

Shoreline Master Program Implementation Study

Study Procedures

Ву

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For the

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¹ www.ecology.wa.gov/contact

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Southwest	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum Clallam, Clark, Cowlitz, Grays Harbor, P.O. Box 47775 Olympia, WA 98504		360-407-6300
Northwest	IorthwestIsland, King, Kitsap, San Juan, Skagit, Snohomish, WhatcomP.O. Box 330316 Shoreline, WA 98133		206-594-0000
Central	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 West Alder Street Union Gap, WA 98903	509-575-2490
Eastern	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 North Monroe Spokane, WA 99205	509-329-3400
Headquarters	Statewide	P.O. Box 46700 Olympia, WA 98504	360-407-6000

SMP Implementation Study

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Shorelands and Environmental Assistance Program Washington State Department of Ecology

Olympia, WA

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Quality Assurance

This guide presents Standard Operating Procedures (SOP) for staff conducting the SMP Implementation Study. Executive Policy 22-01 and Ecology's Quality Management Plan require that the quality of data collected in the agency be known, documented and reasonable for the intended uses.

Approved by:

Signature: Signature on File

Date: <u>11/12/24</u>

Amy Yahnke, SEA Program Quality Assurance Coordinator Department of Ecology

Abstract

The <u>Shoreline Management Act</u>² (SMA) establishes three priorities or goals: planning for preferred uses, protecting the environment, and promoting public access. The SMA is implemented by local governments across Washington when they administer and enforce their <u>shoreline master programs³</u> (SMP). SMPs are locally tailored management plans that regulate new land uses, developments, and certain activities within shoreline jurisdiction. Approximately 260 local governments are involved in shoreline management. The decentralized nature of shoreline management creates a challenge for understanding on a statewide basis if the goals of the Act are being met through SMP implementation.

The **SMP Implementation Study** is an ongoing effort to investigate shoreline management statewide to understand how planning and permitting systems are working and how they can be improved. The Study has two approaches:

- **SMP Implementation Review** An approach designed for local governments that regularly issue shoreline permits. The SMP Implementation Review evaluates regulatory compliance, collects data on local permit processes, and identifies development trends. Findings from the SMP Implementation Review can be used by the Department of Ecology (Ecology) and local governments to improve regulatory systems so that the goals of the SMA are better achieved through SMP implementation.
- **SMP Implementation Check-In** An approach for local governments that issue few shoreline permits. The SMP Implementation Check-In is an opportunity to touch base with local governments that issue few shoreline permits. An SMP Implementation Check-In provides a means for Ecology to establish or re-establish contact with a local government for the purpose of understanding if there are any problems or issues with SMP implementation and to offer assistance if necessary. The SMP Implementation Check-In also provides an opportunity to enhance the working relationship between the State and local governments involved in shoreline management.

² <u>https://apps.leg.wa.gov/rcw/default.aspx?cite=90.58</u>

³ <u>https://ecology.wa.gov/Water-Shorelines/Shoreline-coastal-management/Shoreline-coastal-planning/Shoreline-Master-Programs</u>

Chapter 1. Introduction

The <u>Shoreline Management Act</u>⁴ (SMA) requires the coordinated planning of shorelines of the state to meet the goals of: planning for preferred uses, protecting the environment, and promoting public access. The intent of the SMA is to prevent the inherent harm in the uncoordinated and piecemeal development of the state's shorelines by planning for and fostering all reasonable and appropriate uses. SMA goals are implemented by local governments and the Department of Ecology (Ecology) in a local-state-partnership model established by the Act.

Every local government engaged in shoreline management has a locally tailored <u>shoreline</u> <u>master program</u>⁵ (SMP), a management plan that regulates new land uses, developments, and certain activities within shoreline jurisdiction. Approximately 260 towns, cities, and counties are involved in shoreline management. It is through permit system administration, outreach, education, compliance efforts, and enforcement actions that these local governments implement their SMP.

Ecology largely plays a supportive role. We provide technical assistance to local governments, deliver trainings, develop guidance resources, and administer grant programs. Ecology also renders final decisions on shoreline variance and conditional use permits.

The decentralized nature of shoreline management presents a challenge for understanding if the goals of the SMA are being achieved through the implementation of SMPs. The SMP Implementation Study (Study) has been developed as a feedback mechanism for understanding and improving SMP implementation. Study findings can help Ecology and local governments improve permit processes, shoreline planning, training and resource delivery, education and outreach, and may also inform rulemaking (Figure 1).

Local governments experience different levels of development pressure in shoreline areas. For this reason, the Study includes two approaches.

- The **SMP Implementation Review** is an approach designed for local governments that regularly issue shoreline permits.
- The **SMP Implementation Check-In** is an approach designed for local governments that issue few shoreline permits.

This document includes information on how to determine which approach is appropriate for a local government and how to conduct the Study using both approaches.

This methodology builds on monitoring and adaptive management guidance from the Washington State Department of Commerce in the <u>Critical Areas Handbook</u>,⁶ Chapter 7.

⁴ <u>https://apps.leg.wa.gov/rcw/default.aspx?cite=90.58</u>

⁵ <u>https://ecology.wa.gov/Water-Shorelines/Shoreline-coastal-management/Shoreline-coastal-planning/Shoreline-Master-Programs</u>

⁶ <u>https://deptofcommerce.box.com/s/rlysjrfvrxpxwnm9jvbcd3lc7ji19ntp</u>



Figure 1. The SMP Implementation Study represented as a feedback loop.

Purpose

To ensure no net loss (NNL) of shoreline ecological functions, comprehensively updated SMPs must contain provisions that address adverse cumulative impacts. Prior to SMP approval, an assessment is completed to understand if the policies, programs, and regulations of the SMP are protective enough to ensure that reasonably foreseeable future development will result in in NNL of shoreline ecological functions (WAC 173-26-186(8)(d)).⁷ It is through the careful and complete implementation of SMPs that NNL is achieved. This makes understanding SMP implementation a critical step in evaluating the cumulative effects of authorized development on shoreline conditions.

Ecology developed the Study to be a feedback loop on SMP implementation. It is an approach to understanding how carefully and completely local SMPs are being implemented, to identifying the challenges faced in local implementation, and to find trends in shoreline development that can inform future planning efforts.

⁷ <u>https://apps.leg.wa.gov/WAC/default.aspx?cite=173-26-186</u>

Study findings create an opportunity for Ecology and the participating local governments to make data-driven improvements to regulatory systems. The Study is a repeatable methodology that is completed by Ecology with a participating local government. Because the Study is meant to be repeated over time with local governments from across the state, the collective findings will provide information about SMA and SMP implementation statewide.

The Study explores shoreline permitting processes, assesses permit compliance, identifies implementation gaps, considers development trends, and recommends solutions to addressing implementation gaps when they are found.

Findings can be used by participating local governments to make system changes that will improve SMP implementation and more effectively achieve the policy goals of the SMA and local SMP. For example, Study findings may identify implementation gaps that could be filled by:

- Permit process changes.
- Additional staff training.
- Education and outreach.
- SMP amendments.
- Other system changes.

When the Study is conducted on an ongoing basis across the state, information can be compiled to inform system changes that are led by Ecology, such as:

- Developing trainings
- Producing new guidance
- Revising grant programs
- Creating new resources and tools
- Rulemaking
- Making other system changes

Goal

The goal of the Study is to gain knowledge about shoreline management that can be used to improve the way local and state regulatory systems achieve SMA policy objectives.

Objectives

The SMP Implementation Review and SMP Implementation Check-In have different objectives.

The SMP Implementation Review approach has four key objectives.

- 1. To understand if shoreline authorizations are being issued in compliance with the SMP.
- 2. To understand if approved shoreline projects are built in compliance with the issued authorization.
- 3. To evaluate whether planning-level assumptions about reasonably foreseeable development are consistent with development trends.

4. To identify implementation gaps and to identify practical recommendations for addressing them.

The SMP Implementation Check-In approach has a single objective:

1. To support careful and complete SMP implementation efforts through conversations with local partners.

Authorities

The Study is a collaborative effort, led by Ecology that depends on the **voluntary participation** of local governments. The Study is consistent with authorities given to Ecology by the SMA and with the requirements of the State Master Program Guidelines, <u>WAC 173-26 Part III</u>.⁸

The SMA defines a state-local partnership in shoreline management whereby local governments have primary responsibility for SMP planning and administration of the regulatory program that implements the SMP, including permitting and enforcement (RCW 90.58.050 and 90.58.140(3)). The SMA defines a special role for Ecology in ensuring compliance:

Program as cooperative between local government and state—Responsibilities differentiated. This chapter establishes a cooperative program of shoreline management between local government and the state. Local government shall have the primary responsibility for initiating the planning required by this chapter and administering the regulatory program consistent with the policy and provisions of this chapter. The department shall act primarily in a supportive and review capacity with an emphasis on providing assistance to local government and on insuring compliance with the policy and provisions of this chapter. (RCW 90.58.050,⁹ emphasis added)

Provisions within the State Master Program Guidelines provide the framework for the Study.

WAC 173-26-191(2)(a)(iii)(D)¹⁰ requires local governments to document, or track, all project review actions within shoreline jurisdiction, and to identify a process for periodically evaluating the cumulative effects of authorized development. The Guidelines offer that the process for periodically evaluating cumulative effects of authorized development could involve a coordinated, joint effort involving local governments, state resource agencies, affected Tribes, and other parties.

⁸ https://apps.leg.wa.gov/WAC/default.aspx?cite=173-26

⁹ https://app.leg.wa.gov/rcw/default.aspx?cite=90.58.050

¹⁰ https://apps.leg.wa.gov/WAC/default.aspx?cite=173-26-191

WAC 173-26-191(2)(a)(iii)(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 <i>Track</i> 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.

Figure 2. Understanding WAC 173-26-191(2)(a)(iii)(D)

Ecology is required to review and if necessary update SMP Guidelines based on information on the efficiency and effectiveness of SMP Guidelines in achieving the policy objectives (WAC 173-26-171(3)(d)¹¹ and WAC 173-26-201(2)(b)).¹²



Figure 3. Understanding WAC 173-26-171(3)(d)

¹¹ https://app.leg.wa.gov/wac/default.aspx?cite=173-26-171

¹² https://app.leg.wa.gov/WAC/default.aspx?cite=173-26-201



Background

Across Washington, SMPs have been adopted that hold the line on new environmental impacts through regulations meant to ensure NNL of the ecological functions necessary to sustain shoreline resources.

For nearly two decades, Ecology has focused on comprehensively updating all SMPs to ensure consistency with the 2003 SMP Guidelines. These guidelines, among other things, require an environmental protection standard of NNL of shoreline ecological functions (see Ecology's guidance on <u>Shoreline No Net Loss and Mitigation</u>¹³ for more information).

Beyond NNL protections, SMPs protect the public interest in fostering the reasonable use of shorelines, and maintaining shoreline public access.

Today, most SMPs have been comprehensively updated and shoreline management efforts have shifted to:

- Ensuring SMPs stay up to date through their periodic review,
- Climate-resiliency planning, and
- Improving implementation.

In response to a State/Tribal riparian initiative, the 2022 state legislature provided funds for six new ongoing positions at Ecology. Additional resources were provided to expand SMA compliance and enforcement capacity within the Shorelands and Environmental Assistance

¹³ https://apps.ecology.wa.gov/publications/summarypages/2306008.html

Program (SEA Program). New staff were hired in early 2023 and began developing the SMP Implementation Study to be a cornerstone of the new team's compliance efforts.

Philosophy and approach

Ecology staff working on the Study will take an approach that is respectful of the state-local partnership and understanding of local situations that influence SMP implementation. Study findings and staff interactions are focused on improving implementation moving forward, not on past challenges or oversights.

A rational for this approach is summarized below:

- **Respect for the state-local partnership.** In Washington, shoreline management is a partnership between Ecology and local governments. In this partnership, local governments are given the primary responsibility for SMP administration (WAC 173-27-020). Local government staff involved in shoreline management will often have a deep understanding of development trends and SMP implementation challenges.
- Understand local situations. Shoreline management can be complex and the careful and complete implementation of SMPs can be difficult for reasons that are outside of the control of a single staff person, a department, or even the local government.
- **Future-oriented focus.** When SMP implementation gaps are identified through the Study, Ecology's focus is not backwards. Instead, the interest is in what realistic changes Ecology and the local government can make to improve implementation moving forward.

Chapter 2. Community Selection Process

Each year, Ecology will select communities to participate in the Study. Selection is prioritized based on four factors:

- **Timing:** The length of time since a community last participated in the Study or Check-In, and whether the timing of participation will allow results to be effectively used in an SMP periodic review.
- **Development:** The amount of shoreline development occurring, or anticipated to occur, within a jurisdiction's boundaries.
- Value: How useful the Study and its findings might be to the local government and Ecology.
- **Engagement:** The willingness and ability for a local government to participate in the Study.

SEA Program regional offices will make decisions about which communities will be invited to participate in the Study. Regional Section Managers will make final decisions based on a recommendation provided by the regional Shoreline Compliance and Enforcement Specialist (CE Specialist) and SMA Compliance Lead. This recommendation will consider the feedback of regional office staff involved in shoreline permit review and planning.

Regional	Counties	Cities and	Total
Office		Towns	
CRO	7	40	47
ERO	13	42	55
SWRO	12	62	74
NWRO	7	76	83

Table 1. Local governments with an SMP by Ecology Regional Office

Considerations in community selection

Timing

CE Specialists will consider the amount of time that has passed since the jurisdiction last participated in the Study. This information will be tracked by the SMA Compliance Lead.

