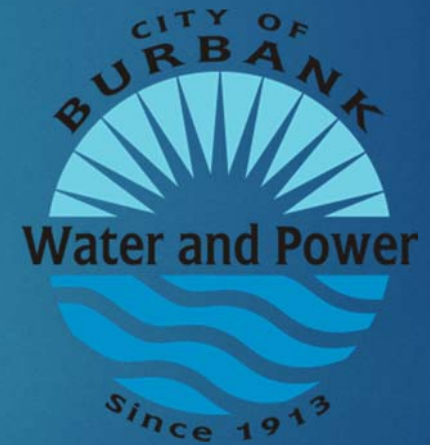
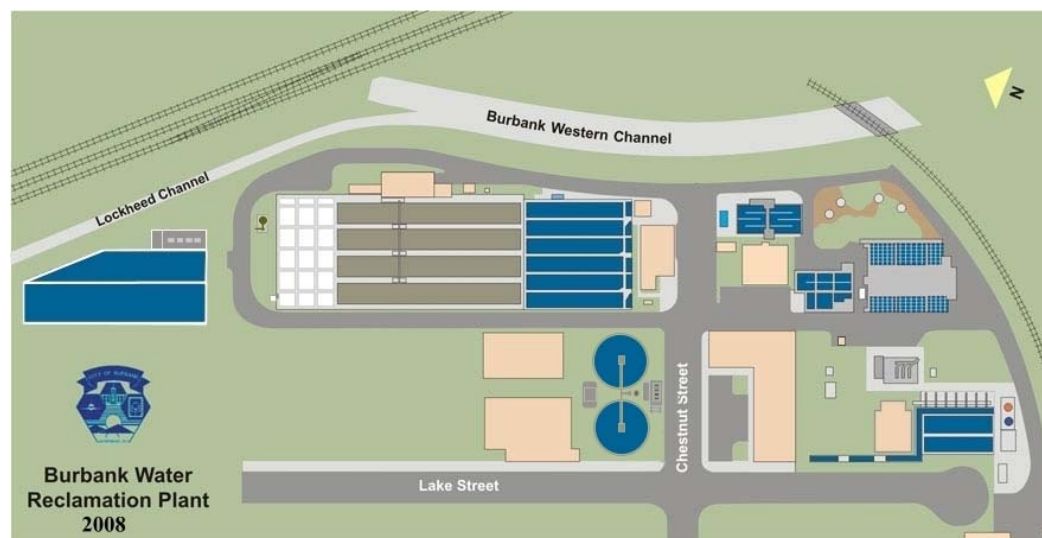


CITY OF BURBANK RECYCLED WATER

JUNE 12, 2018



Recycled Water in Burbank



- ▶ Produced at the Burbank Water Reclamation Plant (BWRP)
 - In use since 1967
 - Currently treats up to ~5-7 MGD of sewage
 - Produces Tertiary Treated Wastewater

