Attachment C

BUNDLE WORK PLANS

Mid-Coast Water Planning Partnership

Funding for the Prioritization Project and Early Implementation Work Plan was provided by the Oregon Water Resources Department through an American Rescue Plan Act (ARPA) grant.



Bundle 1: Water Conservation

- Prioritized actions:
 - 1 Develop and implement a public awareness engagement campaign aimed at supporting the imperatives and actions in the Mid-Coast Water Action Plan, including raising awareness and understanding of regional water issues. Includes the following:
 - 1a Promote water conservation at local events, on the Mid-Coast Water Planning Partnership website and the websites of regional partners and entities, in news articles, and water bills, via social media, and through outreach materials to businesses, particularly in the hospitality industry.
 - 1b Develop drought declaration and audience-specific (e.g. selfsupplied industrial water users) water conservation and curtailment messages
 - 1f Identify or develop curriculum and materials/information for students and the public (community education) about their water sources, water management, and water conservation
 - 4 Regional Collaboration: Strengthen/support the Mid-Coast Water Conservation Consortium to enhance water conservation, increase resiliency during shortages and emergencies, and pool resources of multiple water providers. Support enhanced coordination with state and federal entities outside the Mid-Coast

Gaps:

 All actions in this bundle have at least one associated project, but efforts can be expanded for each of the actions, such as through increasing membership in Mid-Coast Water to expand the reach of outreach materials and expanding outreach to specific audiences

Approach:

- Promote water conservation and awareness of water sources and water management issues (e.g., drought) (Actions 1a, 1b, 1f, and 4) through supporting Mid-Coast Water
- Strengthen/support Mid-Coast Water by:
 - Promoting Mid-Coast Water at Partnership meetings and on the Partnership website, as well as disseminating press releases
 - Providing Mid-Coast Water with ideas about funding resources, partners, outreach events, and ways to enhance outreach

- Oregon Health Authority: Drinking Water Source Protection Fund; Drinking Water State Revolving Fund (low-cost loans, funded through the Safe Drinking Water Revolving Loan Fund)
- Bureau of Reclamation WaterSMART Program
 - Water and Energy Efficiency Grants
 - 50/50 cost share funding for projects that result in quantifiable and sustained water savings.
 - Small-Scale Water Efficiency Projects
 - 50/50 cost share funding for small water efficiency improvement projects identified through previous planning efforts (e.g., installation of flow measurement or automation in a section of a water delivery system, etc.)
 - Environmental Water Resources Projects
 - Funding for water conservation projects, water management improvements, and river and watershed restoration projects that provide significant ecological benefits
 - Water Strategy Grants
 - Funding for collaborative planning to improve water supplies including conservation, water marketing, drought and ecological resilience.
 - Drought Contingency Planning and Drought Resiliency Projects
 - Planning and Project Design Grants
- Oregon Watershed Enhancement Board (OWEB) Partnership Stakeholder
 Outreach Grant
- Oregon Department of Environmental Quality (DEQ) Clean Water State Revolving Fund Program
- Proposed activities:
 - Partnership
 - Obtain updates about Mid-Coast Water activities and share updates with partners at least annually (ideally a representative from Mid-Coast Water presents/discusses activities at a Partnership meeting)
 - Add the Mid-Coast Water website link to the Partnership website and provide an accompanying description
 - Promote ongoing Mid-Coast Water activities, like events, on the Partnership website, email lists, or other Partnership outreach channels
 - Share information about applicable funding opportunities with Mid-Coast Water
 - Share ideas about potential partners with Mid-Coast Water, such as state and federal entities outside the Mid-Coast

- Encourage water providers not currently participating in the Mid-Coast Water to explore participation
- Share ideas about local events where Mid-Coast Water could host a booth
- Share drought declaration information and press releases developed by Mid-Coast Water with the Partnership
- Continue tracking which water providers are required to do Water Management and Conservation Plans (WMCPs) and updating this list on the Partnership website and request copies of WMCPs

Mid-Coast Water

- Continue to promote water conservation through the Mid-Coast Water website and outreach materials, such as newsletter articles, billing inserts and messages, press releases, social media messages, and annual water quality reports
- Begin to produce some outreach materials in Spanish
- Expand attendance at events to promote water conservation to beyond three events per year
- Expand outreach efforts to smaller water providers to encourage participation in Mid-Coast Water, such as through meeting with them in-person to discuss Mid-Coast Water and to understand their needs.
- Continue to support Mid-Coast Water members by developing water conservation outreach materials for Mid-Coast Water members and providing some tailored water conservation website content for each entity's website
- Reach out to vacation rental management companies, motels, and hotels about promoting water conservation and share initial drafts of outreach materials. Adjust outreach materials as needed to meet the needs of these businesses and support them with implementing use of outreach materials
- Develop audience-specific water conservation curtailment messages as audiences are identified
- Identify additional educational partnerships that will enable Mid-Coast Water to enhance student education about water conservation, water sources, and water management; work with partners to develop and integrate educational materials covering those themes in partners' lessons and programs

Bundle 2: Water Quality Outreach

Prioritized actions:

- 1 (G) Voluntary Actions: Conduct outreach to encourage implementation of voluntary, incentive based actions throughout the region, consistent with existing plans, such as the Mid-Coast Agricultural Water Quality Management Area Plan.
- 1 (H) Source Water Protection and Development: Inform selfsupplied and public water users and residents and businesses within public water supply areas about water supplies and water protection measures, including proper well construction and maintenance, septic system maintenance, and proper use of landscape and other chemicals.
- 1(J) Source water outreach: Conduct education in source water areas (including to those that may not be customers of the water provider) about drinking water sources, risks, choices and strategies
- Oregon State University Extension Service) to deliver information on safe pesticide application practices and vegetation management practices that reduce or eliminate pesticide use. Provide outreach on water quality impacts of pesticides and fertilizers associated with lawn management near streams and ponds. Share methods that reduce impacts and identify alternatives.
- 1 (K) best management practice outreach: Connect private landowners with resources and information about best management practices to improve water quality and quantity.