CE Specialists will consider whether a jurisdiction's participation in the Study will allow results to be effectively used during their next SMP periodic review. Generally, participation within the two years preceding a periodic review will be most useful for planning purposes. Local governments periodically review their SMP on a 10-year schedule outlined in <u>RCW 90.58.080</u>.¹⁴

The date of periodic review is not an important consideration for communities that are only eligible for an SMP Implementation Check-In.

¹⁴ <u>http://app.leg.wa.gov/RCW/default.aspx?cite=90.58.080</u>

Development pressure

In considering how much shoreline development pressure a local government has, or may experience, the CE Specialist may consider the following in their recommendation to the Regional Manager:

- Number of shoreline permits within Ecology's Shoreline Permit Tracking System (SPTS) in last three years.
- Number of exemptions from the SDP process (SDP exemptions) in last three years, if known by Ecology.
- Most recent <u>County growth projections</u>¹⁵ from the Washington Office of Financial Management (Error! Reference source not found.).
- Other relevant information on growth and development pressure.



Figure 5. Example of a GMA population projection (Source: Office of Financial Management)

Value

In considering how valuable participating in the Study might be for a given local government, CE Specialists may consider the following in their recommendations to the Regional Section Managers:

¹⁵ <u>https://ofm.wa.gov/washington-data-research/population-demographics/population-forecasts-and-projections/growth-management-act-county-projections</u>

- Issues identified by local government staff.
- Issues identified by Ecology regional permit review and planning staff.
- Issues identified by Tribes and not-for-profit organizations.
- Number of shoreline variance permits.
- Findings from the last SMP Implementation Review or Check-In.

Willingness and ability to participate

CE Specialists will consider a local government's willingness and ability to participate in the Study in their recommendations to the Regional Managers. A CE Specialist's understanding of a local government's willingness and ability to participate will likely require preliminary outreach to local government contacts to gauge their interest.

Determining which approach is appropriate

The Study will not include local governments that do not have a comprehensively updated SMP. Additionally, the Study will not include communities that have been using their comprehensively updated SMP for less than one year (See Figure 6).

Communities that issue few permits, or that have been using their comprehensively updated SMP for less than two years (but more than one) will be offered the SMP Implementation Check-In (See Chapter 4). All other local governments will be offered the SMP Implementation Review.



Figure 6. Study approach flowchart

Invitation to participate

Local governments are invited to participate in the Study via email. Generally, this will occur after an initial informal communication has already occurred (telephone conversation, email exchange, etc.) between a CE Specialist and the local government, where information has been

shared about the Study. Invitations sent without prior communication about the Study should be avoided whenever possible.

This template can be used to invite local governments who are eligible for the **SMP Implementation Review** approach to participate in the Study (CE Specialists may modify as needed):

Dear [Planning Manager Name],

[Jurisdiction Name] has been selected to participate in this year's SMP Implementation Study.

Find out more here: [website address]

Please respond with the name and contact details of the staff person who will be my point of contact.

Each year, Ecology partners with local governments from across the state on a Shoreline Management Act Implementation Study. The Study is Ecology's approach to understanding SMP implementation on a statewide basis, and for answering questions about the effectiveness of components of the SMP Planning Guidelines that underpin all SMPs (WAC 173-26 Part II).

Your participation in the Study is a great way to prepare for your next SMP periodic review. Study results can be used for adaptive management purposes by local governments and Ecology.

We estimate that your participation will require 15 to 20 staff hours over the course of two to three months. Your participation is voluntary.

Thank you,

[CE Specialist Name]

A less formal approach will generally be taken with local governments that are eligible for the SMP Implementation Check-In.

Scheduling

The CE Specialist will work with all participating local governments in their region to schedule those portions of the SMP Implementation Review that require local government participation (i.e., meetings, the collecting and transmittal of data). Scheduling should occur months in advance of the Study to ensure that key staff at the local government can schedule in time for their participation.

Although participation in an SMP Implementation Check-In requires less time from local government staff, the CE Specialist should still schedule the meeting far in advance to ensure that key staff at the local government can participate.

Chapter 3. SMP Implementation Review Approach

The SMP Implementation Review has seven parts that generally occur in order, although some overlap is expected. These steps are:

- 1. Hold kickoff meeting.
- 2. Collect records and data.
- 3. Assess permit compliance.
- 4. Create maps and analyze trends.
- 5. Compare development trends to NNL assumptions.
- 6. Make findings and recommendations in collaboration with the local government.
- 7. Provide assistance to improve compliance.



Figure 7. SMP Implementation Review approach process steps.

Roles and responsibilities

The SMP Implementation Review is led by Ecology but requires the voluntary participation of local governments involved in shoreline management. Study design has minimized the time and resources required of local governments as a way of lowering barriers to participation.

Ecology roles and responsibilities

Regional CE Specialists have the primary responsibility for conducting the SMP Implementation Review. CE Specialists serve as the point of contact, carry out all scheduling and coordination requirements, conduct the SMP Implementation Review, and manage all associated documents and records. CE Specialists are also responsible for making a recommendation to SEA Program Regional Section Managers on community selection. This recommendation will consider feedback from regional office staff involved in SMP permit reviews and planning.

Regional Section Managers make all final decisions on the communities formally invited to participate in the Study.

The **SMA Compliance Lead** is responsible for reviewing preliminary and final findings, keeping methods and tools updated, and synthesizing local-level information to answer questions about shoreline management statewide. The Lead will track local government participation in the Study and provide general support, guidance, and backup to the CE Specialists on all aspects of the Study.

The **SMA Policy Lead** provides high-level, programmatic direction to the SMA Compliance Lead on the Study.

Local government roles and responsibilities

The local government staff participating in the Study will differ jurisdiction to jurisdiction depending on size, organizational structure, availability, and other factors. At a minimum, CE Specialists will need the participation of one local government employee with a strong understanding and involvement in:

- Shoreline permit reviews.
- SMP planning.
- Shoreline permit records management.

Participating local government staff will need to be able to meet with Ecology at a kickoff meeting; identify, collect, and transfer useful data; and review preliminary Study findings.

It is estimated that the time commitment for a local government to participate in the SMP Implementation Review is between 15 and 25 hours, with the most important variables being:

- The number of staff to participate in the initial kickoff meeting.
- The number of staff to review preliminary findings.
- How easily shoreline permit and SDP exemption records can be identified, collected, and transmitted to Ecology.

Local government responsibilities may be divided amongst staff for efficiency. For example, the individual tasked with collecting and transferring permit data may not be the same employee who participates in the kickoff meeting and reviews preliminary findings.

Table 2. Estimate of local government time commitment (SMP Implementation Review approach)

Task	Scenario 1	Scenario 2	Scenario 3
Attend kickoff meeting	2.5 hours (1	5 hours (2	7.5 hours (3
and complete survey	employee attends)	employees attend)	employees attend)
Identify, collect, and	10 hours	10 hours	10 hours
transfer useful data			
Review preliminary	2.5 hours (1	5 hours (2	7.5 hours (3
findings	employee reviews)	employees review)	employees review)
Total	15 hours	20 hours	25 hours

Kickoff meeting

The local government's role in the SMP Implementation Review begins at the kickoff meeting. A kickoff meeting is a 1.5- to 2-hour event where Ecology asks open-ended questions about SMP administration and implementation. Meetings should be in person (preferred) but virtual is possible. Following the kickoff meeting, an online survey is administered.

The purpose of a kickoff meeting is to:

- Ensure the local government understands the SMP Implementation Review process and their role.
- Establish what local government data exist and how relevant data will be shared with Ecology.
- Learn about local SMP administration.

Preparation

To prepare for the kickoff meeting, CE Specialists should:

- 1. Review SMP-related webpages, application forms and materials, and any other shoreline resources available on the local government's website.
- 2. Review the SMP.
- 3. Talk with the assigned Ecology shoreline permit specialist and planner to understand what they know about SMP implementation strengths and challenges.
- 4. Review past emails, meeting notes, or other documents relevant to SMP implementation.
- 5. Review the Cumulative Impacts Analysis developed at the time the SMP was comprehensively updated.
- 6. Query SPTS records and the SEPA registry to understand the type of shoreline development that is occurring.
- 7. Determine whether the Ecology-approved version of the SMP is being used by the local government as a standalone document or if it has been codified. If codified, the CE Specialist will determine whether there have been any amendments to the SMP that were not approved by Ecology using the following steps:

Step 1. In the LocalGov file in Ecology's F-drive,¹⁶ find the local ordinance number and date approving the most recent Ecology approved SMP amendment.

Step 2. Find relevant code chapters and titles that contain SMP regulations. Note that it is common for critical areas regulations that have been incorporated into the SMP to be in a separate code chapter. At the bottom of each code section there will be references to the ordinance number(s) that resulted in the adopted code. Note any ordinance numbers more recent than what was found in Step 1 above. Older ordinance numbers predating the approval of the ordinance found in Step 1 will be common and do not need

¹⁶ F:\ECYAllShare\SEA\Shorelines\SMP\LocalGov\

to be noted. Do not verify code sections related to permit system administration and enforcement. $^{\rm 17}$

Step 3. Note any instances where there appear to be code amendments **more recent** than the last amendment approved by Ecology. Talk to the Ecology shoreline planner assigned to the jurisdiction before deciding whether this is a Study finding to address with the local government.

Meeting attendance and roles

The assigned CE Specialist for the jurisdiction will coordinate and facilitate the meeting. The CE Specialist is the only required participant from Ecology, however the Ecology shoreline permit reviewer, shoreline planner, and SMA Compliance Lead should be invited and encouraged to attend.

The kickoff meeting will result in important qualitative data, making notetaking an important function. For this reason, it is highly preferred that the CE Specialist facilitates the meeting, and another Ecology employee is responsible for taking detailed notes.

Ecology will request that key individuals from the participating local government with knowledge and experience in the following areas attend the kickoff meeting:

- Pre-application conferences/meetings
- Permit records management
- Shoreline permit reviews and decisions
- Field inspections for shoreline projects
- Mitigation monitoring
- Code compliance

At a minimum, one local government staff must participate in the kickoff meeting who has a strong understanding of how shoreline permits are taken in and processed and who can answer questions about shoreline records and data.

Meeting agenda

Kickoff meetings are semi-structured interviews where the interviewer can go off script so that the participating local government can take the conversation beyond the limits of the agenda.

Only the basic meeting agenda is shared with the participating local government. The facilitator's agenda is used as a discussion guide where sub-bullets are prompting questions the CE Specialist may ask to start a conversation or to gain a deeper understanding of a topic.

¹⁷ Permit system administration and enforcement rules are required and necessary to administer and enforce the SMP, but they do not need to be in the SMP. Ecology recommends that local governments group them with other administration and enforcement regulations in the local code. That may be more efficient for local staff and would not involve SMP amendments if changes are needed. Permit fee structures should not be included in the SMP. If the code provisions are located outside the SMP, they don't need an SMP amendment but still needs to be reviewed for consistency with the SMP and Chapter 173-27.

CE Specialists have a high degree of flexibility in how they facilitate and conduct the kickoff meeting. For example, the preparation that a CE Specialist does before the kickoff meeting may identify certain topics and questions that will be most important to focus on. Or a CE Specialist may decide to revise the basic kickoff meeting agenda to get broader participation and interest from a local government.

Basic kickoff meeting agenda:

- 1. Introductions
- 2. Overview of the SMP Implementation Review process
- 3. Local permit processes
- 4. Known implementation challenges
- 5. Code enforcement resources
- 6. Information sharing
- 7. Next steps

Facilitator's kickoff meeting agenda:

- 1. Introductions
- 2. Overview of the SMP Implementation Review process
 - [Facilitator's note: After explaining the process, ask if there are particular implementation and compliance questions that the local government hopes the SMP Implementation Review may shed light on.]
- 3. Local permit processes

<u>GENERAL</u>

- Who is involved with reviewing shoreline permits and exemptions and what are their roles?
- How experienced are permit review staff with your SMP?
- Tell me about your process for holding pre-application meetings. Are pre-application meetings typical for shoreline development proposals?
- Do you have permitting software that identifies properties within shoreline jurisdiction? If so, can this database be used to identify all shoreline permits and shoreline permit-exempt projects?
- What technical expertise is available in-house for reviewing special biological reports and geotechnical reports?
- Do you have access to third party review help (e.g., on-call consultant contract)?

SITE INSPECTIONS

- \circ Are site visits typically conducted before a decision is made on shoreline proposals?
- Once a project is approved, is it typical for there to be a site inspection during construction that focuses on verifying shoreline permit compliance?

EXEMPTIONS AND REVIEWS

• Some development is exempt from the requirement to get a shoreline permit because it qualifies for an exemption. [*Provide examples of qualifying exemptions.*] Does the

City/County have a process for documenting the exemptions you authorize? Tell me about that process.

- If someone submits a construction permit application to build a new deck or a fence something relatively small - is there a process for ensuring that application is reviewed against the SMP?
- On-site sewage systems require permits from the County health department (or similar). Is there an established process for ensuring on-site sewage system permits are being reviewed for consistency with the SMP?

<u>MITIGATION</u>

- When a shoreline project includes compensatory mitigation, is it typical that mitigation sites will be inspected in the field to verify mitigation was installed or completed?
- Tell me about any processes you have for keeping track of compensatory mitigation sites and understanding if they are successful over the monitoring period?
- Are there resources to review mitigation monitoring reports?
- Are there resources to follow up if mitigation sites are not meeting performance standards?

4. Known SMP implementation challenges

 Has staff identified challenges in implementing the SMP? Examples might be a confusing provision that is hard for staff to interpret or a regulatory concept that is hard to communicate to the public.

