit #

Issuing Agency Decision
** Please Select **

WA ECY Staff Reviewer
** Please Select **

Permit Types
SDP
CUP
VAR
None

ECY Recieved Date
02/19/2021

Non-Permit Action
Exempt From SDP WAC 173-27-040

SDP Exemption
** Please Select **
Development Below Fair Market Value
Normal Maintenance or Repair
Normal Protective SFR Bulkhead
Emergency Construction
Agricultural Construction
Navigational Aids
Single-Family Residence
Dock Construction
Irrigation System

Project Information 🔍

Monitoring Required

Project Name

Shoreline Waterbody Type **Proposed Use**

Waterbody **Development Type**

Proposed Shoreline Modification **Shoreline Environment Designation**

Ecologic Mitigation Required?

47

Q&A

TYPE YOUR QUESTIONS IN THE Q&A BOX IN YOUR TOOLBAR



48

Poll



To avoid bias, it may be necessary to find an individual to assess records who is not involved in shoreline application reviews. Is that something that could be accomplished where you work?

- No, our Department is too small
- Yes, with additional staff training
- Yes, without additional staff training
- Unsure or N/A to my role

Jefferson County's Monitoring Tools

Accessible Tools for Monitoring NNL Indicators

Planning context



Source: <https://everycounty.org/tag/fort-worden/>



Discovery Bay, Source: WA Coastal Atlas

51

Funding and approach

- Puget Sound Partnership grant
- Regional approach
- Jefferson County developed tools to help assess compliance with NNL standard



Source: WA Coastal Atlas

52

Suite of tools

1. **Worksheet for assessing issued permits are consistent with the SMP – “NNL Checklist”**
2. **Excel-based permit tracking tool – “Database”**
3. **Form for documenting as-built conditions – “Field Form”**

53

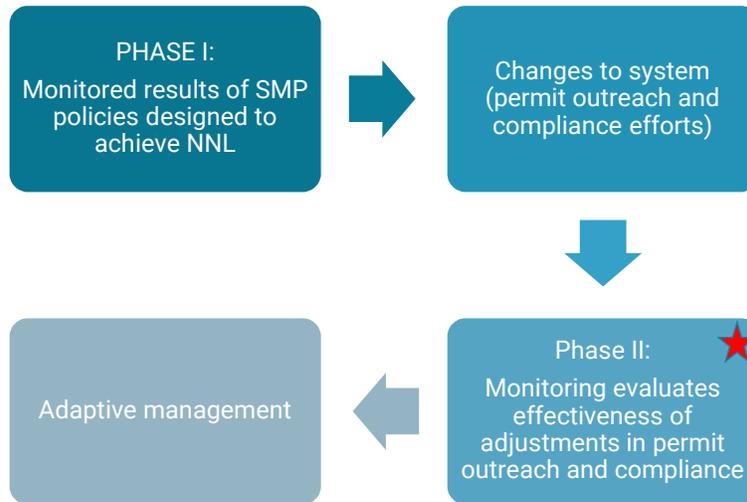
Grant and project details

<https://actionagenda.pugetsoundinfo.wa.gov/Project/Detail/12840>

The screenshot displays the 'ACTION AGENDA' website interface. The top navigation bar includes 'PUGET SOUND INFO' and 'ACTION AGENDA' with a search field for 'Near Term Action Name or Description'. Below this is a secondary navigation bar with links for 'ABOUT', 'NEAR TERM ACTIONS', 'PROGRAM INFO', 'RESULTS', 'LOG IN', and 'HELP'. The main content area features the title 'SMP EFFECTIVENESS: NORTH OLYMPIC PENINSULA' and a 'View Fact Sheet' button. A progress indicator shows the project is in the 'PLANNING/DESIGN' phase, with other phases being 'PROPOSAL', 'IMPLEMENTATION', 'POST-IMPLEMENTATION', and 'COMPLETED'. A 'Contents' sidebar lists 'Near Term Action Overview', 'Puget Sound Recovery Progress Measures', 'Financials', and 'Activity Types'. The main content area is titled 'BASICS' and lists 'Priority Focus Area' (Regional Priority) and 'Shoreline Armoring' (SA2: Design plans and implement existing regulations for the protection of shoreline processes). A 'Regional Priority Approach' is also listed with the goal 'SA2.2: Address barriers to improve'.

