

RECYCLED WATER

Syphon Reservoir Project: The Right Water for the Right Use



Irvine Ranch
WATER DISTRICT

WHY LOSE IT WHEN WE CAN USE IT?

Drinking water is limited, especially here in Southern California. So how does Irvine Ranch Water District keep our communities so green and beautiful without depleting the drinking water we depend on in our homes and businesses?

The answer is recycled water—an abundant, affordable and drought-proof source of water ideal for many uses. *Just not for drinking.*

DRINKING WATER COMES FROM:



Groundwater



Surface water



Imported water

RECYCLED WATER COMES FROM:



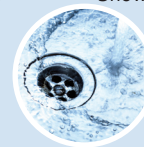
Toilets



Showers & bathtubs



Washing machines



Sinks



Dishwashers

AND IS USED FOR:



Drinking



Bathing



Washing



Cooking

AND IS USED FOR:



Landscape irrigation



Cooling office buildings



Flushing Toilets



Concrete mixing, manufacturing, industrial use



Fighting wildfires

WHAT IS RECYCLED WATER AND HOW DOES IT HELP?

Recycled water is water that has been safely treated for reuse after it goes down the drain. Every gallon of recycled water we use for these purposes saves a gallon of drinking water. And that adds up to

28 million gallons daily.

WHY DO WE NEED RECYCLED WATER?

Recycled water helps us meet the water needs of our community, while preparing responsibly for the future.



Statewide demand for drinking water is growing



Droughts are more common



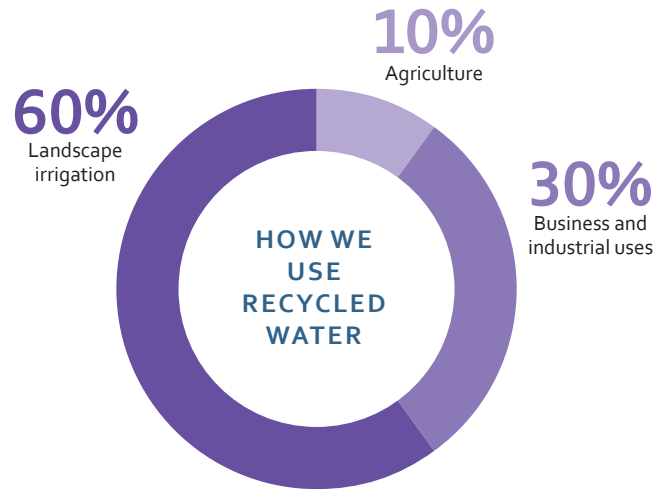
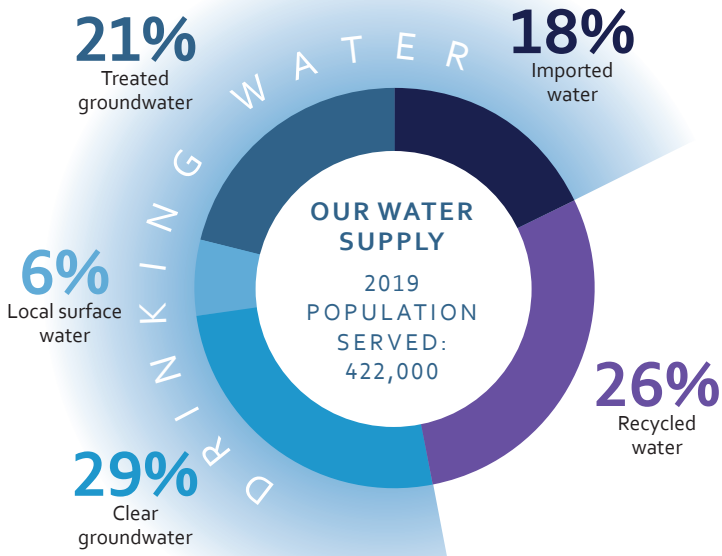
Wildfires are bigger and more frequent



