

Training Event Summary

Event: WaterTalks Training #2 - Integrated Regional Water Management

Intended Audience	WaterTalks CBOs and guests	Date and Time	2022.04.27 9am - 11am
Producer / Facilitator	TreePeople	Event Format	In person
IRWM Region	Greater LA County	Number of Participants	20

Event Summary:

This event was the 2nd part of a 9-part training session for WaterTalks CBOs in the Greater LA County area. Participants gathered at Mudtown Farms in Watts, to better understand the complex IRWM system in LA and how it applies to on-the-ground work in environmental justice communities. Presentations focused on stormwater management, water retailers and wholesalers, water sources, and wastewater - and then what it means to take an integrated approach to these key areas of water management. A group exercise allowed participants to become “instant experts” on these topics (posters created, below) and present them back to the group. See additional materials on the following pages, including the Instant Expert guidelines.



L.A. COUNTY WORLD OF WATER INSTANT EXPERT ACTIVITY

Participants explore the subject of water by working in teams to learn a specific topic related to the Los Angeles County water system. They then share what they have learned through the creation of an infographic — a visual image representing the information or data.

PROCEDURE

1. Divide into four working groups. Groups should be as close to equal in size as possible.
2. Pass out a different topic sheet to each group.
3. Each group has 15 minutes to:
 - Learn and discuss the topic.
 - Use poster paper and markers to create an infographic answering the questions listed on the topic sheet.
4. Each group shares and explains their infographic with the larger group.
5. Afterwards, discuss the following:
 - What are some ideas to integrate these regional water management systems to clean and/or increase local water supply?
 - What green infrastructure can be used to support regional water management and to clean and/or increase local water supply?

MATERIALS

- Topic Sheets
- Poster paper or dry erase boards – one per group
- Markers – one set per group



WATER SUPPLY AGENCIES: WHOLESALE AND RETAILERS



START HERE!

In Los Angeles County, the supply and distribution of water can be confusing. Different types of water agencies import, distribute and/or sell water throughout the area. Where you live will determine where your water comes from, and who you are buying it from.

Create an Infographic that answers the following questions:

- What is the difference between a water wholesaler and a water retailer?
- Who is the main water wholesaler serving L.A. County and who is the largest retailer?
- What is the job of water retailers?
- What are the different types of water retailers?



- Water wholesalers purchase and resell water, and retailers buy the water from wholesalers and then distribute it to their customers — the public. The main wholesaler serving Los Angeles County is the Metropolitan Water District (MWD) and their member agencies that include mid-size wholesalers and retailers.
- Water retailers buy the water supply services from the wholesaler on behalf of their customers. They issue the bills and collect payment for water and serve as the go between with water wholesalers. Water retailers are regulated and must meet water quality standards until the water reaches customer pipes.
- The Los Angeles Department of Water and Power (LADWP) is the largest retailer, serving the City of Los Angeles.
- In Los Angeles County there are different types of water retailers. They include county and municipal water districts, city-owned, privately-owned, investor-owned, and even private non-profits. Your location and retailer determine how much of your water is recycled, imported, or comes from groundwater.

WASTEWATER MANAGEMENT



START HERE!

In Los Angeles County, “inside” and “outside” water are two very different systems. Most of the inside water — that goes down the drain — ends up in the ocean. What is the potential for this inside water to help support water sustainability in the County, instead of being wasted?

Create an Infographic that answers the following questions:

- What is “inside” water?
- What is “premise plumbing” and why can it be an issue?
- What is the path inside water takes once it leaves the premise?



