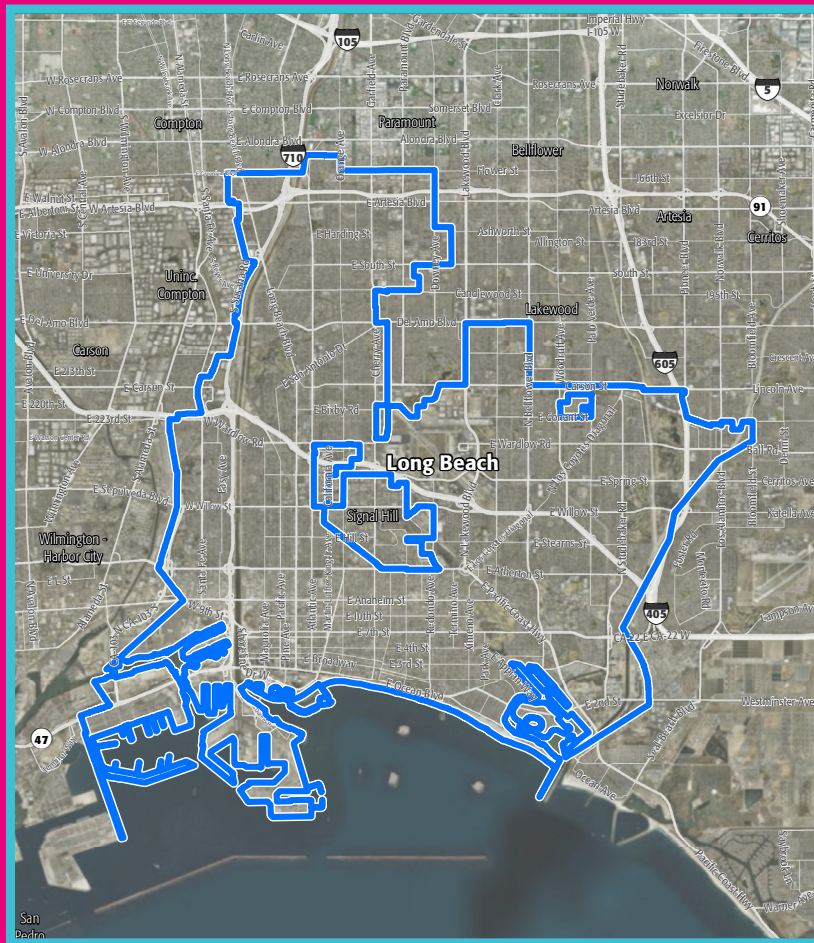




Long Beach Community

12.07.2019

GREATER LOS ANGELES COUNTY INTEGRATED REGIONAL WATER MANAGEMENT REGION



Funded by California Department of Water Resources and Prop 1

It's our water.



Greater Los Angeles County
Integrated Regional Water Management
Leadership Committee



TOOLKIT

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talks

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GLOSSARY OF TERMS & ACRONYMS

TEMPLATES:

- Event Flyer Template
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Additional resources available online at watertalks.csusb.edu

Prepared by:

Water Resources & Policy Initiatives, California State University & PlaceWorks

in collaboration with:

TreePeople and the Council for Watershed Health



WHAT IS WATERTALKS?

WaterTalks is a public program designed to generate and increase community involvement in planning a sustainable water future for California. Its goal is to explore the strengths and opportunities of 128 communities in Los Angeles and Ventura counties facing ongoing economic and environmental distress, and to gather input to prioritize and recommend water-related projects based on issues of greatest concern.

WaterTalks will be implemented in three phases. The first phase of WaterTalks outreach events are designed to educate and engage communities in the Los Angeles and Ventura counties facing ongoing economic and environmental distress, empowering them to engage in water planning including subsequent phases of WaterTalks.

WaterTalks aims to ensure that regional water resource management considers the health, safety, welfare, and resiliency of lower-income community members. To do so, WaterTalks is providing a series of community events for the benefit of local residents to do the following: (1) raise questions and concerns about their water-related issues, (2) provide crucial input regarding their community's water needs, possible solutions, and (3) to learn about the State's most current water related topics. These include drinking water, water conservation, flood management, drainage, vector control, access to parks and recreation, and the overall health of our watersheds.

Participation in a WaterTalks Community events will help ensure communities' needs, concerns, questions, and insights become part of the State's future water projects. A schedule of meeting dates and locations is available on the WaterTalks website:

<https://watertalks.csusb.edu>

Clean Water



Clean water is essential to our hydration, food production and sanitation needs.

Flood Protection



Flood protection strategies are vital to preventing flooding catastrophes in our counties, cities and neighborhoods.

Drainage & Vector Concerns



Management of drainage water is important to reduce water related vector-borne diseases.

Health & Well-Being



Educate people about their water quality to ensure healthy living.

Green Walkable Neighborhoods & Safe Routes to School

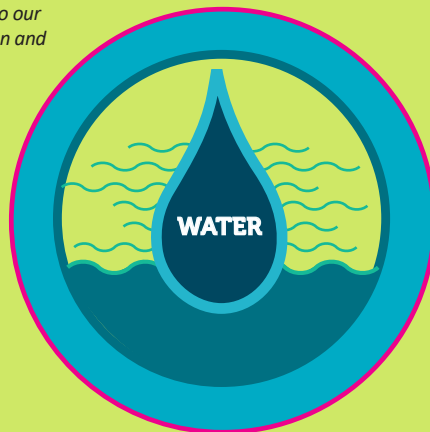


Water is an essential ingredient for shaded, walkable, and healthy streets.

Multi-Objective Parks, Recreation, & Habitats



Access to natural resources (i.e. creeks, streams, rivers etc.) and open space directly contributes to public and environmental health.

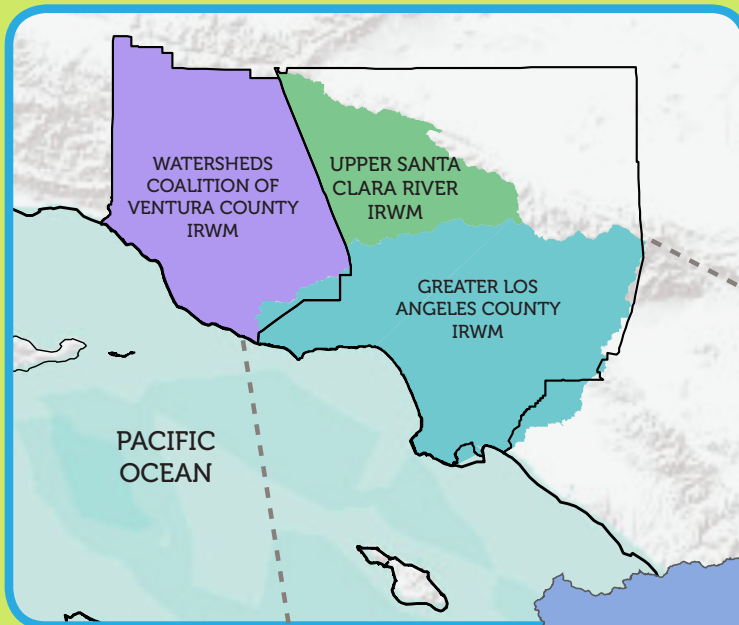


IRWM REGIONS

HOW DO WE PLAN FOR WATER IN CALIFORNIA?

The Integrated Regional Water Management Planning Act (SB 1672, 2002) has provided over \$1.5 billion in State funding dedicated to support and advance integrated, multi-benefit regional projects. WaterTalks supports California's collaborative effort, Integrated Regional Water Management (IRWM), in three of Southern California's planning areas.