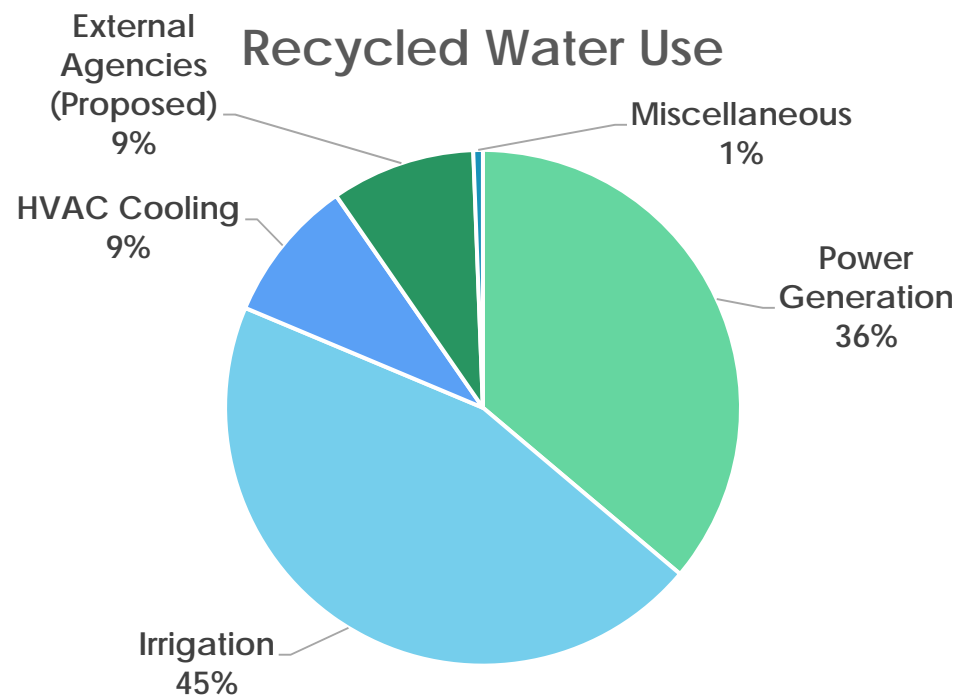


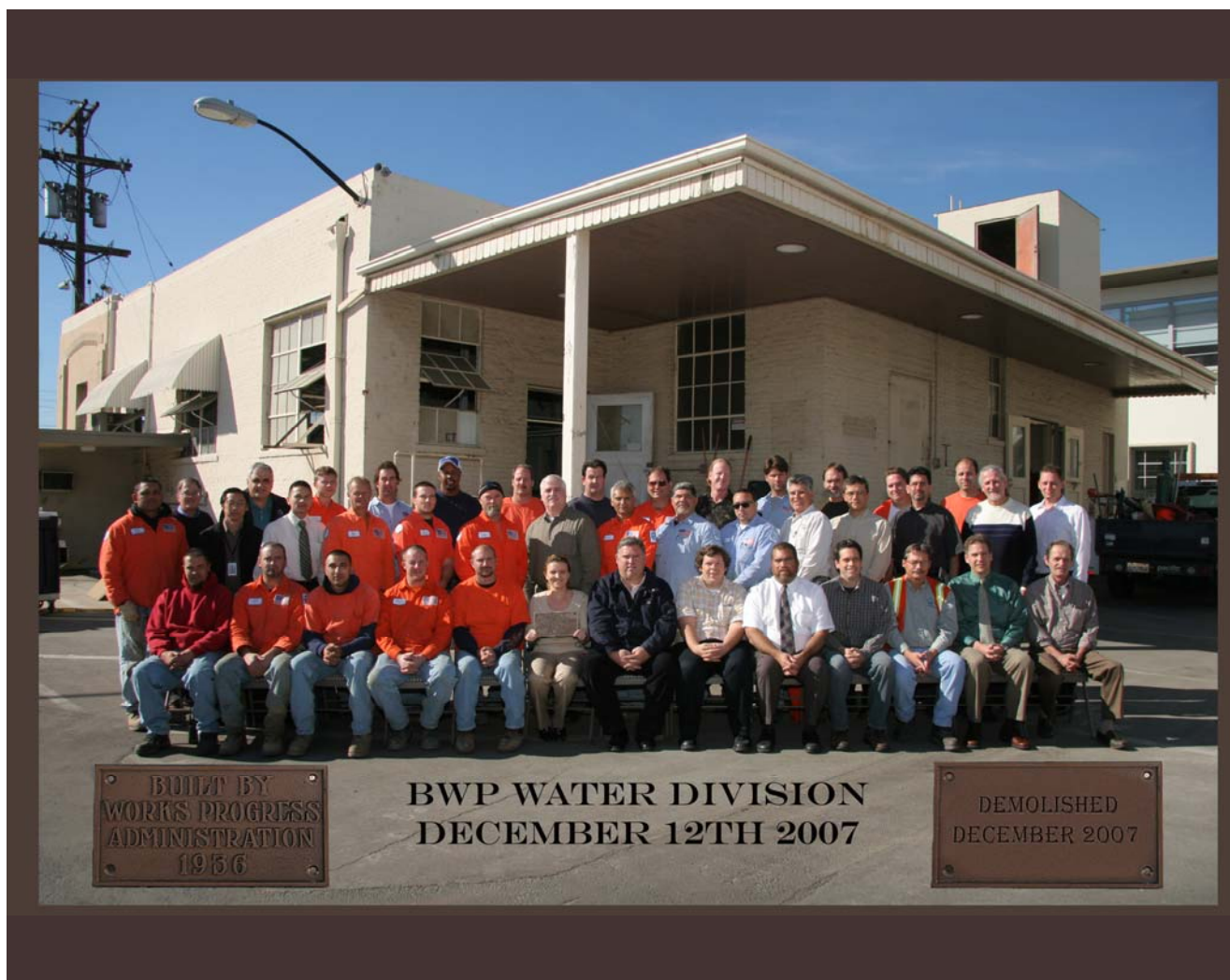
Types of Recycled Water Uses

- ▶ Currently used for:
 - ▶ Surface Irrigation
 - ▶ Cooling Tower Makeup
 - ▶ Industrial Processes
 - ▶ Structural/Wildfire Fire Fighting
 - ▶ Decorative Fountains
 - ▶ Dust Control
 - ▶ Sewer Flushing
 - ▶ Cleaning roads, sidewalks, and outdoor areas