- Municipal water — the water we pay for — can be described as “inside” water and includes water that arrives at sink faucets, toilets, showers, washing machines, and dish washers. It also includes water used outside, such as water from sprinklers and spigots. All this water goes through a treatment process before it reaches home or business pipes.
- The plumbing within the property line with direct connection to the potable water supply system is called “premise plumbing.” Water in premise plumbing can become contaminated under various conditions, including from internal corrosion from lead piping.
- Inside water leaves the premise as “wastewater” and most is carried out by underground sewer pipes that go to a Wastewater Treatment Plant. Once there, the wastewater is treated through various steps to remove solids and other contaminants until it has reached an environmentally safe level to be suitable for disposal or reuse.
- Some of the water is “recycled” and is used for landscape and agricultural irrigation, recreational uses, and industrial reuse. Recycled water distribution systems can be identified by their purple pipes and pumps.
- The treated wastewater (effluent) that is not recycled is piped into channels that lead to the ocean. The effluent meets or exceeds state and federal water quality standards in order for it to be compatible with aquatic environments.

STORMWATER MANAGEMENT



START HERE!

Unlike other major cities across the United States, the management of stormwater in Los Angeles County does not include a treatment process. Because of this, every time it rains an inch in Los Angeles, billions of gallons of water are sent polluted to the ocean.

Create an Infographic that answers the following questions:

- What is “outside” water?
- What is the path outside water takes through our urban environment?
- What are some of the issues with outside water?
- Who is responsible for managing stormwater?



- Stormwater — outside water — is water that comes from rain that makes it's way through the urban watershed and either soaks into exposed soil or remains on top of impervious surfaces.
- When outside water falls onto impervious surfaces, such as concrete sidewalks and asphalt streets, it flows across these surfaces into gutters, that direct it into catch basins and then into a system of storm drains. This water flows into flood control channels (such as the LA River) where it is directed into the ocean.
- Unlike “inside” water that goes directly to a wastewater treatment plant, stormwater is not treated before being sent out to the ocean. This “urban runoff” is a significant source of ocean pollution, and includes litter, pet waste, cigarette butts, fast food packaging, plastic shopping bags, and motor oil – anything on the ground.
- Dry-weather runoff — outside water that flows when it is not raining — comes from sprinklers, hoses, and other sources. Given the lower volumes of water flowing in dry-weather, the toxins are more concentrated than stormwater.
- Stormwater is managed primarily by Los Angeles County Flood Control District and the U.S. Army Corps of Engineers, that encompasses more than 2,700 square miles within 6 major watersheds. This includes dams and reservoirs, open channels, catch basins, and underground storm drains.

WATER SUPPLY SOURCES



START HERE!

Los Angeles County has a Mediterranean climate — subject to short wet winters and long dry summers. With a lack of rainfall in the area and a large population, Los Angeles currently needs to get its supply of water from a variety of sources — most from far away places!

Create an Infographic that answers the following questions:

- What are the different sources of L.A.'s water?
- What percentage of our water is from local sources, and what percentage is imported?