54

Grant project details (continued)



55

Sample and duration

- Pool: 100% of Shoreline applications over 14-month period (January 2019 and March 2020)
- Applications tracked in Excel database
- Non-random selection of 80 authorizations (permits & exemptions)



56

Sample (continued)

- All 80 permits and exemption authorizations assessed using the **no net loss checklist**.
- 30 of these permits will be followed up with a field visit where a **field form** will be completed.

57

Worksheets for assessing SMP compliance with NNL provisions



JEFFERSON COUNTY
DEPARTMENT OF COMMUNITY DEVELOPMENT

Jefferson County No Net Loss Checklist

The purpose of completing this checklist is to show consistency between the policies and regulations in the Jefferson County Shoreline Master Program and the implications for shoreline ecological functions, as it pertains to the no net loss (NNL) requirement. This checklist is to be completed by the Planner reviewing the proposal for all development and use applications within shoreline jurisdiction.

Is the proposal within shoreline jurisdiction? Yes (Complete this form) No (Form not required)

Planner _____ Date _____

Application Information

MLA # _____ SDP # _____ or Case # _____
(If case number is used, has the 'Special Conditions tab/Shorelines' been checked in Tidemark? Yes ___ No ___)

Applicant Information

Landowner Name _____

Applicant (if different from landowner) _____

Representative _____

Project Information

Project Address _____

58

Primary NNL review (Page 2)

- **Further review when project is within:**
 - Standard shoreline buffer or setback
 - Critical area buffers and setbacks (wetlands, FWHCA, Geo Hazard, FFA)
- **Further review needed when project includes:**
 - Beach access structures
 - Boating facilities
 - Dredging activities
 - Filling or excavations
 - Flood control structure
 - In-stream structures
 - Restoration
 - Structural shoreline armoring

61

PRELIMINARY NNL REVIEW

Answer all Preliminary NNL Review questions on this page. For any "Yes" responses, also complete the Detailed NNL Review questions (with the corresponding number 1 through 13) on the following pages.

GENERAL SHORELINE MASTER PROGRAM (SMP) REGULATIONS:

1. Will the proposed project be constructed within a standard shoreline buffer and setback (JCC 18.25.270(4)(a) and 18.25.300(2)(a)) for conforming lots or exceed the provisions of JCC 18.25.270(5) for non-conforming lots?
No. ___ Yes. ___ (If yes, answer Detailed Review questions on page 3)
2. Will any portion of the proposed project be constructed in a geologically hazardous area, a landslide hazard area buffer, or a setback for a landslide hazard area or a high-risk channel migration zone (Article V, Chapter 18.22 JCC)?
No. ___ Yes. ___ (If yes, answer Detailed Review questions on page 4)
3. Will any portion of the proposed project be constructed in a fish and wildlife habitat conservation area, buffer, or setback (Article VI, Chapter 18.22 JCC)?
No. ___ Yes. ___ (If yes, answer Detailed Review questions on page 5)
4. Will any portion of the proposed project be constructed in a wetland or wetland buffer (Article VII, Chapter 18.22 JCC)?
No. ___ Yes. ___ (If yes, answer Detailed Review questions on page 6)
5. Will any portion of the proposed project be constructed in a frequently flooded area (Article IV, Chapter 18.15 JCC)?
No. ___ Yes. ___ (If yes, answer Detailed Review questions on page 7)

SHORELINE MODIFICATION REGULATIONS:

6. Does the proposal include Beach Access Structures (JCC 18.25.340)?
No. ___ Yes. ___ (If yes, answer Detailed Review questions on pages 8-9)
7. Does the proposal include Boating Facilities (JCC 18.25.350)?
No. ___ Yes. ___ (If yes, answer Detailed Review questions on page 10-11)
8. Does the proposal include Dredging or Disposal of Dredged Materials (JCC 18.25.360)?
No. ___ Yes. ___ (If yes, answer Detailed Review questions on page 12)
9. Does the proposal include Filling and/or Excavation (JCC 18.25.370)?
No. ___ Yes. ___ (If yes, answer Detailed Review questions on page 13)
10. Does the proposal include Flood Control Structures (JCC 18.25.380)?
No. ___ Yes. ___ (If yes, answer Detailed Review questions on page 14)
11. Does the proposal include In-stream Structures (JCC 18.25.390)?
No. ___ Yes. ___ (If yes, answer Detailed Review questions on page 15)
12. Does the proposal include Restoration (JCC 18.25.400)?
No. ___ Yes. ___ (If yes, answer Detailed Review questions on page 16)
13. Does the proposal include Structural Shoreline Armoring and/or Shoreline Stabilization (JCC 18.25.410)?
No. ___ Yes. ___ (If yes, answer Detailed Review questions on pages 17-19)

If the answer is "No" to all of the above, the likelihood of the project negatively affecting shoreline ecological functions is minimal and it is assumed that the "No Net Loss" requirement is met. Sign page 20.

62

DETAILED NNL REVIEW

Complete the questions below if the answer is 'Yes' to Preliminary NNL Review Question 6.

6. **The proposal includes Beach Access Structures.**

a. Will any beach access structure be constructed on a feeder bluff? Yes _____ No _____

If yes, explain how proposal complies with JCC 18.25.340(2). _____

b. Will the beach access structure be a private or public use? Private _____ Public _____

If public, was the proposal reviewed against regulations in JCC 18.25.290 and was the access restriction in JCC 18.25.340(4)(h) added to the plat? Yes _____ No _____

If no, explain: _____

c. Will the proposed project meet the requirements of JCC 18.25.340(4)(e), (4)(f), and (4)(g)?

Yes _____ No _____

If no, explain: _____

d. Was any information received during the course of the review indicating that the proposal should be prohibited (JCC 18.25.340(4)(j))? Yes _____ No _____

If yes, was the permit denied? Yes _____ No _____

If the permit was not denied, describe how the NNL requirement will be met. _____

65

Detailed tool with unique benefits

- Significant modification needed before it can be used by other local governments
- Tool benefits:
 - Guides reviewer to applicable provisions
 - Cross-purpose use
 - Internship potential

66

Other ideas for quantitative data to track

- **Shoreline stabilization (linear feet)**
 - New (hard, hybrid, soft)
 - Removal
 - Repaired and replaced (hard, hybrid, soft)
- **Mitigation**
 - Area (sf) or number of trees and shrubs planted
- **Restoration**
 - Number of trees and shrubs planted, area of invasive removal, etc.
- **Structural setback from OHWM (effective not regulatory)**
- **Trees removed**
- **Piles removal**

Field form

Field Form
(Shoreline Restoration Program Application or Permit Application)

Planner's Office
Planner's Office _____ Date _____

Project Information
MUA # _____ SDP # _____ or Case # _____
Landowner Name _____ Parcel Number _____
Project Address _____ Type of Ownership _____
Approved Project Summary _____

Shoreline Information
Shoreline Type: Marine _____ River _____ Lake _____
Waterbody Name _____ Shoreline Reach _____
Shoreline Environmental Designation: Priority Aquatic _____ Adrift _____ No In-water component _____
Shoreline Resilience: High _____ Moderate _____ Low _____
Type of shoreline approval: Shoreline Exemption Type I _____ Shoreline Substantial Development Type III _____
Conditional Administrative Type I(1) _____ Conditional Exemptions Type I or III _____ Variance Type III _____

