Setting the Stage:

Critical Areas Protection with Monitoring and Adaptive Management Basics

JANUARY 20, 2021

Washington Department of Fish and Wildlife

Washington State Department of Commerce

Department of Ecology State of Washington

2021 Critical Areas and Shoreline Monitoring & Adaptive Management Online Workshops

Welcome to

Setting the Stage: Critical Areas Protection with Monitoring and Adaptive Management Basics

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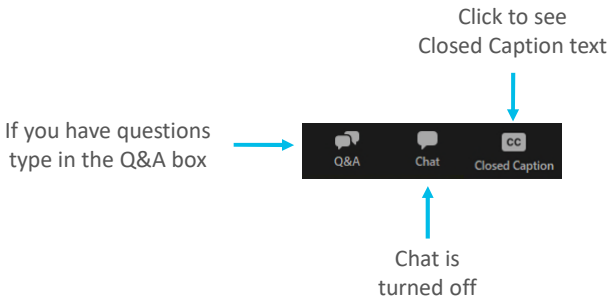
2021 Critical Areas and Shoreline Monitoring & Adaptive Management Online Workshops



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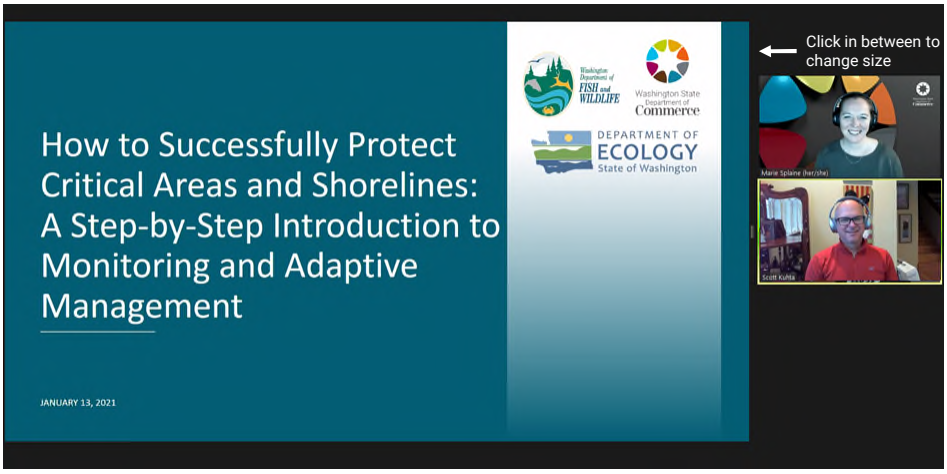
2021 Critical Areas and Shoreline Monitoring & Adaptive Management Online Workshops



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Visit Project Website for More Information

https://www.ezview.wa.gov/site/alias__1992/37576/overview.aspx

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2021 Critical Areas and Shoreline Monitoring & Adaptive Management Online Workshops

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

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Workshop Wednesday Series Lineup

Register using Zoom.

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

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

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

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

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

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

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

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

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

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

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

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

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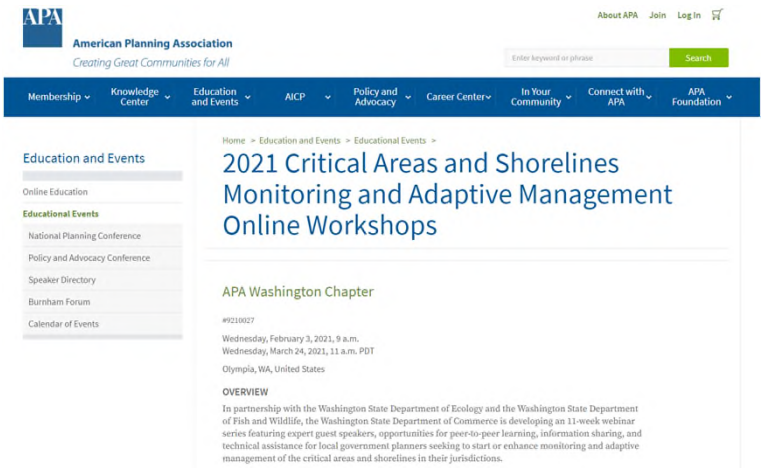
American Planning Association Education Credit

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



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Land Acknowledgment

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

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Audience Engagement Poll

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Meet Your Presenters

Genevieve Dial is a Senior Planner for the WA State Department of Commerce's Growth Management Services unit. She provides technical assistance on the Growth Management Act to jurisdictions in Eastern Washington. Gen worked as the program manager for Commerce's Defense Community Compatibility Account, the "Building Green Cities" project, addressing low impact development in stormwater projects, and is currently the project manager for this webinar series. She also has experience with the Voluntary Stewardship Program and a background in parks planning with The Trust for Public Land and Invasive Species Management with the State Recreation and Conservation Office. Gen obtained a bachelor of Arts in Environmental Studies from The Evergreen State College and a Masters in Urban and Regional Planning from Eastern Washington University.

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Setting the stage for success with training, education, permits & development regulations

Local government resources for protecting and monitoring critical areas

1	**Tools**	Development Regulations
		Critical Area Maps & GIS data
2	**Strategies**	Permit Conditions & Monitoring Permits
		Site Plan & Monitoring Report Requirements
3	**Opportunities**	Application Process
		Outreach & Education, Staff Training & Expertise

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The importance of training

You can't determine the effectiveness of your permits and development regulations if they're not consistently interpreted and implemented.

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The who, what & where of staff training

- Develop training information & materials.
- Who conducts training?
- Where are the resources and tools?
- Develop a communication tree.
- Explain expectations for staff notes/reports.
- Where is project info saved?
- Develop a succession plan.

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Key elements to successful training

Best Practices

Provide examples of staff code interpretations to ensure consistent understanding.

Clear Expectations

Provide descriptions and expectations for inspections, site visits, monitoring reports and permit conditions.

Roles & Responsibilities

Determine who is responsible for reviewing applications. Make sure to cross-train & train across departments.

Determine who is responsible for approving exceptions and exemptions.

Streamline Processes

Review other overlapping & concurrent environmental permits and process occurring, including cultural resources.

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Audience Engagement Poll

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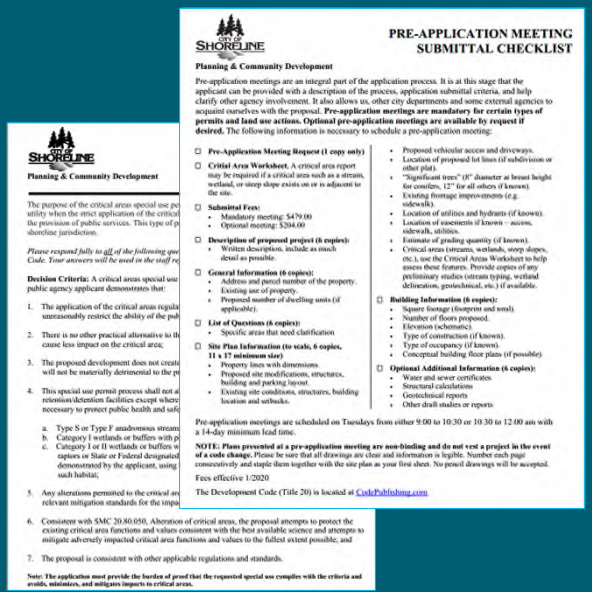
The importance of the pre-application process



CITY OF SHORELINE

Planning & Community Development

The purpose of the critical areas special use pe
utility when the strict application of the critical
the provision of public services. This type of p
shoreline jurisdiction.

*Please respond fully to all of the following qu
Code. Your answers will be used in the staff re*

Decision Criteria: A critical areas special use
public agency applicant demonstrates that:

1. The application of the critical areas regula
unreasonably restrict the ability of the pub
2. There is no other practical alternative to th
cause less impact on the critical area;
3. The proposed development does not creat
will not be materially detrimental to the pu
4. This special use permit process shall not a
retention/detention facilities except where
necessary to protect public health and safe
   a. Type S or Type F anadromous stream
   b. Category I wetlands or buffers with p
   c. Category I or II wetlands or buffers w
   raptors or State or Federal designated
   demonstrated by the applicant, using
   such habitat;
5. Any alterations permitted to the critical ar
relevant mitigation standards for the impa
6. Consistent with SMC 20.80.050, Alteration of critical areas, the proposal attempts to protect the existing critical area functions and values consistent with the best available science and attempts to mitigate adversely impacted critical area functions and values to the fullest extent possible; and
7. The proposal is consistent with other applicable regulations and standards.

Note: The application must provide the burden of proof that the requested special use complies with the criteria and avoids, minimizes, and mitigates impacts to critical areas.

CITY OF SHORELINE

PRE-APPLICATION MEETING SUBMITTAL CHECKLIST

Planning & Community Development

Pre-application meetings are an integral part of the application process. It is at this stage that the applicant can be provided with a description of the process, application submittal criteria, and help clarify other agency involvement. It also allows us, other city departments and some external agencies to acquaint ourselves with the proposal. **Pre-application meetings are mandatory for certain types of permits and land use actions. Optional pre-application meetings are available by request if desired.** The following information is necessary to schedule a pre-application meeting:

- ☐ **Pre-Application Meeting Request (1 copy only)**
- ☐ **Critial Area Worksheet.** A critical area report may be required if a critical area such as a stream, wetland, or steep slope exists on or is adjacent to the site.
- ☐ **Submittal Fees:**
  - Mandatory meeting: $479.00
  - Optional meeting: $204.00
- ☐ **Description of proposed project (6 copies):**
  - Written description, include as much detail as possible.
- ☐ **General Information (6 copies):**
  - Address and parcel number of the property.
  - Existing use of property.
  - Proposed number of dwelling units (if applicable).
- ☐ **List of Questions (6 copies):**
  - Specific areas that need clarification
- ☐ **Site Plan Information (to scale, 6 copies, 11 x 17 minimum size)**
  - Property lines with dimensions.
  - Proposed site modifications, structures, building and parking layout.
  - Existing site conditions, structures, building location and setbacks.
  - Proposed vehicular access and driveways.
  - Location of proposed lot lines (if subdivision or other plat).
  - "Significant trees" (8" diameter at breast height for conifers, 12" for all others if known).
  - Existing frontage improvements (e.g. sidewalk).
  - Location of utilities and hydrants (if known).
  - Location of easements if known – access, sidewalk, utilities.
  - Estimate of grading quantity (if known).
  - Critical areas (streams, wetlands, steep slopes, etc.), use the Critical Areas Worksheet to help assess these features. Provide copies of any preliminary studies (stream typing, wetland delineation, geotechnical, etc.) if available.
- ☐ **Building Information (6 copies):**
  - Square footage (footprint and total).
  - Number of floors proposed.
  - Elevation (schematic).
  - Type of construction (if known).
  - Type of occupancy (if known).
  - Conceptual building floor plans (if possible).
- ☐ **Optional Additional Information (6 copies):**
  - Water and sewer certificates
  - Structural calculations
  - Geotechnical reports
  - Other draft studies or reports

Pre-application meetings are scheduled on Tuesdays from either 9:00 to 10:30 or 10:30 to 12:00 am with a 14-day minimum lead time.