Gaps:

- potential gap in 1i, funding and approach needs to be considered.
 Previous workshops were mixed in attendance. Is there a specific target audience we are seeking to work on this with? Landowners, contractors, farmers, etc?
- Gaps in funding for non-agricultural/forestry properties
- Organizational relationships (Surfrider (Blue Water Task Force), Aquarium, Municipal Water Providers (raw water data)

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Approach:

- Mailer, flyers, and posters
- Workshops
- o Social media engagement
- On-Site visits
- Visual data information (Water chemistry) What happens when Temperature changes.
- 1 (I) Pesticide outreach and education: (1) Summarize available Toxics data (see website), (2) summarize interpretation, (3) recommend the additional data needs to assess pesticides in water column over time.
 Solicit public input on draft plan.

- O 1 (G) Voluntary Actions:
 - Agricultural Water Quality Management Area Plans
- 1 (H) Source Water Protection and Development:
 - OSU Extension Well Water Program (Septic and Wells)
- 1(J) Source water outreach:
 - <u>Coalition of Oregon Land Trusts Protecting Oregon's Drinking</u>
 Water Sources
- 1(I) Pesticide outreach:
 - SOLVE Pest Problem
 - PNW Pest Management Handbooks
 - ODA Water Quality and Pesticides Program
 - ODA Pesticide Stewardship Program
 - National Pesticide Information Center (Fact Sheets)
 - Pesticide Environmental Stewardship
- 1 (K) best management practice outreach: Connect private landowners with resources and information about best management practices to improve water quality and quantity.
 - NRCS Conservation Practice Standards
 - Ag Water Quality BMP
 - Forestry Water Quality BMPs
 - Conservation/Habitat Water Quality BMPs
 - Gardens, turf and residential BMPs
 - Stormwater BMPs

Bioretention and Rain Garden BMPs

Proposed activities:

- 2025 Winter: Living on the Land Series (LSWCD/OSU Extension) 1g, 1h, 1k, 1i
- o 2025 Fall Manure Management Workshop Series (LSWCD/ODA) 1k
- 2025 Beaver and LWD Brochure (MCWC) 1g and 1k
- 2025-2026 Schooner Creek Source Water Conservation Outreach (LSWCD/Lincoln City Public Works) 1h, 1j, 1k
- 2025 School Field Trip Water Conservation Station (ODFW) 1j
- o **2025-2029** River Float Series (LSWCD) 1g/1i/1j/1k
- o 2025 2028 Summer Title II Weeds Mailers (LSWCD) 1i
- 2025 2030 Landowner Technical Assistance site visits (LSWCD/MCWC/NRCS) 1g, 1h, 1k
- 2025 2029 NRCS Siletz NWQI Source Water Outreach (Forestry and Ag eligible properties) (LSWCD/NRCS) 1g, 1h, 1k
- 2024 2026 DEQ Coastal Partners for Drinking Water Protection Workshop Series (DEQ) 1h, 1k, 1j
- 2024 2025 City of Newport Drinking Water Protection Plan Meetings (City of Newport)
- o 2024 2030 Quarterly Siletz Watershed Meetings (MCWC) 1g, 1h, 1j
- 2024 2030 Wild Things, Bloom, Toledo Boat Show and other community events/festivals (MCWC/LSWCD) 1g, 1h, 1k, 1j
- 2024 2030 Farmers Markets (MCWC/LSWCD) 1g, 1h, 1k, 1j
- o **2024-2030 Fall** Salmon River Cleanup (MCWC) 1g, 1h, 1k, 1j
- 2024-2030 Summer Siletz River Cleanup (MCWC) 1g, 1h, 1k, 1j
- 2025 2030 Midcoast Water Quality Conservation Brochure (LSWCD/MCWC) 1g, 1h, 1k, 1j
- 2025 2030 Midcoast Water Quality Monthly Social Media Outreach (LSWCD/MCWC) 1g, 1h, 1k, 1j

- 2025 2030 Midcoast Watersheds Council Community Meeting Quarterly Water Quality Topics (MCWC) 1g, 1h, 1k, 1j
- 2025 2030 Social Media Outreach and Education on Water Quality (Monthly) (LSWCD/MCWC) 1g, 1h, 1k, 1j
- o **2025 2030** MCWC Volunteer Conservation Events (MCWC) 1g, 1h, 1k, 1j

Bundle 3: Drinking Water Source Water Protection Work Plan

Prioritized actions:	1
Goals & Objectives:	2
Action 35 Clarification:	3
Gaps and Challenges Assessment:	4
Connection to Oregon's Integrated Water Resources Strategy:	5
Public Water System Participation in the MCWPP:	6
Source Water Protection Funding & Technical Assistance Resources:	9
Select References:	9
Resources:	9
Potential Partners:	10
Implementation Timeline & Suggested Activities:	11

Prioritized actions:

- 5 (Priority Group A) Regional Collaboration: Support and advocate for planning and development that minimizes impacts to floodplains and riparian areas, promoting Green Infrastructure methods and Low Impact Development practices.
- 12 (Priority Group A) Source Water Protection and Development: Develop
 regionally integrated Drinking Water Protection Plans to ensure that
 strategies and implementation plans are in place to minimize threats to water
 supply sources throughout the Mid-Coast. Advocate for funding to support
 the development and implementation of these plans.
- 13 (Priority Group A) Source Water Protection and Development: Create
 a Source Water Protection Plan, or multiple source-specific plans, to reduce,
 or minimize contaminants from entering source waters. Advocate for funding

to support the development and implementation of these plans.

- 35 (Priority Group A) Identify, fund, and implement high priority regional source water protection activities.
- 36 (Priority Group B) Support the reduction of nutrient, turbidity, and bacteria inputs and emerging contaminants of concern (e.g., PFAS, PFOA, pharmaceuticals, etc.) to source water from all sectors using the latest technology.
- Note that the 'Protect Critical Lands' bundle of prioritized actions (actions 41 & 58) is also achieving source water protection goals when implemented in drinking water source areas.

Goals & Objectives:

The goal of this work plan is to create a useful framework for mid-coast public water systems, municipalities, and technical assistance providers to implement prioritized drinking water source water protection actions identified by the Mid-coast Water Planning Partnership.

The specific objectives of this work plan are to:

- Clarify what constitutes a high priority regional source water protection activity in relation to Action 35 Identify, fund, and implement high priority regional source water protection activities.
- Call attention to potential gaps or challenges to implementing the priority source water protection actions.
- Highlight the links between priority source water protection actions identified by the Mid-coast Water Planning Partnership and actions identified in the State of Oregon's Draft 2024 Integrated Water Resources Strategy (IWRS).
- Identify mid-coast public water systems that are and are not already partners in the Mid-coast Water Planning Partnership to aid in outreach efforts to increase water system participation and engagement in the Partnership.
- Provide source water protection funding and technical assistance resources to support partner efforts in implementing prioritized actions.

