

Water

Energy used to pump, treat, and convey water generates GHG emissions and is the primary source of GHG emissions within the water sector. The amount of energy required depends on both the volume of water and energy intensity associated with the water source. For example, it generally takes less energy to pump and convey water from a local source than to transport water across long distances. California's water supply is diverse and comprised of groundwater, surface water, and reservoirs, with some water transport occurring over long distances and over varied terrain. Treating water so that it is potable for human use and processing wastewater also generates GHG emissions.



Indirect GHG emissions associated with water use can be decreased by reducing water demand and/or by using a less energy-intensive water source. A project can reduce its indoor water demand by installing low-flow and high-efficiency water fixtures and appliances, such as toilets, showerheads, faucets, clothes washers, and dishwashers. A reduction in outdoor water demand can be achieved by designing water-efficient landscapes that include plants with relatively low watering needs; minimizing areas of water-intensive turf; and installing smart irrigation systems to avoid excessive water use. These and other strategies could be combined into a water conservation strategy with a water reduction performance target. Less energy-intensive water sources include reclaimed and grey water, as well as locally sourced water (e.g., nearby groundwater basins, nearby surface water, and gravity-dominated systems).

Emission reductions achieved by reduced water demand will be directly proportional to the decrease in demand. Use of less energy-intensive water sources will decrease energy-related emissions, but these systems may also require energy to successfully operate. Resources and methods to quantify emissions reductions from measures that reduce water demand and/or target use of a less energy-intensive water source are described in this section. Use the graphic on the right to click on an individual measure to navigate directly to the measure's factsheet.



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- **W-1. Use Reclaimed Non-Potable Water**
- **W-2. Use Grey Water**
- **W-3. Use Locally Sourced Water Supply**
- **W-4. Require Low-Flow Water Fixtures**
- **W-5. Design Water-Efficient Landscapes**
- **W-6. Reduce Turf in Landscapes and Lawns**
- **W-7. Adopt a Water Conservation Strategy**