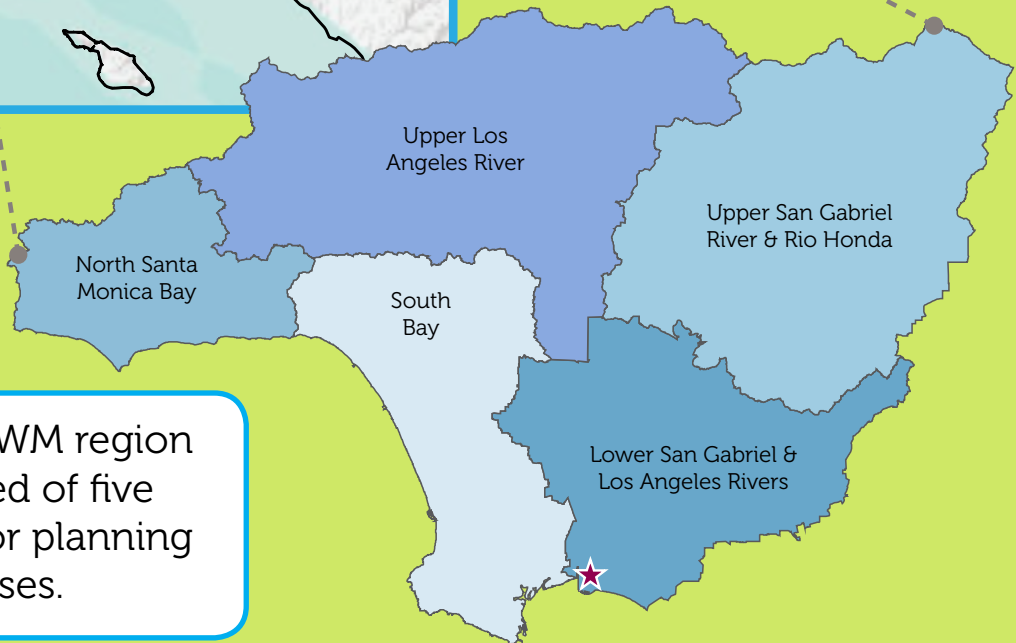
- Greater Los Angeles County (GLAC)
- Upper Santa Clara River (USCR)
- Watersheds Coalition of Ventura County (WCVC)



Integrated Regional Water Management (IRWM) is a collaborative effort to identify and implement water management solutions on a regional scale that increase regional self-reliance, reduce conflict, and manage water to concurrently achieve social, environmental, and economic objectives.

- California Department of Water Resources

The GLAC IRWM region is comprised of five subregions for planning purposes.



IRWM meetings for GLAC and its subregions are open to the public!

To learn more visit: <https://dpw.lacounty.gov/wmd/irwmp/>

PROJECT OVERVIEW

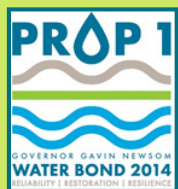
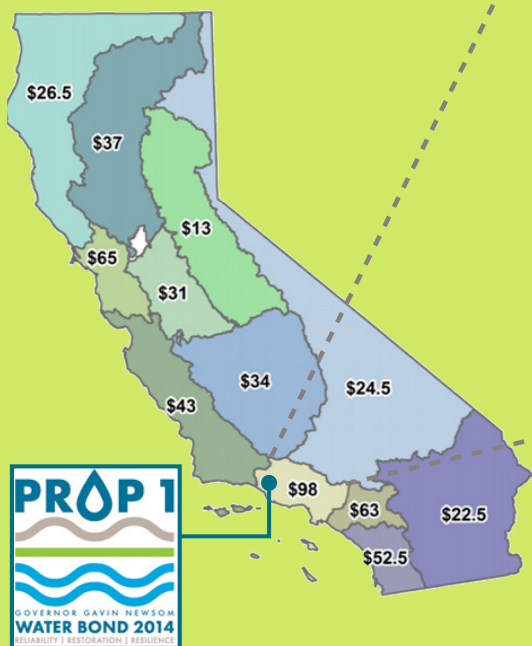
WaterTalks is funded through the California Department of Water Resources. In 2014, voters approved “The Water Quality, Supply, and Infrastructure Improvement Act” – Proposition 1 – to meet the State’s long-term water needs. Proposition 1 funds an array of sustainable water-related projects, including drinking water protection, public water system improvements, water recycling, wastewater treatment, drought relief, emergency water supply management, and watershed protection. The Los Angeles-Ventura Funding Area received \$98 million in Proposition 1 funding, ten-percent (\$9.8M) of which is dedicated to planning and outreach in underserved communities.

WaterTalks is being implemented in three regions in the Los Angeles-Ventura Funding Area. TreePeople, along with the Council for Watershed Health, is engaging communities in activities for the Greater Los Angeles County (GLAC) Region. The California State University’s Water Resources and Policies Initiative (WRPI) is involving communities for the Watersheds Coalition of Ventura County (WCVC) and Upper Santa Clara River (USCR) regions. The two teams collaborate with numerous community based organizations to host local WaterTalks community events.

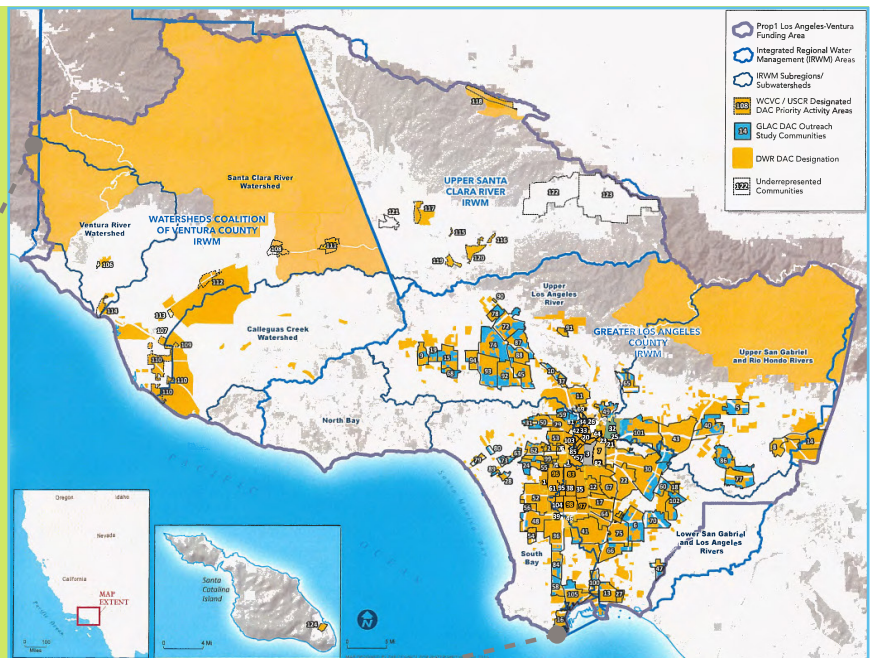
Proposition 1 Funding Areas

	Central Coast		Sacramento
	Colorado River		San Diego
	Lahonton		San Francisco
	Los Angeles		San Joaquin River
	Mountain Counties		Santa Ana
	North Coast		Tulare Lake

Funding allocations in millions



PROP 1
LOS ANGELES-VENTURA
FUNDING AREA



Where can I learn more?