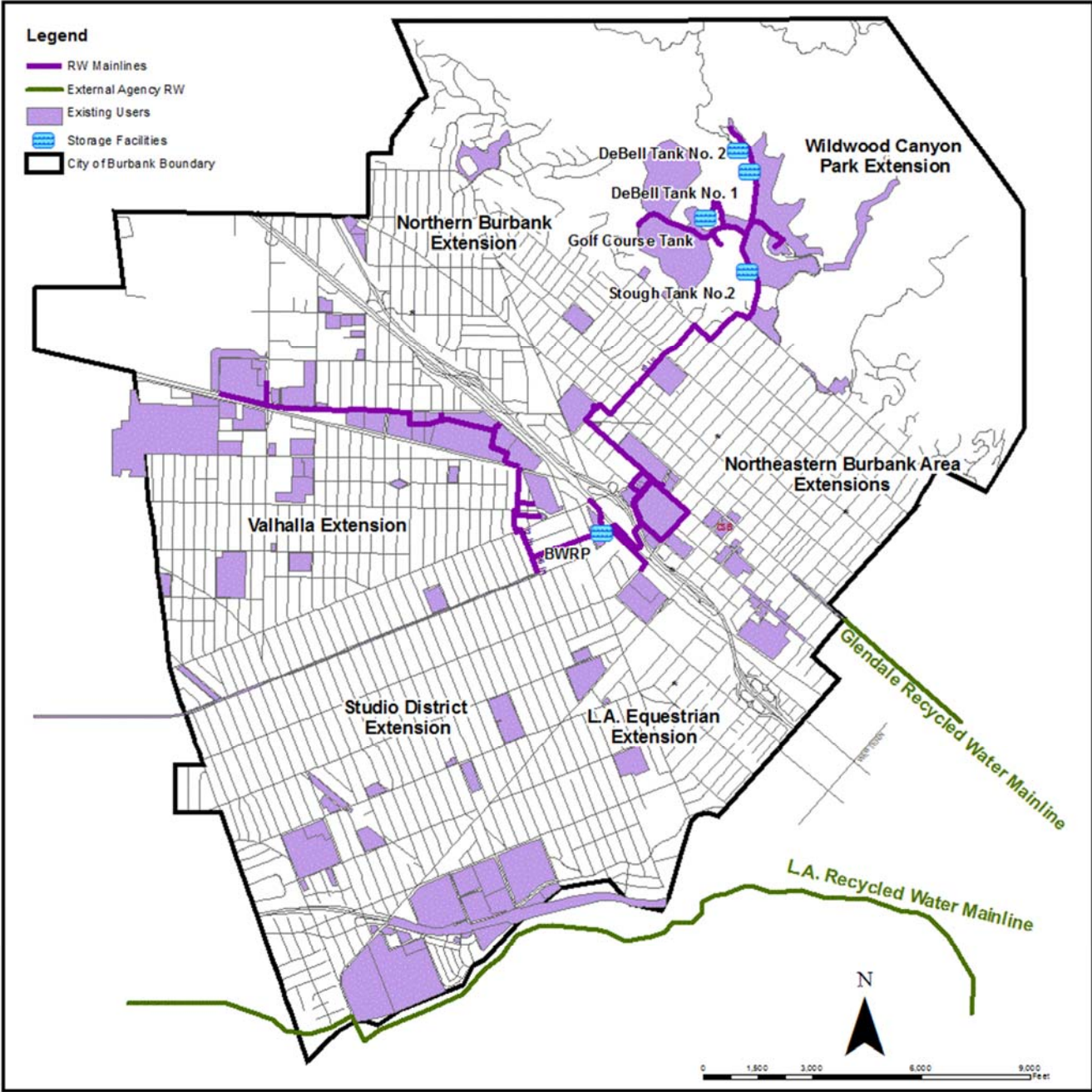
Type of Use Breakdown





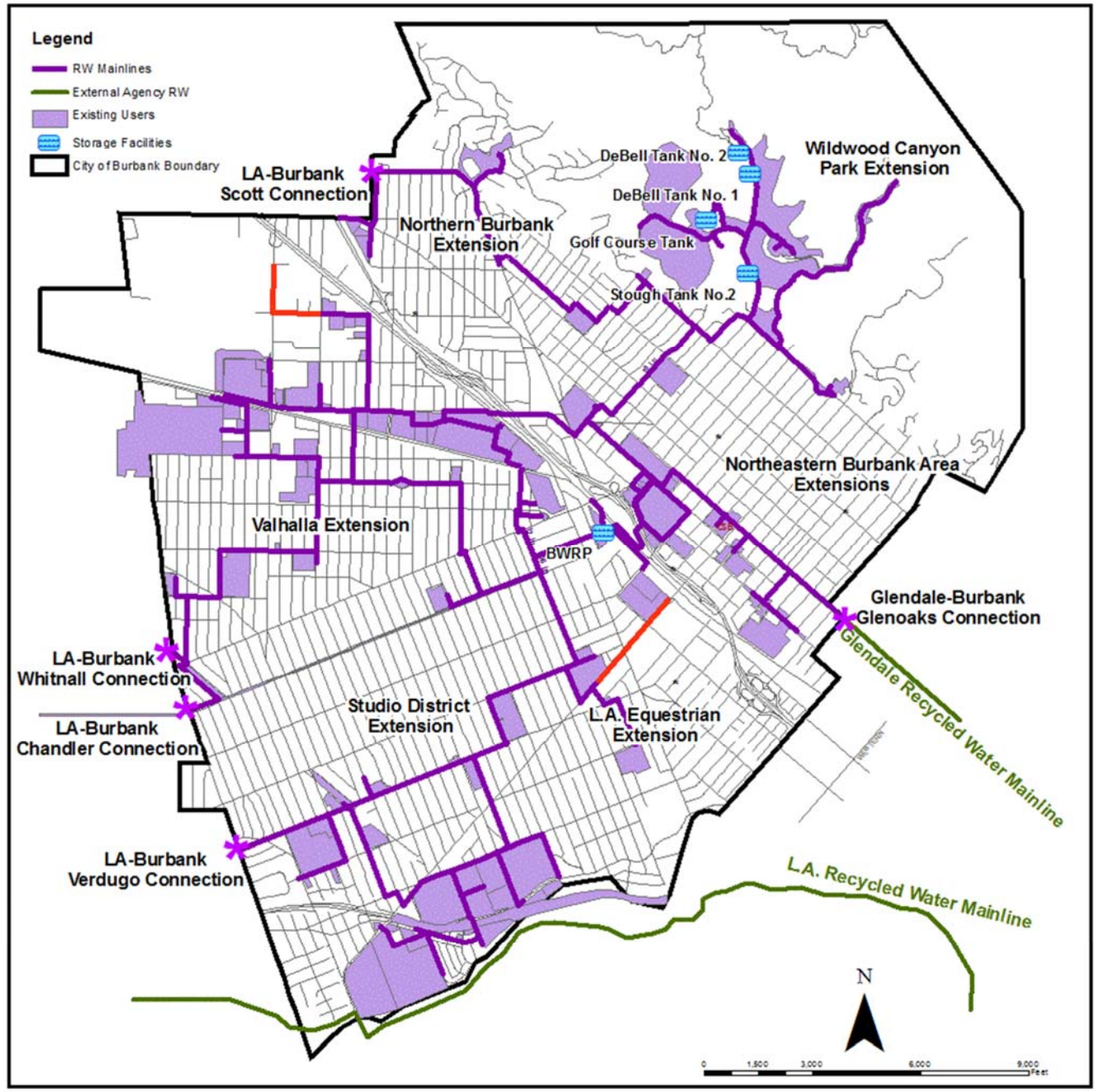
How much has changed since 2007?





2007





2018



Power Generation

- ▶ Magnolia Power Project
 - ▶ 310 MW natural gas-fired combined cycle generating plant
 - ▶ Uses our recycled water for:
 - ▶ Cooling Towers
 - ▶ Heat Recovery Steam Generator (demineralized)
- ▶ Lake One Power Plant
 - ▶ 45 MW natural gas-fired “peaker” plant
 - ▶ Uses our recycled water for:
 - ▶ Cooling Towers



Major Partners

- ▶ Burbank Town Center
- ▶ Burbank Unified School District
- ▶ Caltrans SR-134 and I-5
- ▶ City of Burbank Parks and Recreation
- ▶ Costco Wholesale
- ▶ Debell Golf Course
- ▶ Empire Center
- ▶ Fry's Electronics
- ▶ Hollywood Burbank Airport
- ▶ Ikea
- ▶ Los Angeles Department of Water and Power
- ▶ Providence Saint Joseph Medical Center
- ▶ Valhalla Cemetery
- ▶ Walt Disney Studios and ABC7
- ▶ Warner Brothers
- ▶ Worthe Real Estate Group



Future Partners

- ▶ Nickelodeon Animation
- ▶ Whole Foods Market
- ▶ Burbank Community Chevrolet
- ▶ Hollywood Burbank Airport Replacement Terminal
- ▶ Caltrans I-5 Realignment
- ▶ Burbank Channel Bikeway



What's next for Burbank?