 In order to support the implementation of the prioritized source water protection actions, specify activities or projects that can happen in the first 1-2 years (winter 2025 - winter 2027) and propose activities and projects that could be implemented in the 3-5 year timeframe (winter 2027-winter 2030).

Action 35 Clarification:

Priority Action 35 is to identify, fund, and implement high priority regional source water protection activities. The description for this action is vague, and it is not clear what type of activities or projects would qualify. A framework for identifying high priority regional source water protection activities is as follows: projects qualify by meeting at least one of four criteria. Each criteria that a project meets counts as a weight towards evaluating high priority regional projects against one another. If high priority regional projects have to be evaluated against one another, then the higher scoring projects would be prioritized first.

Categories for identifying projects that are considered high priority regional activities (project must satisfy at least one criteria to qualify):	Mark a '1' next to every criteria the project satisfies. Sum is priority score.
Project is being implemented in a drinking water source area that serves more than one public water system.	
Project is an action identified within a Drinking Water Protection Plan that was approved/ certified by DEQ within the past 5 years.	
Project addresses a high risk potential contaminant source within a drinking water source area OR addresses a current source of known contamination in a source water area that is causing operational difficulties for the treatment facility or is a concern for public health.	
Project is regionally applicable to the mid-coast in that it serves the entire region (i.e. pesticide collection event) or it	

addresses a priority need common across drinking water	
source areas in the region in more than one drinking water	
source area (i.e. riparian assessment and restoration).	
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Gaps and Challenges Assessment:

Action 5 - Regional Collaboration: Support and advocate for planning and development that minimizes impacts to floodplains and riparian areas, promoting Green Infrastructure methods and Low Impact Development practices.

Potential gap when applied to source water protection specifically because there are limited city boundaries that fall within drinking water source areas in the midcoast. The City of Siletz is the only example of a community for which implementation of Green Infrastructure and/or Low Impact Development practices would directly benefit floodplains and riparian areas in a drinking water source area within the planning area. The City of Siletz is upstream from the drinking water intakes for the Cities of Toledo, Newport, and Siletz. The City of Siletz is not currently a partner in the Mid-coast Water Planning Partnership and is limited in its capacity to invest time and/or resources into voluntary actions.

Action 35 - Identify, fund, and implement high priority regional source water protection activities.

The potential gap associated with this action has been unknown in part due to the lack of specificity regarding what qualifies as a high priority regional source water protection activity. This work plan attempts to address this uncertainty by proposing a framework for how to identify high priority regional projects. Also, there may be actions occurring at the level of individual public water systems or communities for which a more regional collaboration could be more effective. Noxious weed management is a potential example for which a more regional approach to seeking funding and building partnerships could be strategic and increase implementation across the region.

Action 36 - Support the reduction of nutrient, turbidity, and bacteria inputs and emerging contaminants of concern (e.g., PFAS, PFOA, pharmaceuticals, etc.) to source water from all sectors using the latest technology.

No projects related to this action were identified as of September 2024 when the Implementation Gaps table was developed by the Partnership. The risk to mid-coast

drinking water source areas from emerging contaminants of concern is relatively lower than in other areas of the state due to factors including (1) the lack of urban or industrial areas within drinking water source areas, (2) the lack of PFAS sources within drinking water source areas. One notable exception in relation to potential PFAS sources is the Siletz River drinking water source area: there are biosolids application areas and two ECSI sites within the source area that are potential sources of PFAS. Only a fraction of public water systems have been tested for PFAS in Oregon so far. PFAS is generally more of a concern for groundwater systems, and the specific risks from PFAS will need to be assessed once more data is available from public water system sampling efforts and the state has adopted Maximum Contaminant Levels (MCLs).

The project types most likely to support implementation of this action on the midcoast are those that support the reduction of nutrients, turbidity, and bacteria inputs into streams using established best management strategies. There is a need for additional monitoring data to identify where specific projects and strategies are needed. In particular, additional turbidity data is needed to support Total Maximum Daily Load (TMDL) development in drinking water source watersheds. One strategy the partners could pursue is to support the development of turbidity TMDLs in drinking water source areas because this will provide regulatory backing to ensure that responsible parties are implementing corrective action to reduce pollutant loads in streams.

Future Impacts Due to Climate Change:

Climate change will likely increase risks to water quality and quantity from existing potential sources of contamination and could pose additional contamination risks into the future. Water systems should assess how climate change will impact their source water area and use this information to update Drinking Water Protect Plans or other protection strategies.

Connection to Oregon's Integrated Water Resources Strategy:

The State of Oregon is in the process of revising the <u>statewide Integrated Water</u> Resources Strategy (IWRS) (2024). The purpose of the IWRS is to better understand Oregon's instream and out-of-stream water needs - both environmental and consumptive - including water quantity, water quality, and ecosystem needs.

The IWRS helps coordinate water management efforts by multiple agencies and partners across the state. Identifying which sections of the state's IWRS are in line with prioritized actions from the Mid-coast Water Planning Partnership's Action Plan can help build the case for why projects should be prioritized for funding.

Action from Oregon's Integrated Water Resources Strategy (IWRS)	Related Prioritized Source Water Protection Action from MCWPP
Action 10A - Improve watershed health, resiliency, and capacity for natural storage. An example of this action is to "identify and implement actions to protect and maintain drinking water source areas quality and quantity in upland and forested areas" (pg 136, 145).	 Actions 12 and 13 help to identify actions in drinking water source areas to improve watershed health, resiliency, and capacity for natural storage. Implementation of projects related to actions 35 and 36 could correlate with the IWRS action 10A.
Action 11A - Ensure the Safety of Oregon's Drinking Water (page 150)	• Actions 5, 12, 13, 35, and 36
Action 11B - Reduce the Use of and Exposure to Toxins and Other Pollutants (page 162)	 Actions 5, 12, 13 Implementation of projects related to actions 35 or 36 could correlate with this action
Action 5B - Encourage Low Impact Development Practices and Green Infrastructure (pg 81)	• Action 5

Public Water System Participation in the MCWPP:

There are currently 9 public water systems that are named partners in the Midcoast Water Planning Partnership. All of these water systems use surface water sources with the exception of the Panther Creek Water District which also uses a groundwater well seasonally.