Proposition 1: California’s Integrated Regional Water Management, and the Disadvantaged Communities Involvement Program (DACIP), see the following websites:

- <https://water.ca.gov/Work-With-Us/Grants-And-Loans/IRWM-Grant-Programs/Proposition-1>
- <https://water.ca.gov/Work-With-Us/Grants-And-Loans/IRWM-Grant-Programs/Proposition-1/DAC-Involve-ment-Program>

FUNDING

WHAT SOURCES OF FUNDING ARE AVAILABLE FOR WATER-RELATED PROJECTS?

In addition to funding from the Regional Water Management Planning Act, Prop 1 and Measure W are potential funding sources to support water-related multi-benefit projects throughout our community. Multi-benefit projects address two or more of the following:

- water quality
- stormwater management
- flood management
- restored and enhanced ecosystems
- reliable surface and groundwater supplies

Proposition 1

Water Quality, Supply & Infrastructure Improvement Act

Year: 2014

Funding Available: \$7.545 billion in bonds in California, including \$98 million in the LA-Ventura Funding Area

What can be funded: water-related projects including surface and groundwater storage, water recycling, and stormwater projects

Measure W

Safe Clean Water Parcel Tax

Year: 2018

Funding Available: approx. \$300 million per year will be generated by a parcel tax (2.5 cents per square foot of impermeable space on private property in the County of LA)

What can be funded: stormwater capture projects focusing on nature-based solutions



For additional funding resources, please visit:

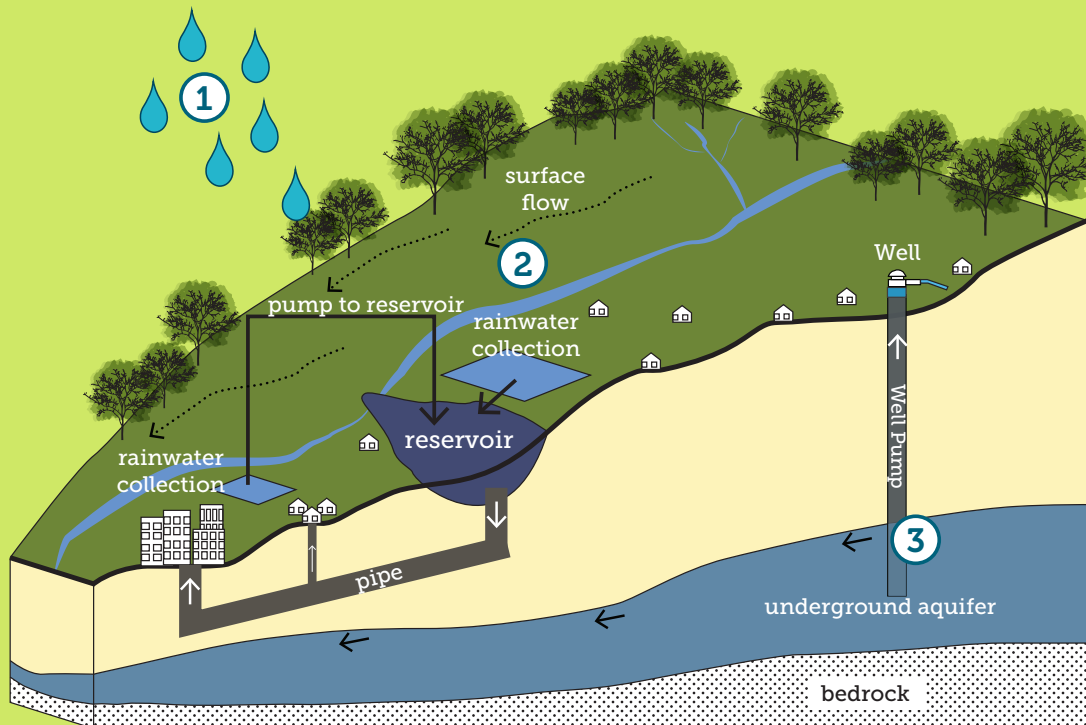
<https://www.fundingresource.org/>

SURFACE WATER AND GROUNDWATER

WHERE DOES MY RAINWATER GO?

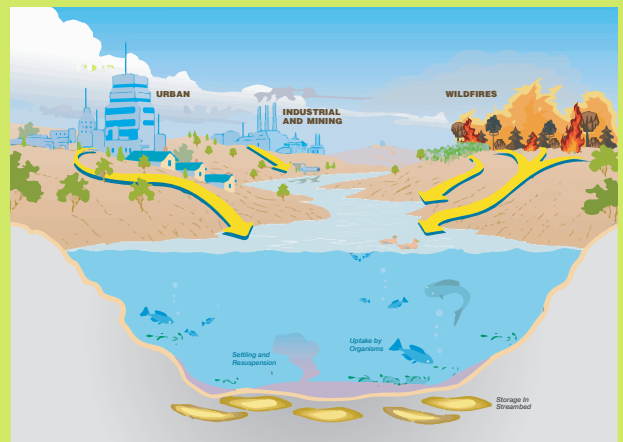
Rainwater, surface water and groundwater systems are integrally connected.

- 1 Rain falls to the earth and collects on the surface or underground.
- 2 Surface water flows into rivers, streams and reservoirs.
- 3 Groundwater is precipitation that seeps into the earth's soils and rock formations and stored in aquifers. Water can be pumped from underground reservoirs known as "aquifers" using wells.



HOW DO CONTAMINANTS GET INTO OUR WATER?

Trash, fecal bacteria, litter, pesticides and herbicides, brake pads from cars, and many other pollutants impact our local streams, rivers, beaches, and groundwater aquifers. An estimated 10 billion gallons of polluted water is flushed into the ocean during a typical storm in LA County.