NOTE: Plans presented at a pre-application meeting are non-binding and do not vest a project in the event of a code change. Please be sure that all drawings are clear and information is legible. Number each page consecutively and staple them together with the site plan as your first sheet. No pencil drawings will be accepted.

Fees effective 1/2020

The Development Code (Title 20) is located at CodePublishing.com

Pre-app considerations

- When are other agencies contacted?
- What threshold determines if a pre-app meeting is necessary?
- Is the checklist tailored to your code?
- Do you offer a pre-app waiver? When & how are they waived?
- How will you verify the questions in the application?
- How often to review and update the application?
- How useful are your application checklists?
- Do you have pre-app process? Is it mandatory or voluntary?

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Pre-app questions to consider

1. Do your pre-app materials describe the complete application process?
2. Who attends the pre-app meeting? Is everyone who will interact with the property & permit involved?
3. What educational materials & opportunities do you provide applicants & your staff?
4. Does the application explain what triggers additional reports?
5. Do you offer maps or an online mapping tool?
6. How do applicants identify if they have a critical area on their property?

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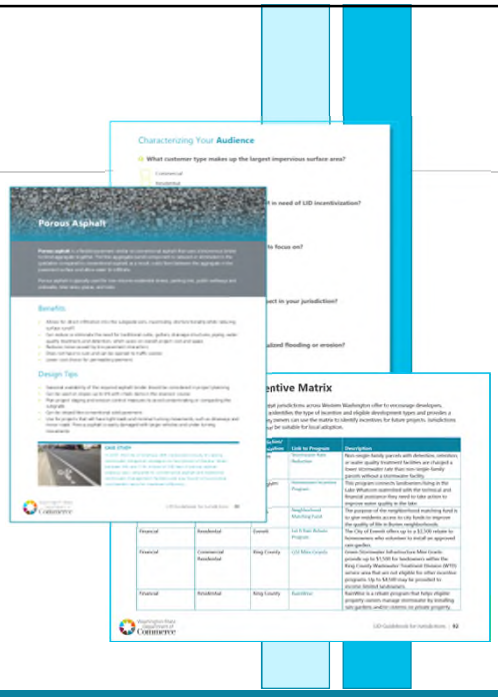
Educate, Educate, Educate

Examples:

- Brochure on critical areas
- Questionnaire to guide applicants through process
- Flowchart of application process
- Critical area maps
- Lobby visits & staff consultations before pre-app mtg.



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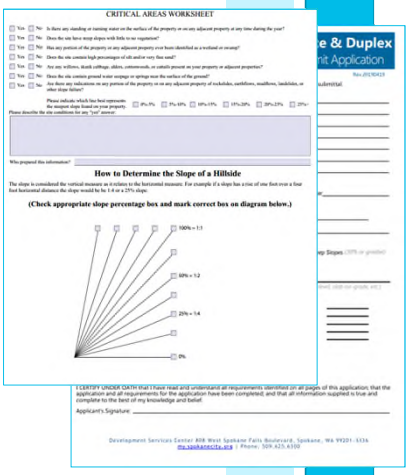
Permit applications, site plans, and monitoring reports

Applications & critical areas worksheets

- Do all permit applications include a critical areas worksheet?
- If a critical area is present, how does it alter the application process?
- How does the critical area information inform next steps?
- How complete does the proposal need to be before an applicant comes in for review?


CRITICAL AREAS WORKSHEET

How to Determine the Slope of a Hillside

(Check appropriate slope percentage box and mark correct box on diagram below.)

100% = 1:1

50% = 1:2

25% = 1:4

0%

& Duplex

Application

I CERTIFY UNDER OATH that I have read and understand all requirements identified on all pages of this application, that the application and all requirements for the application have been completed, and that all information supplied is true and complete to the best of my knowledge and belief.

Applicant's Signature: _____

Development Services Center 808 West Spokane Falls Boulevard, Spokane, WA 99201-3336

Phone: 509.625.6300

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Site plans

- Is a site inspection required? If so, how often?
- Are staff trained to know what to look for in site inspection visit?
- What tools/processes are used for verifying critical areas on site?

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Monitoring reports

- Use reminders for reporting deadlines and requirements.
- Include performance standards, goals & recommendations with examples.
- How long will the monitoring period be set for? 5 or more years?
- At a minimum, require annual updates & site visits.
- Did the permit conditions achieve the desired outcome? If not, what needs to be changed?
- Require approval after submittal & have a plan for correcting deficiencies.

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Audience Engagement Poll

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The role of permit conditions & development regulations for tracking & monitoring

Best management practices

BMPs

- Make certain elements in permit database required, so that all staff enter information consistently and thoroughly.
- Update permit tracking system to include important elements, such as: exceptions, exemptions, monitoring reports, etc.
- Set-up checklists within your permit system for easy searches to find conditions.
- Metrics can get buried in staff reports; put information in a permit database so it's easy to run reports.

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Tracking Permits

How will your team monitor & track permits for consistency with the code; random selection or permit by permit?

Create a step-by-step process that allows you to point to what is or isn't working & is easy to enforce.

What to track

- Buffers:
  - Are they more or less protective than in CAO?
  - How often is buffer reduced or extended?
  - Is there variation in prescribed buffers?
- How often do 3rd party recommendations change the requirements?
- New impervious surface
- Riparian canopy cover
- Vegetation removal
- Coastal erosion

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Audience Engagement Poll

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Q&A

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

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Meet Your Presenters

Jenna Kay is a long range planner with Clark County Community Planning. In this role she works on a variety of projects and programs related to land use and livability in the county. Jenna holds a Master's Degree in City Planning and a Certificate in Environmental Planning from Massachusetts Institute of Technology and a Bachelor's Degree in Earth and Environmental Sciences from Wesleyan University. She has also worked in the energy efficiency, mediation, and outdoor education fields.

Ariel Whitacre is a Biologist at Clark County, focusing on wetland and habitat permitting and monitoring compliance for land use development and residential projects.

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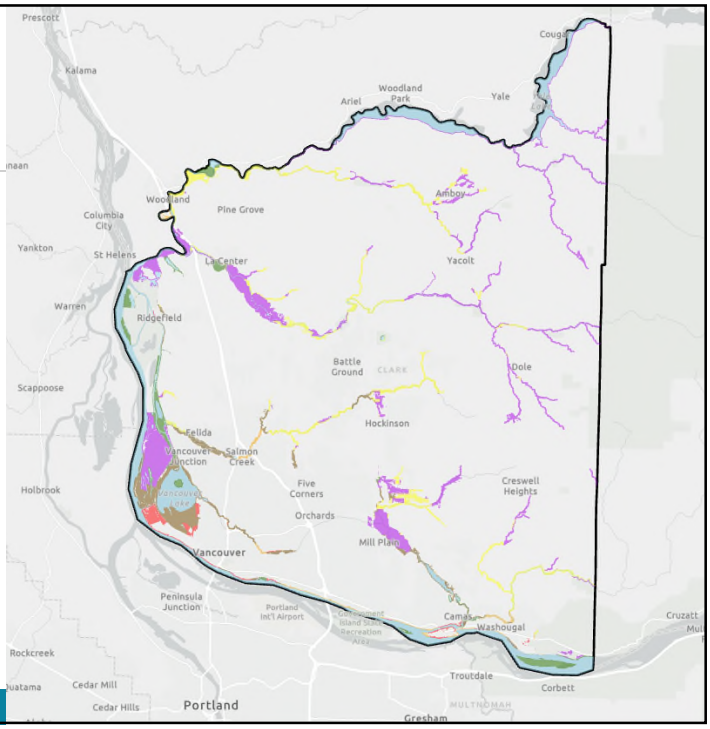
Shoreline Master Program Permit Data Collection & Compliance Monitoring

Jenna Kay and Ariel Whitacre
Clark County Community Planning

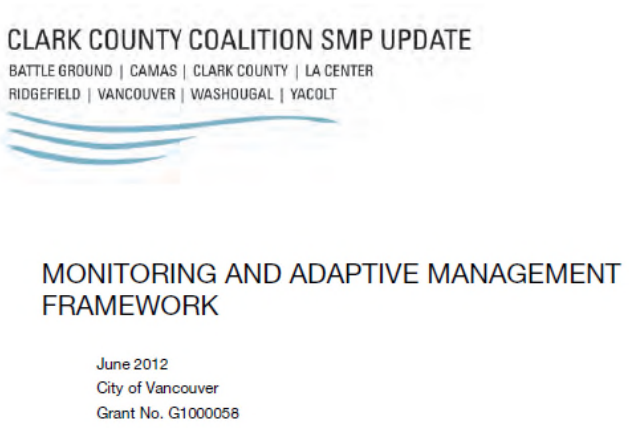
Background Context

- 2012 SMP Comprehensive Update
- Clark County Coalition
- Created Monitoring and Adaptive Management Framework



Monitoring and Adaptive Management Framework

- Acknowledge uncertainty
- Continued assessment of incremental activities
- Address SMA monitoring requirements
- Improve shoreline management over time
- Ensure meet SMP goals



Monitoring Types

- **Compliance Monitoring**
- Effectiveness Monitoring
- Validation Monitoring

- What did we approve?
- Did we issue permits consistent with regulations?
- Are projects built to comply with all permit conditions?
- Are mitigation projects adequately constructed and appropriately monitored?