Public Water Systems that are Partners	Primary Source	Emergency Source
Bay Hills Water Association	Bay Hills Reservoir	
Beverly Beach Water District	Wade Creek	
Lincoln City Water District	Schooner Creek	Drift Creek
City of Newport	Big Creek Siletz River (seasonal)	Connection to Seal Rock Water District
City of Waldport	N. Fk Weist Creek S. Fk. Weist Creek Eckman Creek (seasonal)	
City of Yachats	Salmon Creek Reedy Creek	Yachats River
Johnson Creek Water Services Company	Johnson Creek	
Panther Creek Water District	Panther Creek Groundwater well (seasonal)	
Seal Rock Water District	Beaver Creek	Connections to Toledo Water Utilities and City of Newport

There are additional public water systems operating in the Mid-coast region that are not yet partners to the Mid-coast Water Planning Partnership. These water systems draw from both surface water and groundwater sources.

Public Water Systems	Primary Source	Emergency Source
that are not Partners		

Toledo Water Utilities	Siletz River (seasonal) Mill Creek (seasonal)	
City of Siletz	Siletz River	
City of Depoe Bay	N. Fk. Depoe Bay Creek S. Fk. Depoe Bay Creek Rocky Creek	
Trollers Cove Water Association	Unnamed Creeks	
Kernville-Gleneden Beach- Lincoln Beach Water District	Drift Creek Side Creek (seasonal)	
SW Lincoln County People's Utility District	Starr Creek Big Creek Vingie Creek Dick's Fk. Creek	
Hiland Water Company - Bear Creek	Callow Creek Groundwater well (seasonal)	
Hiland Water Company - Boulder Creek	Slick Rock Creek	
Hiland Water Company- Riverbend	Duncan Creek No Name Creek	
Otter Rock Water District	Springs	
Salmon River RV Park	Groundwater Well	
Hiland Water Company - Echo Mountain	Groundwater Wells	
Hiland Water Company - Westwood	Groundwater Well	Groundwater Well
Guptil Subdivision	Groundwater Well	
Carmel Beach Water District	Springs	

Kozy Acres Water System	Groundwater Wells	
Riverside Mobile Park	Groundwater Well	

Source Water Protection Funding & Technical Assistance Resources:

The following list of select references and resources can help public water systems, communities, and technical assistance providers find resources to develop source water protection project ideas, build partnerships, fund projects, and effectively link projects to other planning documents for the region.

Public water systems can contact the Oregon Department of Environmental Quality's Drinking Water Protection Program by sending an email to drinkingwater.protection@deq.oregon.gov to receive free technical assistance in support of source water protection goals and projects.

Select References:

National Water Quality Initiative Siletz River Source Water Assessment (September 2024)

Mid Coast Agricultural Water Quality Management Area Plan (February 2024)

City of Yachats Drinking Water Protection Plan (September 2021)

City of Toledo Drinking Water Protection Plan (March 2023)

Oregon's Integrated Water Resources Strategy (DRAFT, March 2024)

<u>Forest Practice Administrative Rules and the Oregon Forest Practices Act (January 2024)</u>

Trees to Tap Science Review Working Papers (2020)

Resources:

<u>Potential Funding Resources for Land Conservation, Acquisition, and Stewardship</u> for Drinking Water Protection (Resource Guide, OR DEQ 2024)

<u>Coastal Source Water Protection Workshop Series: Presentations from Past</u>
Workshops (Economic Development Alliance of Lincoln County's YouTube Channel)

<u>Developing Strategies for Source Water Protection (Fact Sheet, OR DEQ 2018)</u>

<u>Drinking Water Protection Plan Certification Requirements (Fact Sheet, OR DEQ</u> 2017)

<u>Surface Water Resource Guide for Drinking Water Source Protection (OR DEQ</u> 2018)

Ground Water Resource Guide for Drinking Water Source Protection (OR DEQ 2017)

Forest Practices Act Streams and Steep Slopes Map (Oregon Department of Forestry)

<u>Environmental Quality Incentives Program - State of Oregon Project Map (National Resource Conservation Service)</u>

Oregon Department of Agriculture Strategic Implementation Area (SIA) in the Siletz expected to start in 2026. Read more about SIA's here.

<u>Clackamas River Water Providers YouTube Channel:</u> Great resources on topics such as septic system maintenance for rural landowners, how to reduce pesticide drift, etc.

Potential Partners:

Oregon Department of Environmental Quality Drinking Water Protection Program and Watershed Basin Coordinator/Basin Specialists

Lincoln County Soil & Water Conservation District

Midcoast Watersheds Council

McKenzie River Trust

Economic Development Alliance of Lincoln County

Oregon Coast Community Forest Association

Landowners within source water areas

Oregon Sea Grant - Oregon State University

Sustainable Northwest

Local Schools

Mid-Coast Water Conservation Consortium

Implementation Timeline & Suggested Activities:

Approach: The recommended approach for achieving source water protection goals on the Mid-coast is to build robust partnerships to support the capacity of communities to engage in voluntary risk reduction actions. Collaboration among communities is encouraged, and when possible, pooling resources together to implement larger projects can result in greater regional impact.

The implementation timeline represents committed activities from public water systems or technical assistance partners.