Weather patterns are more unpredictable

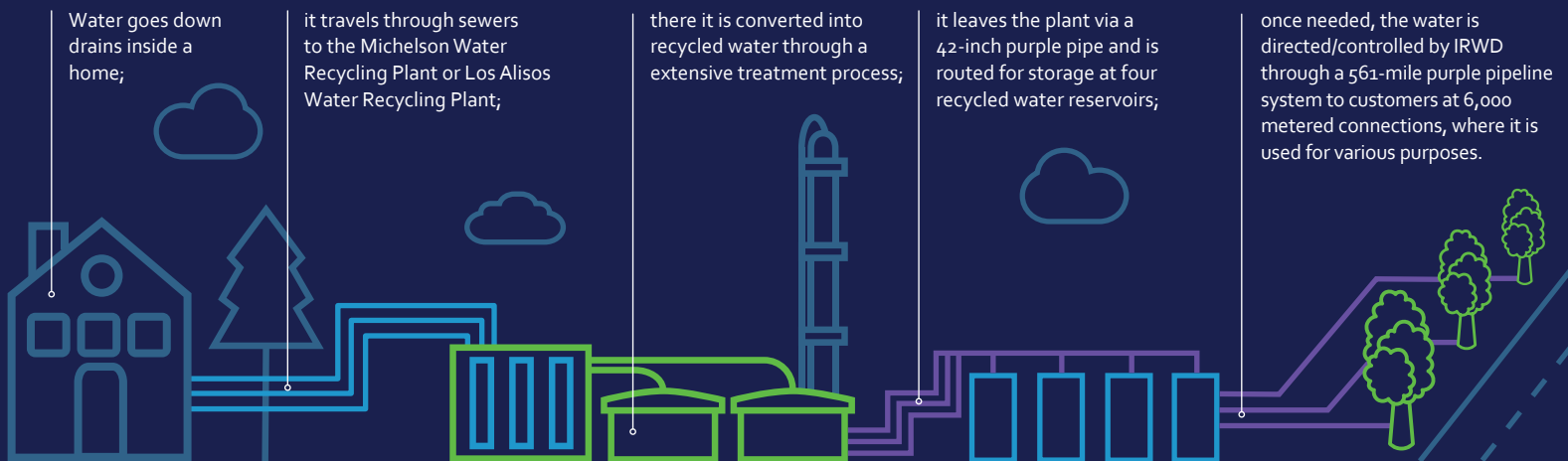
HOW IMPORTANT IS RECYCLED WATER?

Recycled water is a crucial reliable source in our diverse water supply and a forward-thinking solution for the future of our community. It's all about using the right water for the right purpose.



HOW DOES THE RECYCLED WATER SYSTEM WORK?

We have one of the most robust and technologically advanced recycled water systems in the nation.



PROPOSED
STORAGE CAPACITY

5,000
ACRE-FEET

CURRENT
STORAGE CAPACITY

578
ACRE-FEET

WHAT IS THE SYPHON RESERVOIR IMPROVEMENT PROJECT?

The Syphon Reservoir Improvement Project is an investment to increase capacity of an existing recycled water reservoir. By doing so, we can store more recycled water to meet seasonal and future needs. By making more recycled water available, we will reduce our dependence on costly imported water and make our community more self-sufficient.

Safety

Syphon Reservoir will be modernized and upgraded to exceed the latest federal and state standards for design and safety.

Environmental review

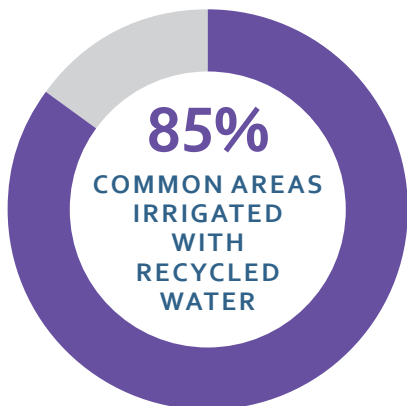
The project is undergoing a thorough California Environmental Quality Act review process that will include opportunities for public input and stakeholder engagement.

Timeline

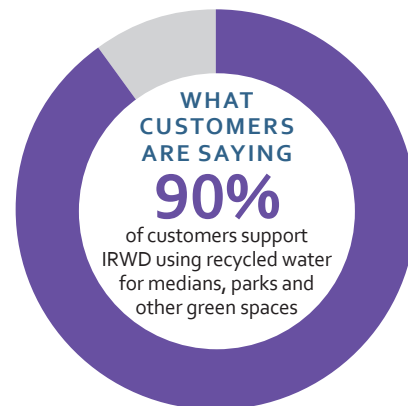
The environmental review process is expected to be completed by summer 2020. Construction is expected to take 2–3 years.

WHY USE RECYCLED WATER FOR IRRIGATION AND OTHER NON-DRINKING WATER USES?