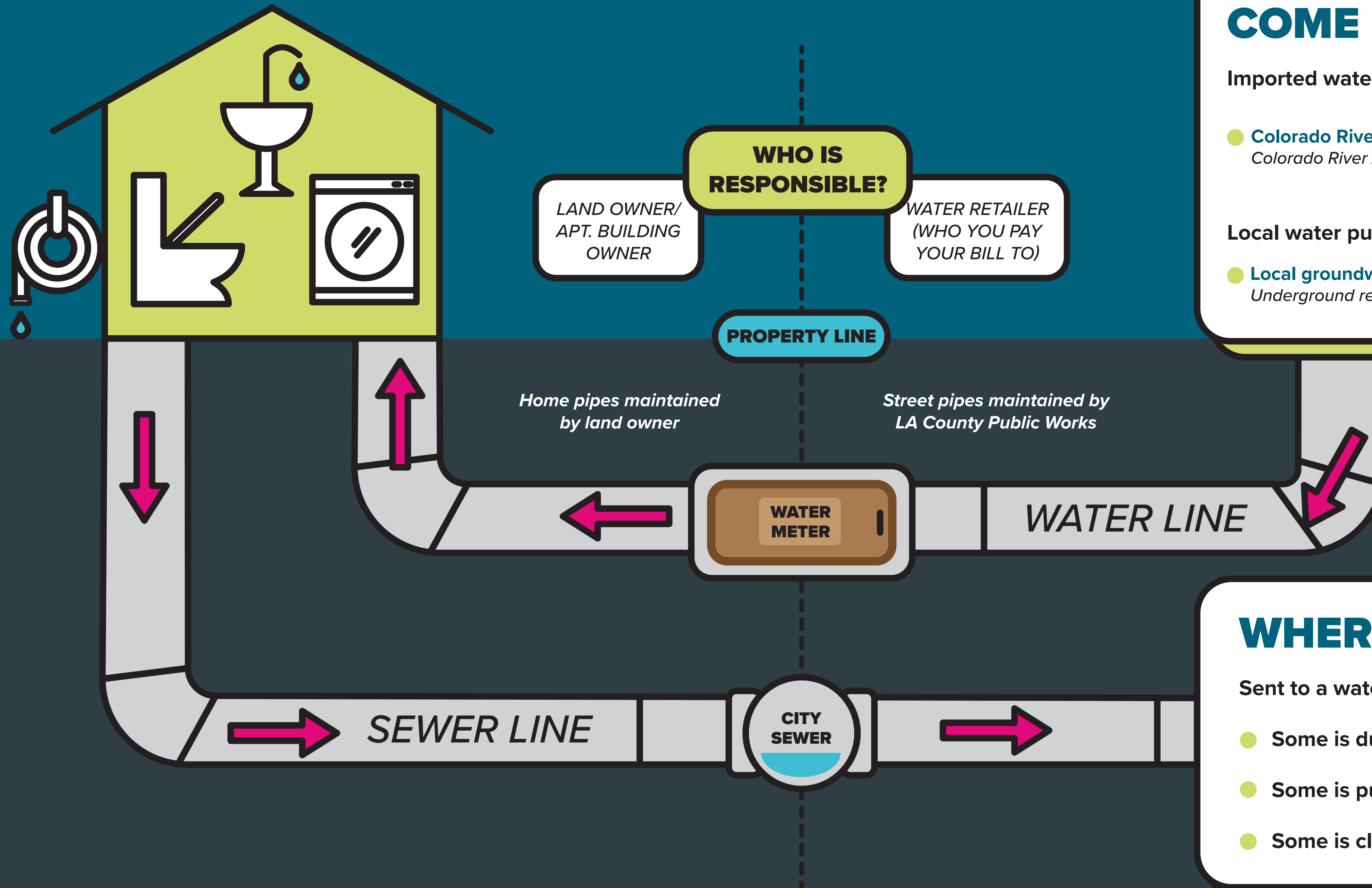


- Los Angeles County water supply agencies get water from many sources. This includes imported water, local groundwater, captured stormwater, and recycled water. In the Greater L.A. County IRWM regions, 38% of water is sourced locally.
- 62% of the water is imported. It comes from the Los Angeles Aqueduct (bringing water from the Eastern side of the Sierra Nevada mountains), the Colorado River Aqueduct (bringing water from the Colorado River), and the California Aqueduct (bringing water from the Sacramento-San Joaquin River Delta). Metropolitan Water District (MWD) and the Los Angeles Department of Water and Power (LADWP) manage most of this imported water.
- A percentage of our drinking water comes from groundwater (supplied by rain fall, snow melt, urban runoff) and varies from city to city. Groundwater is stored in aquifers — underground natural storage areas. These groundwater reserves are referred to as groundwater basins.
- Dams, managed by the Flood Control District, are used to catch and slow rainwater flowing from the mountains. Dams retain the water in a reservoir where it can be released and routed to spreading grounds that allow water to recharge aquifers. Some of the water is released into streams and larger channels, such as the Los Angeles River.
- In the Greater L.A. County IRWM regions, 1% of the water is recycled. Recycled water is water that is treated at a water treatment plant to a level that is safe for a variety of uses.

INSIDE WATER

Do you trust the water coming out of your tap?

Did you know that bottled water could be **1700x** more expensive?