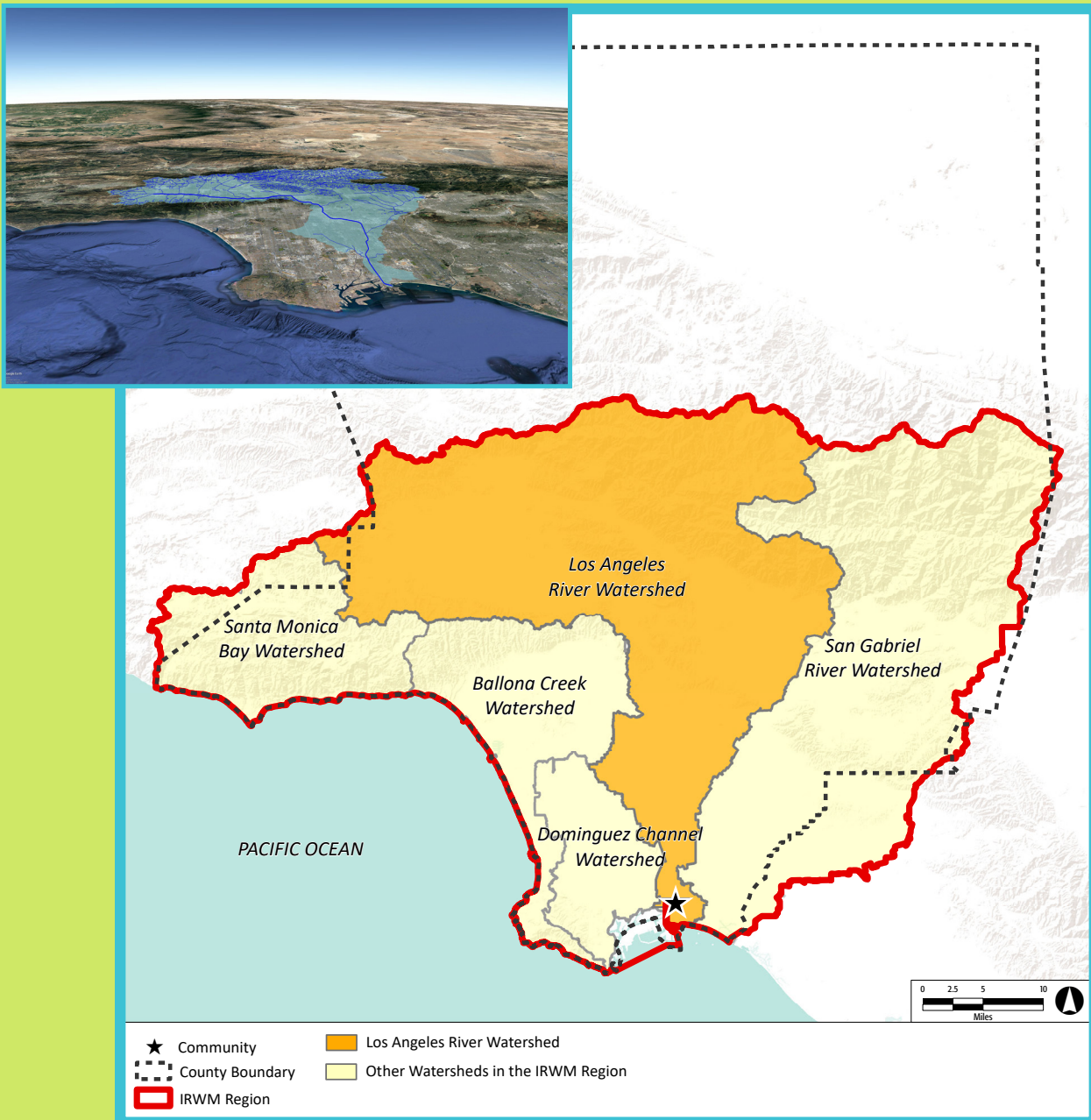
WATERSHED

WHAT IS A WATERSHED?

A watershed is a land area that channels rainfall and snowmelt into creeks, streams, and rivers that flow into a common outlet such as reservoirs, bays, or the ocean. There are five major watersheds in the Greater Los Angeles County IRWM region, each of which includes multiple subwatersheds.

Our community is located in the Los Angeles River Watershed, which outlets at the Long Beach Tidal Estuary.

Our watershed in 3D!



Source: California Natural Resource Agency, 2019; LA County, 2005

GROUNDWATER

WHERE DOES MY
GROUNDWATER
COME FROM?

A groundwater basin is an aquifer or system of aquifers that stores water beneath the surface. Our community overlies the Coastal Plain of Los Angeles Groundwater Basin, which includes multiple subbasins.

Clay soils or heavily compacted soils, as well as impermeable surfaces, may prevent surface water from infiltrating and reaching groundwater aquifers.



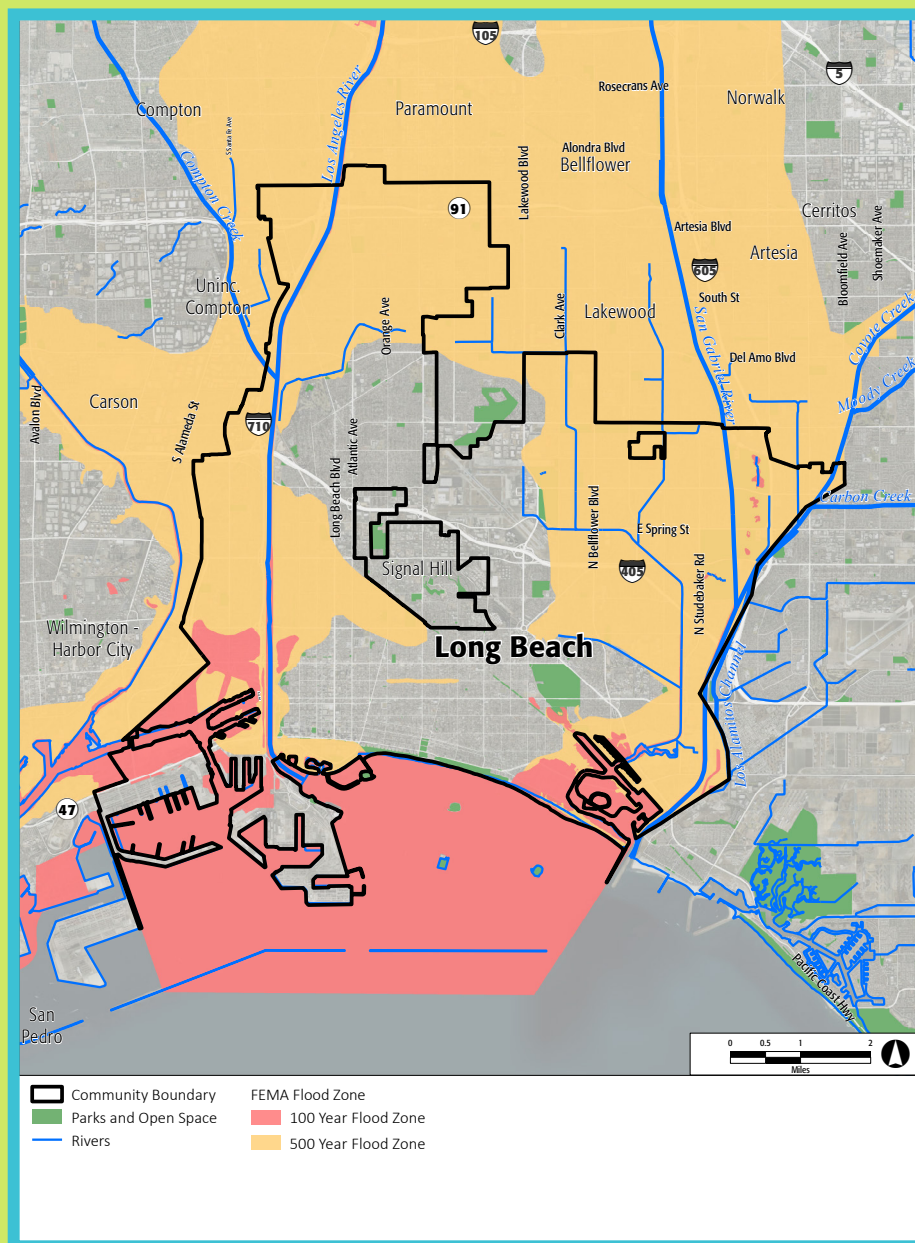
Source: California Natural Resource Agency, 2019; USGS, 2013

FLOODING

AM I AT RISK OF FLOODING ?

The Federal Emergency Management Agency (FEMA) defines flood zones as areas with a 1% annual chance of flooding, also known as the 100-year flood zone. Areas moderately at risk for flooding have a 0.2% annual chance of flooding, also known as the 500-year flood zone.

More localized flooding may occur within and beyond FEMA flood zones, and can negatively impact communities.