Site Assessment Information
Has project been completed? Yes _____ No _____
If no, describe construction activity to date _____
Is the as-built project consistent with the permit conditions and the approved plans? Yes _____ No _____
If no, describe the variation _____

INDICATORS OF SHORELINE FUNCTION

Marine Indicators	Pre-development	Post-development
Riparian Vegetation: Approximate square footage of forest canopy forest cover within 300-foot shoreline buffer and 30-foot building setback (300-foot buffer).	_____ sf	_____ sf
Development Below OHWM: Number and type of structures in water development in square feet. If feasible, describe percent of development below OHWM, percent light penetrating, materials used.	_____ sf	_____ sf
Area of Native Grasses and Sedge Beds: Approximate square feet of riparian and sedge beds proposed project at the OHWM point in linear feet.	_____ sf	_____ sf
Development Above OHWM: Approximate square footage of riparian areas to be converted to riparian habitat.	_____ sf	_____ sf
Marine Comments: _____		

River/Stream Indicators	Pre-development	Post-development
Riparian Vegetation: Approximate square footage of forest canopy forest cover within 300-foot shoreline buffer and 30-foot building setback (300-foot buffer).	_____ sf	_____ sf
Development Below OHWM: Number and type of structures in water development in square feet. If feasible, describe percent of development below OHWM, percent light penetrating, materials used.	_____ sf	_____ sf
Development Above OHWM: Approximate square footage of riparian areas to be converted to riparian habitat.	_____ sf	_____ sf
River Comments: _____		

Lake Indicators	Pre-development	Post-development
Riparian Vegetation: Approximate square footage of forest canopy forest cover within 300-foot shoreline buffer and 30-foot building setback (300-foot buffer).	_____ sf	_____ sf
Development Below OHWM: Number and type of structures in water development in square feet. If feasible, describe percent of development below OHWM, percent light penetrating, materials used.	_____ sf	_____ sf
Development Above OHWM: Approximate square footage of riparian areas to be converted to riparian habitat.	_____ sf	_____ sf
Lake Comments: _____		

INDICATORS OF SHORELINE FUNCTION

- Projects with riparian vegetation impacts - describe any variations from submitted application and/or permit requirements, and potential implications for ecological function _____
- Projects with development below OHWM impacts - describe any variations from submitted application and/or permit requirements, and potential implications for ecological function _____
- Projects with development above OHWM impacts - describe any variations from submitted application and/or permit requirements, and potential implications for ecological function _____
- Projects requiring mitigation for project impacts - describe any variations from submitted application and/or permit requirements, and potential implications for ecological function _____
- Projects approved as shoreline restoration - describe any variations from submitted application and/or permit requirements, and potential implications for ecological function _____

Additional Comments: _____

Photo Log (include photo number and description): _____

Field form, page 2

River/Stream Indicators	Pre-development	Post-development
Riparian Vegetation: Approximate square footage of closed canopy forest cover within 150-foot shoreline buffer and 10-foot building setback (160 feet total).	<u>1,200</u> sf	<u>1,200</u> sf
Development Below OHWM: Number and type of overwater/in-water development in square feet. If feasible, describe percent of development below OHWM, percent light penetrating, materials used.	<u>0</u> sf	<u>0</u> sf
Development Above OHWM: Approximate square footage of vegetated areas to be converted to impervious surface.	<u>0</u> sf	<u>300</u> sf

River Comments _____

Field form, pg. 3

INDICATORS OF SHORELINE FUNCTION

- Projects with **riparian vegetation** impacts – describe any variations from submitted application and/or permit requirements, and potential implications for ecological function:

- Projects with **development below OHWM** impacts – describe any variations from submitted application and/or permit requirements, and potential implications for ecological function:

- Projects with **development above OHWM** impacts – describe any variations from submitted application and/or permit requirements, and potential implications for ecological function:

- Projects requiring **mitigation** for project impacts – describe any variations from submitted application and/or permit requirements, and potential implications for ecological function:

- Projects approved as shoreline **restoration** – describe any variations from submitted application and/or permit requirements, and potential implications for ecological function:

Additional Comments: _____

Photo Log (include photo number and description):

Term-limited monitoring

- SMP implementation - *What's working well? What isn't?*
- Address gaps through adaptive management strategies.
- Program depends on grant fund.

