

**Please note:** This information is targeted at the visitor. The theme is the message the visitor will remember long after they visited the facility. By focusing the exhibit content, the theme, sub-themes, and messages serve as a guiding document for development of exhibits and displays.

*We need to rethink our relationship with water.  
Until now, we have largely ignored it.*

*Subtheme 1*

*Water is essential to our lives and livelihoods. We use it constantly, but we take its quality and supply for granted.*

**Messages:**

Water is essential for life on Earth. Its local availability determines the nature of ecosystems and the plants and animals found within ecosystems.

Water is essential for human life. The human body is 65% water. While we can live for weeks without food, we can only live for days without water.

Water is also essential for our lifestyles, livelihoods, and economies. Our daily activities in our homes, schools, and businesses require clean fresh water.

California agriculture contributes significantly to the local, state, and national economy. It takes 80% of the state's water deliveries. Domestic, environmental, and residential takes the remaining 20%.

We live in a "virtual watershed" in Southern California. Most of the water we use comes through a long-distance water delivery system.

*Subtheme 2*

*Southern California needs to develop additional water supplies that are reliable and local.*

**Messages:**

75% of California's rain and snow falls in the northern half of the state. Two-thirds of the state's population lives in the southern half.

Over two-thirds of Southern California's current water supply is imported from Northern California and the Colorado River. Most of Northern California's water supplies collect as snow in the Sierra Nevada, directed into six major systems of reservoirs, aqueducts, and infrastructure.

The Sacramento and San Joaquin Rivers flow into the Bay-Delta, the hub of our water system, whose ecological health and water management are compromised. Pumps send the water south through the State Water Project. Further, it takes energy to divert Bay-Delta water and transport it hundreds of miles south.

Mexico and seven states compete for Colorado River water. Meanwhile, Southern California's population and demand for water are increasing, as are demands from those other states.

*Subtheme 3*

*Weather and climate influence the State's supply of fresh water.*

**Messages:**

Fresh water is made available through the water cycle—the continuous shifting of water between water vapor in the atmosphere; precipitation onto land and water; drainage and percolation; and evaporation.

Southern California is a semi-arid climate; for decades, our use of water exceeds the amount supplied by local rainfall.

Long-term climate change appears to be affecting the snowpack in the Sierra Nevada. This snowpack represents one-third of the state's entire water supply.

Severe, sustained drought conditions are affecting the water flow of the Colorado River. Droughts also occur in Southern California and are projected to increase in frequency and severity. Predictions are for a drier future.

If we don't make changes to our current water supply system, the reliability of our water supply will continue to decrease.

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*Subtheme 4*

*As a water industry leader, West Basin's innovative programs and technology help ensure a reliable supply of local fresh water.*

**Messages:**

The majority of our water supply is not local, nor likely to be reliable in the future. The West Basin Municipal Water District (West Basin), a water wholesaler, is committed to ensuring local water reliability through several means.

Thirty million gallons of water are reclaimed daily at the Edward C. Little Water Recycling Facility. This recycled water is used for civic and industrial use, and groundwater protection and recharge.

Water treatment using reverse osmosis, ultra-violet light, and micro-filtration produces water that is of a higher quality than drinking water standards require.

Using recycled water reduces dependence on non-local water supplies. Further, each gallon that is recycled is one gallon less of wastewater discharged into Santa Monica Bay.

West Basin promotes water conservation in its own facilities and district, and also is testing the feasibility of ocean-water desalination to augment the region's water supply.

*Subtheme 5*

*Responsibly designed and managed ocean-water desalination reduces dependence on imported water with minimal environmental impact.*

**Messages:**

Ocean-water desalination is one approach among several to ensure water reliability.

Desalination separates saline water into two products: fresh water and water containing the concentrated salts. West Basin's desalination technology uses microfiltration and reverse osmosis.

The purpose of West Basin's demonstration desalination facility at SEA Lab is to explore ocean-water intake methods to determine how best to protect the marine environment.

Wedge-wire screens and sub-ocean floor extraction will help protect ocean life. Fish will not be harmed, and the level of risk to fish larvae and invertebrates is projected to be extremely small.

New energy efficient membranes and pumps, and energy recovery devices reduce energy needs. Ocean-water desalination uses only 10-15% more energy than importing water from Northern California. And that expenditure will be offset with use of green energy sources.

*Subtheme 6*

*Individual action and behavior will help conserve fresh water supplies and support the efforts of West Basin.*

**Messages:**

We all can accept individual and collective responsibility to conserve water and protect the environment.

Water conservation begins at home—it is remarkably easy to save tens of thousands of gallons of water each year.

By changing behavior and retrofitting plumbing, residents, businesses, and public facilities can use water more efficiently and save money in the process.

Businesses, schools, and civic institutions can use recycled, custom-tailored waters with confidence.

Individuals, together with leaders in local government, industry, the water community, and environmental organizations, can help advance West Basin's comprehensive Water Reliability 2020 program.