5. Code enforcement resources

- What resources does the City/County have for code compliance and enforcement?
- Are environmental code violations investigated and addressed? Or are resources prioritized for fire, life, and safety violations?
- \circ Do you have any thoughts or concerns about shoreline violations in your jurisdiction?

6. Information sharing

 [Facilitator's Note: Discuss the records that Ecology hopes to collect, how this might be accomplished, and likely challenges. Use Appendix A to help you with this conversation.]

7. Next steps

- [Facilitator's Note: Review commitments that have been made during the meeting and discuss immediate next steps for data collection and sharing.]
- [Facilitator's Note: Discuss completing Appendix A if it was not completed during the kickoff meeting itself. This is a task that can be finished via email following the kickoff meeting.]

Use of kickoff meeting information

Information collected at the kickoff meeting helps Ecology to identify known implementation strengths and gaps and provides context for study findings. An understanding of local permit processes should inform the adaptive management recommendations that will be shared with the local government.

Administer survey

Following the kickoff meeting, a survey link will be sent to the point of contact at the local government. The survey is anticipated to take no more than 15 minutes. Survey questions include:

- 1. In the jurisdiction where you work, what is working well with shoreline management and shoreline master program implementation?
- 2. In the jurisdiction where you work, what are the biggest barriers to implementing the policies and regulations of the shoreline master program?
- 3. What additional support could the Department of Ecology provide that would help you administer the shoreline master program?

Permit assessment

During the SMP Implementation Review, shoreline permits and SDP exemptions are reviewed for compliance with the SMP. In addition, some records are assessed for built-project compliance with the issued permit.

Selecting records to be assessed

Permits and SDP exemptions to be reviewed will be selected from the period established in Table 3. The standard period is five years, but this may be less depending on when the comprehensively updated SMP went into effect. Time periods are intentionally offset from the time the Study is initiated. This is to increase the likelihood that some of the projects reviewed will have been constructed and can be assessed for built-project compliance.

CE Specialists will omit from their collection any permit or SDP exemption records vested to an old SMP (i.e., the SMP in effect prior to the comprehensively updated SMP). A maximum of 70 permit and SDP exemption records will be assessed as part of the Study.

- Shoreline permits to assess: All permits issued during period established in Table 3 or the most recent consecutive 30 permits, whichever is less.
- **SDP exemptions to review:** All exemptions issued during the period established in Table 3 or the most recent consecutive 40 exemptions, whichever is less. However, when a local government does not have 30 permits to review, additional exemptions will be selected so that as many as 70 records (combined permits and exemptions) are assessed during the Study. For smaller jurisdictions, this sample will likely represent a census of their permits and SDP exemptions.

Table 6: Time periode	for concounty permit records to be deceed
Year Study initiated	Period for collecting permit records
2023	Jan 1, 2018 [*] , to Dec. 31, 2022
2024	Jan 1, 2019 [*] , to Dec. 31, 2023
2025	Jan 1, 2020 [*] , to Dec. 31, 2024

Table 3. Time periods for collecting permit records to be assessed.

2026	Jan 1, 2021 [*] , to Dec. 31, 2025
2027	Jan 1, 2022 [*] , to Dec. 31, 2026
2028	Jan 1, 2023 [*] , to Dec. 31, 2027
2029	Jan 1, 2024 [*] , to Dec. 31, 2028
2030	Jan 1, 2025 [*] , to Dec. 31, 2029
2031	Jan 1, 2026 [*] , to Dec. 31, 2030

* Or the effective date of comprehensively updated SMP.

Information, data needs, and sources

The following information and data are needed for assessing the compliance of issued permits with the SMP and the compliance of built projects with the issued permit.

- Shoreline master program. Available on Ecology's webpage for <u>State approved Shoreline</u> <u>Master Programs</u>,¹⁸ or on Ecology's F Drive.¹⁹
- **Permit and exemption records.** Available on Ecology's Shoreline Permit Tracking System database (SPTS), Ecology regional drives, at Ecology regional offices (paper files), and through local governments.
- **High resolution orthography.** The most recent high-resolution Statewide imagery, updated every two years, is available through Ecology's Web GIS Portal and Ecology's O Drive. Nearmap, Google Earth, and Ecopia are other data sources that can be used. As new sources of orthography become available, they should be evaluated for use in the Study.

Collecting Ecology permit records

Local governments are required to send shoreline permits to Ecology for filing. There should be no need to request these records from the local government unless submitted permit records lack key documents. Permit records are stored in SPTS, an Ecology database. Since March 2022, SPTS records have included the associated digital documents that make up the permit record (e.g., site plans, decision documents, mitigation plans, etc.). Before March 2022, the associated permit documents were stored as a combination of paper and digital files.

There is no requirement for local governments to submit all SDP exemption records to Ecology. Some local governments choose to submit all SDP exemptions to Ecology while others do not. Since March 2022, SDP exemptions submitted to Ecology have been uploaded into SPTS.

The process for collecting shoreline permit and SDP exemption records that have been submitted to Ecology but are not in the SPTS system will differ by regional office. Some records will be paper records stored in physical files at the regional office and some records will be digital and stored on regional drives. CE Specialists should work with the regional SEA Program

¹⁸ https://ecology.wa.gov/water-shorelines/shoreline-coastal-management/shoreline-coastal-planning/state-approved-shoreline-master-programs

¹⁹ F:\ECYAllShare\SEA\Shorelines\SMP\LocalGov\

Administrative Assistant when they have trouble locating needed records. Digital and paper records outside of the SPTS system will be moved into the database as part of the Study. In some cases, this may require paper documents to be scanned.

A significant amount of development is authorized through SDP exemptions (Figure 8). In most cases, Ecology will need to collect SDP exemption records from the local government. For most local governments, SDP exemption records will be available as a combination of letters of exemption and different building/construction permits (e.g., residential construction permits, fence permits, deck permits, fill and grade permits, etc.). The method of collection and transmittal will vary by jurisdiction. The CE Specialist will work with the local government to identify a preferred method for sharing records. Appendix A is a worksheet that helps the CE Specialist to have conversations about data needs and how that information will be shared with Ecology.



Figure 8. Clark County authorizations (2012-2021). Source: Herrera Environmental Consultants, Inc. 2023)

Sometimes there will be costs associated with records collection and transmittal. CE Specialists should work with the SMA Compliance Lead to ensure costs can be covered.

Methods for accessing records might include:

- Use of a public facing, self-searchable online permit portal. Many jurisdictions are making permit documents viewable digitally for public review during the comment period, and permanently for public records purposes.
- Local governments with permit software may be able to transmit PDFs of permit records to Ecology using a file sharing site. Local governments without permit software may be able to scan permit records and transmit PDFs to Ecology. Ecology employees can set up a

Managed File Transfer (MFT) site that can be used to securely transfer files to and from people outside Ecology. An <u>MFT User Guide²⁰</u> is available.

- Local governments may copy and mail paper SDP exemption records to the CE Specialist or make other arrangements for these records to be picked up.
- The CE Specialist may arrange to photocopy records at the local government office at Ecology's expense.

Assessing issued permit compliance

An Excel-based workbook, called the shoreline permit desk assessment tool (permit assessment tool), collects responses to questions validated from the data in the permit record. The CE Specialist must review the permit record to find these data-validated responses (See Table 4). One standard set of questions is used for permits and another is used for SDP exemptions. Two question sets were developed because records associated with SDP exemptions typically include much less information to draw findings from. Appendix B includes the lists of assessment questions used in the permit assessment tool.

Most questions in the permit assessment tool are objective and require a careful review of the permit record to answer correctly. However, there are several questions that require professional deliberation based on the CE Specialists review of the record against the SMP.

Questions ask the CE Specialists to collect information about what was authorized, permit processes, procedural compliance, mitigation sequencing and NNL, and public access. Most questions are about mitigation sequencing and NNL and the assessment tool is designed to collect more information about projects that fall into one or more of these categories:

- Projects that occur waterward of the OHWM.
- Projects that occur within a shoreline or wetland buffer.
- Projects that require a shoreline variance and/or CUP.

Excel pivot tables are embedded in the permit assessment tool and help to synthesize results (See Figure 9).

²⁰ http://awwecology/sites/itsoi/ino/help/Shared%20Documents/DOC_MFTServiceUserGuide.pdf

Possible answers	Details
Yes	Yes
No	No
Monitoring not relevant	Monitoring not relevant because mitigation success can be established without ongoing monitoring (e.g., removal of a dock).
CNBD	Cannot be determined

Table 4. Data validated answer set for permit assessment question about mitigation monitoring.

For CUPs and Variances, how often were cumulative impacts assessed by local staff?				
Was a CUP or VAR applied for?	Yes	,T		
Decision	Approved	,T		
Cumulative impacts assessed?	- Count		% of Total	
Yes		1	33.33%	
No		2	66.67%	
Grand Total		3	100.00%	

Figure 9. Pre-populated pivot table help to make sense of data.

Data validation

The shoreline permit assessment tool was developed in 2020 and modified for use in the SMA Implementation Study. Questions build on each other and are focused on understanding NNL through the framework of Ecology's <u>Shoreline NNL and Mitigation Guidance</u>.²¹

Working with batches of permit and SDP exemption records, the Shoreline Compliance and Enforcement team compared the permit assessment tool results of reviewers. Inconsistencies in answers were categorized as:

- User error: The problem is unrelated to the tool.
- Tool error: The tool contributed in any way to inconsistent answers.
- Variation acceptable: The variation is acceptable and is not likely to impact the generalizations made from data coding and categorization of the SMP Implementation Study.
- None: No inconsistencies.

Where results were caused by tool error, adjustments to the tool were made and additional permits and exemptions were reviewed to identify if the change resulted in higher consistency.

More information on the validation process used for the desk assessment tool can be found in Appendix D.

²¹ https://apps.ecology.wa.gov/publications/summarypages/2306008.html

Assessment of built-project compliance

Permits and SDP exemptions reviewed using the shoreline permit desk assessment tool will be flagged in the tool when they have the potential to be assessed for compliance using recent, high-resolution imagery purchase by Ecology, Google Earth, or other data sources that become available to Ecology employees. **The purpose of this task is to understand if projects were generally constructed consistent with issued permits and not to verify compliance.**

Site plans and mitigation plans will be compared to what is seen in high-resolution imagery viewed in Ecology's Web GIS Portal and/or Google Earth. Measurement tools in these environments will be used to assess dimensional compliance.

Projects that cannot be assessed using aerial imagery, such as underground utility projects, projects that are obscured by tree cover, or projects that don't have a site plan, will not be flagged. All flagged records will be reviewed for site compliance.

Only two aspects of compliance are measured. The first is the **spatial extent or limits of development** as it can be measured as a straight-line distance (e.g., length and width measurements) (See **Error! Reference source not found.**).

The second is whether **onsite mitigation** was completed. Field calibration efforts to determine whether remote imagery can be used to verify mitigation planting areas has not yet been conducted. For that reason, mitigation compliance will only be assessed when the mitigation included the removal of a structure or the removal of impervious surfaces (See **Error! Reference source not found.**). Generally, this determination will not require remote measurements. However, when measurements are necessary only straight-line distances (not area) will be considered.

In both cases, a score of *Generally Consistent* is associated with higher compliance than a determination of *Appears Inconsistent*.

Tolerance defines the range of values in which a measurement is acceptable. When evaluating the spatial extent and limits of development, a tolerance of three feet or less will result in a determination of *Generally Consistent*. Additionally, any dimensional measurement that results in less impact such as development pulled farther away from the buffer or reduced building footprints, will receive a determination of *Generally Consistent*.

CE Specialists will apply a determination of *Appears Inconsistent* when remote measurements are above the tolerance threshold and the deviation from what was approved could have a potential negative environmental effect such as a reduced buffer, a larger development envelope, and more clearing and grading.

A three-foot margin allows for the error that can be introduced when the CE Specialist applies the digital measurement tool and from a lack of image sharpness. This tolerance was selected after a field calibration exercise that compared field measurements to those taken remotely. The field calibration exercise included measurements of length and width for different types of human development that are typical in shoreline jurisdiction. Appendix F includes information on the field calibration exercise. Importantly, field calculations of area were not made, and the Study does not assess compliance based on remote measurements of area. In some cases, imagery cannot be used to determine compliance. This can occur when a project hasn't been constructed, a project was constructed after the date of the most recent available imagery, tree cover or shadows obscure the development, or image sharpness is too low to take a measurement. A determination of *NA* will be used whenever compliance cannot be determined using remote imagery.

Data will be collected in the shoreline permit assessment tool. Permits and SDP exemption records associated with a determination of *Appears Inconsistent* will include notes from the CE Specialist on the noncompliance issue(s) identified. The tool summarizes results by number and percentage.

Table 5. Spatial e	extent and limits	of development	: dimensional	compliance of	determinations.

Determination	Parameter
NA	Compliance cannot be determined using imagery.
Generally consistent	Remote measurements of compliance are within the accepted tolerance limits (+/- 3 feet).
	Remote measurements are outside of the accepted tolerance limits (+/- 3 feet) but the development appears more protective of the environment (e.g., wider buffer, smaller footprint, etc.).
Appears	Remote measurements of compliance are outside of the
inconsistent	accepted tolerance limits (+/- 3 feet).

Table 6. Mitigation compliance determinations.

Determination	Parameter
NA	Compliance cannot be determined using imagery.
	The only mitigation required is plantings.
	There is no mitigation associated with the project.
Generally	Mitigation completed.
consistent	
	More mitigation is completed than what was required.
Appears inconsistent	Project built but mitigation not completed.
	Mitigation completed, but removal appears to be less than what was approved based on the accepted tolerance limits $(+/-3 \text{ feet})$.