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Permit Data Collection

- Permit Data Collection
- Bi-annual Data Consolidation and Review
- Mid-SMP Cycle Consolidation and Analysis
- 8-year SMP Update

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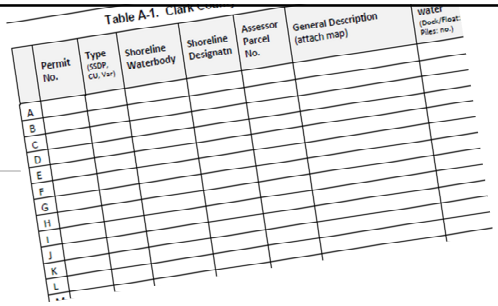
Permit Tracking Matrices



- Permit No.
- Type
- Shoreline Waterbody
- Shoreline Designation
- Parcel #
- General Description
- In-over-water structure
- Shoreline stabilization
- Fill
- Clearing/grading
- Impervious surface
- Mitigation

Changed

- *Building permit #*
- *Separation of in- and over-water structures*
- *Expanded fill details, i.e. above/below OHWM, in 100-yr floodplain, in wetland*
- *Habitat impacts above/below OHWM*
- *Off-site mitigation location*
- *Restoration data*

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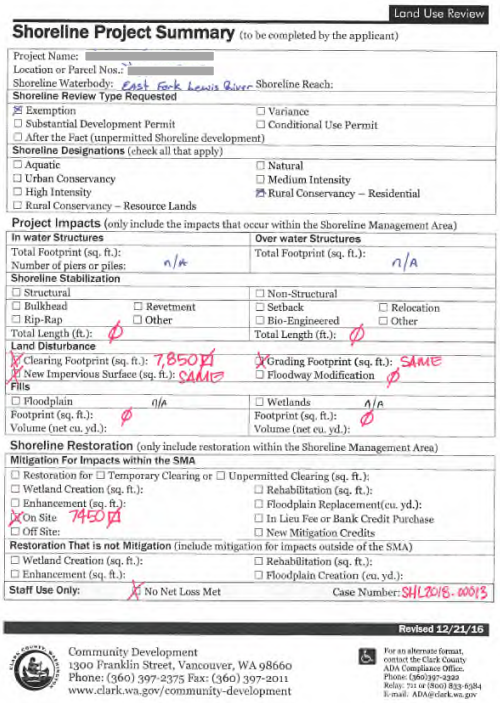
1-Pager System

- Consistency
- Accessibility
- Easier to compile



Land Use Review

Shoreline Project Summary (to be completed by the applicant)

Project Name:
Location or Parcel Nos.:
Shoreline Waterbody: East Fork Lewis River Shoreline Reach:

Shoreline Review Type Requested

- ☒ Exemption
- ☐ Substantial Development Permit
- ☐ After the Fact (unpermitted Shoreline development)
- ☐ Variance
- ☐ Conditional Use Permit

Shoreline Designations (check all that apply)

- ☐ Aquatic
- ☐ Urban Conservancy
- ☐ High Intensity
- ☐ Rural Conservancy – Resource Lands
- ☐ Natural
- ☐ Medium Intensity
- ☒ Rural Conservancy – Residential

Project Impacts (only include the impacts that occur within the Shoreline Management Area)

In water Structures	Over water Structures
Total Footprint (sq. ft.):	Total Footprint (sq. ft.): n/a
Number of piers or piles: n/a	

Shoreline Stabilization

☐ Structural	☐ Non-Structural
☐ Bulkhead ☐ Revetment	☐ Setback ☐ Relocation
☐ Rip-Rap ☐ Other	☐ Bio-Engineered ☐ Other
Total Length (ft.): ∅	Total Length (ft.): ∅

Land Disturbance

- ☒ Clearing Footprint (sq. ft.): 7,850 ☒
- ☒ New Impervious Surface (sq. ft.): SAME ☒
- ☒ Grading Footprint (sq. ft.): SAME
- ☐ Floodway Modification ∅

Fills

☐ Floodplain n/a	☐ Wetlands n/a
Footprint (sq. ft.): ∅	Footprint (sq. ft.): ∅
Volume (net cu. yd.):	Volume (net cu. yd.):

Shoreline Restoration (only include restoration within the Shoreline Management Area)

Mitigation For Impacts within the SMA

- ☐ Restoration for ☐ Temporary Clearing or ☐ Unpermitted Clearing (sq. ft.):
- ☐ Wetland Creation (sq. ft.):
- ☐ Enhancement (sq. ft.):
- ☒ On Site 7450 ☒
- ☐ Off Site:
- ☐ Rehabilitation (sq. ft.):
- ☐ Floodplain Replacement(cu. yd.):
- ☐ In Lieu Fee or Bank Credit Purchase
- ☐ New Mitigation Credits

Restoration That is not Mitigation (include mitigation for impacts outside of the SMA)

- ☐ Wetland Creation (sq. ft.):
- ☐ Enhancement (sq. ft.):
- ☐ Rehabilitation (sq. ft.):
- ☐ Floodplain Creation (cu. yd.):

Staff Use Only: ☒ No Net Loss Met Case Number: SHL2018-00013

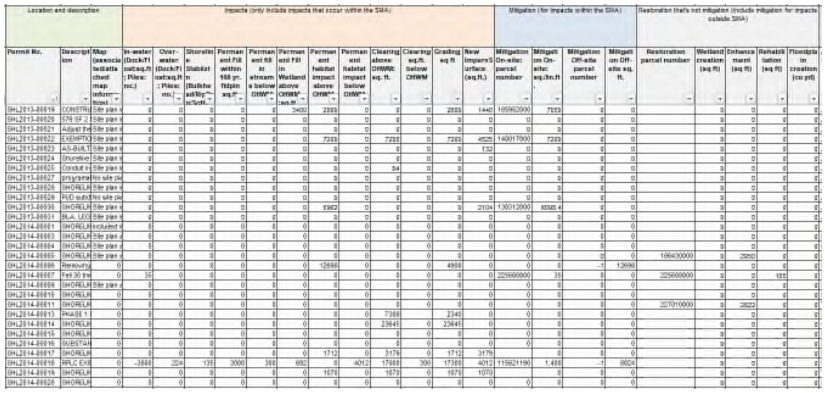
Revised 12/21/16

Community Development
1300 Franklin Street, Vancouver, WA 98660
Phone: (360) 397-2375 Fax: (360) 397-2011
www.clark.wa.gov/community-development

For an alternate format, contact the Clark County ADA Compliance Office.
Phone: (360)397-2322
Relay: 711 or (800) 833-6384
E-mail: ADA@clark.wa.gov

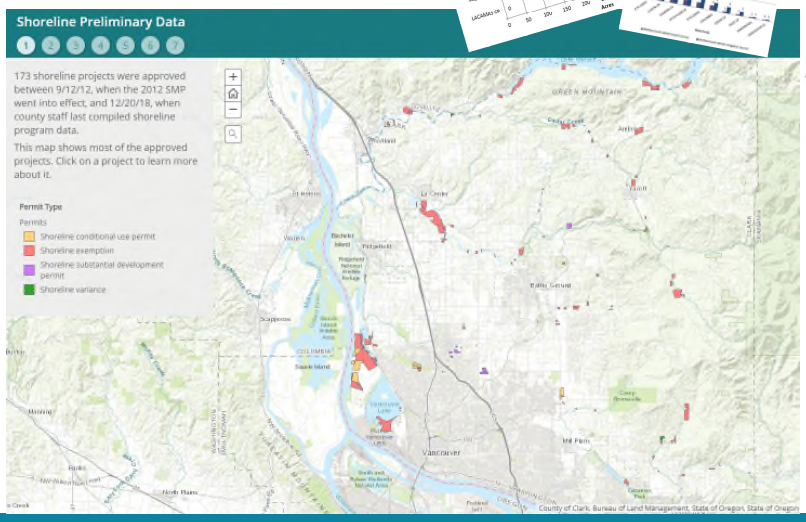
Permit Data Consolidation

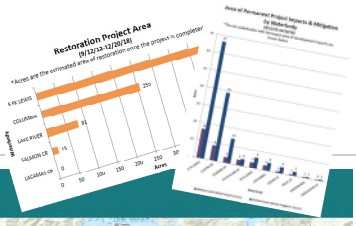
- 6 years data
- 173 permits and exemptions
- 20 code violations
- Manually populated spreadsheet

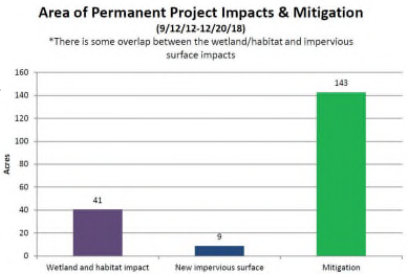


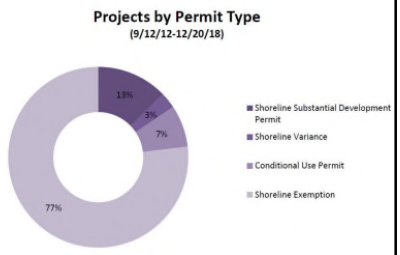
Location and description			Impacts (only include impacts that occur within the SMA)											Mitigation (for impacts within the SMA)				Restoration that's not mitigation (include mitigation for impacts outside SMA)				
Permit No.	Description	Map (associated with this map inform- ation)	In-water (Dock/Float) sq.ft. ; Piers: no.)	Over-water (Dock/Float) sq.ft ; Piers: no.)	Shoreline Stabilization (Bulkhead/Rip-rap/Groin/Jetty)	Permanent Fill within 100 yr. 100plain sq.ft.	Permanent fill in stream below OHWM	Permanent Fill in Wetland above OHWM	Permanent habitat impact above OHWM	Permanent habitat impact below OHWM	Clearing above OHWM sq. ft.	Clearing sq.ft. below OHWM	Grading sq ft	New Impervious Surface (sq.ft.)	Mitigation On-site: parcel number	Mitigation On-site: sq./lin.ft	Mitigation Off-site parcel number	Mitigation Off-site sq. ft.	Restoration parcel number	Wetland creation (sq ft)	Enhancement (sq ft)	Rehabilitation (sq ft)	Floodplain creation (cu yd)
0																							
SHL2013-00019	CONSTRU	Site plan	0	0	0	0	0	5400	2385	0	0	0	2385	1440	185962000	7155	0	0		0	0	0	0
SHL2013-00020	576 SF 2	Site plan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
SHL2013-00021	Adjust the	Site plan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
SHL2013-00022	EXISTING	Site plan	0	0	0	0	0	0	7285	0	7285	0	7285	4525	140017000	7285	0	0		0	0	0	0
SHL2013-00023	AS-BUILT	Site plan	0	0	0	0	0	0	0	0	0	0	0	132	0	0	0	0		0	0	0	0
SHL2013-00024	Shoreline	Site plan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
SHL2013-00025	Conduct e	Site plan	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0		0	0	0	0
SHL2013-00027	property	No site pl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
SHL2013-00028	SHORELIN	Site plan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
SHL2013-00029	RUD subdi	No site pl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
SHL2013-00035	SHORELIN	Site plan	0	0	0	0	0	5962	0	0	0	0	0	2104	130012000	65925	0	0		0	0	0	0
SHL2013-00031	R.A. LIC	Site plan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
SHL2014-00001	SHORELIN	Adjust d	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
SHL2014-00003	SHORELIN	Site plan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
SHL2014-00004	SHORELIN	Site plan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
SHL2014-00005	SHORELIN	Site plan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	186430000	0	2850	0	0
SHL2014-00006	Removing	0	0	0	0	0	0	0	12686	0	0	0	4995	0	0	0	-1	12686		0	0	0	0
SHL2014-00007	Fell 30 tre	0	30	0	0	0	0	0	0	0	0	0	0	0	225600000	30	0	0	225600000	0	0	185	0
SHL2014-00008	SHORELIN	Site plan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
SHL2014-00010	SHORELIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
SHL2014-00011	SHORELIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	327010000	0	2822	0	0
SHL2014-00013	PHASE 1	0	0	0	0	0	0	0	0	7308	0	0	2340	0	0	0	0	0		0	0	0	0
SHL2014-00014	SHORELIN	0	0	0	0	0	0	0	0	23645	0	0	23645	0	0	0	0	0		0	0	0	0
SHL2014-00015	SHORELIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
SHL2014-00016	SUBSTAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
SHL2014-00017	SHORELIN	0	0	0	0	0	0	0	1712	0	3176	0	1712	3176	0	0	0	0		0	0	0	0
SHL2014-00018	RPLC EXI	0	-3840	224	135	3000	360	682	0	4012	17668	300	17388	4012	115621190	1.486	-1	9024		0	0	0	0
SHL2014-00019	SHORELIN	0	0	0	0	0	0	0	1676	0	1676	0	1676	1070	0	0	0	0		0	0	0	0
SHL2014-00020	SHORELIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0