Winter 2025 - Winter 2027 Activities	Related Action(s)
Public water systems personnel, community leaders, and technical assistance providers attend coastal source water protection workshop series when offered and provide feedback on source water protection topics needed at future workshops. Learn more information here: Department of Environmental Quality:Source Water Protection Workshops:Drinking Water Protection Program:State of Oregon • Next workshops anticipated in fall 2025	35, 36
Public water system/ community presentation at coastal source water protection workshop to share local stories and help build partnerships. • Next workshops anticipated in fall 2025	
The City of Newport finalizes the Drinking Water Protection Plan. • Final plan anticipated in spring 2025	12, 13

The City of Newport develops a Forest Stewardship Plan for city owned parcels in Big Creek watershed. • Final Forest Stewardship Plan anticipated in late 2025 to mid-2026	35
City of Lincoln City develops Forest Stewardship Plan for Schooner Creek parcel. • Final Forest Stewardship Plan anticipated in late 2025/ early 2026	35
City of Lincoln City pursues rural residential landowner outreach to assess riparian conditions on private land, provide technical assistance, and explore critical area protection in the riparian corridor of Schooner Creek watershed in partnership with the Lincoln SWCD.	35, 36
City of Toledo develops Forest Stewardship Plan for city-owned parcels in Mill Creek watershed. • Final Forest Stewardship Plan anticipated in late 2025/ early 2026	35
City of Toledo completes critical area protection analysis in the Siletz River watershed and develops a landowner outreach strategy to engage landowners.	35
Seal Rock Water District completes a Drinking Water Protection Plan.	13
City of Waldport completes a Drinking Water Protection Plan.	13
City of Depoe Bay develops a strategic plan for pursuing watershed conservation and completes outreach to landowners to pursue the goal of protecting the N. Depoe Bay and Rocky Creek watersheds with acquisitions and easements from willing sellers.	12,13,36

The following suggested activities represent projects or activities that do not currently have sponsors or funding identified. Source water protection is voluntary and it is important to consider the capacity, resources, and local will of public water systems and communities to engage in sustained source water protection work. Partnerships are key to success.

Suggested activities:

Support proposed projects through the Project Support Committee.

- Engage City of Siletz to join the MCWPP and explore the city's potential interest in Green Infrastructure/ Low Impact Development planning and implementation.
- Engage additional drinking water providers in the Mid-Coast to build partnerships and encourage participation with the MCWPP.
- Pool resources and/or identify funding sources to hire a Source Water Protection role to support mid-coast public water systems. A mid-coast Source Water Protection specialist could help to identify and evaluate projects, build partnerships, and identify/ apply for grant opportunities.
- Work with the Oregon Department of Environmental Quality Drinking Water Protection Program to receive support in identifying projects, building partnerships, and applying for funding.
- Annually review Drinking Water Source Areas and identify any new or unanticipated potential sources of contamination or other issues. Assess the potential impacts that climate change may have on the risk of potential sources of contamination including wildfire, drought, severe storms, and nutrients.
- Initiate a coordinated effort to survey drinking water source areas for state
 habitat conservation plan (HCP) species of concern (in particular, the coastal
 giant salamander, Cope's giant salamander, coastal tailed frog, and southern
 torrent salamander). The documented presence of HCP covered species
 provides a potential pathway to additional funding resources to implement
 source water protection actions in a watershed.
- Identify source watersheds where beaver are already present/ are a viable option for pursuing beaver-mediated restoration. Beaver activities and dams help to trap sediment, filter and bind toxic chemicals, and reduce the severity of natural stressors like drought/ storms/ wildfire.
- Coordinate with the Monitoring Committee if there are concerns about impacts to water quality from water reuse or land application.
- Promote/Develop community education and outreach programs to engage citizens, water system staff, board members and elected officials, and

- stakeholders in developing and supporting drinking water protection measures.
- Coordinate efforts with the Mid-Coast Water Conservation Consortium as appropriate.
- Design/ conduct/ guide monitoring efforts for pesticides in source watersheds in partnership with private landowners.
- Communicate with County planners and municipalities to gauge interest in Green Infrastructure (GI) and Low Impact Development (LID) and review County and municipal zoning and planning codes. Support projects to update planning codes to support GI and LID and coordinate with state and federal agencies on revising floodplain ordinances to expedite riparian habitat restoration projects.
- Support the educational efforts of Lincoln SWCD, Midcoast Watersheds Council, OSU extension and others.
- Continue to implement and support sediment reduction and ecosystem restoration projects.
- Explore developing a Memorandum of Understanding or other agreement with USFS and/or BLM when they are landowners within a Drinking Water Source Area.
- Communicate with Lincoln County and other agencies about incorporating source water protection into existing emergency plans.
- Consider wildfire risk reduction planning.
- Develop and implement monitoring plans for turbidity, nutrients, and bacteria.
 Consider also monitoring streamflow to inform water supply planning and evaluate trends that may be related to climate change or activities in the watershed.
- Advocate for better water quality standards for nutrients. MCWPP partners can track the Oregon DEQ's developments for nutrient standards and advocate as appropriate.

Bundle 4: Water Quality Monitoring

Prioritized actions:

- 16 Stream Gauges: Fully fund, install, and monitor real-time stream gauging stations throughout the region in priority locations and times of year when they are needed most to accurately assess source water and enable innovative demand reduction actions during periods of critical ecological need.
- o **17 Water Quality Monitoring**: Develop and implement a coordinated long-term water quality monitoring program throughout the region (e.g., source water, streams, estuaries) to improve understanding of current conditions and event-caused conditions (i.e., storm, low-flow) for nutrients, bacteria, temperature, dissolved oxygen, pH, turbidity and other specific contaminants identified by DEQ, including those that contribute to harmful algal blooms (HAB)s. Collect water samples to identify pollutant sources (location, source, practices influencing input, transport and fate of pollutants). Advocate for additional sampling in headwaters (where herbicides and pesticides are applied) and at municipality intakes.
- 18 Water Quality Monitoring: Conduct comprehensive and ongoing water testing, and use results to guide best management practice implementation, restoration, etc. to address water quality impairments.
- 17 Volunteer Network for Water Quality Monitoring: Develop a coordinated network of people conducting stream flow monitoring and water quality monitoring to share resources and data. Explore costeffective ways to recruit, train and incorporate volunteers in data collection to complement the stream gaging network/activities.