Example: Figure 10 shows an approved site plan with a dock 80.75 feet long. Figure 11 shows a measurement of 83.3 feet that was taken in Ecology's Web GIS Portal²² of the dock post construction. The remote measurement is 2.6 feet greater than what was authorized, a value that is within the accepted tolerance limits (+/- 3 feet). If we were only considering dock length,

²² https://gis.ecology.wa.gov/portal/home/

the project would receive a determination of *Generally Consistent* because the remote measurements is less than three feet greater than what was approved.



Figure 10. Site plans are used to help verify as-built compliance.


Figure 11. Measurement in Ecology's Web GIS Portal environment.

Mapping authorized development

Mapping the location of authorized shoreline projects in GIS is the most efficient way to analyze spatial trends in shoreline development. It is also an effective way to communicate information for decision making. As part of the SMP Implementation Review, GIS mapping can help answer broad questions like:

- Which waterbodies, shoreline environment designations, and areas within shoreline jurisdiction are experiencing development pressure? This question can also be explored through the lens of time to examine over what years did areas experience development pressure.
- Does the spatial distribution of development raise concerns about cumulative impacts? Specifically, the distribution of variance permits, CUPs, and projects that occur waterward of the OHWM and/or within a shoreline or wetland buffer.
- Do development patterns within SEDs match the purpose and policy of the SEDs?

Participating local governments will have different shoreline management questions and concerns that also may be best analyzed and answered using GIS. As part of the SMP Implementation Review, GIS mapping can also help answer specific questions, such as:

- Where is new hard shoreline stabilization being installed?
- Where are new docks being authorized?
- Where have permittee responsible mitigation sites been approved?

Table 7 outlines ideas for how data about shoreline management can be mapped to answer questions about implementation.

Information, data needs, and sources

Data to be mapped are from SPTS and the permit assessment tool. Any data provided by the local government on SDP exemptions will be entered into SPTS by CE Specialists. The time periods for which data will be mapped are shown in Table 3. SPTS data within these time periods will be reviewed for accuracy by CE Specialists and corrected where errors are found. CE Specialists will, at a minimum, ensure that SPTS data on project location, development type, proposed modification, use type, and issuing agency have accurately been entered into SPTS by crosschecking entries against the permit record.

Data outside of the time period (Table 3) will not be mapped.

Appendix C includes information on the different possible datasets that can be mapped and evaluates their value in assessing spatial questions.

Data needed for GIS analysis includes:

- **SED data.** When available, CE Specialists will collect GIS data representing SEDs from the local government. Information may be publicly available for download or can be emailed to the CE Specialist.
- Ecology's Shoreline Permit Tracking System Data. SPTS collects information on the location of shoreline permits but does not have a mapping application. During the SMP Implementation Review, CE Specialists will export tabular data from SPTS so that they can be geocoded and mapped in a GIS by team members with GIS skills. ArcGIS Pro is used to create new map layers of these data. Step-by-step instructions for exporting SPTS data and geocoding those data so that they can be mapped in a GIS are included in Appendix E.
- **Permit Assessment Tool Data.** Tabular data collected in the permit assessment tool can be joined in ArcGIS Pro to the mapped layer of SPTS records to create a subset of records with additional attributes.

Analytic approach

Data trends will be identified using a map of points representing permits. Points will typically represent the centroid of the parcel, or one of the parcels, where work associated with the permit occurred. A physical address does not exist for all permits in SPTS. Where this is the case, latitude and longitude reported by the applicant or local government will be used to map a point representing the permit.

Heat maps can be a useful tool for identifying trends when permit points appear to stack or overlap when a map is zoomed out. For example, five permits could appear to be one point when a map is zoomed out to a scale where an entire county is visible. A heat map solves this problem by creating a density surface represented by a color ramp. ArcGIS Pro can create heat maps that allow for concentration patterns in point data to be easily seen. When creating heat maps, it is important to include a legend because color has no inherent association with a numeric value. Maps created for trend analysis will include layers showing SEDs and shoreline waterbodies.

Table 7. Use of mapped data.

Question type	Data needed	Data source and analytic approach		
Questions about where development pressure is occurring.	Development pressure is best represented by approvals that authorized new uses, new development, and expanded uses.	Data sources: SPTS (post March 2022) and Permit Assessment Tool Data		
	GIS data are needed that allow these approvals to be mapped separately from those that authorize repair, maintenance, and replacement.	Analytic approach: Generate a heat map and/or map of actual point data.		
	Data are only relevant if they represent authorizations made after the comprehensive SMP became effective.			
Questions about the location of projects that might raise concerns	Site specific information is needed about where and what impacts will occur.	Data source: Permit Assessment Tool Data		
sequencing and NNL	authorizations made after the comprehensive SMP became effective.	Analytic approach: Generate a heat map and/or map of actual point data.		
Questions about the distribution of CUPs and	A complete record of authorized permits is needed.	Data source: SPTS		
variances	Data are only relevant if they represent authorizations made after the comprehensive SMP became effective.	Analytic approach: Generate a heat map and/or map of actual point data.		
Questions about specific uses and modifications	Data that track use and modification type are needed.	Data sources: SPTS (post March 2022) and Permit Assessment Tool Data		
		Analytic approach: Generate a heat map and/or map of actual point data.		

Data limitation

Significant modifications to the SPTS system went into effect in March of 2022. Prior to this date, the database tracked less information about shoreline permits and was incapable of storing associated documents. SPTS updates have dramatically improved the functionality of the database for use in the Study. However, the more robust dataset is only available for records received after March 2022.

Another important limitation to SPTS is that it underrepresents total shoreline authorizations for two reasons. First, there is no requirement for local governments to submit all exemptions to Ecology.²³ Second, the older version of SPTS could not track information on SDP exemptions submitted to Ecology. This means that any SDP exemptions submitted to Ecology prior to March 2022 cannot be identified in SPTS. As part of the SMP Implementation Review, Ecology will collect exemption records from local government and enter them into SPTS. However, some local governments will be unable to identify, collect, and transfer all necessary SDP exemptions.

A third limitation is that SPTS does not have a mapping function and the process of geocoding addresses results in records that cannot be mapped or that are mapped outside of shoreline jurisdiction. It may not always be possible for these errors to be corrected during the SMP Implementation Review.

Finally, mapped data from the permit assessment tool are a good source of information on mitigation sequencing and NNL. However, at most, these data will represent five years' worth of data and no more than 70 total authorizations (30 permits and 40 exemptions).

²³ Local governments must only submit letters of exemption to Ecology for projects that require a Section 10 Permit from the US Army Corps of Engineers and/or a Section 404 permit under the Federal Water Pollution Control Act.

Comparing development trends to NNL assumptions

Overview

SMP Cumulative Impacts Assessments (CIA) are used in the SMP Implementation Review to understand if the planning assumptions about likely foreseeable development and NNL match what we know about local development trends.

During the comprehensive update process, local governments prepared CIAs to ensure that proposed policies and regulations would achieve NNL of shoreline ecological functions (WAC <u>173-26-186 (8)(d)</u>).²⁴ CIAs describe anticipated shoreline development and assess the cumulative impacts of such development on shoreline ecological functions.

The intention was for CIAs to use information from shoreline inventory and characterization reports to assess reasonably foreseeable future development and demonstrate how provisions of the SMP will achieve NNL.²⁵ In addition to considering the protections provided by SMP provisions, CIAs consider the beneficial effects of other environmental regulatory programs at the local, state, and federal level.

Ecology provided guidance to local government and consultants on preparing CIAs in <u>Chapter</u> <u>17 of the SMP Handbook</u>.²⁶ This guidance recommended a general method for preparing CIAs as well as examples.

Data needs and sources

Background documents on cumulative impacts

CIAs are background documents that can be found on Ecology's F Drive organized by local government (see LocalGov file).²⁷ Sometimes these documents will be called No Net Loss Reports or Use Analyses rather than a CIA. Some planning processes resulted in both a CIA and a No Net Loss Report. It is important that the totality of documents that evaluated the planning assumptions about likely foreseeable development and NNL be identified for use in the Study.

When a periodic review has occurred since the SMP was comprehensively updated, there will sometimes be an addendum to the CIA (or similar). Identify for use whether a CIA addendum was created as part of the periodic review.

Data on shoreline authorizations (permits and SDP exemptions)

Data extracted from permit records is the basis for comparing projections to actual trends. Importantly, only those authorization processed after the comprehensive SMP went into effect are relevant. Data sources include:

²⁴ https://apps.leg.wa.gov/WAC/default.aspx?cite=173-26-186

²⁵ Ecology's SMP Planning Handbook identifies CIAs as looking 20 years into the future. However, the SMP Guidelines of 173-26 do not set an outside time limit within which cumulative impacts of reasonably foreseeable future development are to be evaluated and considered WAC 173-26-186(8)(d).

²⁶ https://apps.ecology.wa.gov/publications/SummaryPages/1106010.html

²⁷ F:\ECYAllShare\SEA\Shorelines\SMP\LocalGov

- Ecology's Shoreline Permit Tracking System data.
- Permit Assessment Tool data.
- SDP exemption data provided by the local government and entered into SPTS.

Analytic approaches

CIAs vary in their level of detail and specificity and in the way they discuss where and what development is likely to occur over a 20-year period. The lack of uniformity makes it difficult to present a single approach that can consistently be used for all participating jurisdictions. Also, CIA data on projected change are not available to Ecology in spatial data layers that can be compared to land cover change data or to a geodatabase of permit and exemption locations. Instead, data are typically presented in table form or narrative form.

To address this challenge, CE Specialists must carefully read the CIA to identify important projections related to NNL that can be compared to actual numbers found in the permit record. Projections may be quantitative or qualitative.

Quantitative comparisons

When possible, CE Specialists will compare quantitative projections to actual numbers found in permit records. Actual numbers should only consider development that occurred since the effective date of the comprehensively updated SMP. Where complete data do not exist for this period, the CE Specialist may use the time period established by the permit assessment work.

For example, a CIA may have made projections about the number of new single-family residences that would be built over a 20-year planning horizon. For comparison, calculate an annual rate for both the projected and actual number of new residences (See Table 8). The same type of analysis can occur for other projections like those made for new commercial, industrial, and multi-family uses or any quantitative projections made about specific modifications.

Findings can be used for planning purposes and may inform the next SMP update (See

Table 9). Findings are limited to permitted development and do not consider the effect of unpermitted development except where after-the-fact permits were applied.

20-Year CIA Projection	Annualized Rate (Projection)	Years SMP has been Effective*	New Homes (Actual)	Annualized Rate (Actual)
800 homes/20 years	40 homes/year	4.3 years	62 homes	14 homes/year

Table 8. Example of comparing projected to actual rates of development.

*If the CE Specialist does not have access to all data since the Comprehensive Update went into effect, they may use the period covered by the permit assessment work.

Table 9. Interpreting results.

	Interpretation
Actual Rate < Projected Rate	Development less than projected.
Actual Rate ≈ Projected Rate	Projection closely matches actual development.
Actual Rate > Projected Rate	Development outpacing projection.

Qualitative comparisons

Many CIAs will make qualitative statements about the effect of regulatory provisions on shoreline development trends. Where data in the permit record are available, comparisons can be made between planning-level assumptions that may be significant to the achievement of NNL and actual outcomes. Actual numbers should only consider development that occurred since the effective date of the comprehensively updated SMP (See Table 10). Where complete data do not exist for this period, the CE Specialist may use the time period established by the permit assessment work.

Findings can be used for planning purposes and may inform the next SMP update. Findings may be significant when planning-level assumptions about the effect of regulatory provisions adopted to achieve NNL are inconsistent with actual development trends.

Findings are limited to permitted development and do not consider the effect of unpermitted development, except where after-the-fact permits were applied.

SMP Provision	Projected outcome	Actual outcome	Interpretation
SMP provision preferring joint-use docks over single- use docks.	Approvals for joint- use docks will outpace approvals for single-use docks	Over 4.3-year period: 3 new single-use docks authorized, and 0 joint-use docks authorized.	Planning assumptions are <u>inconsistent</u> with actual outcomes.
SMP provision preferring mooring buoys and floats over fixed pier structures	Approvals for mooring buoys will outpace approvals for fixed-pier structures	Over 4.3-year period: 157 mooring buoys authorized, and 3 fixed-pier structures authorized.	Planning assumptions are <u>consistent</u> with actual outcomes.
SMP provision allowing stabilization only to protect primary structures	New bulkhead permits expected to be rare	Over 4.3-year period: 0 new bulkheads were permitted.	Planning assumptions are <u>consistent</u> with actual outcomes.

Table 10. Examples of qualitative comparisons of planning-level assumptions.

Comparisons to mapped data of shoreline authorizations

When CIAs make NNL planning assumptions related to SEDs, certain shoreline waterbodies, or other geographic area, it may be possible to compare the assumption to mapped data on shoreline authorizations. These analyses are only possible where relevant data exist, including SED polygon data.

Findings can be used for planning purposes and may inform the next SMP periodic review. Findings may be significant when planning-level assumptions about the effect of regulatory provisions adopted to achieve NNL are inconsistent with actual development trends.

Limitations

CIAs may make important planning assumptions and projections that cannot be analyzed through the SMP Implementation Review because the data needed to make a comparison:

- Do not exist.
- Are not made available to Ecology.
- Are incomplete or insufficient.

For example, if a local government is unable to provide Ecology with information about work authorized through SDP exemptions, staff would not have the ability to compare projections about single-family residential development to actual trends. This is because many single-family residential projects qualify for an SDP exemption.

Local government report

At the end of an SMP Implementation Review, Ecology will provide the participating local government with a short report that contains findings and recommendations for improving SMP implementation. Whenever possible, the report will be accompanied by maps that are helpful for explaining shoreline development trends.