Permit Data Cumulative Review





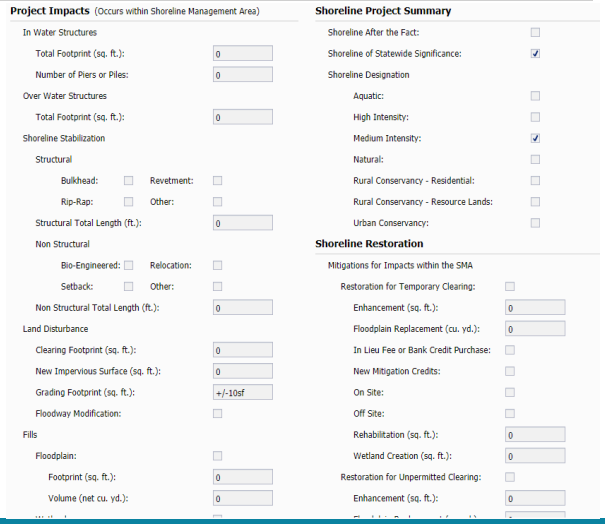




Storymap

New Permit Software (LMS)

- Added shoreline metrics into system
- Replaced 1-pager
- Run report to export data
- Months to minutes



Mitigation Monitoring

Purpose and Importance:

- Promotes no net loss of critical area and shoreline ecological function
- Creates financial/temporal commitments that disincentivize avoidable impacts
- Creates fair and consistent expectations
- Ensures compliance with local ordinances and state law

Information gained:

- Are projects in compliance with permit conditions?
- Are mitigation projects adequately constructed and appropriately monitored?

43

Ensuring permit compliance:

- Requirements:
  - Mitigation goals and objectives
  - Performance standards
  - As-built report
  - Periodic monitoring reports
  - Contingency plan

44

Ensuring permit compliance

- Mitigation goals and objectives
  - Goals identify what the project is trying to accomplish
  - Objectives identify specific elements that are undertaken to meet the goals of the project
- Performance Standards:
  - Performance standards are measurable criteria for determining if the goals and objectives are being achieved

45

Ensuring permit compliance

- As-built report:
  - An “as-built” report provides documentation of what actually occurred onsite during construction and serves as a baseline from which to manage and monitor the site
  - Requirement is conditioned in shoreline permit
  - Project construction is not approved until an as-built has been submitted and approved by the County
  - In cases where timing prohibits completion of planting, a financial assurance may be approved in lieu of as-built.

46

Ensuring permit compliance

- Monitoring requirements:
  - Monitoring helps ensure that a compensation project achieves its stated purpose and complies with permit obligations.
  - It may also be used to determine whether a site needs maintenance or whether the applicant needs to make corrective actions.
  - Typical Monitoring requirements:

	Land Use Projects	Residential Projects
Length	5-10 yrs	3-5 yrs
Formal Report	Required	Not required
Site Visit	Required	Typically required
Fees	Required	Only when out of compliance

47

Ensuring permit compliance

- Contingency Plans:
  - Required within mitigation plan during permit review
  - Should outline actions that would be taken if monitoring reveals that performance standards are not met.
  - Clark County may extend monitoring period if performance standards are not met. A deficiency will be added to the County's online database.

48

Monitoring Mitigation Projects

- Clark County Monitoring Framework:
  - Historically relied on voluntary compliance and financial assurances to ensure monitoring compliance.
  - Assign designated staff person to tackle monitoring where feasible
  - Use of software or data management programs to create and track individual monitoring cases for each wetland, habitat and shoreline permit.
  - Each case is customized with # monitoring years and due dates
  - Ability to query data to overdue or out of compliance cases
  - Follow up annually with permittees to gain voluntary compliance
  - Last resort: code enforcement or make claim on financial assurance

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Monitoring Program Framework

- Staff compiled data from shoreline, wetland and habitat permits from last 10 years requiring monitoring
- Staff identified 128/~262 non-compliant monitoring cases
- Letters were sent for each of the 128 delinquent cases in May of 2020

50

Monitoring Program Framework

- Of the 128 delinquent cases:
  - 17.9% (23 cases) voluntarily complied
  - 15.6% (20 cases) inquired/intend to comply
  - 47.7% (61 case) had no response
  - 15.6% (20 cases) were returned by the post office
  - 3.1% (4 cases) unwilling to comply

51

Challenges / Lessons Learned

	Challenges	Lessons Learned
1.	Information buried	Specific metrics to track → 1-pager → LMS system
2.	Applicants don't correctly fill-out 1-pager/metrics	Staff responsible for accuracy/completeness
3.	Data not always entered on sheet or in database	People and tech solutions
4.	Inconsistent units	Pick a unit and be consistent
5.	Permit data may raise questions	Education and reporting

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Challenges		Lessons Learned
6.	Relying on applicants to voluntarily comply	Use LMS to track and schedule monitoring inspections
7.	Change of property ownership	Send annual informational letters
8.	How to address continued non-compliance	Additional code enforcement or financial assurance resources needed

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Q&A

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

54

Meet Your Presenters

Dave Ward manages long-range planning and environmental programs for Kitsap County. Dave has focused on the relationship of the built and natural environments for over thirty years. His approach emphasizes goal-oriented communications, developing networks of people to collectively solve complex problems, building capacity and critical thinking within organizations to produce goal-driven change, and bringing the best available social science to address human and environmental wellbeing. Aside from that, Dave can often be found in his organic furniture shop or in a forest with his dog, enjoying the diversity of life.

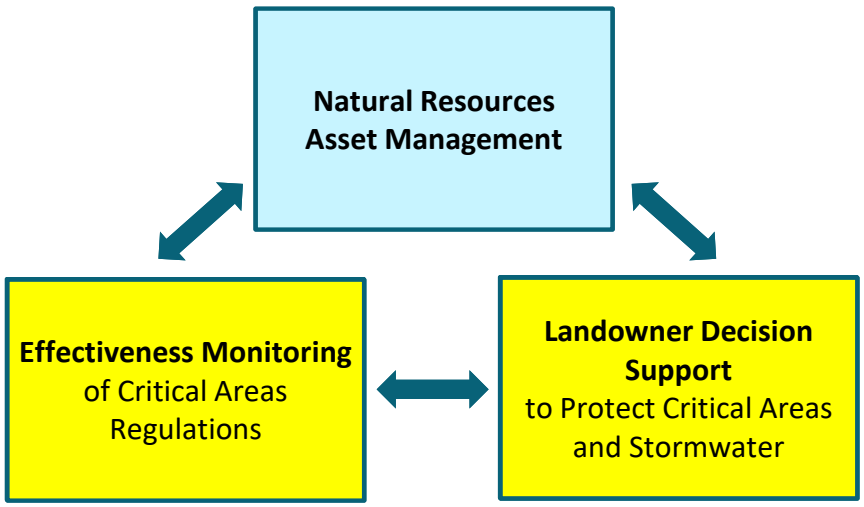
55

National Estuary Program – Near-Term Actions:

Effectiveness Monitoring of critical area regulations Landowner Decision Support to protect critical areas and manage stormwater

Dave Ward, Kitsap County

Connected NEP-funded Projects



57

Effectiveness Monitoring

Need for effectiveness monitoring

- Are our laws working?
- Are they having the desired effect?

Desire for effectiveness monitoring

- Lovers of environmental protection
- Haters of environmental regulation
- Local government perspective of environmental regulation

58

Why don't we all have good programs?

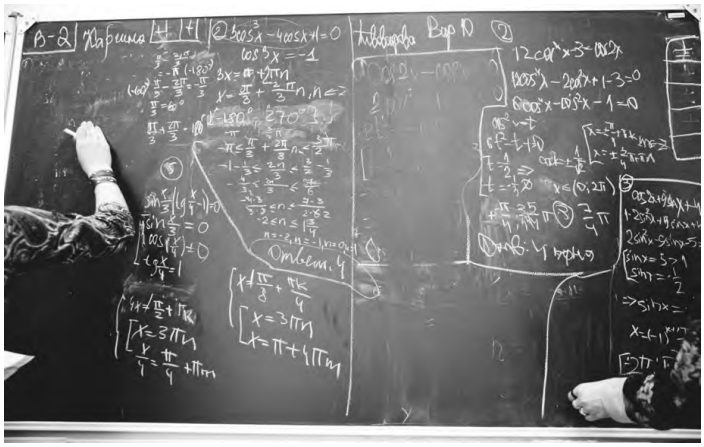
What's missing?

- Good conceptual model
- Clear objectives
- Transferable program
- Affordability
- Staff resources
- Data systems
- Funding source

59

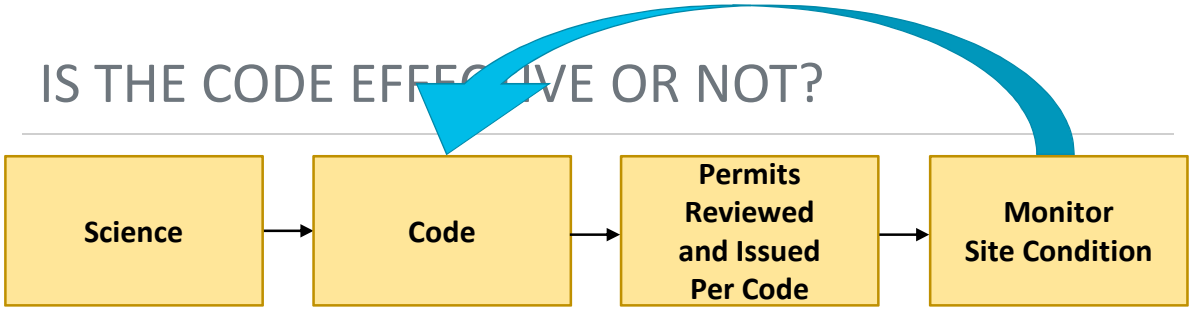
Why don't we all have good programs?