Gaps:

- Currently, both Agency funds and grants for Water Quality monitoring is limited and inconsistent, beyond DEQ's Ambient Network.
- Current monitoring being conducted may not have a comprehensive monitoring plan that includes QA/QC and procedures for submission of data.
- Capacity to run a volunteer network would need to be found in an existing organization

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Approach:

- Coordination between agencies and partners conducting water quality monitoring
- 17 Water Quality Monitoring: MCWPP Bundle 4 (Water Quality) Work Group Recommendations: Potential locations for establishing new and expanding existing water quality monitoring program should be identified and proposed by a panel of local stakeholders in consultation with agency personnel and subject matter experts. The review should consider at a minimum: locations of previously used local, state or federal agency monitoring sites, augmenting DEQ's Ambient Water Quality Monitoring network (4 sites within the planning area)¹ to (a) increase sampling frequency and (b) generate valid statistical estimates of water quality trends, and (c) assess the costs and benefits of long-term sites compared to targeted projects.
- 18 Water Quality Monitoring: MCWPP Bundle 4 (Water Quality) Work Group Recommendations: Potential locations for establishing long-term, comprehensive water quality monitoring program should be identified and proposed by a panel of local stakeholders in consultation with agency personnel and subject matter experts. The review should consider at a minimum: types of data obtained from previous monitoring sites/projects, whether monitoring data already collected should be analyzed in depth prior to embarking on extensive new data collection to determine primary data gaps and assess the costs and benefits of "comprehensive" monitoring compared to targeted projects to answer specific questions in specific areas.
- Workshops to educate and address water quality parameters
- Social media engagement for volunteers and education
- On-Site visits to test efficacy of best management practices
- Conduct regular comprehensive monitoring on major source water areas in the county/planning area. Consider a rotating statistically based monitoring approach designed to collect representative data and assess seasonal water quality patterns at several source areas each year.
- Coordinate with DEQ and monitoring partners to develop standard operating procedures and monitoring plans (DEQ's multiple monitoring

2

¹ https://www.google.com/maps/d/u/0/viewer?hl=en&ll=44.60904245596588%2C-122.39501823633256&z=9&mid=1m6aDFqAyXQ9cglNtdhg0Cs9i3N8

programs have extensive QA/QC documentation of procedures and DEQ's Volunteer Monitoring Program² utilizes an established QA/QC framework. Work Group Recommends utilizing these existing programs to the extent possible)

- Proof and submit water quality monitoring data to DEQ
- o For **16 Stream Gages:** MCWPP Bundle 4 (Water Quality) Work Group Recommendations: Apply for funding and implement the installation of stream gages on major waterways and source water areas: Potential locations for new stream gages should be identified and proposed by a panel of local stakeholders with assistance from subject matter experts. The review should consider at a minimum: locations of discontinued state or federal agency stream gage sites and staff gages, evaluation of the existing network to provide valid statistical estimates for ungauged streams (using USGS StreamStats), and costbenefit compared to manual targeted projects (dry season/drought flow wadeable streamflow monitoring).
- Coordinate with ODFW staff (STEP) to build a network of volunteer water quality monitors

- **16 Stream Gages**:
 - USGS Streamflow (https://waterdata.usgs.gov/or/nwis/current/?type=flow)
 - OWRD Gage Station Map
 (https://www.arcgis.com/apps/mapviewer/index.html?layers=48
 5f754e3ffc48a68663057308ce5deb)
- USGS StreamStats³17 Water Quality Monitoring:
 - US EPA Technical Guidance for Designing a TMDL Monitoring Plan (https://www.epa.gov/sites/default/files/2015-07/documents/techguide_design_tmdl_effective_monitorp_12 3011-2.pdf)
 - DEQ's Water Monitoring Program (ambient, toxics, source water and other): https://www.oregon.gov/deq/wq/Pages/WQ- Monitoring.aspx
 - DEQ Ambient Network:
- **o 18 Water Quality Monitoring**:
 - See 17 above

² https://www.oregon.gov/deq/wq/Pages/WQ-Monitoring-Volunteer.aspx

³ https://www.usgs.gov/streamstats

17 - Volunteer Network for Water Quality Monitoring:

 DEQ Volunteer Monitoring Program (https://www.oregon.gov/deq/wq/pages/wq-monitoring-volunteer.aspx)

Proposed activities:

- 2025-2036: Siletz Source Water Sampling, Temperature, E. coli, TSS, TN, TP, eDNA, Pesticides (LSWCD) 17/18
- 2025-2030: Upper Yaquina Water Quality Sampling, Temperature,
 DO, E. coli, TSS, TN, TP, eDNA, Pesticides (LSWCD) 17/18
- 2025 2030 Summer Yachats Volunteer Water Temperature Monitoring, Temperature (LSWCD) 17/18
- 2025 2030 Summer eDNA Monitoring (MCWC) 17/18
- 2025 2050 Central Coast Estuary Monitoring Salinity, Temperature,
 DO, pH, Turbidity, Chlorophyll a (MCWC) 17/18
- DEQ will provide a detailed set of planned and proposed monitoring activities primarily for assessment, trends and TMDLs development once the 2024 Integrated Report is finalized.

Bundle 5: Protect Critical Lands

Prioritized actions:

- Action#41 Protect critical lands within drinking water source areas through acquisition, conservation easements, or other tools that prevent degradation and/or impacts to source water quality.
- Action#58 Acquire land, or obtain conservation easements, to protect critical land areas managed for water quality protection.

Gaps:

- Priority areas to be acquired
- Availability of funding and technical assistance from DEQ, WRD
- Capacity of local and regional land trusts
- Specialists in forest management for water quantity and quality protection

Approach:

- Review Action Plan for already prioritized water protection areas
 - Source watersheds (Schooner Creek) Lincoln City watersheds
 - City of Toledo source watersheds
 - City of Yachats source watersheds
 - City of Newport (Big Creek)
 - Seal Rock Water District and source watersheds
 - City of Depoe Bay (N. Creek and Rocky Creek) source watersheds
- Identify in existing reports/documents additional critical lands that need protection
- Work with local groups to prioritize acquisitions and/or focal areas for protection

- Source water protection map layers- DEQ
 - https://oregonexplorer.info/content/oregon-drinking-waterprotection-program-interactive-map-viewer?topic&ptopic
- Trees to Taps Science Review Working Papers (Section 3.25 effect of clearcutting on low flows).
 - https://site.oregonforests.org/sites/default/files/2020-06/Trees-To-Tap-Science-Review-Working-Papers_1.pdf

Proposed activities:

- Work with interested cities, land trusts, and others (e.g. Natural Resources Conservation Service) and DEQ, WRD to acquire lands or easements for conservation.
- o Prioritize new areas to acquire or complete conservation easements
- Discuss and spread workload through different organizations that are capacity limited
- Carry out actions previously identified conservation actions in priority areas including:
 - Conserve, through acquisition, easements or other agreements, key forested properties where long term upslope delivery of wood is of high likelihood due to the presence of slopes greater than 40%. Promote the development of large trees on these acres. These include 10 acres in Mill Creek (Siletz) basin, 296 acres in the Schooner Creek basin, 338 acres in Bear Creek Basin (Siletz), 992 acres in Lower Drift Cr. (Siletz), 493 acres in Cedar Creek basin (Siletz), and 404 acres in Upper Drift Cr. basin (Siletz).

