

Executive Summary

The purpose of the Oregon Mid-Coast Water Action Plan is to provide a framework and pathway forward to address water supply and use challenges in the Mid-Coast region, and sustainably balance water needs for people and native fish and wildlife. This plan provides direction to meet the collaborative goals of the Mid-Coast Water Planning Partnership.

The plan describes the six-year history of the planning process, and the major steps leading to plan implementation, including public participation and engagement from a diversity of individuals and organizations. Members of the partnership agreed to a suite of guiding principles highlighting common ground, innovation, commitment, flexibility, action, and clarity.

Although this plan is intended to achieve water resource protection objectives critical to the watersheds of the Mid-Coast as well as the people who live, work, and recreate in the Mid-Coast, it also supplements, complements, and supports numerous other federal, state, and local planning efforts currently underway in the region that address, or have a nexus with, water issues.

Foundational to the development of this plan were the technical reports and information developed during planning Steps 2 and 3. These reports describe regional water quality, water quantity, ecology, and built infrastructure issues as well as current and future instream and out-of-stream water uses and needs.

Water Quantity: Streams in the Mid-Coast have high natural streamflow during the winter months (January-March) and low natural streamflow during the summer/Fall months (August-October) as a result of seasonal precipitation patterns. Streams are rain-dominated and responsive to precipitation, reaching high flows during rainstorms. Groundwater inputs contribute base flows in streams during late summer and Fall months. There are eight active real-time streamflow gage locations which produce information to inform water rights administration. Mid-Coast groundwater is not very productive because of low permeability and low storage capacity of the regional geology.

Water Quality: Water quality affects the extent to which water bodies can support beneficial uses, such as drinking water, industrial, agricultural, fish and aquatic life, and wildlife. Oregon's 2018/2020 Integrated Report and Assessment Database identifies Mid-Coast water bodies that are water quality limited for not meeting one or more water quality parameters, such as temperature, dissolved oxygen, or *E. coli*. Surface water is the primary source of drinking water for nearly all of the municipal and community water providers in the Mid-Coast. Several water providers in the Mid-Coast use groundwater. Common groundwater contaminants that are monitored include arsenic, lead, nitrates, and fecal coliform bacteria. Several organizations and various private entities conduct periodic water quality monitoring activities in the Mid-Coast.

Ecology: The Mid-Coast supports a variety of habitats, which include streams and springs, lakes, riparian areas, wetlands, and estuaries. There are 12 streams or estuary habitats designated as areas of ecological importance in the Mid-Coast because of the diverse habitats and species they support. Aquatic species of interest and concern in the Mid-Coast include seven species of anadromous salmonids, two species of sturgeon, beaver, and three species of lamprey. Oregon Coast Coho Salmon are listed as threatened under the Endangered Species Act, and large portions of the Mid-Coast are designated as critical habitat for coho. Green Sturgeon also are listed as threatened within the Southern Distinct Population Segment, which includes Yaquina Bay. Sources of habitat degradation include stream channel simplification and incision, warm stream temperatures, altered streamflow timing and watershed function, fine sediment and turbidity related to peak streamflow, and toxic and non-toxic pollutants. Aquatic habitat restoration efforts occur in the Mid-Coast to increase stream channel complexity and off-channel habitat, reduce fine sediment inputs and summer water temperature, address fish passage barriers, and encourage beaver dams, or similar structures.

Built Infrastructure: The Mid-Coast has 52 potable water providers (cities, water districts, RV and mobile home parks, and state parks), 31 of which are required to have certified water treatment plant (WTP) operators. Few interconnections exist between water providers. Many cities and water districts implement water conservation measures, and nine have developed Water Management and Conservation Plans (WMCPs). The Mid-Coast has 14 entities (cities, resorts/hotels, and industries) with National Pollutant Discharge Elimination System (NPDES) permits to discharge treated wastewater. Discharge locations are the Pacific Ocean, Yaquina River and Bay, Siletz River and Bay, Schooner Creek, and Lint Slough. The discharge locations on streams are all downstream of potable water intakes. Information about wastewater systems and, particularly stormwater systems, is lacking. Cities are likely the only water providers managing stormwater systems. The Mid-Coast, like much of the rest of the United States, has aging infrastructure and insufficient revenue to address many needed upgrades. Consequently, water systems in the Mid-Coast must be managed for resiliency and recovery.