It gets complex really fast!



60

IS THE CODE EFFECTIVE OR NOT?



- Monitor what?
  - Ecological function?
  - How?
  - No net-loss/net-gain
  - Of what?
- How long?
  - Site condition at final inspection?
  - 5,10,20 years?
- Do we have good data?

61

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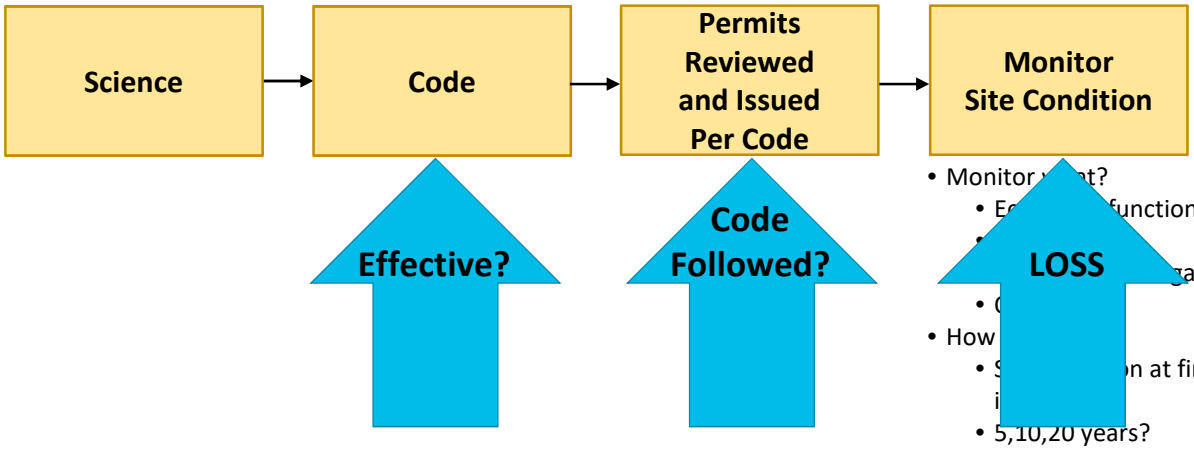

- Monitor what?
- How long?
- Do we have good data?

62

IS THE CODE EFFECTIVE OR NOT?

Science → **Code** → **Permits Reviewed and Issued Per Code** → **Monitor Site Condition**

- Was the code followed in review?
- Was it conditioned properly?
- Are reviews consistent?
- What about inspections?
- Are we leaving a data trail?

- Monitor what?
  - Ecological function?
  - How?
  - No net-loss/net-gain
  - Of what?
- How long?
  - Site condition at final inspection?
  - 5,10,20 years?
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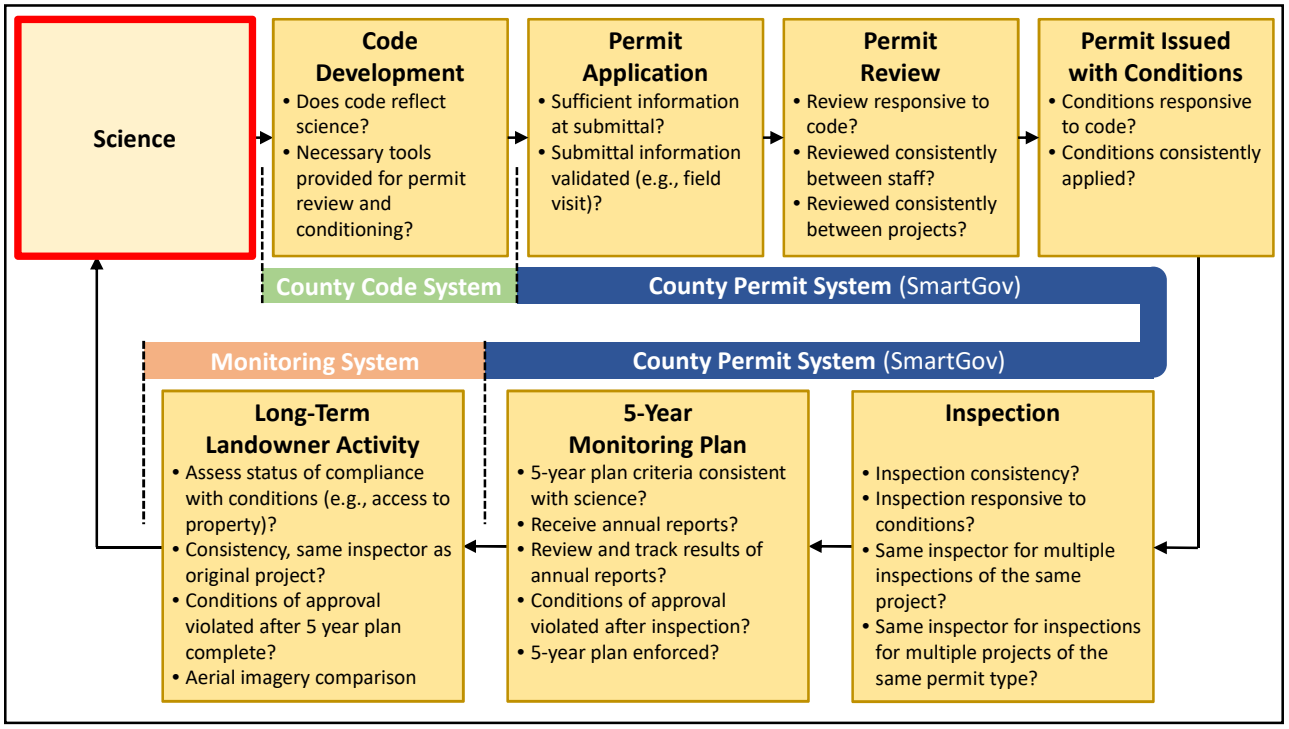
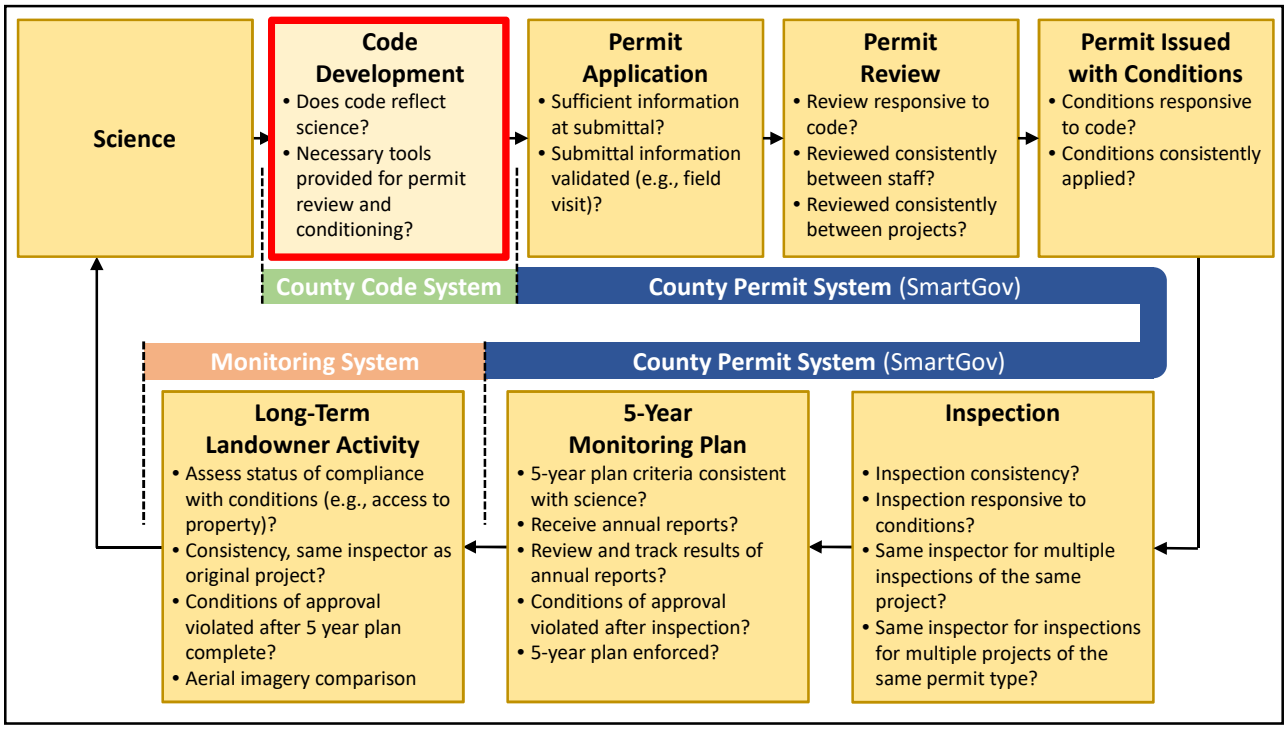
63