Source: GreenInfo Network 2019; USGS, 2018; FEMA, 2018

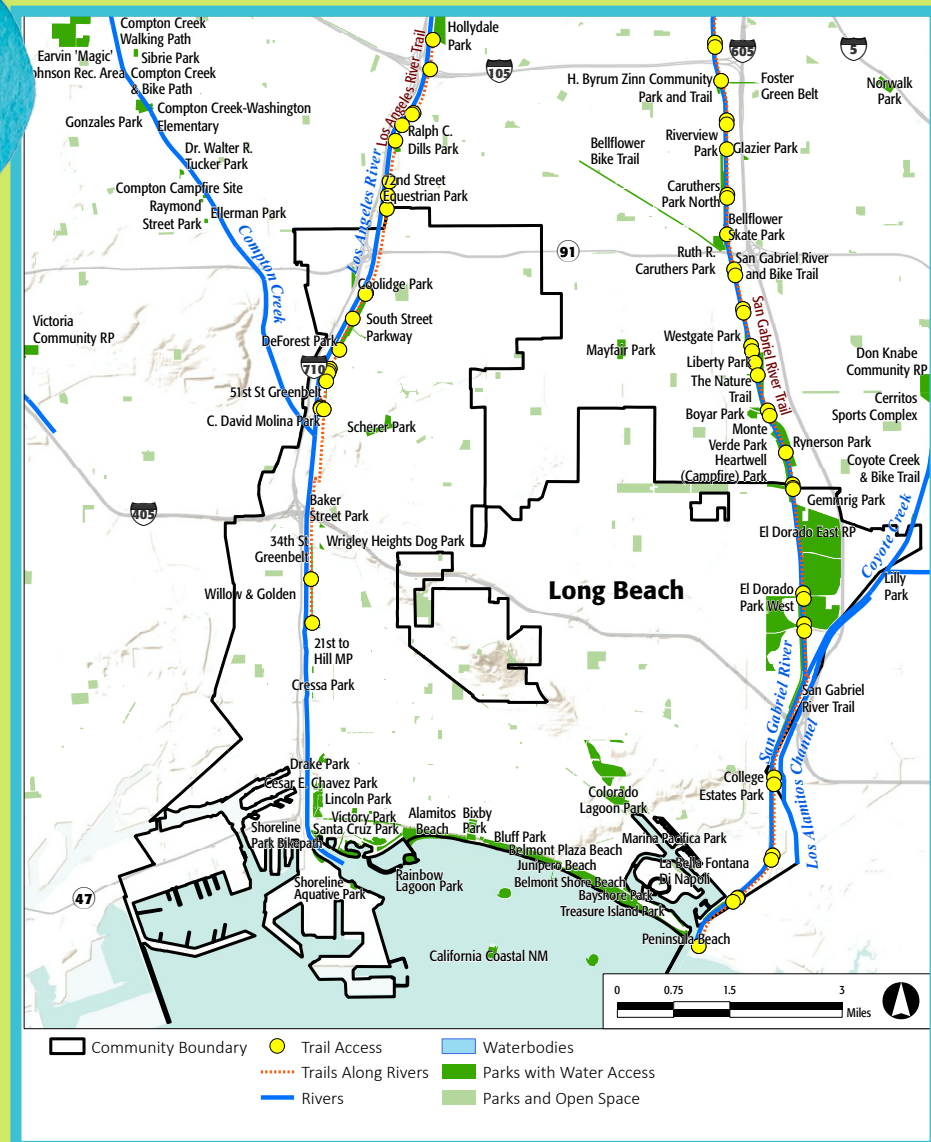
ACCESS TO PARKS AND LOCAL WATERWAYS

HOW CLEAN ARE OUR LAKES, STREAMS, RIVERS, AND BEACHES?

Water bodies and the habitats and open space they support can provide places for recreation and respite, contributing to quality of life in our communities. Thousands of visitors swim, wade, kayak, and fish at dozens of freshwater sites located across our region. However, certain contaminants can pose a health risk to those that recreate in and eat fish from our local streams and rivers. Before you recreate, check the most recent water quality reports available through these resources:

- Los Angeles River Water Quality (<https://www.lacitysan.org/>)
- Heal The Bay's River Report Card (<https://healthebay.org/riverreportcard/>)

WHERE CAN I FIND PARKS AND LOCAL WATERWAYS?



Source: PlaceWorks, 2017; USGS, 2018; LA County 2017

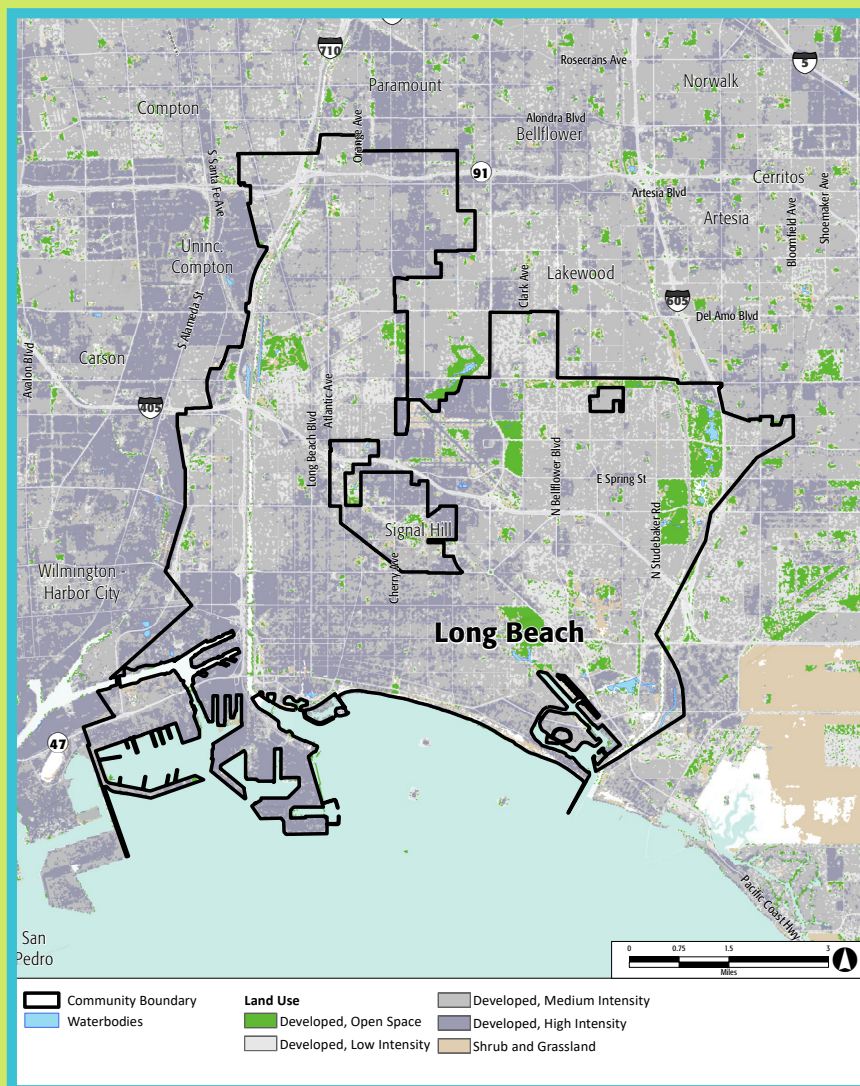
EXISTING LAND USE

HOW DOES LAND USE AFFECT OUR WATER?

Land use directly affects how water moves through communities. Land use in urban communities ranges from open space and agriculture to varying levels of development.

Developed land often consists of impervious surfaces, such as asphalt and concrete. When land is paved, water is not able to soak into the ground. Water that flows over the hardened landscape is channeled into the storm drain system and directed into rivers and oceans.

Too much water flowing across the hardened landscape can result in flooding and/or erosion. This untreated water is called urban runoff. Urban runoff, carrying pollutants such as automotive fluids, trash and pesticides, is the biggest source of pollution in our rivers and ocean.



Source: NLCD, 2016; USGS, 2018; LA County 2017

CAPTURING AND STORING WATER

HOW CAN WE CATCH AND STORE RAINWATER?

Capturing rainwater not only helps keep our waterways and ocean clean, but helps to replenish our groundwater supply and reduce our dependence on imported water.