Bundle 6: Ecological Restoration

Prioritized actions:

Action#44 (priority A): Ecological Restoration

 Support restoration projects that involve diverse landowners and land management goals in locations that will achieve the greatest ecological returns on investment (e.g., cooler streams and improved summertime flows for sensitive species and to address water quality impairments).

Action#46 (priority A): Riparian Restoration

 Advocate for the restoration and conservation of native riparian vegetation to facilitate large natural wood recruitment, maintain water quality, ensure ecological function, and produce habitat for aquatic species, including beavers.

Action#49 (priority A): Beavers

 Protect beaver populations and encourage beaver pond creation, especially in critical areas with low summer flows.

Action#50 (priority A): Ecological Restoration

 Design and implement restoration projects with partners to directly address impairments and improve conditions (e.g., erosion prevention and control, riparian and wetland buffers, urban tree protection).

o Action#51 (priority A): Restore hyporheic flow

 Evaluate the mechanisms and conditions for restoring hyporheic flows (the transport of surface water through sediments in flow paths that return to surface water) in the Mid-Coast using a suite of strategies (articulated in the Oregon Plan and other plans).

Action#53 (priority A): Water Retention capacity

 Support projects that result in increased water retention capacity in channels, floodplains, and adjacent uplands and wetlands using a variety of strategies.

Gaps:

- Funding: available but limited, project specific
- Action Lead Gap: Urban restoration projects may lack the connection to other conservation practitioners in the region that can inform that work.

- o More of a challenge: FEMA flood zone/County floodplain permits and other regulatory hurdles (e.g. working with private landowners who are "ok" with restoring floodplain connection on their properties, but FEMA/counties won't allow "rise" or only allows a small amount of rise (1-foot in Flood Zones "A"). Essentially, these projects are trying to cause local "rise", storing more flood water in the upper watershed, but if these are FEMA mapped flood zones, the projects may not be possible because of permitting restrictions.
- Comprehensive information and data about hyporheic flows, water retention capabilities is limited.
- Challenge: LONG TERM benefits (e.g. planting trees for shade) can take 50-100 years to realize benefits, funders want short term impact that isn't always possible.

Approach:

- Restoration practitioners continue to pursue projects that address priority actions and priorities set by local, state and federal agencies and partners to meet water quality and aquatic habitat goals.
- Work to group actions to get benefits at a larger, sub-watershed scale
- Focused outreach and educational workshops in conjunction with technical assistance on ecological restoration in basins with source water nexus (Siletz, Yachats, Schooner/Drift Creeks, etc)
- Continue "mainstreaming" of beaver activities (building off Private Forest Accord, recent changes in permitting for beaver focused projects, support for trapping ban on federal lands).
- Conduct outreach and education on the benefits of beavers, and technical assistance to interested stakeholders in the installation of beaver dam analogs and encouraging natural beaver recruitment.

- https://www.midcoastwatersheds.org/natural-climate-solutions
- USFWS 2023 The Beaver Restoration Guidebook
- o ODFW 2022 3-Year Action Plan for Beaver-Modified Landscapes
- National Wildlife Foundation 2019 A GUIDE TO ADVOCATING FOR BEAVER RESTORATION IN NATIONAL FOREST PLANS
- Siletz Coho Business Plan SAP (link to final when available)
- MCWC 1999 6th Field Assessment and Limiting Factors Analysis
 - https://www.midcoastwatersheds.org/watershedassessments
- o MCWC 2015-2040 Coho Life HIstory Diversity Action Plan (no link)

- Lincoln SWCD 2024 Siletz National Water Quality Initiative Source Water Assessment
- USFS Climate Adaptation Library Role of Beaver.
 http://adaptationpartners.org/library.php (search on "beaver")

Proposed activities:

- Connect with local and regional strategic planning processes (Coho business plan SAP- Siletz (draft expected December 2024), Alsea (SAP process to start in January 2025).
- Pursue funding for priority projects that meet these ecological restoration goals, including:
 - Add large wood to Schooner Creek, both in the agricultural corridor, and in forested reaches upstream
 - Add large wood to the following Coho streams and stream reaches above source water intake sites identified as limiting in wood density: Cedar Creek Rm 0-10, Euchre Creek Rm 1-7, Thompson Creek Rm 0-0.5, Dewey Creek Rm 0-1.5, Bentilla Creek Rm 0-0.5, Long Tom Creek Rm 0-0.5, Whiskey Creek Rm 0-1.5, and Rock Creek Rm 0-10.
 - Further assess 66 miles of mainstem Siletz River riparian condition through Lincoln SWCD/OR Dept of Agriculture Streamside Vegetation Assessment (SVA)
 - Complete targeted riparian restoration outreach along 32 miles of mainstem Siletz as guided by SVA assessment results
 - In the Yachats basin, implement actions identified in Limiting Factors Analysis for NF Yachats, and implement actions previously identified in the Yachats River mainstem and SF Yachats River.
 - Add large wood and improve riparian condition in the North and South Beaver Creek (Ona Beach) watersheds above source water intake, increasing riparian buffers, stream complexity, and hyporheic flow.
 - Work with modelers from NOAA, Utah State University (Beaver Resource Assessment Tool BRAT), Bonneville Power Administration and others to model high priority beaver habitat areas on private and public property.
 - Living with beaver outreach and implementation- conduct
 landowner outreach to private and public landowners where high

beaver potential has been identified through various modeling efforts to educate about the importance of living with beaver and implement beaver habitat focused projects.

Bundle 7: Instream Flow restoration

Prioritized actions:

Action 54 (A): Restore Stream Flow: Determine ecological flows (seasonally varying flow targets and temperature-based flow targets), and identify basin-wide in-stream demands. Support development of additional instream water rights. Implement flow restoration efforts in high priority areas as determined by Instream Water Right Monitoring and other means (e.g., ODFW's Aquatic Habitat Prioritization) (OAR Chapter 690, Division 77).