WHERE DOES OUR WATER COME FROM?

Imported water through concrete channels and pipes comes from:

- Colorado River
Colorado River Aqueduct
- Owens Valley and Mono Basin
Los Angeles Aqueduct
- Sacramento-San Joaquin River Delta
California Aqueduct

Local water pulled up from wells comes from:

- Local groundwater basins
Underground reserves

WHERE DOES OUR WATER GO?

Sent to a water treatment plant to be cleaned, then:

- Some is dumped into the ocean
- Some is pumped into groundwater basins
- Some is cleaned even more and used as recycled water (future)

HOW DO I KNOW WHERE THE ISSUE IS?

- Have your water tested.
- If the test shows contamination, have your neighbors test theirs.
 - If it is just you, then it is likely home pipes.
 - If it is neighborhood-wide, then it is likely street pipes.
- If neighborhood-wide, report the issue to your water retailer and/or City Council or County Supervisor's office. Or, call the EPA's Safe Drinking Water Hotline at 800-426-4791.

GOOD TO KNOW

- Metropolitan Water District (MWD) is a water wholesaler in S. California.
 - Sells to midsize wholesalers who sell to water retailers across LA County.
- Some retailers have their own wells.
- Los Angeles Department of Water and Power (LADWP) is a water wholesaler and retailer.
- Water retailers are regulated and must meet water quality standards until it gets to home pipes.



TreePeople

IRWM - Training & Discussion

WATERTALKS LEADERSHIP GROUP

APRIL 27, 2022



Today's Discussion

- Acknowledgement: Water & Water Management
- Ideas to integrate for
 - more localized water supply
 - cleaner surface water
- Use of green infrastructure



Water Management Areas

- Water Supply Agencies: Wholesalers and Retailers
- Wastewater Management
- Stormwater Management
- Water Supply Sources

Example #1



DAMS:

- ▶ CA Dept of Water Resources
 - ▶ LA County Public Works
 - ▶ LA Dept of Water & Power
 - ▶ US Army Corps of Engineers
-
- ▶ How many?



Example #1



DAMS:

- ▶ CA Dept of Water Resources: 3
- ▶ LA County Public Works: 26
- ▶ LA Dept of Water & Power: 7
- ▶ US Army Corps of Engineers: 5

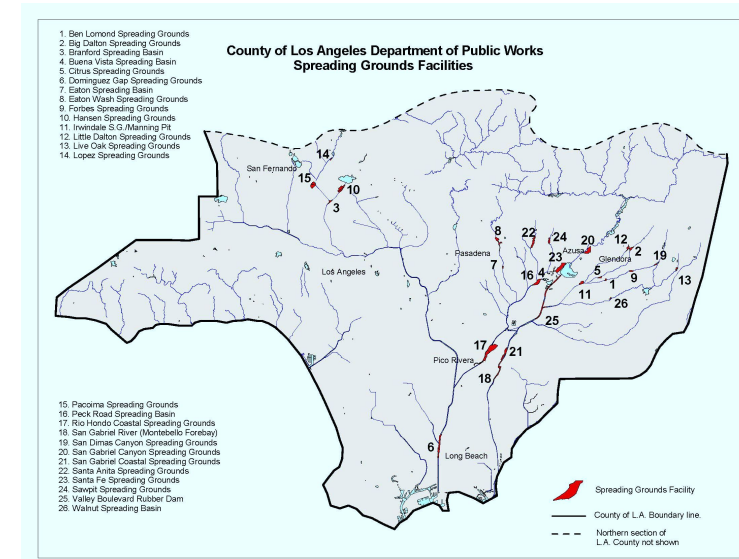
- ▶ How many?