73

Q&A

TYPE YOUR QUESTIONS IN THE Q&A BOX IN YOUR TOOLBAR



74

Poll



?

Using your permit record system, would you be able to easily identify projects that occurred on a site with a wetland or wetland buffer?

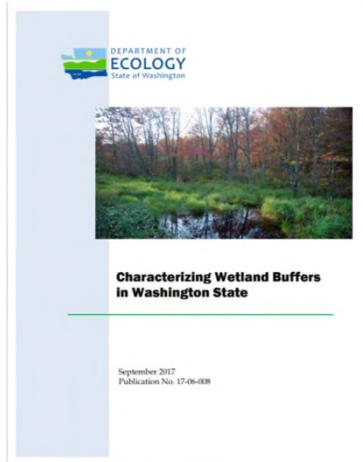
Yes, No, Unsure
N/A to my role

75

Monitoring tool for assessing wetland buffers

Tool for comparing issued permits to CAOs

Wetland buffer monitoring methodology



- View webinar #3 (Wetlands) here:
 - <https://vimeo.com/511297165/e415b0684a>
- Manual available here:
 - <https://apps.ecology.wa.gov/publications/documents/1706008.pdf>
- Desk assessment followed by field verification
- Today's focus is the desk assessment

77

Desk assessment

- 8 questions
- Help pinpoint CAO implementation strengths and weaknesses
- Ability to ID permits
- Created for wetland buffer monitoring but transferable to other monitoring efforts



Chuckanut Village Marsh, Whatcom County (Source: Department of Ecology)

78

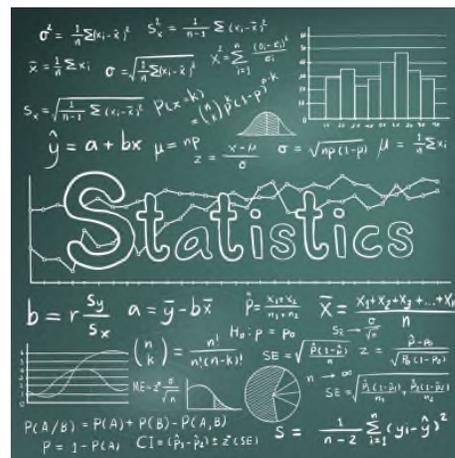
Instructions and worksheets for answering questions

- Appendix B provides instructions and worksheets for answering the 8 questions.

81

Sample size: How many permits?

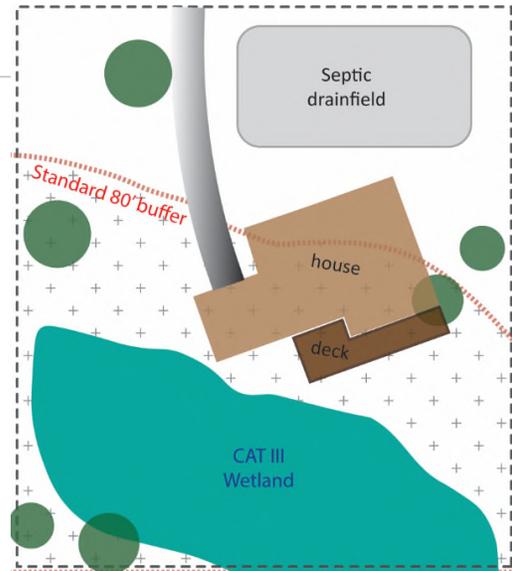
- **Census – 100% of permits issued within a period of time.**
 - Select a manageable timeframe.
 - Consider a timeframe that doesn't span a code change (i.e., permits issued both before and after a CAO update).
- **Manual includes a sampling methodology.**



82

Scenario

- CAO requires 80' buffer for Category III wetlands with low habitat score
- CAO allows 25% buffer reduction with minimization measures
- CAO allows RUE if project meets criteria
- Permit requires buffer ranging from 5-15'
- RUE granted but no documentation of how it meets RUE criteria



83

Scenario and tool modification

Fencing required?