Findings from the SMP Implementation Review can be from:

- The kickoff meeting.
- Permit assessment work.
- Mapping the location of permits and exemptions.
- Comparing planning-level assumptions to actual outcomes.

Findings must be based on information and data collected, used, or developed as part of the SMP Implementation Review. While most findings will go to the local government for their consideration, others will be collected for Ecology's use and may not appear in the local government report.

Local government findings and recommendations

Findings for the local government will often relate to:

- Permit processes. A potential gap was identified in permit processes.
- **Shoreline administration.** A gap in shoreline administration was identified that may prevent careful and complete SMP implementation.
- **Shoreline planning.** A challenge with the language of the SMP itself may be hindering implementation.

All findings should be paired with a proposed recommendation for how to address the challenge or issue. An example might be:

Finding: It was identified that new ADUs are being reviewed and approved as an SDP exemption. ADUs do not qualify for the single-family residential exemption, WAC 173-27-040(2)(g).

Recommendation: Whenever a proposed ADU meets the SMA definition of "development," an SDP is required. Ecology recently published a focus sheet on ADUs that can be used for staff training and for helping educate property owners. It clarifies permitting pathways and discusses other shoreline management issues surrounding ADUs.

Findings

CE Specialists interpret the information and data collected and analyzed during the SMP Implementation Review to arrive at the findings and recommendations that will be included in the local government report.

The purpose of the local government report is not to highlight every possible error or omission in shoreline administration that was identified. Instead, CE Specialists will be focused on

highlighting concerning trends, identifying significant issues, and addressing challenges that are likely to arise again in the future. Here the term "trend" does not mean a statistical trend but instead means any pattern seen in the data that might predict what could happen in the future. Imagine that a CE Specialist finds that over a five-year period, a local government used an administrative provision three times that allowed an applicant to encroach on the standard shoreline buffer without a variance permit. If those three occurrences were distributed throughout the five-year period, this *may* not be a trend. However, if all three occurrences happened within the last 18 months, this *may* be a concerning trend worthy of a finding. In making findings, CE Specialists may consider questions like:

- Occurrence. Is it likely that the same permitting issue will arise again?
- **Significance.** How significant was the implementation gap to the policy of the SMP and SMA?
- Outcome. Can I provide an attainable recommendation to help address the finding?

Preliminary report

The CE Specialist will draft a preliminary report and the SMA Compliance Lead will review it. Additionally, the CE Specialist will consult the Ecology permit specialist and planner to get their feedback on the recommendations being proposed. After internal feedback has been considered, the preliminary draft will be shared with the local government.

Attainable recommendations

Recommendations to improve SMP implementation must be attainable. To support the generation of realistic and appropriate recommendations, CE Specialists will refer to kickoff meeting notes and will consider local government feedback on the preliminary report. In drafting recommendations, CE Specialists should consider the size and resource level of the participating local government.

Format

A standard Ecology template will be used for the local government report. Reports should be short, typically less than 5 pages, and findings and recommendations should be clear and concise.

The local government report will be organized so that findings and recommendations are grouped together by type. For example, all findings and recommendations that would require an SMP amendment would appear together.

Final report

Once a final report is generated, the CE Specialist will transmit a PDF of the final report to the point of contact at the local government. Final reports will be digitally stored on Ecology's F Drive organized by local government (see LocalGov file).²⁸

²⁸ F:\ECYAllShare\SEA\Shorelines\SMP\LocalGov

Follow-up tasks

During an SMP Implementation Review, the local government might identify needs and concerns that Ecology will need to follow up on. The CE Specialist is the point person for ensuring, to the best of their ability, that commitments made in meetings or discussions are kept. Some follow-up items may stem directly from findings and recommendations in the local government report. These follow-up items should be considered priorities and follow up should be timely.

Chapter 4. SMP Implementation Check-In Approach

Overview

SMP Implementation Check-Ins are available to local governments that cannot participate in the SMP Implementation Review either because they issue very few shoreline permits or because the comprehensively updated SMP has been in effect for two years or less (See Figure

6Error! Reference source not found.



Figure 6. Study approach flowchart

). Where data analysis and findings are central to the SMP Implementation Review, conversations are the focus of a Check-In.

The objective of the SMP Implementation Check-In is:

• To support careful and complete SMP implementation efforts through conversations with local partners.

Ecology's philosophy and approach to the SMP Implementation Check-In is the same as its philosophy and approach to the SMP Implementation Review:

- **Respect for the state-local partnership.** In Washington, shoreline management is a partnership between Ecology and local governments. In this partnership, local governments are given the primary responsibility for SMP administration (WAC 173-27-020). Local government staff involved in shoreline management will often have a deep understanding of development trends and SMP implementation challenges.
- Understand local situations. Shoreline management can be complex and the careful and complete implementation of SMPs can be difficult for reasons that are outside of the control of a single staff person, a department, or even the local government.
- **Future-oriented focus.** When SMP implementation gaps are identified through the Study, Ecology's focus is not backwards. Instead, the interest is in what realistic changes Ecology and the local government can make to improve implementation moving forward.

The process for identifying local governments that will participate in the SMP Implementation Check-In and for scheduling the meeting are detailed in Chapter 2 starting on page 17.

The process for an SMP Implementation Check-In can be generalized as:

- 1. Scheduling.
- 2. Preparation.
- 3. Convening the meeting.
- 4. Completing any follow-up tasks.

Combining SMP Implementation Check-Ins

SMP Implementation Check-Ins can be scheduled to include more than one local government at a time. This may be appropriate and desirable in some situations for both Ecology and the participating local governments. Whenever SMP Implementation Check-Ins are combined, the CE Specialist must perform the necessary preparatory work for all local governments involved. The CE Specialist will also need to make modifications to the Check-In meeting agenda and format so that important conversations about implementation compliance can accommodate more than one local government.

Roles and responsibilities

The CE Specialist for the region is responsible for scheduling, coordinating, and facilitating the Check-In. The Specialist is also the point person for any follow-up items that come out of the meeting.

The local government staff participating in the SMP Implementation Check-In will differ jurisdiction to jurisdiction. At a minimum, CE Specialists will need the participation of one local government employee with strong understanding of:

- Shoreline permit reviews,
- SMP planning, and
- Shoreline permit records management.

Preparing for an SMP Implementation Check-In

To prepare for an SMP Implementation Check-In, CE Specialists should perform several tasks that will allow them to convene the SMP Implementation Check-In meeting with familiarity of the local government's regulations and a basic understanding of shoreline development trends and permit processes.

Review permits and exemptions submitted to Ecology

Prior to an SMP Implementation Check-In, the CE Specialists should review permits and exemptions submitted to Ecology after the effective date of the SMP Comprehensive Update. Permits and exemptions will not be assessed through the permit assessment tool. Instead, CE Specialists are working to gain an understanding of local permit processes and the types of project permits being reviewed.

While the purpose of reviewing past-issued permits is not to verify compliance, CE Specialists should discuss any important substantive and procedural compliance issues they identify at the meeting. Examples might include:

- Since the comprehensively updated SMP went into effect, two SDPs exist in SPTS for the local government. In both cases, the record submitted to Ecology included a permit data sheet and a decision document. The submittal requirements of WAC 173-27-130 were not met.
- A CE Specialist sees that shoreline permits are being issued with less than the required 30day comment period.
- A CE Specialist sees that reasonable use exemptions allowed under the local Critical Areas Ordinance are being applied within shoreline jurisdiction to allow development within wetland buffers.
- A CE Specialist sees that exemptions are being issued for shoreline stabilization without the SMP-required geotechnical report.

Check Ecology's SEPA registry

The SEPA registry is another window into proposed project action. SEPA is not required for all development,²⁹ and it is important to understand that like SPTS, the SEPA registry is a subset of all development. In advance of a Check-In, CE Specialists should review Ecology's SEPA Record Submittal database. Database search features allow a CE Specialist to query actions that might be shoreline development using this standard list of keywords for SEPA registry searches:

Access trail

²⁹ SEPA exempt activities are found in WAC 197-11-800, <u>https://apps.leg.wa.gov/WAC/default.aspx?cite=197-11-800</u>

- Access stairs
- Armor
- Beach
- Boat
- Bulkhead
- Dock
- Marine
- Master program
- Pier
- Ramp
- Riparian
- Shoreline
- SMP
- Stabilization
- Stairs
- Substantial development

This review might draw a CE Specialist's attention to process improvements that should be discussed at the meeting. For example:

 A CE Specialist sees two SDPs where the local government used the optional DNS process and jointly issued the NOA and DNS. For both projects, the comment period ended more than 12 months ago but SDPs for these projects do not appear in SPTS. At the meeting, the CE Specialist inquires about whether these projects ever moved forward. The underlying concern the CE Specialist is trying to understand is whether the local government is familiar with the requirement and process for filing shoreline permits with Ecology.

Review aerial images

Compare recent aerial images to images that are roughly five to ten years old as a way of identifying recent shoreline development that would likely have required either an exemption or a permit. Images might be from Ecology's ArcGIS Environment, Ecology's Coastal Atlas, Google Earth, or other available sources. See Table 11 for examples of development that can be identified in aerial images. Where WDFW's high resolution change analysis data exist, they can be used to quickly identify potential areas of change.

While there is no established process for conducting this imagery comparison, CE Specialists should spend time looking at multiple shorelines within the jurisdiction and at a variety of SEDs.

The goal of this exercise is not to find unauthorized development and activities or to collect data. Instead, this step is a way to better understand recent development and to help the CE Specialist focus the Check-In on shoreline projects that are relevant within the area. For example, if a CE Specialist reviews imagery and identifies several swimming pools or sports courts, it could start a conversation on how the local government might go about reviewing a new application for a residential swimming pool or sports court.

Often requires an SDP exemption	Often requires a shoreline permit		
New single-family homes	Pools		
Home expansions	Docks		
Dock resurfacing	Sports courts		
Residential decks and	Commercial and industrial		
garages	development		
	New structures and		
	impervious surfaces very		
	near the OHWM		
	Water access stairs		
	Clearing and grading near		
	water		

Table 11. Examples of development that can be easy to identify in aerial images.

SMP review

Review the SMP, SMP-related webpages, documents, and resources that are provided on the local government's website.

Internal conversations

Talk with the regional permit specialist and planner to understand what they know about SMP implementation strengths and challenges.

Gathering helpful resources

In preparing for an SMP Implementation Check-In, CE Specialists may identify information and resources that might be helpful for the location government. A CE Specialist should come to the Check-In meeting with these resources and information in hand. For example, a CE Specialist might collect:

- Good examples of SDP Exemption Letters
- A Shoreline permit submittal checklist
- Information on Coastal Training Program courses
- Ecology focus sheets
- Ecology guidance documents
- WAC, RCW, and SMP citations
- Contact information for technical assistance

Meeting attendance and roles

The regional CE Specialist is responsible for coordinating and facilitating the meeting. The CE Specialist is the only required participant from Ecology, however the Ecology shoreline permit reviewer, shoreline planner, and SMA Compliance Lead should be invited and encouraged to attend.

At a minimum, one local government staff person knowledgeable about how shoreline permits are taken in and processed must participate in the SMP Implementation Check-In. This point of

contact may help the CE Specialist to identify other local government staff that should be invited to attend. This might include staff involved in:

- Shoreline permit reviews.
- Field inspections for shoreline projects.
- Mitigation monitoring.
- Code compliance.

Convening the SMP Implementation Check-In meeting

The local government's role in a Check-In is limited to attending the Check-In meeting and completing an online survey. The meeting will generally be a 1.5 to 2-hour event where Ecology asks somewhat open-ended questions about SMP administration and implementation. Meetings should be in person (preferred) but virtual is possible.

At the end of a Check-In, the CE Specialist should understand:

- How SDP exemptions are reviewed, approved, and documented.
- How shoreline permits are reviewed and processed.
- What trainings, technical assistance, or other resources might benefit the local government.
- Known compliance challenges.

At the end of an SMP Implementation Check-In meeting, the local government should understand:

- How to access Ecology resources (technical assistance, grants, trainings, documents, etc.).
- That all authorizations within shoreline jurisdiction, regardless of whether a shoreline permit is needed, must be consistent with the SMP.

Meeting agenda

Staff have a high degree of flexibility in how they facilitate and conduct the Check-In meeting. CE Specialists are encouraged to tailor the agendas below to align with their personal meeting facilitation style and based on what is learned during Check-In preparatory work. Specifically, staff will need to make space for having conversations about compliance questions and concerns identified during Check-In preparation. Staff will also need to be prepared to answer compliance and implementation questions that the local government asks. Any questions that cannot be answered at the meeting will be identified as follow-up items for Ecology.

After the meeting, Ecology will send the local government point of contact a link to an online survey.