Out-of-stream water use and rights. There are about 1,637 water rights in the Mid-Coast planning area allocated to 29 different uses. Domestic use has the greatest number of water rights (n=703) followed by irrigation (n=419), instream (n=110), and municipal (n=82). The largest water use category in the planning area is for self-supplied industrial use, followed by water used by hatcheries and water for domestic and industrial use provided by community water systems. The largest water users in the region draw water from the Siletz River and have water rights that are senior to the instream water right.

Instream water needs and rights. Fifty-one streams have existing instream water rights, but these instream rights inadequately capture the full range of flows needed to protect current instream ecosystems. Summer streamflows are insufficient in some areas of the Mid-Coast to meet the instream water needs of fish and wildlife. Low streamflows contribute to

water quality impairments (e.g., high temperatures and reduced dissolved oxygen) that negatively affect fish and wildlife. Climate change impacts and increased demand from municipal and rural water users are expected to further limit available water in the summer for all uses.

During Step 3 of the planning process, the Partnership achieved consensus on a total of 18 key issues in eight categories—water conservation; natural hazards, vulnerabilities, and emergency preparedness; climate change impacts; local capacity and regional collaboration; water quantity for instream and out-of-stream uses, watershed health, water quality for instream and out-of-stream uses, and infrastructure. Action-oriented imperatives were created to organize and synthesize the key watershed strategies stakeholders described during the planning process to address the priority issues. In addition, cross-cutting imperatives are essential to the success of each of the action-oriented imperatives.

A key component of this plan is implementation table that describes a suite of actions to initiate water objectives and priorities in the Mid-Coast region of Oregon in three phases during the next 10 years. The 59 actions in the implementation table represent the highest priority strategies designated by charter signatories across 8 imperatives - Public awareness and support; Regional capacity and collaboration; Monitoring and data sharing; Resilient water infrastructure; Source water protection; Water supply development; Ecosystem protection and enhancement; Water conservation, efficiency, and reuse. Actions and Strategies included in the Implementation Table garnered the broadest consensus support within the Partnership. While general *feasibility* was an implicit driver of consensus support, and often discussed in Partnership conversations, the proposed actions have not been fully considered in light of current state or local laws, or from the perspective of a cost-benefit analysis. Because of the highly specific and technical nature of the potential projects under the proposed actions, individual project Partners, in consultation with the relevant State agencies and local governments, are best equipped to evaluate the feasibility of projects.

The Partnership recognizes that estimated implementation “costs” for many Actions or Strategies do not reflect the benefits, (or return on investment) for ecosystem services, infrastructure risk reductions, or system efficiencies. Calculating these is technically, socially, and economically complex. However, the Partners agreed to examine ecosystem services and other expected outcomes as part of a comprehensive approach to evaluating Plan implementation and investment strategies utilizing available methods, tools, and references.

Preliminary estimated costs to implement the plan over 10 years range from \$133,750,000 to \$12,032,400,000. Based on this large uncertainty (two orders of magnitude) in full plan implementation costs combined with minimal supporting documentation for most of these estimates, the Partnership agreed that specific budget estimates to implement the Actions need to be developed at the time, considering specific project-scale plans and the scope of work for any Action or Strategy.

Following state recognition process, the Water Action Plan will move into the Implementation phase. The highest priority is continued funding for a dedicated Partnership coordinator position to perform critical duties associated with partner agreements, partner onboarding, identifying the first round of projects (including any already initiated), monitoring and recording implementation progress, seeking funding sources and supporting the work of the Water Action Teams and individuals. The Mid-Coast Water Planning Partnership recognizes it may not be possible to initiate, or complete, all of the actions in this plan during the next decade. As with any volunteer partnership, actions will be completed as opportunities for funding, collaboration, and resources become available. Regardless, the Mid-Coast Water Planning Partnership believes it is important to highlight and take aggressive action to implement the issues and actions in this plan to ensure a sustainable water future for the Mid-Coast of Oregon and enhance the resilience of the Mid-Coast to climate change stressors.