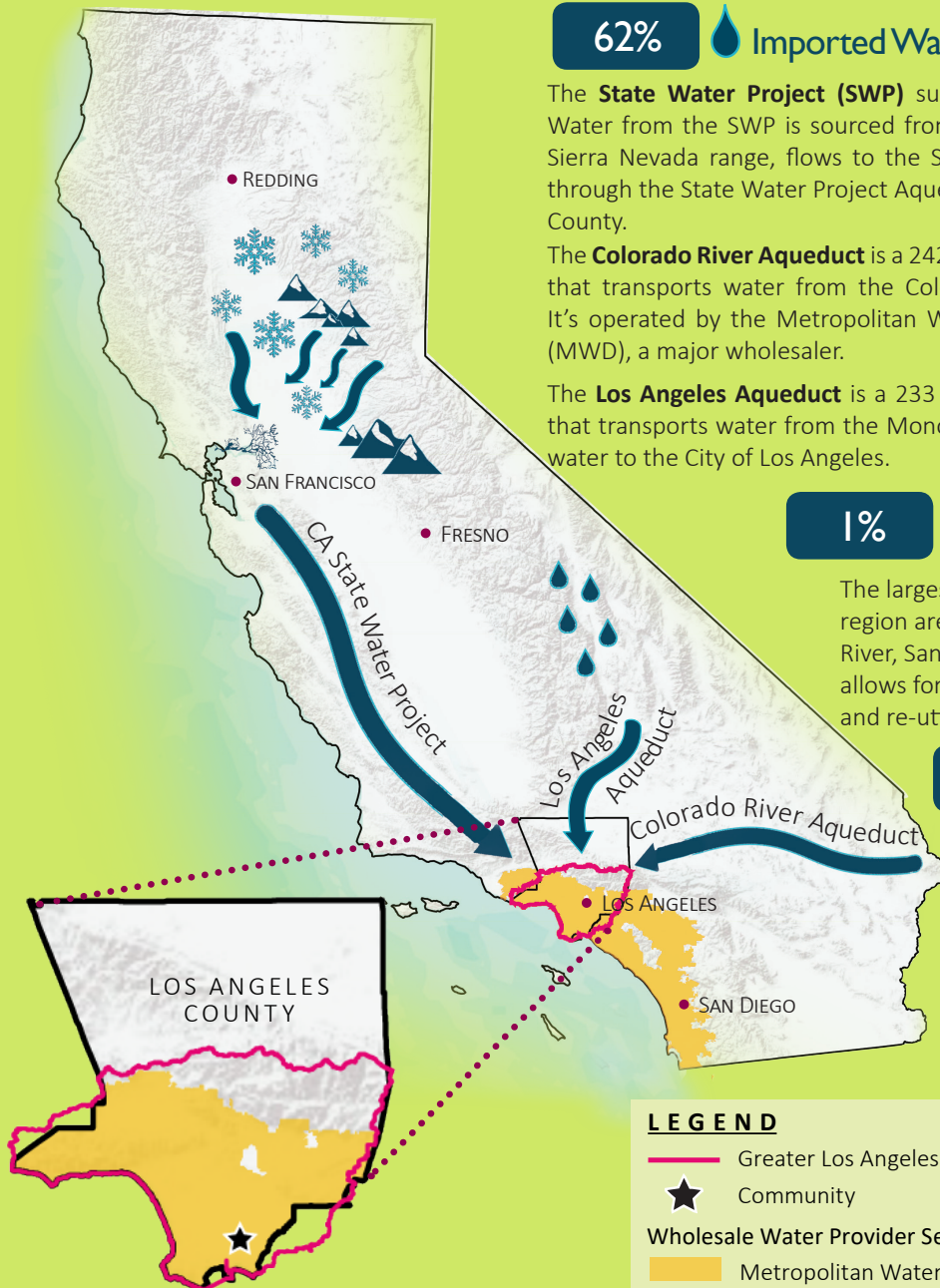
Potential strategies for catching and storing water include creating rain gardens, bioswales, bioretention ponds; protecting open space; removing hardscape; and redirecting rainwater that falls on rooftops and parking lots into large tanks (cisterns) where it can be stored for later use.



WATER SOURCES

WHERE DOES MY TAP WATER COME FROM?

- The water supply for the Greater Los Angeles County IRWM comes from three main sources: 1) imported water (including the State Water Project, Colorado River Aqueduct, and Los Angeles Aqueduct), 2) local surface water and recycled water, and 3) groundwater.
- Our community is served by the City of Long Beach Department of Water, West Basin Municipal Water District, and Central Basin Municipal Water District, who receive water from the Metropolitan Water District of Southern California.



62% Imported Water

The **State Water Project (SWP)** supplies water throughout California. Water from the SWP is sourced from the snow pack and rain from the Sierra Nevada range, flows to the Sacramento-San Joaquin Delta, then through the State Water Project Aqueduct to supply water to Los Angeles County.

The **Colorado River Aqueduct** is a 242 mile-long water conveyance system that transports water from the Colorado River to Southern California. It's operated by the Metropolitan Water District of Southern California (MWD), a major wholesaler.

The **Los Angeles Aqueduct** is a 233 mile-long water conveyance system that transports water from the Mono Basin and Owens Valley. It delivers water to the City of Los Angeles.

1% Local Surface Water & Recycled Water

The largest sources of surface water in the region are sourced from the Los Angeles River, San Gabriel River. Water recycling allows for municipal wastewater to be treated and re-utilized.

37% Groundwater

The Coastal Plain of Los Angeles Groundwater Basin in the primary source of groundwater for this region.

*Percentages fluctuate based on climate conditions

LEGEND

- Greater Los Angeles County IRWM
- ★ Community
- Wholesale Water Provider Service Area
- Metropolitan Water District of Southern California (MWD)

Source: Greater Los Angeles County Integrated Regional Water Management Plan, 2014

DRINKING WATER

HOW MUCH DOES ONE PERSON DRINK?