SMP Implementation Check-In meeting agenda:

- 1. Introductions
- 2. Purpose of meeting
- 3. Technical assistance from Ecology
- 4. Local permit processes
- 5. Known implementation challenges
- 6. Code enforcement resources

7. Follow-up tasks for Ecology

SMP Implementation Check-In meeting agenda (facilitator's version):

- 1. Introductions
- 2. Purpose of meeting
- 3. Technical assistance from Ecology who, what, when, where
 - [facilitation notes: Discuss the role of permit review staff, planners, and your role in compliance and enforcement. Ecology staff can verify OHWM determinations, attend pre-application meetings, answer technical assistance questions, attend site visits, etc.]
- 4. Local permit processes
 - Who is involved with reviewing shoreline permits and exemptions and what are their roles?
 - \circ What type of improvements do you typically see shoreline property owners make?
 - Some development is exempt from the requirement to get a shoreline permit because it qualifies for an exemption. [*Provide examples of qualifying exemptions.*] Does the City/County have a process for documenting the exemptions you authorize? Tell me about that process.
 - If someone submits a construction permit application to build a new deck or a fence – something relatively small - is there a process for ensuring that application is reviewed for consistency with the SMP?
 - Does your local government have a permit or approval for tree removal? [*If so, ask the following*.] Can you walk me through how an application to remove trees on a shoreline property would be reviewed and approved? [note: might not require permit or exemption]
 - Tell me about your process for holding pre-application meetings. Are preapplication meetings typical for shoreline development proposals?
 - \circ Are site visits typically conducted before a decision is made on shoreline proposals?
 - What technical expertise is available in-house for reviewing special biological reports and geotechnical reports?
 - Do you have access to third party review help (e.g., on-call consultant contract)?
 - Once a project is approved, is it typical for there to be a site inspection during construction that focuses on verifying shoreline permit compliance?
 - When a shoreline project includes compensatory mitigation, is it typical that mitigation sites will be inspected in the field to verify mitigation was installed or completed?
 - Tell me about any processes you have for keeping track of compensatory mitigation sites and understanding if they are successful over the monitoring period? Are there resources to review mitigation monitoring reports?
 - Are there resources to follow up if mitigation sites are not meeting performance standards?
- 5. Known implementation challenges

- Has staff identified challenges in implementing the SMP? Are there any aspects of the code that have been confusing or difficult to implement in practice?
- 6. Code enforcement resources
 - Tell me about what staff resources you have for code compliance and enforcement?
 - Do you have any thoughts or concerns about shoreline violations in your jurisdiction?
- 7. Follow-up tasks for Ecology
 - Facilitator's Note:
 - Read through items that you have committed to following up on.
 - Ask if there is anything missing or anything that should be added to your list.

Administer survey

Following the kickoff meeting, a survey link will be sent to the point of contact at the local government with the questions listed below. The survey is anticipated to take no more than 15 minutes. The survey includes these questions:

- 1. In the jurisdiction where you work, what is working well with shoreline management and shoreline master program implementation?
- 2. In the jurisdiction where you work, what are the biggest barriers to implementing the policies and regulations of the shoreline master program?
- 3. What additional support could the Department of Ecology provide that would help you administer the shoreline master program?

Notetaking

The CE Specialist or another Ecology attendee should take meeting notes that allow them to document all follow-up tasks for the Department.

Follow-up tasks

During an SMP Implementation Check-In, the local government might identify needs, concerns, or questions that Ecology will have to follow up on. The CE Specialist is the point person for ensuring, to the best of their ability, that commitments that have been made in the meeting are kept.

Chapter 5. Annual Report

The Study is designed as an ongoing study that is repeated across the state year after year. Every year, the results of the Study will be rolled up into an annual report that considers trends emerging from the individual SMA Compliance Studies that have been completed.

No new data or information will be collected to create the annual report. It is a synthesis of the information generated by the Study that year. Results of the annual report are not about the individual jurisdiction but about shoreline management in Washington. The adaptive management focus is on Ecology and what steps the Agency might take to better achieve the policy objectives of the SMA.

This roll-up should consider whether unique characteristics of the participating jurisdictions may have affected findings. These characteristics may be things that Ecology discovers in kickoff meetings about local permit processes and compliance, or it may be quantifiable information about the participating jurisdictions such as population, number of staff working in shoreline management, miles of shoreline, etc.

The SMA Compliance Lead is responsible for producing the annual report.

References

- Anderson, Dave and Mark McCaskill. (2017). Process and Persuasion in Commenting on GMA Plans and Regulations, GMA Training for Agency Personnel. Washington Department of Commerce.
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- Washington State Department of Commerce. (2023). Critical Areas Handbook: A Handbook for Reviewing Critical Areas Regulations, Chapter 7, <u>https://deptofcommerce.box.com/s/rlysjrfvrxpxwnm9jvbcd3lc7ji19ntp</u>
- Washington State Department of Ecology. (Revised 2017). Shoreline Master Program Handbook, Chapter 17, Publication Number 11-06-010, <u>https://apps.ecology.wa.gov/publications/SummaryPages/1106010.html</u>

Initialisms and Acronyms

- ADU Accessory dwelling unit
- CE Specialist Shoreline Compliance and Enforcement Specialist
- CIA Cumulative Impacts Assessment
- CUP Shoreline conditional use permit
- GIS Geographic Information System
- MFT Managed file transfer
- NNL No net loss of shoreline ecological functions
- OHWM Ordinary high water mark
- RCW Revised Code of Washington
- SDP Substantial development permit
- SEA Shorelands and Environmental Assistance Program
- SED Shoreline Environment Designation
- SMA Shoreline Management Act, 90.58 RCW
- SMP Shoreline Master Program
- SOP Standard Operating Procedures
- SPTS Ecology's Shoreline Permit Tracking System
- WAC Washington Administrative Code

Glossary

Conditional use - A use, development, or substantial development which is classified as a conditional use or is not classified within the applicable shoreline master program.

Development - A use consisting of the construction or exterior alteration of structures; dredging; drilling; dumping; filling; removal of any sand, gravel, or minerals; bulkheading; driving of pilling; placing of obstructions; or any project of a permanent or temporary nature which interferes with the normal public use of the surface of the waters overlying lands subject to this chapter at any state of water level.

Local government - Any county, incorporated city, or town which contains within its boundaries any lands or waters subject to the SMA (RCW 90.48).

Master program or shoreline master program - The comprehensive use plan for a described area, and the use regulations together with maps, diagrams, charts, or other descriptive material and text, a statement of desired goals, and standards developed in accordance with the policies enunciated in RCW 90.58.020.

Ordinary high water mark - On all lakes, streams, and tidal water is that mark that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition exists on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by a local government or the Department of Ecology: PROVIDED, That in any area where the ordinary high water mark cannot be found, the ordinary high water mark adjoining salt water shall be the line of mean higher high tide and the ordinary high water mark adjoining fresh water shall be the line of mean high water.

Permit - Any substantial development, variance, conditional use permit, or revision authorized under chapter 90.58 RCW.

SDP Exemption or Exemption - Exempt developments are those set forth in WAC 173-27-040 and RCW 90.58.030 (3)(e), 90.58.140(9), 90.58.147, 90.58.355, and 90.58.515 which are not required to obtain a substantial development permit, but which must otherwise comply with applicable provisions of the act and the local master program.

State Master Program Guidelines or SMP Guidelines - Those standards adopted by the Department of Ecology to implement the policy of the Shoreline Management Act (chapter 90.58 RCW) for regulation of use of the shorelines of the state prior to adoption of master programs. Such standards shall also provide criteria for local governments and the department in developing and amending master programs.

Substantial development - Any development of which the total cost or fair market value exceeds five thousand dollars, or any development which materially interferes with the normal public use of the water or shorelines of the state. The dollar threshold must be adjusted for inflation by the office of financial management every five years, beginning July 1, 2007, based upon changes in the consumer price index during that time period.

Variance - A means to grant relief from the specific bulk, dimensional, or performance standards set forth in the applicable master program and not a means to vary a use of a shoreline.

Critical areas - As defined under chapter 36.70A RCW, includes the following areas and ecosystems: wetlands, areas with a critical recharging effect on aquifers used for potable waters, fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas.

Ecological functions or shoreline functions - The work performed, or role played by the physical, chemical, and biological processes that contribute to the maintenance of the aquatic and terrestrial environments that constitute the shoreline's natural ecosystem.

Geotechnical report or geotechnical analysis - A scientific study or evaluation conducted by a qualified expert that includes a description of the ground and surface hydrology and geology, the affected land form and its susceptibility to mass wasting, erosion, and other geologic hazards or processes, conclusions and recommendations regarding the effect of the proposed development on geologic conditions, the adequacy of the site to be developed, the impacts of the proposed development, alternative approaches to the proposed development, and measures to mitigate potential site-specific and cumulative geological and hydrological impacts of the proposed development, including the potential adverse impacts to adjacent and down-current properties. Geotechnical reports shall conform to accepted technical standards and must be prepared by qualified professional engineers or geologists who have professional expertise about the regional and local shoreline geology and processes.

Comprehensive updated shoreline master program - A master program adopted for compliance with RCW 90.58.080(2) that fully achieves the procedural and substantive requirements of the department's shoreline master program guidelines (Chapter 173-26 WAC) effective January 17, 2004, as now or here-after amended.

SMP amendment - An amendment to a shoreline master program that is not intended to meet the complete requirements of a comprehensive master program update. Master program amendments include locally initiated amendments to address specific procedural and/or substantive topics as well as amendments adopted to meet the periodic review requirements of RCW 90.58.080(4).

Appendix A - Records to be Collected and Transmitted During the SMP Implementation Review

The tables and charts below can be used during the kickoff meeting to help with conversations about available data, the method for transmitting that data to Ecology, and any limitations in the completeness of this data.

Year Study initiated	Period for collecting permit records
2023	Jan 1, 2018 [*] to Dec. 31, 2022
2024	Jan 1, 2019 [*] to Dec. 31, 2023
2025	Jan 1, 2020 [*] to Dec. 31, 2024
2026	Jan 1, 2021 [*] to Dec. 31, 2025
2027	Jan 1, 2022 [*] to Dec. 31, 2026
2028	Jan 1, 2023 [*] to Dec. 31, 2027
2029	Jan 1, 2024 [*] to Dec. 31, 2028
2030	Jan 1, 2025 [*] to Dec. 31, 2029
2031	Jan 1, 2026 [*] to Dec. 31, 2030

Table 12. Time periods for collecting permit and exemption records.

* Or the effective date of comprehensively updated SMP.

Communities with more than 200 SDP exemption records for established time periods:

It will be infeasible for Ecology to enter all SDP exemption records into SPTS for local governments that issue large numbers of SDP exemptions. Ecology will work with the local government to further limit timeframes to ensure a manageable number of records are transmitted for any community that issues more than 200 SDP exemptions within the time periods established in Table 12. This will generally be a time that captures not more than 200 SDP exemptions.





Data to be collected during the Review include:

Letters of exemption (all associated records) ³⁰	Notes
Can records be collected by the local government? (Yes / No)	
Format (Digital / Paper)	
Method of transmittal	
Known data gaps and limitations	

³⁰ Unless previously submitted to Ecology.

Building/construction permits ³¹ where no letter of exemption or shoreline permit was issued	Notes
Can permits issued within shoreline jurisdiction be identified and collected by the local government? (Yes / No)	
Format (Digital / Paper)	
Method of transmittal	
Known data gaps and limitations	

Shoreline environment designations GIS data	Notes
Does the local government have GIS data of SEDs? (Yes / No)	
Method of transmittal	
Known data gaps and limitations	

Other tracked data	Notes
What other data exist on shoreline authorizations?	
Format (Digital / Paper)	
Method of transmittal	
Known data gaps and limitations	

³¹ All construction permits that resulted in **exterior construction** that meets the definition of *development*. "Development means a use consisting of the construction or exterior alteration of structures; dredging; drilling; dumping; filling; removal of any sand, gravel, or minerals; bulkheading; driving of piling; placing of obstructions; or any project of a permanent or temporary nature which interferes with the normal public use of the surface of the waters overlying lands subject to the act at any stage of water level. "Development" does not include dismantling or removing structures if there is no other associated development or redevelopment." (WAC 173-27-030(6))

Appendix B - Shoreline Permit Assessment Tool Questions

Permit assessment questions:

- 1. What is the unique permit reference number for the file being assessed?
- 2. Was the local decision issued administratively, by a Hearings Examiner, or by a local legislative body (e.g., City Council, Board of Commissioners, etc.)?
- 3. Was the permit approved at the local level?
- 4. What use or modification was proposed?
- 5. For multi-part projects, what is a second development aspect?
- 6. For multi-part projects, what is a third development aspect?
- 7. For multi-part projects, what is a fourth development aspect?
- 8. What shoreline authorizations were requested?
- 9. Was the correct shoreline authorization, or combination of authorizations, applied for under the SMP and SMA?
- 10. If not, what does the correct permit, combination of permits, or authorization appear to be? Use NA if the correct authorizations were issued.
- 11. Is it clear in the record that this permit is being issued after the project is fully or partially complete (i.e., is it an after-the-fact permit)?
- 12. Characterize whether the project is the development of a vacant parcel; the expansion of an existing use; a repair/replacement/redevelopment project; or a proposal with no development component?
- 13. Is any part of the proposal water-dependent, water-related, water-enjoyment or notwater-oriented?
- 14. Did the Notice of Application include a 30-day (minimum) public comment period?
- 15. Were adjacent property owners and the public reasonably noticed of the project by a sign being posted on the property, a mailer to surrounding property owners within 300 (minimum) feet of the property boundary, or another mechanism?
- 16. Did the local government send Ecology notice of the application?
- 17. Are shoreline buffer and setback requirements identified in the permit consistent with requirements of the SMP?
- 18. Was an SMP provision employed that allowed development to occur within the standard buffer without a variance? Examples include common line setback, interrupted buffer provisions, buffer averaging provisions, expansion of a non-conforming structure, and buffer reduction provisions. Use the Notes section to document which provision was used.