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Code Development
• Does code reflect science?
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• Submittal information validated (e.g., field visit)?
Permit Review
• Review responsive to code?
• Reviewed consistently between staff?
• Reviewed consistently between projects?
Permit Issued with Conditions
• Conditions responsive to code?
• Conditions consistently applied?
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• Assess status of compliance with conditions (e.g., access to property)?
• Consistency, same inspector as original project?
• Conditions of approval violated after 5 year plan complete?
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• Receive annual reports?
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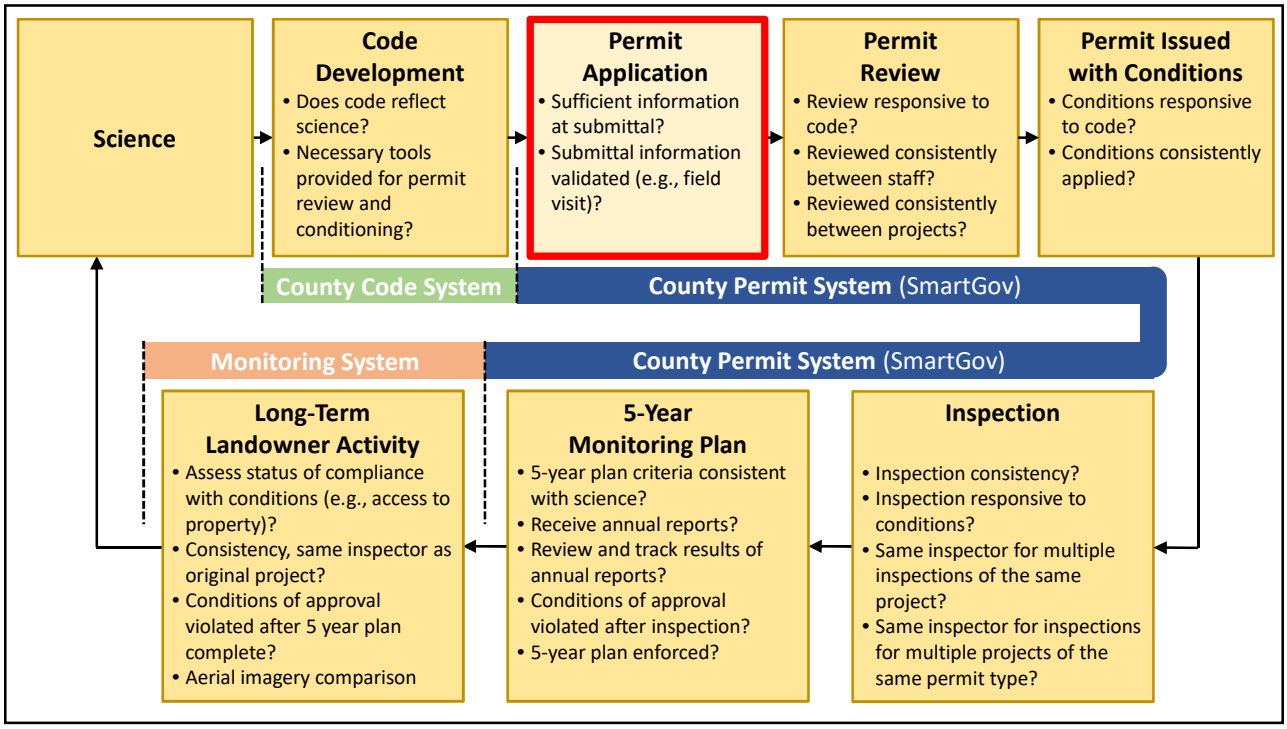
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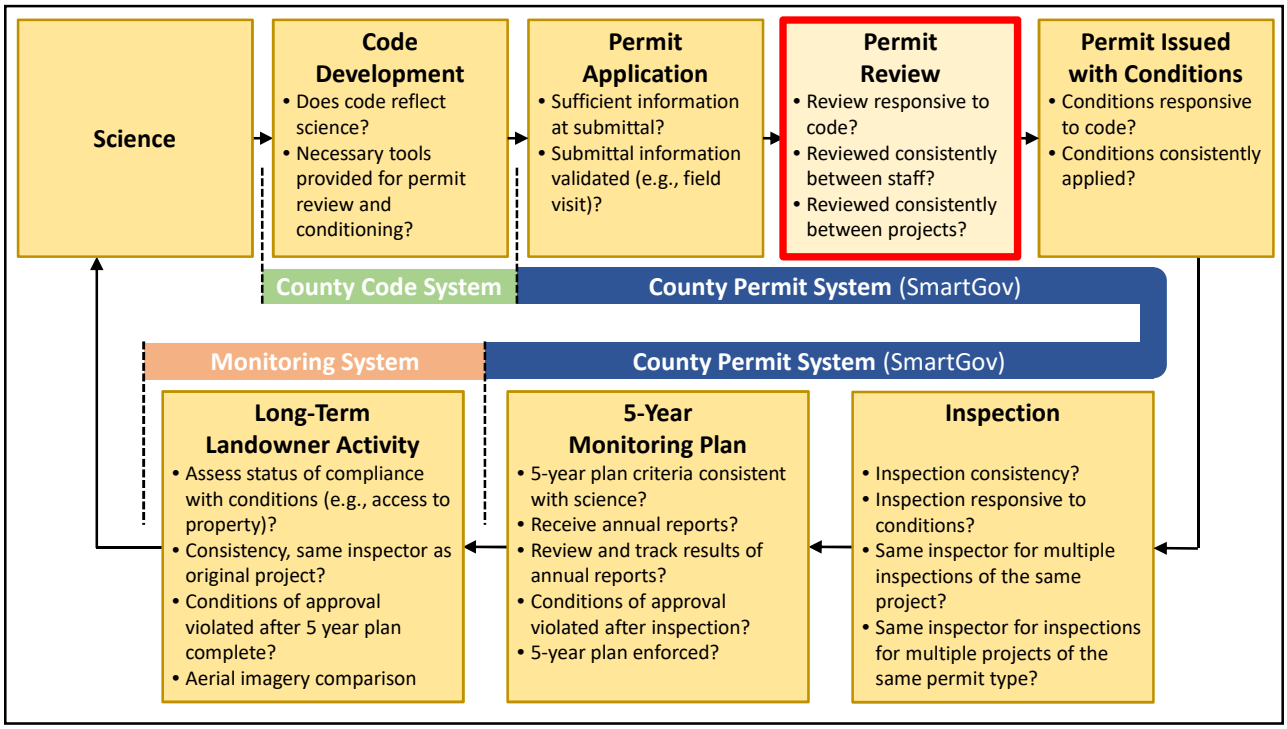
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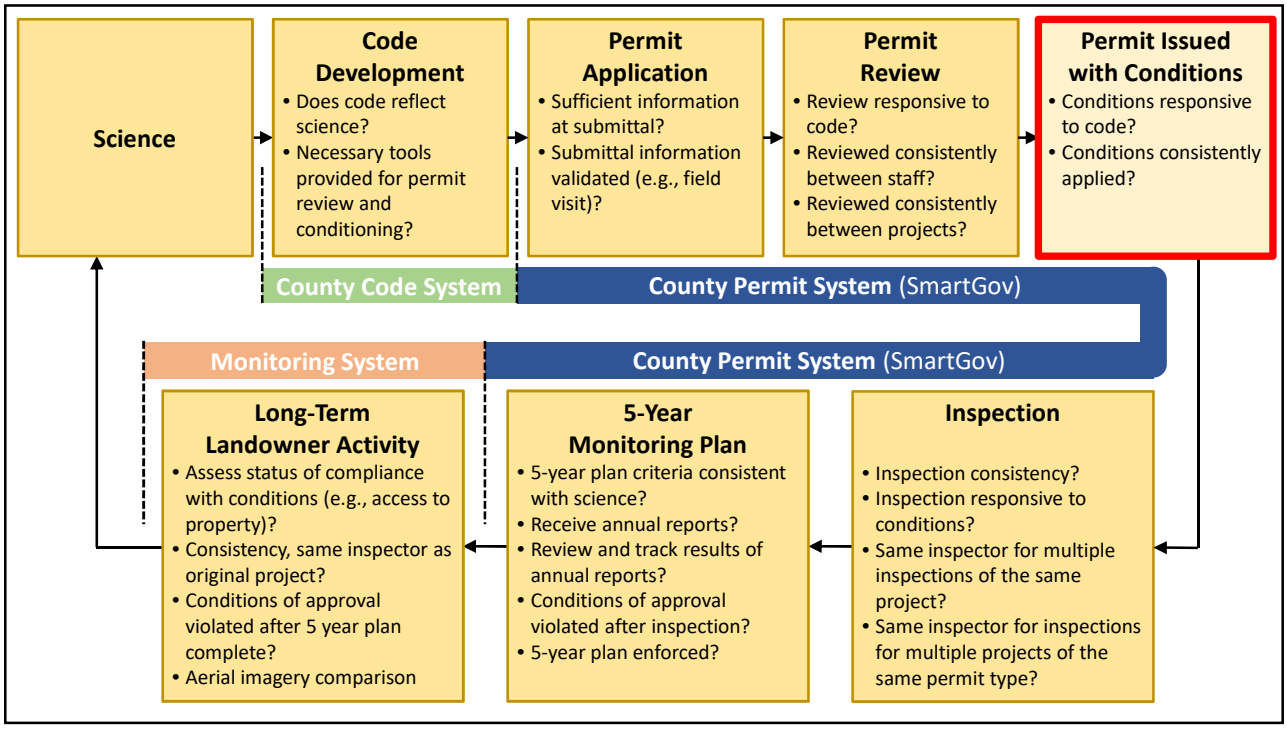
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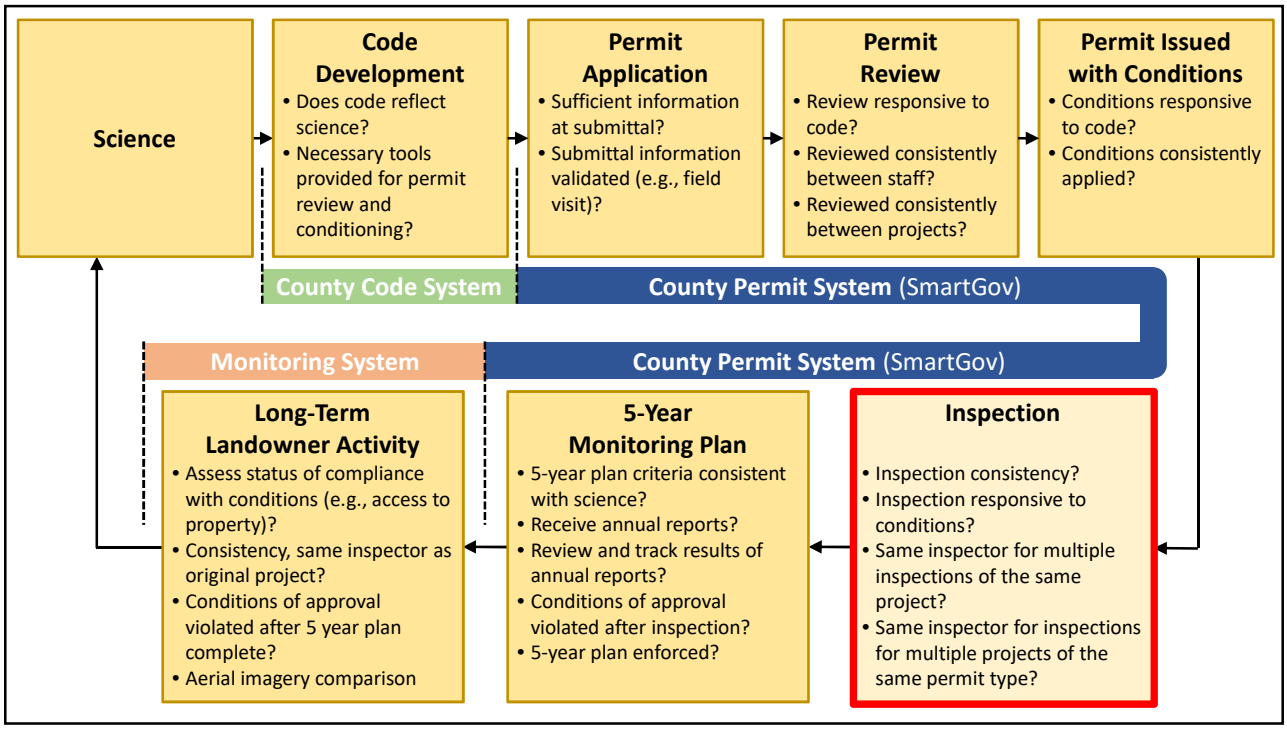
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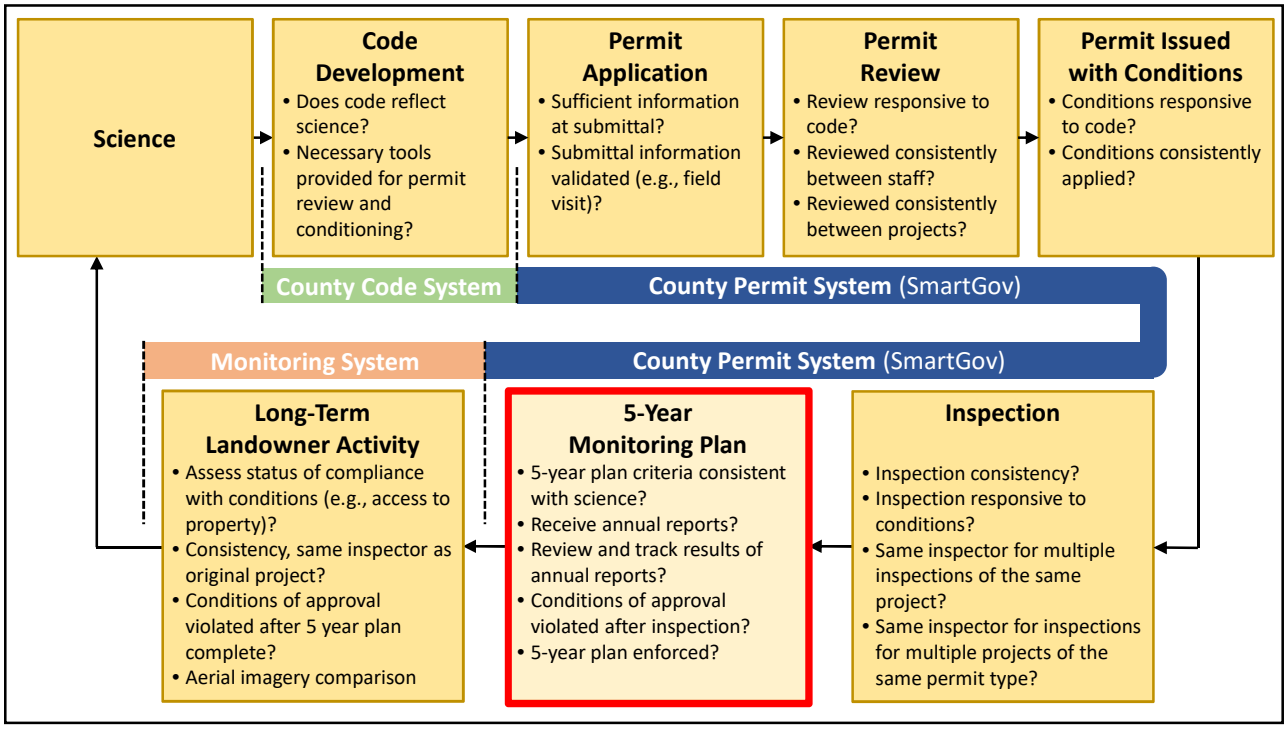
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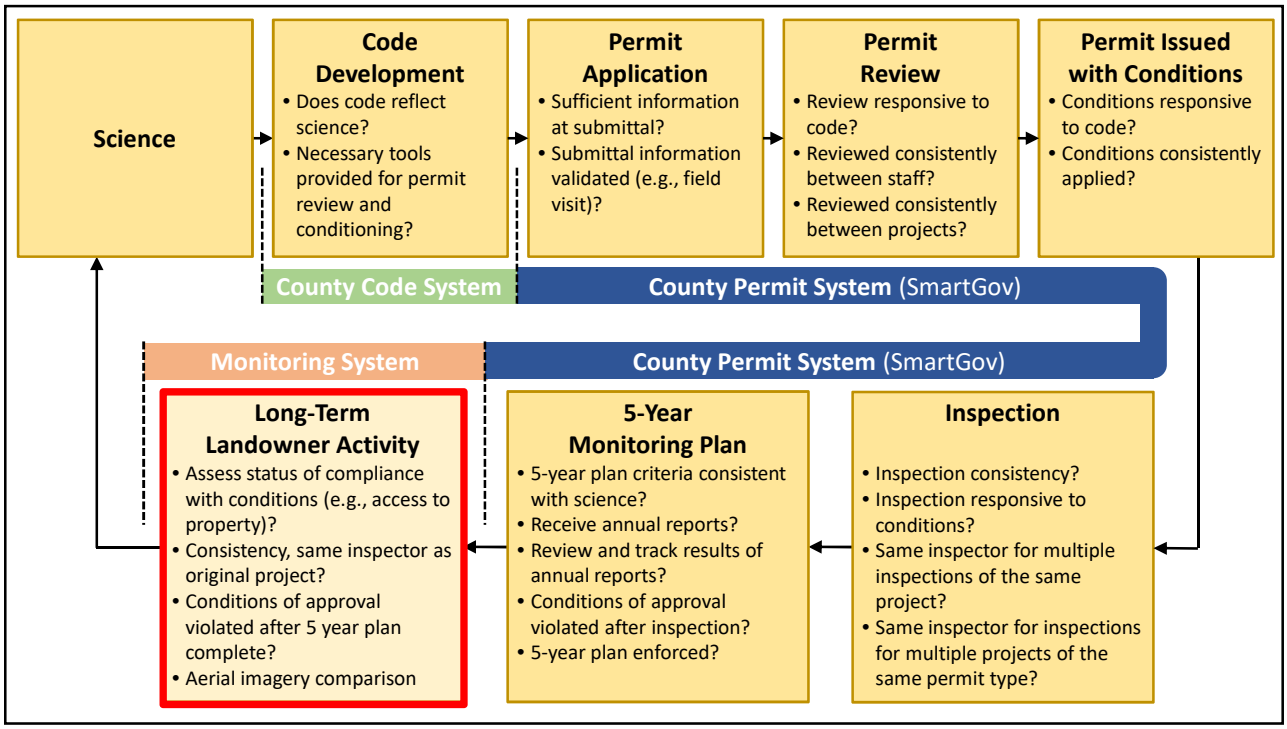
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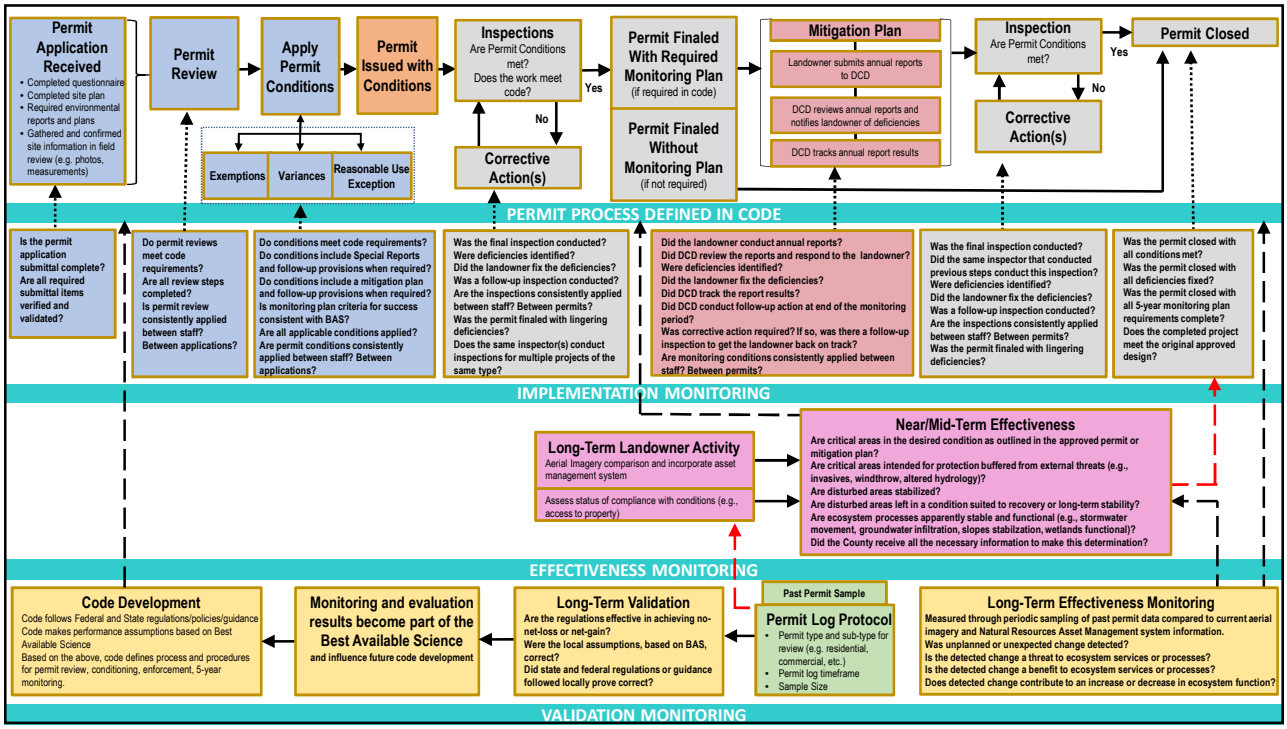
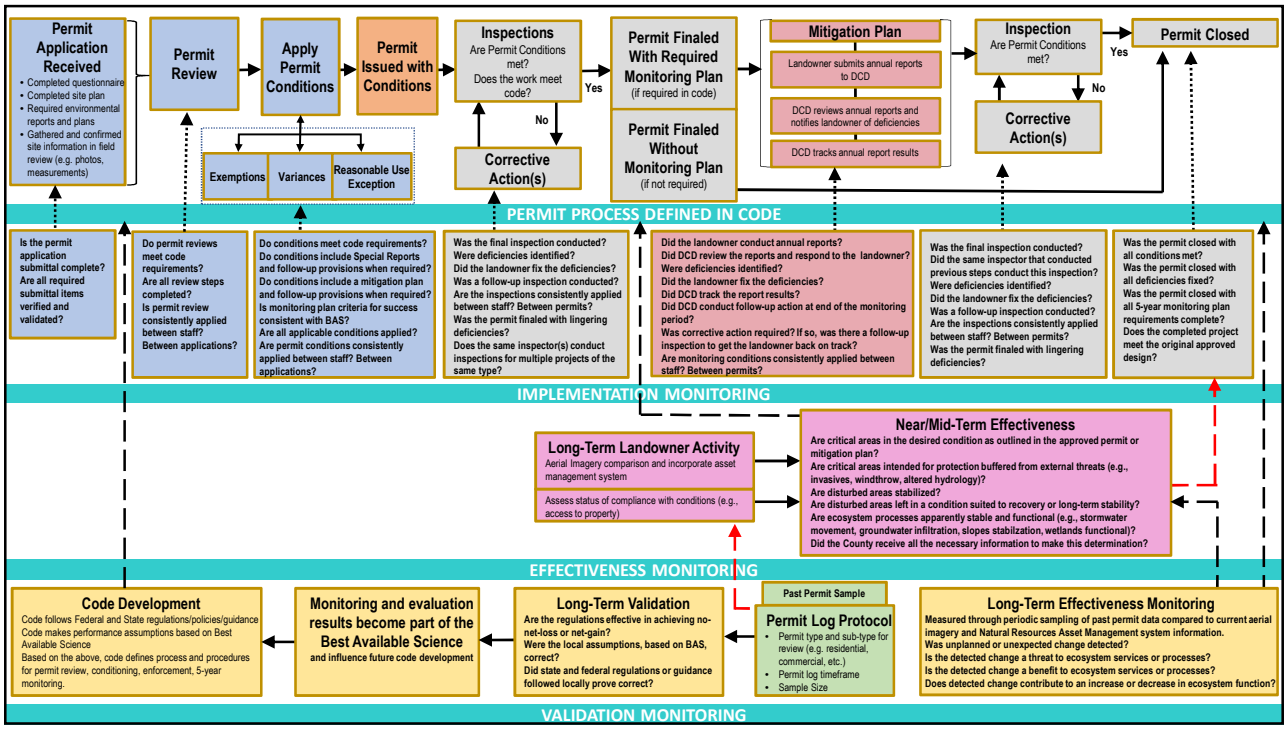