Signage required?

Permit Number	Is buffer same as standard CAO	Buffer changes consistent with CAO	Justification for changes documented	RUE provisions consist with CAO	Buffer vegetation management consistent with CAO	Fencing consistent with CAO	Signs consistent with CAO	Overall width requirement the same, more or less protective than requirements in CAO
XYZ	N	N/A	N/A	N	N/A	?	?	<

Y = Yes
 N = No
 NPD = Not possible to determine
 N/A = Not applicable
 < = Less protective than CAO
 > = More protective than CAO

84

Interpreting results

A jurisdiction may want to review its policies, regulations, and procedures to determine where improvements in wetland protection are needed.



85

Audience engagement scenario

- Desk assessment complete
- 3 years worth of records assessed
- 35% resulted in RUEs that allowed wetland buffers to be developed

Are the provisions for a buffer reduction under a Reasonable Use Exception (RUE) or variance in the permit consistent with the requirements in the CAO?

_____ Yes No _____ N/A

Comments:

Staff report states project is consistent with RUE criteria w/o explanation. Site plan and file documents do not substantiate. No minimization evident in design. No documentation of why encroachment was the minimum necessary.

86

Pop quiz

Given this scenario, what would you recommend as a next step?

- Additional staff training.
- A field assessment to evaluate buffer effectiveness.
- Adding an application requirement to document RUE criteria consistency.
- Attempt to understand if there is a barrier to effective CAO implementation such as political pressure to approve permits, a lack of technical expertise, or poorly written code.
- All of the above.
- Other. Use Chat to share with the group.

87

Ecology contacts:

Is your local government interested in using this tool to monitor wetland buffer regulations?



Dr. Amy Yahnke

Shorelands & Environmental Assistance Program
ayah461@ecy.wa.gov

Rick Mraz, PWS

Wetland Policy Lead
 Shorelands & Environmental Assistance Program
rmra461@ecy.wa.gov
 360-407-6924 (desk) / 360-810-0024 (cell)

Nate Brown

Critical Areas Ordinance Specialist
 Shorelands & Environmental Assistance Program
Nate.Brown@ecy.wa.gov

88

Q&A

TYPE YOUR QUESTIONS IN THE Q&A BOX IN YOUR TOOLBAR



89

Summary

- 1st
Shoreline desk assessment tool (occasional monitoring)

- 2nd
Suite of SMP monitoring tools (comprehensive monitoring program)