- 19. Will any part of the project occur within a standard wetland or shoreline buffer or in/over water?
- 20. For CUPs and VARs, were cumulative impacts of additional request for like actions in the area carefully and completely considered by the local jurisdiction in the staff report or decision document?
- 21. Did staff find that the project would result in no net loss, no adverse impacts, or similar?
- 22. Will the built project result in a net gain in impervious surfaces within a standard wetland or shoreline buffer?
- 23. Will the built project result in a net gain in the linear length of hard armor?
- 24. Will the built project result in the permanent removal of vegetation within a standard shoreline or wetland buffer regardless of whether mitigation plantings are proposed? Does not include temporary, construction-related impacts where impacted area is replanted (e.g., utility trenching). Does not include de minimis removal (generally less than 25 sf).
- 25. Will the built project result in a net gain of over- or in-water structures?
- 26. Could impacts have been further minimized or avoided completely through site design that is consistent with the mitigation sequence?
- 27. Did you identify any unmet use or modification policies or regulations that are important to achieving NNL? Does not include standards an applicant is seeking a variance to. Use Notes to describe.
- 28. Was a mitigation plan prepared for the project?
- 29. Is there a condition of approval requiring implementation of a mitigation plan?
- 30. For projects that included compensatory mitigation plantings, is monitoring required? Use NA if no compensatory mitigation.
- 31. Was a site-specific NNL report, mitigation plan, critical areas report, geotechnical report, or similar site-specific document prepared?
- 32. Was there a missed opportunity to seek public access?
- 33. Does the Decision Document and/or Special Report posit that the project will result in net ecological gain?
- 34. Does the staff report, or decision document include findings and conclusions that form the basis for a decision or decision recommendation?
- 35. Is the site plan or application packet within SPTS missing something substantial that would have made it difficult for you to make a decision to approve or disapprove?
- 36. What was Ecology's decision on the CUP and/or VAR? Use NA if not a CUP or VAR.
- 37. Did Ecology review result in project redesign? Use NA if not a CUP or VAR.

- 38. Did Ecology place a permit condition deemed necessary for the project to achieving NNL, such as additional mitigation? Use NA if not a CUP or VAR.
- 39. Would you like to flag this project for a compliance check using aerial imagery?
- 40. Does the spatial extent and limits of development comply with the approved site plan?
- 41. Was onsite mitigation installed (i.e., mitigation plantings) or completed (e.g., removal of a structure, removal of impervious, etc.)?

Exemption assessment questions:

- 1. Was the exemption approved?
- 2. What use or modification was proposed?
- 3. For multi-part projects, what is a second development aspect?
- 4. Did the proposed action qualify for an exemption because it meets the precise terms of one of the SDP exemptions listed in WAC 173-27-040?
- 5. If the project appears to have needed shoreline permits, what permit or permits appear necessary? Use "NONE" if no permits were necessary. Use "No Development" when the project did not need a permit or an exemption.
- 6. Is it clear in the record that this exemption is being issued after the project is fully or partially complete (i.e., it is an after-the-fact permit)?
- 7. Characterize whether the project is the development of a vacant parcel; the expansion of an existing use; a repair/replacement/redevelopment project; or a proposal with no development component?
- 8. Will any part of the project occur within a standard wetland or shoreline buffer or in/over water?
- 9. Will the built project result in a net gain in impervious surfaces within a standard shoreline or wetland buffer?
- 10. Will the built project result in a net gain in the linear length of hard armor?
- 11. Will the built project result in the permanent removal of vegetation within a standard shoreline or wetland buffer regardless of whether mitigation plantings are proposed? Does not include temporary, construction-related impacts where impacted area is replanted (e.g., utility trenching). Does not include de minimis removal (generally less than 25 sf).
- 12. Will the built project result in a net gain of over- or in-water structures?
- 13. Was a mitigation plan prepared for the project?
- 14. Would you like to flag this project for a compliance check using aerial imagery?
- 15. Does the spatial extent and limits of development comply with the approved site plan?
- **16.** Was onsite mitigation installed (i.e., mitigation plantings) or completed (e.g., removal of a structure, removal of impervious, etc.)?

Appendix C - Permit and SDP Exemption Map Datasets

Dataset 1. Map SPTS data by issuing agency since the date of Comprehensive Update.

- Data to export and map:
 - Location information (Prior to export, verify location information is for the project.)
 - Issuing agency (pre-March 2022) / Jurisdiction (March 2022 and after)
 - Permit type (SDP, CUP, VAR, None)
 - Filing start date (SDP, CUP, VAR)
 - Date received (SDP exemptions)

Dataset 2. Map SPTS data since March 2022 (date new SPTS came online) by jurisdiction.

- Data to export and map:
 - Location information (Prior to export, verify location information is for the project.)
 - \circ Jurisdiction
 - Permit type (SDP, CUP, VAR, None)
 - Filing start date (permits)
 - Date received (SDP exemptions)
 - o Decision
 - Proposed modification
 - o Use type
 - o Development type

Dataset 3. Map data collected in the permit assessment tool. Only data that exists for both exemptions and permits should be mapped.

- Data to map:
 - \circ Location
 - o Decision
 - Proposed action
 - o Development type
 - In-buffer/water work
 - Net gain impervious in buffer
 - Net new hard armor
 - Veg removal in buffer
 - Net new sf over/in-water structures
 - Mitigation plan prepared

Table 13. Best mapping datasets for answering spatial questions.

Spatial analysis question	Analysis of the value of different datasets in answering the spatial question (best datasets underlined)		
Questions about specific uses and modifications	Dataset 1: Poor source because prior to 2022, data on modification type were not tracked. Additionally, data could be misleading because they do not include exemptions for years before 2022.		
	Dataset 2: Small snapshot but could be a good source if exemptions are submitted to Ecology.		
	Dataset 3: Good source however at most it could represent 5 years' worth of data.		
Questions about where development pressure is	Dataset 1: Data could be misleading because they do not include exemptions for years before 2022.		
occurring.	Dataset 2: Small snapshot but could be a good source if exemptions are submitted to Ecology.		
	Dataset 3: Good source however at most it could represent 5 years' worth of data.		
Questions about the location of projects that might raise	Dataset 1: Prior to March 2022, information was not tracked that can help answer these questions.		
concerns about mitigation sequencing and NNL	Dataset 2: A possible data source but accuracy will be lower than with Dataset 3 where reviewers are trying to answer this specific question.		
	Dataset 3: Good source but at most will represent 5 years' worth of data.		
Questions about the distribution of CUPs and	Dataset 1: Data are the complete record of CUPs and Variances.		
variances.	Dataset 2: Poor data source as compared to Dataset 1.		
	Dataset 3: Poor data source as compared to Dataset 1.		

Appendix D – Permit Assessment Tool Validation Process

The permit assessment tool was developed in 2020 by Carolyn Chase at the Department of Ecology as a proof of concept. During development, over 60 shoreline permits were reviewed through the tool.

To use the permit assessment tool in the Study, the Shoreline Compliance and Enforcement Team needed to understand if the tool could generate consistent answers among different permit reviewers.

The permit assessment tool was validated through a process that involved Shoreline Compliance and Enforcement Team members reviewing the same set of permits and SDP exemptions. Answers were compared and any inconsistencies in responses were identified. Each inconsistency was categorized as:

- User Error The problem is unrelated to the tool.
- Tool Error The tool contributed in any way to inconsistent answers.
- Variation Acceptable The variation is acceptable and is not likely to impact the generalizations made from the data coding and categorization.
- None No inconsistencies.

Where the error was related to the permit assessment tool, testers discussed what change or changes were necessary to achieve higher consistency. These changes were made to the tool and a new set of shoreline permits and SDP exemptions were reviewed and the process of review and answer comparison was repeated.

In total, three iterations of tool validation were conducted.

Validation Testing Round 1

- Number of permit and SDP exemption records assessed 14 (5 permits, 9 SDP exemptions)
- Number of people reviewing each permit 5
- Number of people reviewing each SDP exemption 5

Validation Testing Round 2

- Number of permit and SDP exemption records assessed 11 (5 permits, 6 SDP exemptions)
- Number of people reviewing permit 5
- Number of people reviewing each SDP exemption 4

Validation Testing Round 3

- Number of permit and SDP exemption records assessed 9 (5 permits, 3 SDP exemptions)
- Number of people reviewing permit 2
- Number of people reviewing each SDP exemption 2

Examples of the answer comparison process:

	TC	EF	LC	СС	NS		
	Decision authority	Decision authority	Decision authority	Decision authority	Decision authority	Problem	Suggested change
5821	Admin	Admin	Admin	Admin	Admin	None	NA
6383	Admin	Admin	Admin	Admin	Admin	None	NA
6493	A desta	a davia	Combination	A day in	Complexity	Uses Farmend To	This was primarily a user error issue but the tool is also going to be updated to have four possible answers:
	Admin	Admin	Combination	Admin	Commission	User Error and To	Administrative, HE, Legeslative Body, and Other.
6712		HE	HE	HE	HE	None	NA
6763	Admin		Admin	Admin	Admin	None	NA

	TC	EF	LC	СС	NS		
	Net new impervious in buffer?	Problem	Suggested change				
. 5821	NA	No	NA	NA	Yes	User error	No change
6383	NA	NA	NA	NA	NA	None	NA
6493	No	Yes	Yes	No	No	None	We discussed as a team and decided that it was very difficult to determine if there was net new impervious in the buffer based on the record.
6712		Yes	No	No	No	User error	No change
6763	CNBD		No	No	No	Variation acceptal	No change.

	TC	EF	LC	CC	NS		
	In-buffer/water DEV'T?	In-buffer/water DEV'T?	In-buffer/water DEV'T?	In-buffer/water DEV'T?	In-buffer/water DEV'T?	Problem	Suggested change
5821	No	Yes	No	CNBD	Yes	User Error	No Change. LC identified a document showing in-buffer development that cleared up discrepancies between the site plan and the staff report.
6383	No	No	No	No	No	None	NA
6493	Yes	Yes	Yes	Yes	Yes	None	NA
6712		Yes	Yes	Yes	Yes	None	NA
6763	Yes		Yes	Yes	Yes	None	NA

	TC	EF	LC	СС	NS		
	Buffer reduced w/o VAR?	Problem	Suggested change				
5821							No change to tool. Team discussion about water-oriented
	No	Yes	No	No	Yes	User Error	development within buffers.
6383	No	No	No	No	No	None	NA
6493	Yes	Yes	Yes	Yes	Yes	None	NA
6712		No	Yes	No	No	Uer Error	No change.
6763	No		No	No	No	None	NA

	TC	EF	LC	CC	NS		
	Staff determination of NNL?	Staff determination of NNL?	Staff determination of NNL?	Staff determination of NNL?	Staff determination of NNL?	Problem	Suggested change
5821	NA	CNBD	NA	NA	No	None	NA
6383	NA	NA	NA	NA	NA	None	NA
6493	Ver	N-	¥	Ne	Ne	Teel Free	Expand the question so that it's clear the reviewer is looking for any statement that affirms that a project is unlikely to could be determined to the statement.
6712	res		No	No	No	None	NA
6763	Yes	CNBD	Yes	No	Yes	Tool Error	Expand the question so that it's clear the reviewer is looking for any statement that affirms that a project is unlikely to result in adverse impacts.
Appendix E – Steps for Mapping SPTS Permits and SDP Exemptions

Making a map layer of SPTS permits

- 1. Ask IT to export SPTS files with addresses, lat/long, received date, filing date, and permit status (has CUP, has VAR, has SDP)
- 2. Manually sort "StreetAddress" column for files that have complete addresses by using the filter feature. Remove entries that are incomplete or files with no address.
 - a. Create a new sheet and label it.
- 3. Do the same thing in step 2 only for the lat/long columns ("SiteLatitude" and "siteLongitude").
- 4. Go through Geocoding process for addresses in ArcGISpro (geocoding addresses tool see instructions below).

Geocoding addresses using the Geocoding Addresses Tool in ArcGIS Pro:

1. Open ArcGIS Pro and make sure you are signed into Ecology's Web GIS Portal.



2. In the **Catalog** pane, go to **Folders** and navigate to the Excel table with your addresses.



Note: If you don't see the folder with your table, right click on Folders, and click Add Folder Connection:



3. Drag and drop your table to the **Contents** pane on the left side of the screen:



4. Right Click your table and click **Open**. This will open your table.



- 5. Ensure all records from your Excel table are here click the right arrow at the bottom of the table to show the total number of records.
- 6. In the Analysis tab, click on **Tools**.





7. In the **Tools** pane, search for "geocode addresses" and double click on the "Geocode Addresses" tool.



8. For "Input Table", drop the menu and select the name of the table from your **Contents** pane.



9. For "Input Address Locator", click on the folder icon to the right, it pulls up a window. Navigate to "My organization". In the search bar at the top right, type "WAMAS" and hit enter. Select "WAMAS Geocoding Service" and hit **OK**:

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Name	WAMAS Geocoding Service			Lo	cators	*
					ОК	Cancel

10. There are now multiple input fields in your "Geocode Addresses pane". Ensure "StreetAddress" is selected for "Address or place". Also fill in "City", and "ZipeCode". The rest can remain with "<None>".

11. For "Output Feature Class", click on the folder icon to the right, it pulls up a window. Navigate to where you want to save your .gdb file. It must be saved in a file geodatabase. If you do not see one here, go to "New Item" in the top left and click on "File Geodatabase".

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12. Name your new File Geodatabase. Double click to open the file geodatabase you just created, and enter a name for your file, and click **Save**.

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13. For "Optional parameters" – under "Output Fields" select "Location Only".

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14. Click Run. Once the process is complete, you will see a "Geocode Addresses Completed."

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15. In your **Contents** pane, you will see your new file as a map layer:



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16. In the **Map** tab, make sure you have a basemap selected.

17. You should now be able to see your records as points on a map. In your attributes table, **ProjectId** is the SPTS database number.

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How to create lat/long data using "Calculate Geometry"

1. Open the attribute table for the layer you created for your map.

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2. Scroll to the **SiteLatitude** column and right click the header. Select "Calculate Geometry" from the list.