Example #1

SPREADING GROUNDS:

- ▶ LA County Public Works: 26
- ▶ Other Sources: 4



Example #1



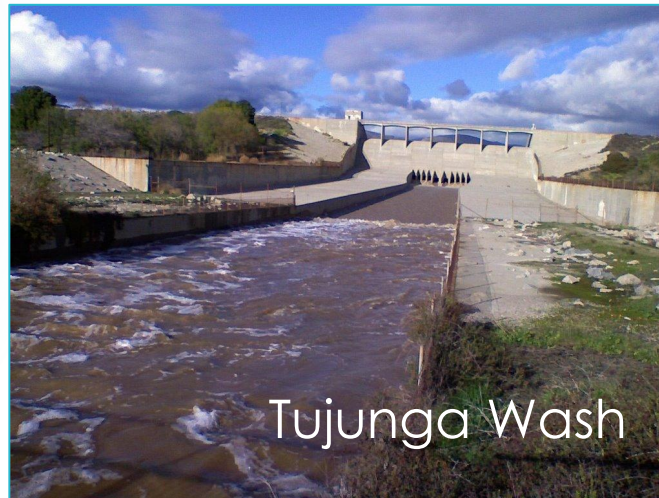
Tujunga Dam



Tujunga Canyon



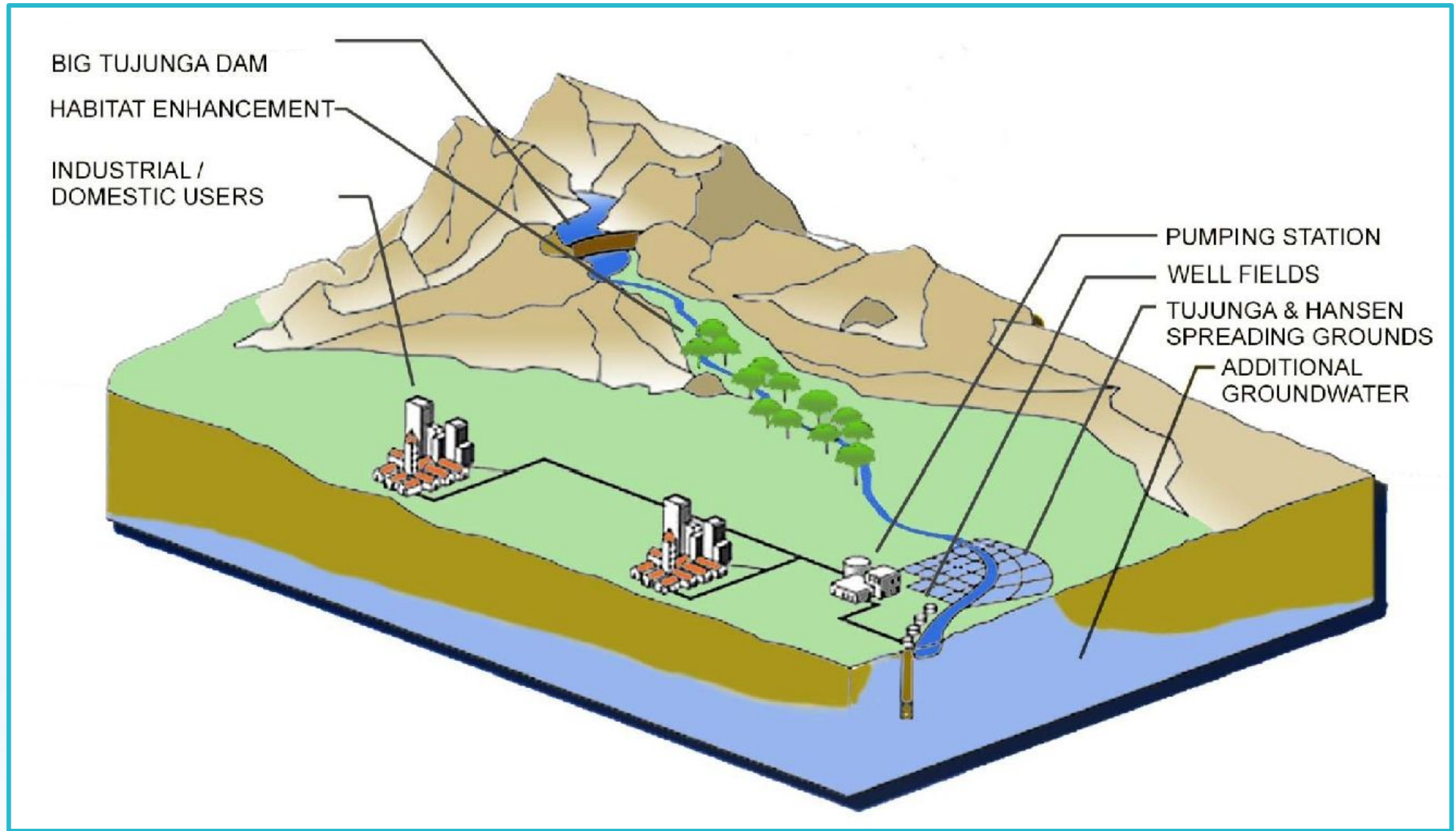
Hansen Dam



Tujunga Wash



Example #1





Example #1

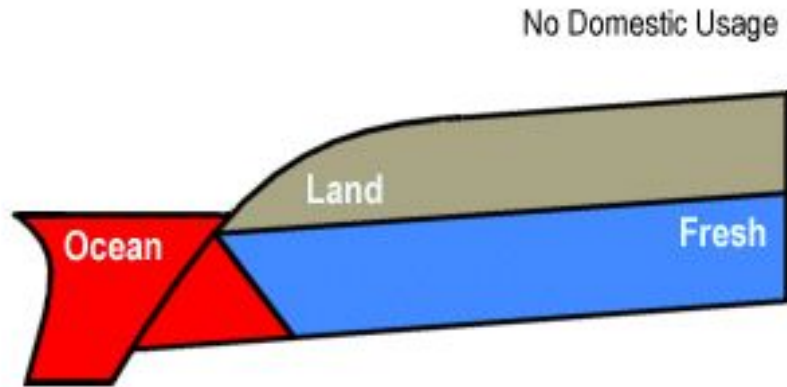
Which areas are working together?

- Water Supply Agencies: Wholesalers and Retailers
- Wastewater Management
- Stormwater Management
- Water Supply Sources

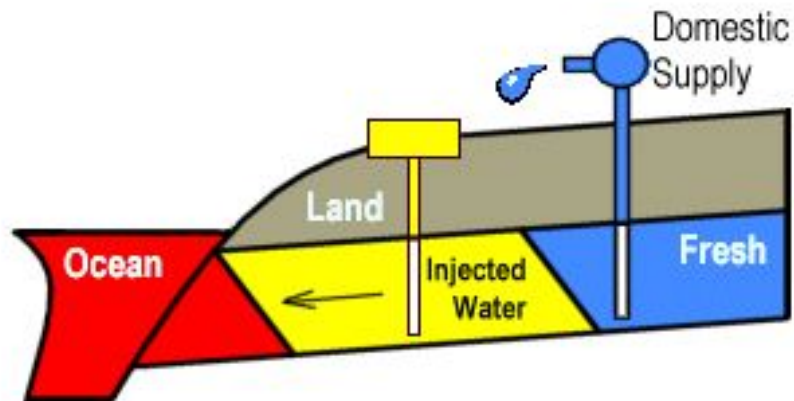


Example #1

- Stormwater Management
 - Big Tujunga Dam (LA County Public Works, 1931)
 - Hansen Dam (US Army Corps of Engineers, City of LA, 1940)
- Water Supply Sources
 - Tujunga Spreading Grounds (LADWP, updated 2016)



Confined Aquifer without Seawater Intrusion



Confined Aquifer with Freshwater Injection

Example #2

SALTWATER
BARRIERS



Example #2

SALTWATER
BARRIERS



Example #2

Which Water areas are working together?

- Water Supply Agencies: Wholesalers and Retailers
- Wastewater Management
- Stormwater Management
- Water Supply Sources



Example #2

Which areas are working together?