8 Cups per day

=

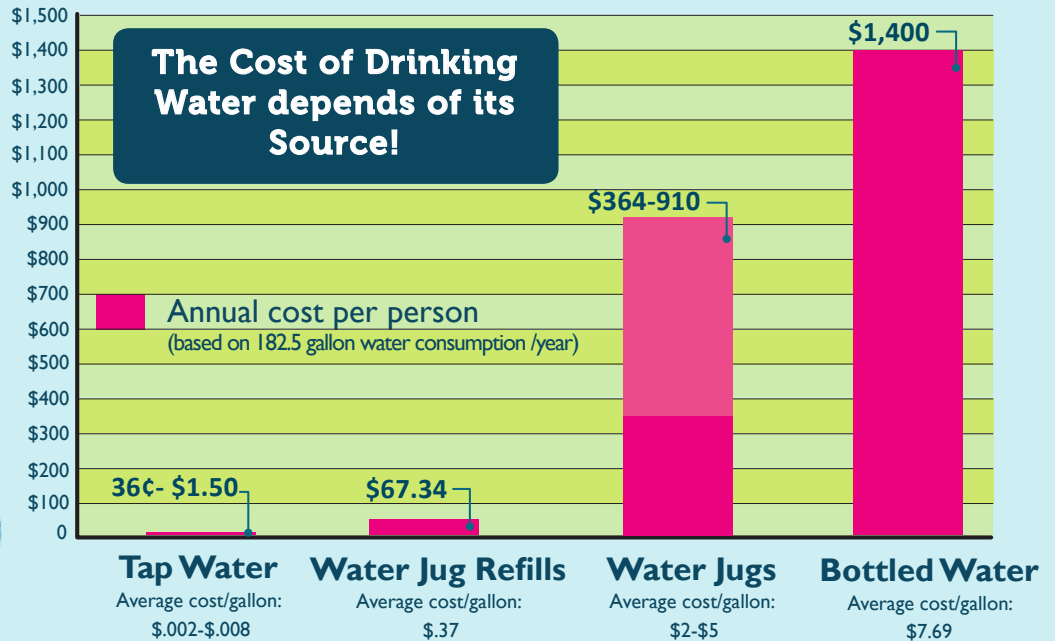


1/2 gallon per day

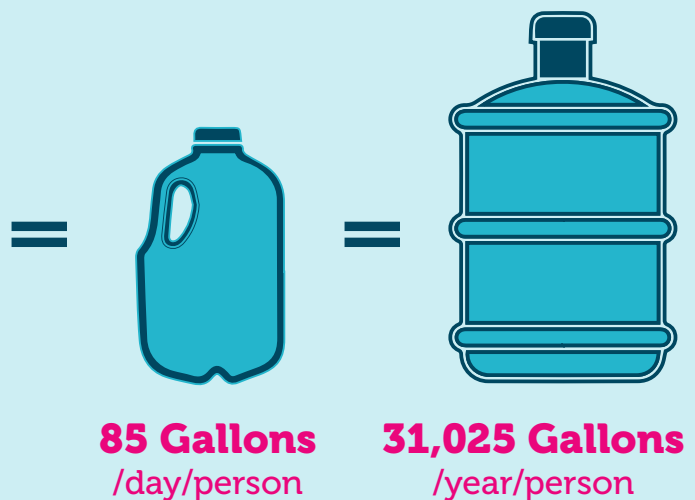
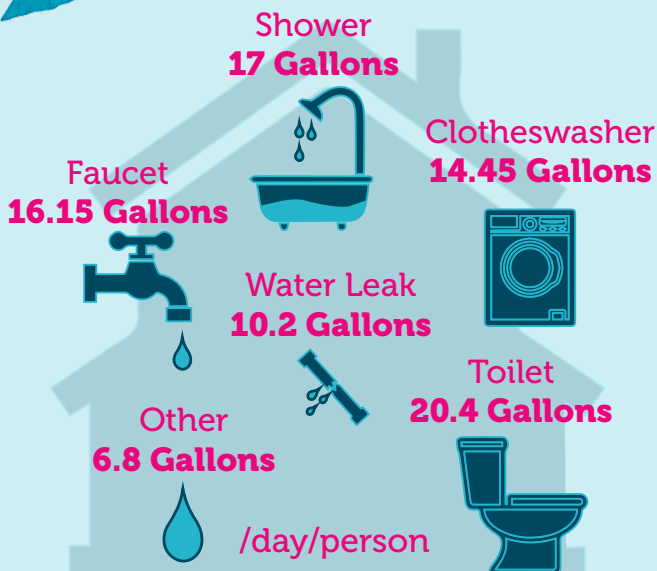
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182.5 gallons per year



HOW MUCH WATER DO WE USE AT HOME?



Residential water uses based on the following resources:

1. "How We Use Water." EPA, Environmental Protection Agency, 5 Feb. 2018, www.epa.gov/watersense/how-we-use-water.
2. "Residential Water Use Trends and Implications for Conservation Policy." Legislative Analyst's Office, 8 Mar. 2017, <https://lao.ca.gov/Publications/Report/3611>.

TAP WATER QUALITY

HOW CLEAN IS MY DRINKING WATER?

Water quality testing ensures that our drinking water is safe and meets federal and state drinking water standards. The US Environmental Protection Agency establishes federal standards that determine the maximum concentration allowable for specific contaminants in tap water. In California, the State Water Resources Control Board is responsible for regulating drinking water. While tests are important for identifying potential health issues, the presence of some contaminants does not necessarily indicate the water is unsafe to drink for all populations.

How do contaminants get into my tap water?

Contaminants can seep into our groundwater or wash into rivers and streams. Common sources of contamination include: naturally occurring chemicals and minerals, agriculture and land use practices, industry, and urban runoff.

How often is my water tested and reported?

The State Water Resources Control Board Division of Drinking Water (DDW) requires community water systems to publish and make available an annual Consumer Confidence Report. Water agencies collect water samples from designated sampling points or wells quarterly, and report results in the annual report.

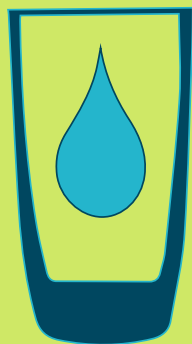
What is my water tested for?

The EPA has set maximum contaminant levels (MCLs) for more than 90 contaminants, and maintains a list of unregulated contaminants that may require thresholds in the future. This includes:

- Microorganisms such as viruses, bacteria.
- Inorganic chemicals such as lead, arsenic, nitrate, copper, and chromium.
- Radiological contaminants from natural radioactivity or human activity such as uranium and radon.
- Pesticides such as 1,2-Dibromo-3-chloropropane (DBCP), 1,2-Dibromoethane (EDB), and 1,2-dichloropropane.

What is an exceedance? What happens when there is an exceedance?

An exceedance occurs when a concentration of a contaminant is above the established safe threshold and could potentially cause a threat to human health. When this occurs, agencies are responsible for sending an unsafe water notice to all customers and instructions on how to proceed when using tap water.



Are Property Owners responsible for water quality?

Water service providers are responsible for providing safe water to water meters, and property owners/landlords are responsible for maintaining water infrastructure from the meter to tap. In some cases, domestic water quality issues result from infrastructure that is the responsibility of the owner/landlord to maintain.