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3. Select your new map layer for the "input features". Select **SiteLatitude** and **SiteLongitude** for each Field, and "Point y-coordinate" and "Point x-coordinate" for each Property, respectively. Select "Decimal Degrees" for Coordinate Format. For Coordinate System, select "GCS_WGS 1984". Click **OK**.

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- 4. You should now see complete Lat/Long for the set of data in your attribute table.

How to geocode XY data:

 To geocode locations to points on a map from files that include longitude and latitude data, right click a standalone table from your **Contents** pane. Note: If you don't see a table here, follow steps 2-3 of directions for <u>Geocoding addresses using the Geocoding Addresses Tool in ArcGIS Pro</u>. Scroll to "Display XY Data".

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2. The **Input Table** will be the table you selected in step 1. The **Output Feature Class** will be the new table to point file – use the file folder symbol next to **Output Feature Class** to name your file and select what geodatabase to save your file in.

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3. The **X Field** will be the SiteLongitude and the **Y Field** will be the SiteLatitude. Leave the **X Field** empty. Use "GCS_WGS_1984" for the **Coordinate System.** Click **OK.** It will take a few moments to run the data.

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Note: A warning message may pop-up if some of the files were not able to be geocoded. This means there was no Lat/Long information to code, or the information was not in a format that could be coded. In this example, three files were not able to be geocoded.



4. In your **Contents** pane, you will see your new file as a map layer:



5. The files geocoded from the Lat/long info appear on the new map layer:

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How to add different symbology to show different permits.

1. In the **Contents** pane, right click your new map layer and select "Symbology". The dialog box opens to the right of the map.



2. Under Primary Symbology, select "unique values".



3. Select the drop-down menu for Field 1 and scroll down to select "HasSDP".

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4. Repeat step 3 for "HasCUP" and "HasVAR" by using the "Add field" button.

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5. All three permit types should now be added to the symbols, creating 6 different permit scenarios.

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6. Paying close attention to the order of the fields, re-name the symbols under the "label" column by double clicking the box and typing in the name of the permit type.

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7. When complete, the labeling will carry over to the map layer in your **Contents** pane under your **Drawing Order**.

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8. You can change the type of symbol by clicking it once in the "classes" window. You can change the color scheme by selecting the "Color Scheme" drop down menu under **Primary Symbology**. You can also change the color of a single symbol by right clicking the symbol under the map layer in the **Contents** pane.

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How to publish a map as a web layer to your online account

- 1. In you **Contents** panel, right click the map layer you want to publish. Scroll down to **Sharing** and select "Share as a web layer".
- 2. Name the web layer.
- 3. Under Data and Layer Type, go to Copy all data and select "feature".

Note: This creates a snapshot of the data from Pro. If we want to change or update the layer, we must republish it.

4. Under **Portal Folder**, select the folder you want to save it to. If you do not have a folder here, select "Create new folder".

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- 5. Under Share With you have a few options:
 - a) If you mark "Ecology's Web GIS Portal", the map layer will be available to the entire agency through ArcGIS Maps.
 - b) If you drop the menu down under "Groups", you can specify what group you want to give access to the layer.



6. Select Analyze.

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Note: If you get an error stating "Unique numeric IDs are not assigned", click on the **Map** data frame in your **Content** pane and select "properties", then click "allow assignment of unique numeric IDs". Then click "Analyze" again.

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7. If there are no errors or warnings found, click "Publish". It will run/analyze near the bottom of the pane. When it is finished publishing, the "Analyze" and "Publish" buttons will be greyed out.

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8. To check if your layer was published, go to Ecology's Web GIS Portal and sign in. Select **Map** at the top.



9. Click "Add."



10. From the drop down menu, select "My Organization."

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11. Search for the name of the map layer you created and click Enter on your keyboard



12. In the search list you should see the map layer you created.

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Correcting miss-coded addresses within XLS file in XLS file

- 1. Activate the filter tool for each column in the XLS file by using the shortcut "Control + Shift + L".
- 2. In the "StreetAddress" column, manually sort valid addresses from invalid addresses/files that have no address.
- 3. Use the information in SPTS to find a valid address to correct in the "StreetAddress" column.
- 4. If you cannot associate a valid address to the project, update the "SiteLatitude/SiteLongitude" column with a valid lat/long in decimal degrees format.

Resources:

- Filter features with definition queries—ArcGIS Pro | Documentation. pro.arcgis.com. Accessed April 1, 2024. <u>https://pro.arcgis.com/en/pro-app/3.1/help/mapping/layer-properties/definitionguery.htm#:~:text=To%20create%20a%20definition%20query</u>
- 2. How To: Export an Attribute Table from ArcGIS pro to Microsoft Excel. Esri.com. Published 2023. <u>https://support.esri.com/en-us/knowledge-base/how-to-export-an-attribute-table-from-arcgis-pro-to-mic-000021825</u>
- 3. How To: Calculate Geometry in ArcGIS Pro. support.esri.com. Accessed April 1, 2024. https://support.esri.com/en-us/knowledge-base/calculate-geometry-in-arcgis-pro-000016157
- How To: Calculate the XY Coordinates of Point Features in ArcGIS Pro. support.esri.com. Accessed April 1, 2024. <u>https://support.esri.com/en-us/knowledge-base/how-to-calculate-the-xy-coordinates-of-point-features-i-000026530</u>
- 5. Childs C. Work with Microsoft Excel and CSV files in ArcGIS Pro. ArcGIS Blog. Accessed April 1, 2024. <u>https://www.esri.com/arcgis-blog/products/arcgis-pro/natural-resources/working-with-excel-files-in-arcgis-pro/</u>
- Convert a table to locations on the map—ArcGIS Pro | Documentation. pro.arcgis.com. Accessed April 1, 2024. <u>https://pro.arcgis.com/en/pro-app/3.1/help/data/geocoding/convert-a-table-to-locations-on-the-map.htm</u>

Appendix F – Calibration Process for Remote Assessment of Built-Project Compliance

The Study uses existing imagery to assess whether permitted development generally conforms to what was authorized by the local government. An exercise to compare how closely field-verified measurements matched remote measurements was undertaken to understand the accuracy of using remote tools for measuring dimensional compliance.

Field work was completed in August and September of 2024 and results were collected in an Excel document. Only distance and length measurements were taken in the field. Field results were compared to remote measurements made in Ecology's Web GIS Portal and in Google Earth. Measurements on Ecology's Web GIS Portal were conducted using state-owned high resolution imagery.

Measurements in GIS are taken using the "measure area and distance tool." In Google Earth, straight distances are taken with the Ruler Line tool or with the Ruler Path tool, and area is measured with the Ruler Polygon tool. While area measurements were collected from remote sources, area measurements were not taken in the field.

Upland struct	ture No 6: Picnic Structure,	Saltar's Point Beach, Steila	icoom (Chase)		Thumbnail image (Draw on the image where Field Photo measurements are to be taken) Field Photo
	Measurements Using ECY Statewide 2023 6-inch Imagery	Measurements Using Google Earth and Date Stamp	Ecopia (2021-2022)	Field Measurements	
Length (ft)	46.3	46.8	46.1	45	
Width (ft)	21.5	27.1	26	26.3	
Area (sf)	1,162.70	1,173.10	1,163	NA	
Date Stamp	NA	6/19/2021	NA	NA	
	Shadow from the				
	structure itself made the				
	roofline difficult to	More recent GE imagery		Field measurement	W Set
Comments	measure.	was less sharp.		included roof overhangs.	

Figure 13. Example of a remote calibration measurement.



Figure 14. Standard deviation equation

Standard deviation is a common measure of variability. For the 137 measurements (*N*) considered in the field calibration exercise, the mean of the difference between the actual measurements and the remote measurements is -0.25 feet (μ). The dataset has a standard deviation of 2.7 feet (σ)which represents the typical distance between each data point and the mean.

Using this standard deviation, the Study has selected a tolerance limit of +/-3 feet when determining builtproject compliance.


Figure 15. Linear regression model of remote calibration dataset.

Туре	Remote Measurement Tool (GE/GIS)	Site Reference	Remote Length	Actual Length	Remote Width	Actual Width
OWS	GE	No 1	71.5	68	19.7	19
OWS	GE	No 2	56.5	60	8.4	8.1
OWS	GE	No 3	NULL	NULL	4.9	4.7
OWS	GE	No 4	31.2	32	40.8	41
OWS	GE	No 5	22.8	24.3	24.7	24.3
OWS	GE	No 6	52	52	9.2	10.75
OWS	GE	No 7	58.4	57.75	5.8	6
OWS	GE	No 8	394.87	385.04	NULL	NULL
OWS	GE	No 9	50.55	48.4	17.77	17.23
OWS	GIS	No 1	73	68	20	19
OWS	GIS	No 2	60	60	9	8.1
OWS	GIS	No 3	NULL	NULL	5.5	4.7
OWS	GIS	No 5	21.3	24.3	18.8	24.3
OWS	GIS	No 6	51.1	52	11.5	10.75
OWS	GIS	No 7	57.1	57.75	5.9	6
OWS	GIS	No 8	395.04	385.04	NULL	NULL
OWS	GIS	No 9	47.79	48.4	16.84	17.23

Figure 16. Dataset of overwater structures.

Туре	Remote Measurement Tool (GE/GIS)	Site Reference	Remote Length	Actual Length	Remote Width	Actual Width
Upland	GE	No 1	19.4	22.5	13.7	13
Upland	GE	No 2	39.1	40.5	24	20.1
Upland	GE	No 3	11.7	12	7.5	8
Upland	GE	No 4	92.3	89	77.3	76
Upland	GE	No 5	55.6	54	36.1	36.75
Upland	GE	No 6	46.8	45	27.1	26.3
Upland	GE	No 7	30.3	28.7	21.8	19.8
Upland	GE	No 8	48.1	48.8	41.2	42.7
Upland	GE	No 9	119.44	120	118.44	120
Upland	GIS	No 1	20.3	22.5	13.9	13
Upland	GIS	No 2	43	40.5	21	20.1
Upland	GIS	No 3	11.7	12	7.9	8
Upland	GIS	No 4	91	89	76.9	76
Upland	GIS	No 5	55.2	54	36.8	36.75
Upland	GIS	No 6	46.3	45	21.5	26.3
Upland	GIS	No 7	30.6	28.7	22.3	19.8
Upland	GIS	No 8	48.34	48.8	42.65	42.7
Upland	GIS	No 9	117.58	120	118.55	120

Figure 17. Dataset of upland structures.

Туре	Remote Measurement Tool (GE/GIS)	Site Reference	Remote Length	Actual Length	Remote Width	Actual Width
Distance	GE	No 1	79	76.5	NULL	NULL
Distance	GE	No 2	18.6	19	NULL	NULL
Distance	GE	No 3	21	19	NULL	NULL
Distance	GE	No 5	9	9	NULL	NULL
Distance	GE	No 6	25	25	NULL	NULL
Distance	GE	No7	9.4	9.25	NULL	NULL
Distance	GE	No 8	22.2	23	NULL	NULL
Distance	GE	No 9	69	68.5	NULL	NULL
Distance	GIS	No 1	78.5	76.5	NULL	NULL
Distance	GIS	No 2	18.8	19	NULL	NULL
Distance	GIS	No 3	20.3	19	NULL	NULL
Distance	GIS	No 5	8.9	9	NULL	NULL
Distance	GIS	No 6	25.8	25	NULL	NULL
Distance	GIS	No 9	71.2	68.5	NULL	NULL
Distance	GIS	No 11	257.13	265.5	NULL	NULL

Figure 18. Dataset of straightline distances measured from roadway.

Туре	Remote Measurement Tool (GE/GIS)	Site Reference	Remote Length	Actual Length	Remote Width	Actual Width
Slope	GE	No 1	23.9	23	9.5	10
Slope	GE	No 2	22.7	22	11.4	12
Slope	GE	No 3	50.1	48	10.1	10.8
Slope	GE	No 4	10.4	9.6	5.7	6
Slope	GE	No 5	13.8	13.7	5.3	6
Slope	GE	No 6	24.7	23.9	3.1	3.5
Slope	GE	No 7	23.8	23	7.3	6.5
Slope	GE	No 8	66	66.8	6.62	6
Slope	GE	No 9	11.2	11.7	11.4	11.5
Slope	GE	No 10	38.8	39.8	4.29	4.7
Slope	GE	No 11	82.5	83.8	NULL	NULL
Slope	GIS	No 2	20.8	22	12.4	12
Slope	GIS	No 3	48	48	10.7	10.8
Slope	GIS	No 5	10.5	13.7	5.6	6
Slope	GIS	No 6	NULL	NULL	3.8	3.5
Slope	GIS	No 7	25.1	23	7.3	6.5

Figure 19. Dataset of linear structures built on slopes.

Туре	Remote Measurement Tool (GE/GIS)	Site Reference	Remote Length	Actual Length	Remote Width	Actual Width
Fill	GE	No 1	47.6	49	69.4	70
Fill	GE	No 2	87.2	79	51.7	47.5
Fill	GE	No 3	35.9	35.25	51.4	59.5
Fill	GE	No 4	14.2	13.5	8.45	7.5
Fill	GE	No 5	23.3	23	8.6	8.4
Fill	GE	No 6	19.9	19.2	20.1	19.2
Fill	GE	No 7	72.4	71.5	44.5	47.4
Fill	GIS	No 1	48.4	49	63.9	70
Fill	GIS	No 2	90.1	79	53	47.5
Fill	GIS	No 3	37.1	35.25	48.9	59.5
Fill	GIS	No 4	13.2	13.5	8.08	7.5
Fill	GIS	No 6	20.5	19.2	20.5	19.2
Fill	GIS	No 7	71.9	71.5	45	47.4

Figure 20. Dataset of areas of fill.