Permit Application Received
• Completed questionnaire
• Completed site plan
• Required environmental reports and plans
• Gathered and confirmed site information in field review (e.g. photos, measurements)
Permit Review
Apply Permit Conditions
Exemptions
Variances
Reasonable Use Exception
Permit Issued with Conditions
Inspections
Are Permit Conditions met?
Does the work meet code?
Yes
No
Corrective Action(s)
Permit Finaled With Required Monitoring Plan
(if required in code)
Permit Finaled Without Monitoring Plan
(if not required)
Mitigation Plan
Landowner submits annual reports to DCD
DCD reviews annual reports and notifies landowner of deficiencies
DCD tracks annual report results
Inspection
Are Permit Conditions met?
Yes
No
Corrective Action(s)
Permit Closed
PERMIT PROCESS DEFINED IN CODE
Is the permit application submittal complete?
Are all required submittal items verified and validated?
Do permit reviews meet code requirements?
Are all review steps completed?
Is permit review consistently applied between staff?
Between applications?
Do conditions meet code requirements?
Do conditions include Special Reports and follow-up provisions when required?
Do conditions include a mitigation plan and follow-up provisions when required?
Is monitoring plan criteria for success consistent with BAS?
Are all applicable conditions applied?
Are permit conditions consistently applied between staff? Between applications?
Was the final inspection conducted?
Were deficiencies identified?
Did the landowner fix the deficiencies?
Was a follow-up inspection conducted?
Are the inspections consistently applied between staff? Between permits?
Was the permit finaled with lingering deficiencies?
Does the same inspector(s) conduct inspections for multiple projects of the same type?
Did the landowner conduct annual reports?
Did DCD review the reports and respond to the landowner?
Were deficiencies identified?
Did the landowner fix the deficiencies?
Did DCD track the report results?
Did DCD conduct follow-up action at end of the monitoring period?
Was corrective action required? If so, was there a follow-up inspection to get the landowner back on track?
Are monitoring conditions consistently applied between staff? Between permits?
Was the final inspection conducted?
Did the same inspector that conducted previous steps conduct this inspection?
Were deficiencies identified?
Did the landowner fix the deficiencies?
Was a follow-up inspection conducted?
Are the inspections consistently applied between staff? Between permits?
Was the permit finaled with lingering deficiencies?
Was the permit closed with all conditions met?
Was the permit closed with all deficiencies fixed?
Was the permit closed with all 5-year monitoring plan requirements complete?
Does the completed project meet the original approved design?
IMPLEMENTATION MONITORING
Long-Term Landowner Activity
Aerial Imagery comparison and incorporate asset management system
Assess status of compliance with conditions (e.g., access to property)
Near/Mid-Term Effectiveness
Are critical areas in the desired condition as outlined in the approved permit or mitigation plan?
Are critical areas intended for protection buffered from external threats (e.g., invasives, windthrow, altered hydrology)?
Are disturbed areas stabilized?
Are disturbed areas left in a condition suited to recovery or long-term stability?
Are ecosystem processes apparently stable and functional (e.g., stormwater movement, groundwater infiltration, slopes stabilization, wetlands functional)?
Did the County receive all the necessary information to make this determination?
EFFECTIVENESS MONITORING
Code Development
Code follows Federal and State regulations/policies/guidance
Code makes performance assumptions based on Best Available Science
Based on the above, code defines process and procedures for permit review, conditioning, enforcement, 5-year monitoring.
Monitoring and evaluation results become part of the Best Available Science
and influence future code development
Long-Term Validation
Are the regulations effective in achieving no-net-loss or net-gain?
Were the local assumptions, based on BAS, correct?
Did state and federal regulations or guidance followed locally prove correct?
Past Permit Sample
Permit Log Protocol
• Permit type and sub-type for review (e.g. residential, commercial, etc.)
• Permit log timeframe
• Sample Size
Long-Term Effectiveness Monitoring
Measured through periodic sampling of past permit data compared to current aerial imagery and Natural Resources Asset Management system information.
Was unplanned or unexpected change detected?
Is the detected change a threat to ecosystem services or processes?
Is the detected change a benefit to ecosystem services or processes?
Does detected change contribute to an increase or decrease in ecosystem function?
VALIDATION MONITORING