- More affordable
- Reliable
- Drought-proof
- Saves drinking water

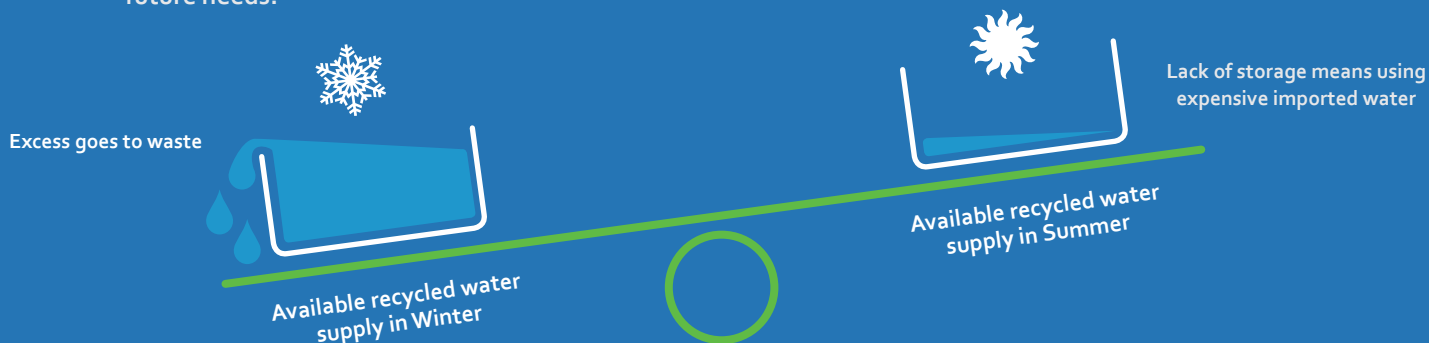


9.7 billion
gallons of recycled water
delivered by IRWD each year



THE WATER BALANCING ACT

Managing our water supply is a balancing act. Recycled water is produced and used every day, but the community's need for it grows during the dry months of summer. In the wet winter months, when demand is low, our recycled water reservoirs fill up, and excess recycled water goes to waste. **Without more room to store recycled water for times of high demand, we will have to use expensive imported water to meet our future needs.**



WHAT ARE THE SYPHON PROJECT'S BENEFITS TO ME AND MY COMMUNITY?



Prepares us for the future by storing more **drought-proof water**



Enables IRWD to use **nearly 100%** of the recycled water it produces



Keeps parks, medians, athletic fields, public landscaping, and golf courses **green and beautiful**



Provides water to **fight wildfires** throughout the region



Saves IRWD \$85 million over 50 years and **preserves low customer rates**

WHO IS RESPONSIBLE FOR THIS PROJECT?

Irvine Ranch Water District is a local not-for-profit government agency serving residents and businesses in central Orange County. It is led by a publicly elected Board of Directors who live in the community.

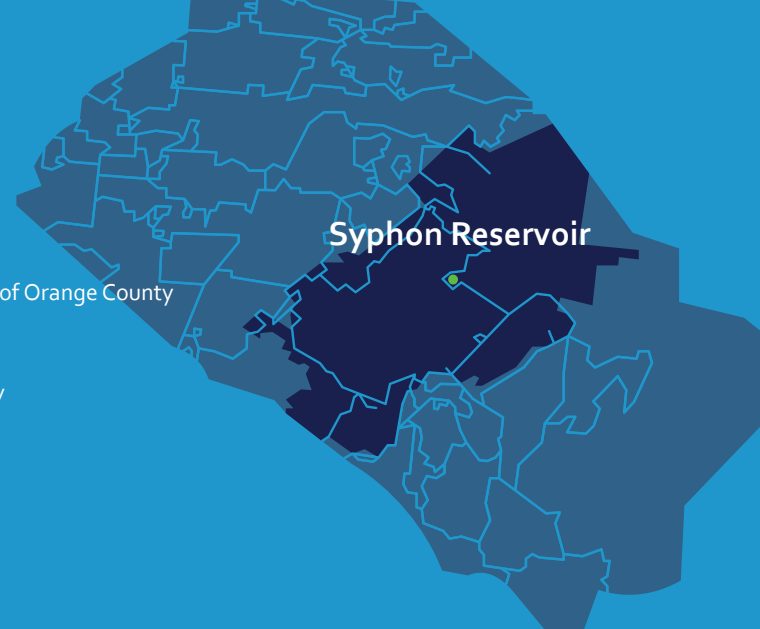
CITIES SERVED

Irvine
Tustin
Lake Forest
Newport Beach
Orange
Costa Mesa
Unincorporated parts of Orange County

181 sq. miles
20% of Orange County

599,000
Daytime Population

422,000
Residents Served



WHAT DO WE DO?



High-quality drinking water



Groundbreaking recycled water program



Reliable sewage collection and treatment



Environmentally friendly urban runoff treatment

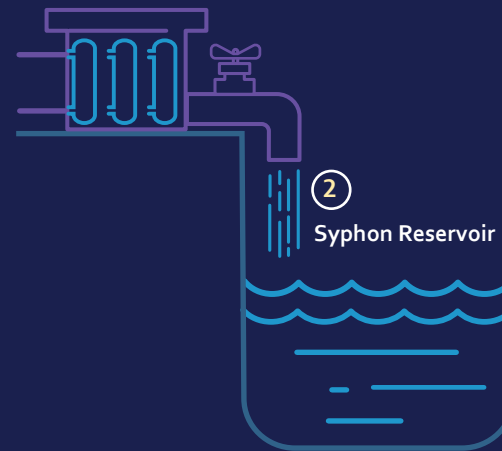
HOW DO I KNOW THE SYPHON RESERVOIR IMPROVEMENT PROJECT WILL BE DONE SAFELY AND RESPONSIBLY?

IRWD is an experienced reservoir operator with an exemplary record of construction, performance and dam safety. IRWD operates five reservoirs, including Syphon Reservoir. The reservoirs are inspected by the state and meet all requirements for safe use.

Syphon Reservoir is a stand-alone reservoir and does not receive any water from rivers or streams. IRWD has complete control over the flow of recycled water in and out of the reservoir through its dedicated purple-pipe system.

1

Recycled water is treated and fills the reservoir only via controlled pipes.



2

Syphon Reservoir

4

Recycled water is used for irrigation, commercial and industrial purposes and to fight wildfires.

3

Recycled water travels via the dedicated purple-pipe system.