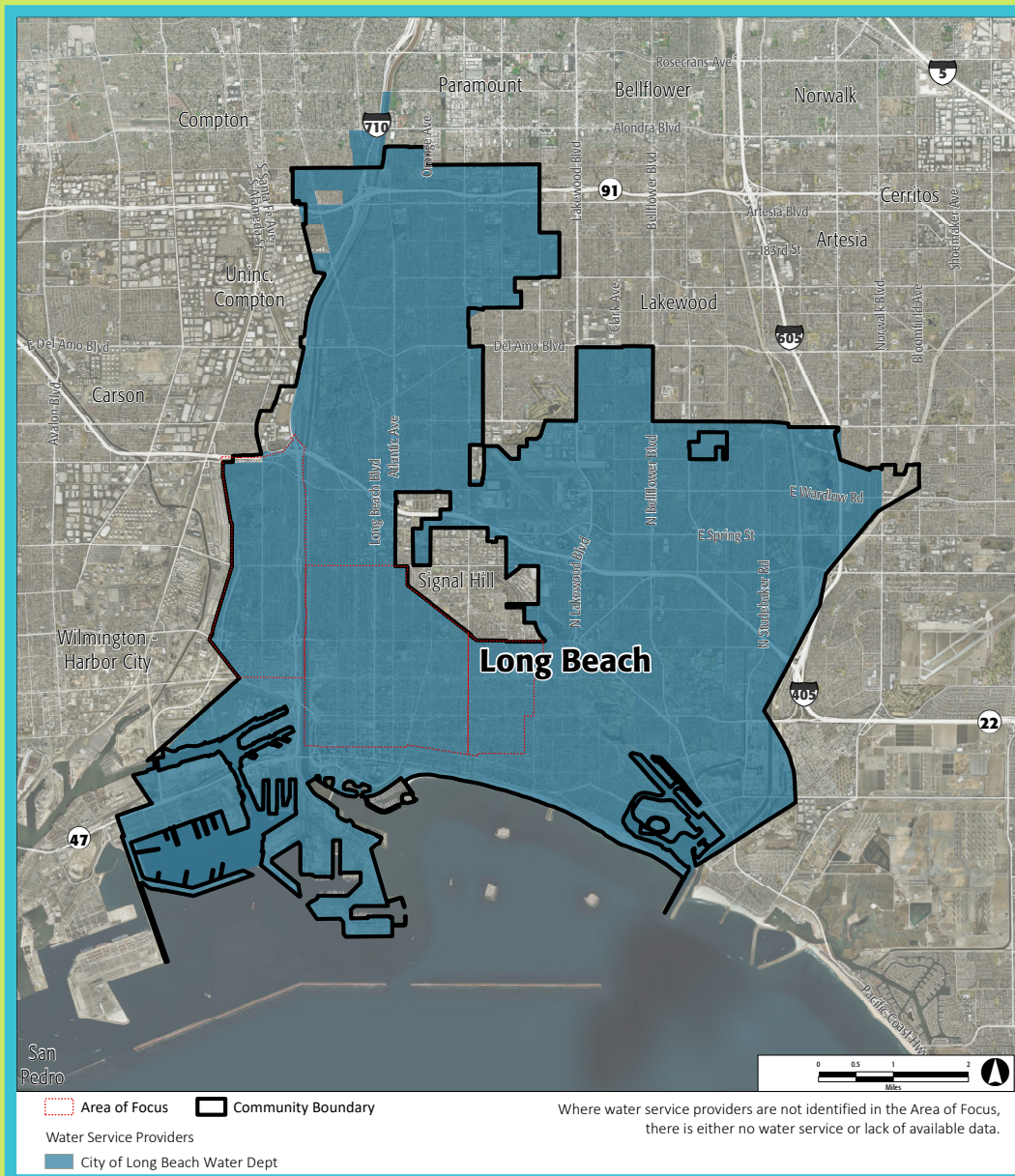
To learn more about water quality in your community, please visit: <https://watertalks.csusb.edu/>

WATER SERVICE PROVIDERS

WHO IS MY WATER SERVICE PROVIDER?

The service providers that serve our community are listed below, with their water wholesaler identified in parenthesis.

- City of Long Beach Water Dept. (MWD)
- Bellflower-Somerset Mutual Water Co. (MWD)
- California Water Service Co. - Dominguez (WBMWD)
- City of Lakewood Water Dept. (CBMWD)




Source: Tracking California, 2018; State Water Resources Control Board, 2018

WATER SERVICE PROVIDERS

HOW MUCH DOES MY WATER COST?

The table below identifies the primary water source that the Water Service Providers in your community provide to their customers, as well as the average monthly water cost for all households that they serve. In many cases, Water Service Providers serve customers including households outside of your community.



	WATER SERVICE PROVIDERS			
	Primary Water Source	Total Households Served By Provider	Avg. Cost per Month per household (\$)	Median House Income (MHI) For Customers
Long Beach Water Department	MWD	165,312	\$63.68	\$70,589

Source: Luskin Center Water Atlas, 2015; Tracking California, 2018; American Community Survey 2013-2017, 2018, State Water Resources Control Board, 2019


PLACEHOLDER

Average Residential Water Use in 2016: 85 Gallons Per Person Per Day.

(Source: Legislative Analyst's Office, The California Legislature's Nonpartisan Fiscal and Policy Advisor)



For additional information about how this data was collected, please visit: <https://watertalks.csusb.edu/>



WHO IS MY
WATER SERVICE
PROVIDER?

Have Questions?

Contact your local service provider or use the following link(s) to download a water quality report.

Long Beach Water Department

1800 East Wardlow Road
Long Beach, CA 90807
T. (562) 570-2300
<https://lbwater.org/>



For additional educational resources about your water service provider, please visit: <https://watertalks.csusb.edu/>

GLOSSARY OF TERMS & ACRONYMS

DEFINITIONS

Aquifer: formation of porous rock, gravel or sand that holds an underground supply of water. Wells can be used to pump water from aquifers.

Aqueduct: channel or other constructed watercourse that is used to carry water from one place to another.

Bay: a waterbody that is surrounded by land on three sides, and is connected to an ocean, or lake.

Bioretention: a chemical and biological process that treats and removes contaminants from stormwater and urban runoff. Stormwater is collected into the bioretention areas, which are depressed landscaped areas that slow and treat on-site stormwater runoff through various physical, chemical and biological processes.

Clean Water Act: U.S. federal law, passed in 1972, that regulates water quality standards and pollutant discharges.

Contaminants: a harmful or damaging substance.

Constituent: mineral or chemical present in water.

Drainage: the relative process by which water flows and moves through a soil's profile.

Drought: a period of low rainfall.

Dry Weather Run-Off: the process by which human activities such as car washing, landscape irrigation or street washing indirectly cause contaminants to enter our stormwater system.

Estuary: a water body where fresh water from rivers mixes with tidal saltwater.

Exceedance: a measurement that determines if a concentration of a contaminant is above the established safe threshold and/or a threat to human health.

Infiltration: the process through which water drains and leaches into the earth.

Inlet: an indentation along the coastline, such as a bay, cove, or estuary.

Impervious: not allowing water to flow through or within the surfaces.

Groundwater: surface water that has drained into the ground. This water is stored in underground spaces called aquifers.

Green Infrastructure: a sustainable water management approach that uses biological processes to provide flood protection, clean air, clean water, and diverse habitats.

Flood Management: methods and practices developed to reduce flood risk to the built environment, provide emergency preparedness and response, forecast river levels based on weather conditions, improve water quality and supply reliability, and enhance public safety.

Non-Point Source Pollution: pollution caused indirectly by rainfall or snowmelt that collects various contaminants as it flows through the built environment.

Outlet: an area where water flows into a larger water body.

Pervious: areas or materials which water can pass through.

Point Source Pollution: pollution caused directly by a specific and very localized source, such as a leaking fuel tank or pipe.

Watershed: land area that channels rainfall and snowmelt into creeks, streams, and rivers that flow into a common outlet such as a reservoir, bay or the ocean.

Water Conservation: the protection and preservation of water resources.

Water Recycling: process that reuses treated wastewater as a water resource.

Wastewater treatment: a process that removes contaminants from wastewater or sewage and transforms it into an effluent that can be returned to our water cycle.

Water Quality: the condition and measure of water relative to human health based on biological, chemical and physical parameters.

Rainwater: water that is collected from rain.

Reservoir: a large body of water that stores and holds water. Often created by dams.

Urban Runoff: water that flows through and within the urban environment and collects various contaminants such as motor oil, grease, pesticides, toxins and more.

Stormwater Management: strategies to reduce pollution and improve water quality.

Surface Water: water that flows within and over the surfaces of the built environment.

ACRONYMS

EPA – US Environmental Protection Agency

FEMA – Federal Emergency Management Agency

GLAC – Greater Los Angeles County

IRWM – Integrated Regional Water Management Planning Act

Measure W – Safe Clean Water Parcel Tax (LA County)

Prop 1 – Proposition 1, Water Quality, Supply & Infrastructure Improvement Act

SWP – State Water Project

SWRCB – State Water Resources Control Board

USCR – Upper Santa Clara River

VCWPD – Ventura County Watershed Protection District

WCVC – Watershed Coalition of Ventura County

WRPI – California State University’s Water Resources and Policies Initiative



For additional ‘Common Watershed Protection and Stormwater Pollution Prevention Terms,’ please visit: <http://www.cleanwatershed.org/glossary/>