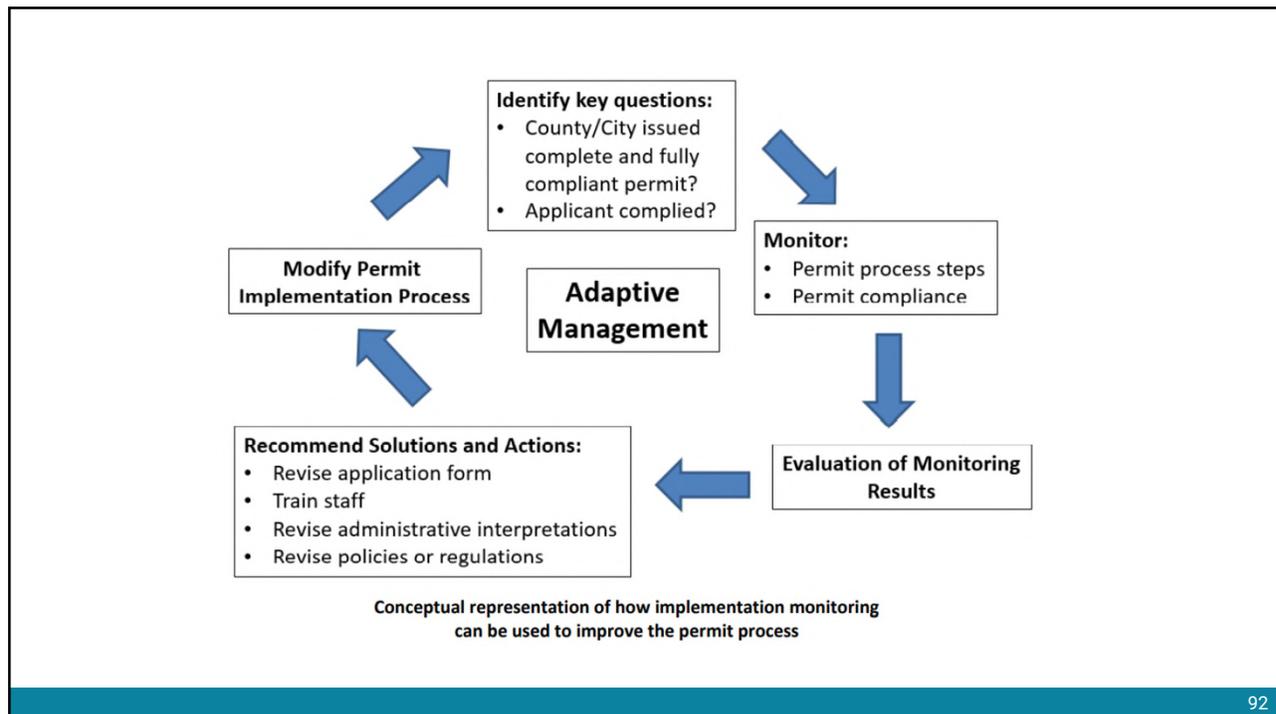
- 3rd
Methodology for monitoring buffer regulations (occasional monitoring)


90

Wrap up

- All communities are different. So, it's important to consider:
 - Reasons for monitoring
 - Key questions
 - What information is available
 - How tools will help collect and synthesize information and if/how tools will be modified to answer key questions
 - Who will monitor
 - Training needed?
 - Avoid bias
 - Validation (checking results)

91



92

Join us next week!

- The discussion on monitoring tools continues next week.



March 17 - 9:00 a.m. - 11:00 a.m.
High Resolution Change Detection

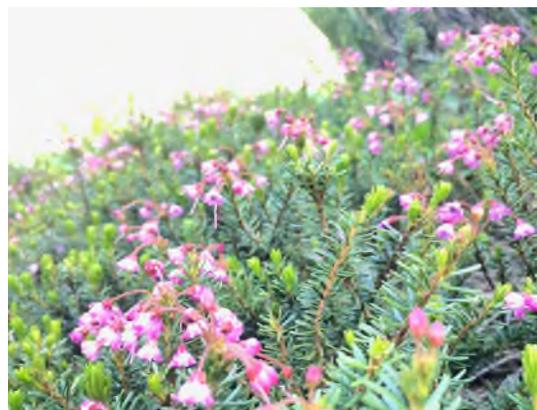
93

Contact information:

Thank you

Carolyn Chase
SMA Compliance Program Planner
Washington Department of Ecology

(360) 706-4981 (cell)
cach461@ecy.wa.gov



94

Thank you!



Washington
Department of
**FISH and
WILDLIFE**



Washington State
Department of
Commerce



DEPARTMENT OF
ECOLOGY
State of Washington

CAROLYN CHASE

SMA COMPLIANCE PROGRAM PLANNER
WASHINGTON DEPARTMENT OF ECOLOGY
cach461@ecy.wa.gov
Cell: 360-706-4981

MISTY BLAIR

SHORELINE MANAGEMENT POLICY LEAD
WASHINGTON DEPARTMENT OF ECOLOGY
misty.blair@ecy.wa.gov
425-649-4309