Where are we?

Best Practices:

- Cross-train review staff and inspectors
- Revise site plan requirements
- Checklist in permit system for BMPs
- Checklist in permit system for critical area presence
- Make certain elements required in permit system

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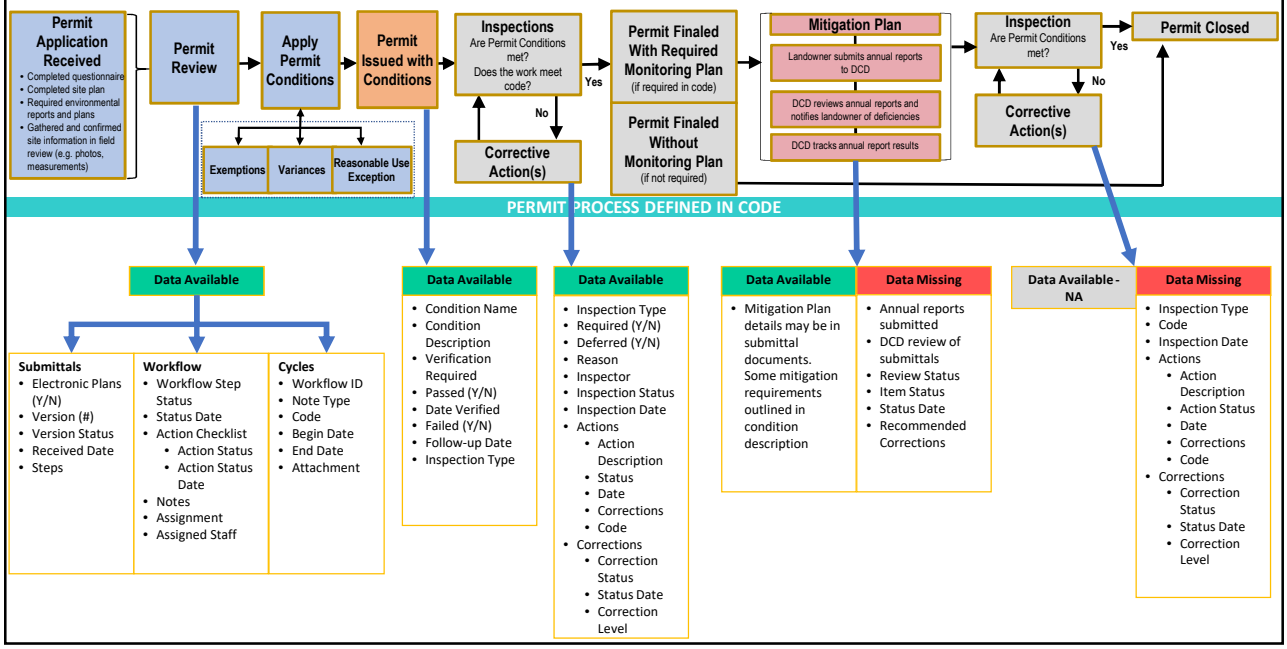
It's all about the data



Where are we?

Best Practices:

- Cross-train review staff and inspectors
- Revise site plan requirements
- Checklist in permit system for BMPs
- Checklist in permit system for critical area presence
- Make certain elements required in permit system
- Establish process for 5-year monitoring plans
- Use critical area reports (e.g., wetland, geotech) to update GIS

Landowner Decision Support

Improved landowner development decisions to protect critical areas and manage stormwater

- Good for landowners
- Good for the environment
- Good for the County

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It's only a matter of time

Erosion control?
What's erosion control?

Let's just run the sewage into the yard

Just dump the water onto the neighbor's yard

Defining the Problem

- Most SFR applicants start their process long before they apply for a permit
  - Focused on home design, buying a lot, well, septic design
  - Don't know that a site development permit is needed
  - Perception that getting a permit is *pro forma* OR,
  - Perception that the permit is a hurdle
- Many applicants un-knowingly make bad decisions early-on
- Attempts by permit staff to reduce negative impacts are often resisted by applicants and are viewed as barriers

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What do customers say?

#1

Only 17% of SFR customers visited DCD first during project planning

#2

89% of SFR customers purchased their property before contacting DCD

#3

56% of SFR customers choose to manage their project instead of hiring a professional

#4

Customers self-described as "very familiar" with critical areas and stormwater, but…

experienced difficulty applying development requirements

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Moving Toward Solutions

- Applicant-staff consultations early in the design process:
  - Reduce conflict
  - Protect resources and critical areas
  - Improve site design
  - Reduce review time and questions
- Must reach applicants early – The pre-app isn't early enough
- Social marketing approach (i.e., how people do things)
- Help people make good decisions
- **Approach the problem from the customer's perspective**

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Where are we?

Best Practices:

- "Start Here" approach
- Coordinate with Health District
- Revise site plan requirements
- Promote feasibility meetings with staff
- Landowner webinars and workshops
- Coordinate with real estate industry

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Q&A

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

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Thank you!

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