- Water Supply Agencies: Wholesalers and Retailers
 - Multiple agencies pulling from groundwater
- Wastewater Management
 - West Basin MWD (ex) sends recycled water + imported water for recharge (1990s)
- Water Supply Sources
 - LA County Public Works built and maintains the groundwater barriers (1960s)

Example #3



Diversion

- ▶ Wet weather: runoff travels to drains
- ▶ Conservation: reduced demands on sewers
- ▶ Dry weather: runoff diverted from drains to sewers
- ▶ Reduces pollution to LA River and Arroyo Seco
- ▶ What Water Areas?

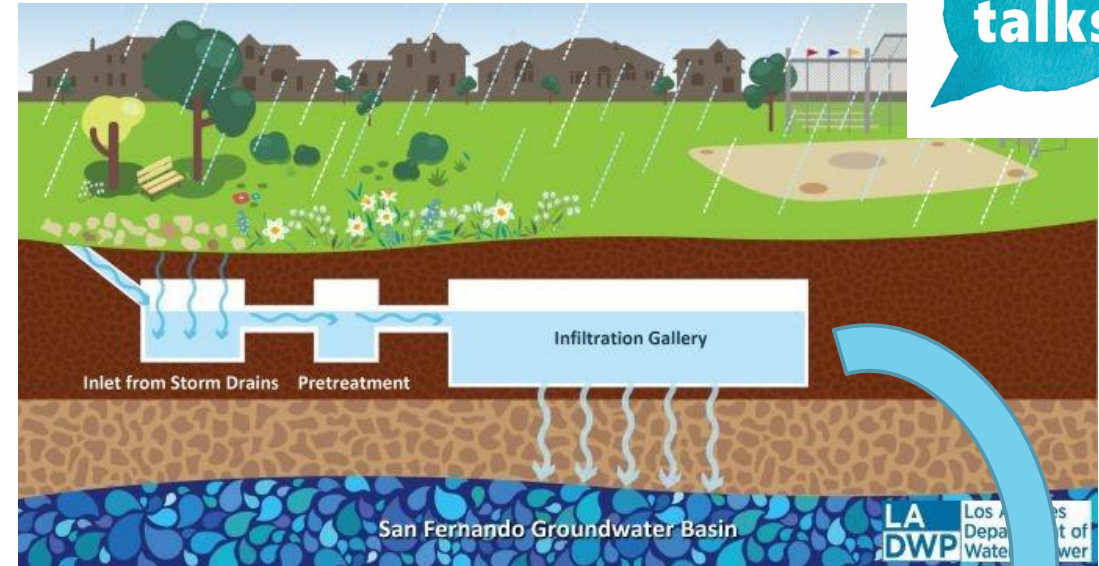


Example #4

Infiltration

- ▶ Stormwater directed to drains from multiple streets
- ▶ Pre-treated underground
- ▶ Sent to a gallery
- ▶ Water percolates into the ground water
- ▶ Open space / Nature-based
- ▶ What Water Areas?

WATER
talks





And the People....

Greater LA County IRWM Leadership Group

- Los Angeles County Flood Control District, Chair
- Gateway Water Management Authority / Chair, Lower SG/LLA River Sub-region
- Las Virgenes Municipal Water District / Chair, NSMB Sub-region
- West Basin Municipal Water District / Chair, South Bay Sub-region
- Los Angeles Department of Water and Power / Chair, Upper Los Angeles River Sub-region
- Main San Gabriel Basin Watermaster / Chair, Upper San Gabriel / Rio Hondo River Sub-region



And the People....

Other agencies / vice-chairs:

- Water Replenishment District
- City of Torrance
- City of Glendale
- San Gabriel Basin Water Quality Authority
- Raymond Basin Management Board
- Santa Monica Bay Restoration Commission
- County Sanitation Districts of Los Angeles County
- City of Los Angeles, Bureau of Sanitation
- Metropolitan Water District



Thank
You