

Action Oriented Imperatives

Water Conservation, Efficiency, and Reuse. Due to limited water availability for new out-of-stream uses across the Mid-Coast region as well as the need to restore and protect instream values, water conservation may be one of the most cost-effective ways to meet future water needs of the region while increasing water security and resiliency for all users. All conservation and reuse actions will assist with preparing for and adapting to reduced summer supplies resulting from climate change and increasing summer demand due to population and tourism and industrial water needs. All conservation and reuse actions are assumed to help with water quality issues associated with run-off/discharge. All conservation and reuse actions will help stretch limited supplies which may prevent or prolong the need to secure/develop additional supplies of water. Conservation and reuse actions should seek to target the biggest water users first and/or water users in the most ecologically significant places. There are three major strategies for achieving water conservation and efficiency:

- Maintaining and upgrading infrastructure to prevent leaks, rapidly identify and address leaks, and/or maximize efficient use of water.
- Training water technicians, managers, and water users to improve and optimize operations in their water systems so that no water diverted is wasted.
- Reducing demands and consumption of the end users/consumers via incentives, pricing of water, and encouraging the use of more efficient appliances and practices (e.g., xeriscaping, installing low flow toilets).

All water conservation, efficiency, and reuse actions should consider equitable access to water for disadvantaged community members (including considerations of the cost of water), near-term and long-term water security for the users, and how water savings will provide instream or ecological benefits.

Ecosystem Protection and Enhancement. Watershed ecological processes are complex and interconnected. Investments in ecological restoration and protection can have benefits for multiple other imperatives, including source water protection (drinking water quality), resilient infrastructure, water supply and storage, and preparing for natural hazards and emergencies. These functions, or benefits, are referred to as “ecosystem services.” Whenever possible, watershed ecological restoration and protection should be focused on the areas that have the highest potential to yield ecological benefits and are identified in existing assessments or plans, such as the Coho Recovery Plan or Coho Business Plan. Creative partnerships that link downstream beneficiaries (e.g., cities, residents, businesses) to the benefits of a healthy watershed should be explored, including consideration of creative funding mechanisms. Ecosystem-based management is critical to the restoration, enhancement, and maintenance of aquatic systems in the Mid-Coast.

Resilient Water Infrastructure. Sustaining and planning for adequate collection and distribution systems, treatment plants, and other associated critical infrastructure requires strategies that address aging infrastructure, support resiliency, ensure future water demands are met, and advance training and professional development to ensure the availability of skilled water technicians. Investments in water

infrastructure should seek to provide multiple benefits whenever possible and mitigate impacts to the ecosystem. Infrastructure design should take into consideration opportunities for conservation, efficiency and reuse and also “green infrastructure” or ecosystem services that reduce the need for, increase the effectiveness of, or prolong the life of built or “grey infrastructure.” New or upgraded infrastructure should seek to be as resilient as possible, by accounting for natural hazards and emergencies (e.g., floods, earthquakes, fires, drought, etc.). For now, this imperative focuses on infrastructure associated with individual water providers and users. Depending on analyses performed to explore regional water supply options, this imperative may be modified to account for regional water infrastructure.

Source Water Protection. Source water includes the rivers, streams, lakes, reservoirs, springs, and groundwater that deliver water to public drinking water supplies and private wells. Protecting source water reduces treatment costs, protects water quality for fish, wildlife, and human uses, and helps ensure the availability of water. Strategies to protect source water depend on the source, and include protection of riparian habitats, stream bank stabilization, land protection/easements, best management practices for agricultural, forestry, and other activities, local ordinances to limit activities in source water or wellhead protection areas, emergency response plans, and outreach and education. Source: Environmental Protection Agency²⁶.

Water Supply Development. Water conservation is the highest priority action for stretching limited water supplies and improving water security, but the Partnership also recognizes the current and future need for additional supplies, which may come from storage, water reuse, or other novel water supply options. The City of Yachats is currently facing water shortages, especially during drought years. There are also increasing reports of current water insecurity for self-supplied water users, which includes water for rural residents, irrigators, livestock, and self-supplied industry. This includes increasing anecdotal reports of wells going dry earlier in the summer and increased demand for bulk water and water deliveries. Georgia Pacific is the largest single water user in the region, and they are beginning to experience shortages, especially during drought years. Within the next 50 years, it is projected that municipalities may experience future water shortages due to decreasing summer supplies and increasing summer demand.

²⁶ <https://www.epa.gov/sourcewaterprotection/basic-information-about-source-water-protection>