Action 55 (A): Restore Stream Flow: Use established voluntary programs, or other tools, to convert existing water rights (e.g., irrigation, commercial use, other out-of-stream uses) to instream uses that protect critical flows needed to support the fish and wildlife, water quality, recreation, and scenic attraction.

Action 52 (B): Protect Stream Flow: Recommend limits on further appropriation of water on high priority streams where water available for meeting aquatic life needs (OAR Chapter 690, Div 500)

Gaps:

- Unknown senior water right holders in biologically/hydraulically meaningful areas
- Unknown willingness of senior water rights holders to sell or lease rights
- Current funding available from State, but unknown longevity of source
- Unknown status of enforcement of water withdrawals by holders of water rights or identification of illegal withdrawals
- Unknown stream flows

Approach: What steps to remove barriers

- Gather instream information already gathered in prior water planning partnership workshops
- Work with ODFW Instream flow biologist and OWRD to conduct analysis of water rights holders, their seniority, reliability, and identification of ecological/hydrological value of acquiring water rights
- Work with water master to understand status of metering and enforcement of water
- diversions
- Conduct outreach to prioritized water rights holders to determine willingness to sell or lease rights
- Engage with the City of Newport to assure instream flow restoration is part of the Big Creek Dam mitigation package (as promised in their testimony on HB 3211A in April 2023).
- Engage with ODFW Instream flow biologist on prioritized flow restoration projects
- Support ecological restoration actions for wood placement, floodplain and riparian restoration, beaver conservation to help restore instream flow for water quantity and quality.

- Support water conservation outreach efforts and message dissemination
- Support efforts to meter and measure all water diversions.
- Assure that Lincoln County Water Systems Alliance (LCWSA)'s goals to achieve "significant protections for the environment" while meeting regional needs includes guaranteed instream flow protections during summer and fall.

Resources:

- OR Department of Fish and Wildlife
- OR Watershed Enhancement Board
- OR Water Resources Department
- National Fish and Wildlife Foundation

Proposed Projects:

- Identify instream demands for new instream water rights. ODFW is identified as lead and funding is secured.
- Siletz Flow Restoration Analysis/Feasibility- analysis of acquiring upstream existing
 water rights to transfer instream in order to reduce pressure of water withdrawals and
 increase legally protected instream flow. No project lead has been identified and grant
 opportunities will need to be assessed for funding.
- Protect Stream Flow: Recommend limits on further appropriation of water on high priority streams where water available for meeting aquatic life needs (OAR Chapter 690, Div 500) in Seal Rock's Water Management and Conservation Plan, the Water Master Plans of the City of Newport, City of Lincoln City and Seal Rock Water District, and the LCWSA's 50-year plan in order to achieve 'significant protections for the environment. Leads may include the LCSWA, Lincoln County cities/water districts and Mid-Coast Water Planning Partnership members. Various funding sources, some secured. See Master Project Smartsheet, Projects 2, 48, 49, 50 and 51.

Bundle 8: Meters

Prioritized actions:

- 14 Implement more efficient advanced metering infrastructure to enable faster identification of leaks and shortages, and support best practices for water providers to meet industry standards for documenting water loss
- 28 Support upgrading and maintaining water metering system infrastructure, where possible. Note: Automated read systems (not SMART) can be installed at reduced cost.

Gaps:

 All actions in this bundle have at least one associated project, but efforts can be expanded for each of the actions, such as by more water providers implementing upgraded Automatic Meter Reading (AMR) or Advanced Metering Infrastructure (AMI) systems

Approach:

- Help Mid-Coast water providers become aligned in their knowledge of industry best practices and standards for metering infrastructure and water loss control practices. Support water providers in implementing upgraded meter infrastructure and improved water loss tracking across the region.
- Support water providers by:
 - Connecting water providers with each other and with resources on industry best practices (e.g., manuals, potential events/workshops) to enhance and align education
 - Providing water providers with ideas about funding resources for meter infrastructure upgrades and possibly pooling funding resources (such as through Mid-Coast Water Conservation Consortium)

- Oregon Water Resources Department (OWRD): Water Projects Grants and Loans
- United States Department of Agriculture (USDA) Rural Development: Water and Waste Disposal Loan and Grant Program (fully funded Seal Rock Water District's AMI project)
- Oregon Health Authority (OHA): Drinking Water State Revolving Fund (low-cost loans, funded through the Safe Drinking Water Revolving Loan Fund)
 - Infrastructure Projects
 - AMR/AMI projects are listed as eligible
- Oregon Department of Environmental Quality (DEQ): Clean Water State Revolving Fund Program

- Bureau of Reclamation Water Smart Program
 - Small-Scale Water Efficiency Projects
 - 50/50 cost share funding for small water efficiency improvement projects identified through previous planning efforts (e.g., installation of flow measurement or automation in a section of a water delivery system, etc.)
 - Water and efficiency Projects
- o American Water Works Association (AWWA) resources, including:
 - Water Loss Control Program:
 - Manual of Water Supply Practices M36, Water Audits and Loss Control Programs
 - AWWA Water Audit Software
- Proposed activities:
 - Partnership
 - Provide resources and synthesize information for Mid-Coast water providers on the differences between AMR and AMI and situations where either could be beneficial
 - Provide updated resources and synthesize information for water providers on industry standards for water loss tracking and audits (mainly using AWWA standards)
 - Help water providers identify areas to improve water loss tracking in their systems
 - Share information about applicable funding opportunities for metering infrastructure upgrades and water loss audit programs
 - Track which providers have AMR or AMI systems, which have plans to implement upgrades, and progress of implementation plans, which could help identify opportunities for implementation in the region
 - Hold meetings or provide digital forums (e.g., group emails, Partnership website updates, etc.) for water providers to share information and strategies for improving metering infrastructure and water loss audits
 - Continue tracking which water providers are required to do Water Management and Conservation Plans (WMCPs) and updating this list on the Partnership website and request copies of WMCPs
 - Water providers (individually)
 - Expand knowledge on AMR and AMI systems (through Partnership support) and investigate upgrading water meter systems to AMR or AMI
 - Expand knowledge on industry standards for water loss tracking (through Partnership support), and assess areas to improve water loss tracking in water systems

- Update WMCPs (if required) and Water System Master Plans (WSMPs) or similar plans, and integrate upgrading metering infrastructure and improving water loss tracking in the planning process
- Apply for funding and implement meter infrastructure projects and water loss audits