- ▶ Olive Main Extension
 - ▶ Fully permitted. Construction to begin late June.
- ▶ Winona/Hollywood Way Main Extension
 - ▶ To be planned and designed by yours truly.
- ▶ Indirect/Direct Potable Reuse?
 - ▶ Feasibility Study Underway
- ▶ Optimize Operations
 - ▶ Continuously evaluate diurnal supply/demands to maximize system reliability and minimize expensive potable makeup



Wastewater Change Petition

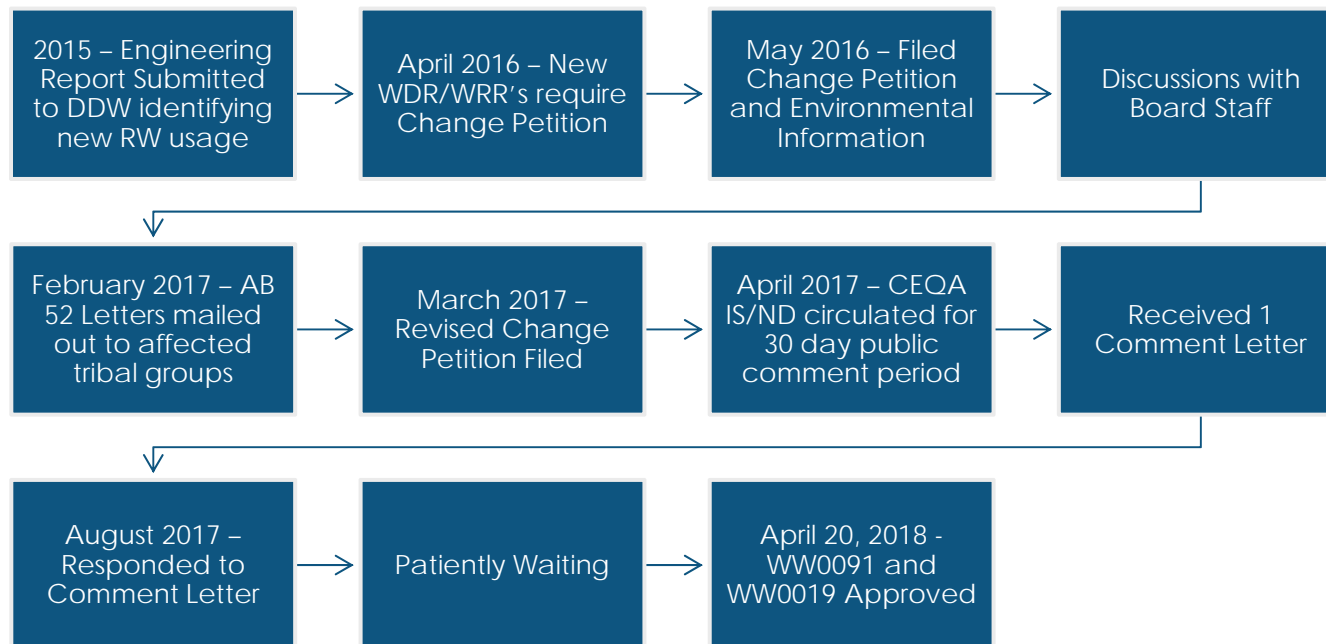


Wastewater Change Petition

- ▶ Changes in RW use since 1991 WDR/WRR adoption
 - ▶ HVAC Cooling Towers, car washing, street cleaning, etc
 - ▶ Expanded volume of recycled water used.
- ▶ 2016 WDR/WRR adoption required the City to file a change petition with the Water Rights Division
- ▶ Water Code §1211
 - ▶ (a) Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater, the owner of any wastewater treatment plant shall obtain approval of the board for that change.
 - ▶ (b) Subdivision (a) does not apply to changes in the discharge or use of treated wastewater that do not result in decreasing the flow in any portion of a watercourse.



Change Petition Timeline



Increased Water Recycling and the LA River

What are the potential impacts?



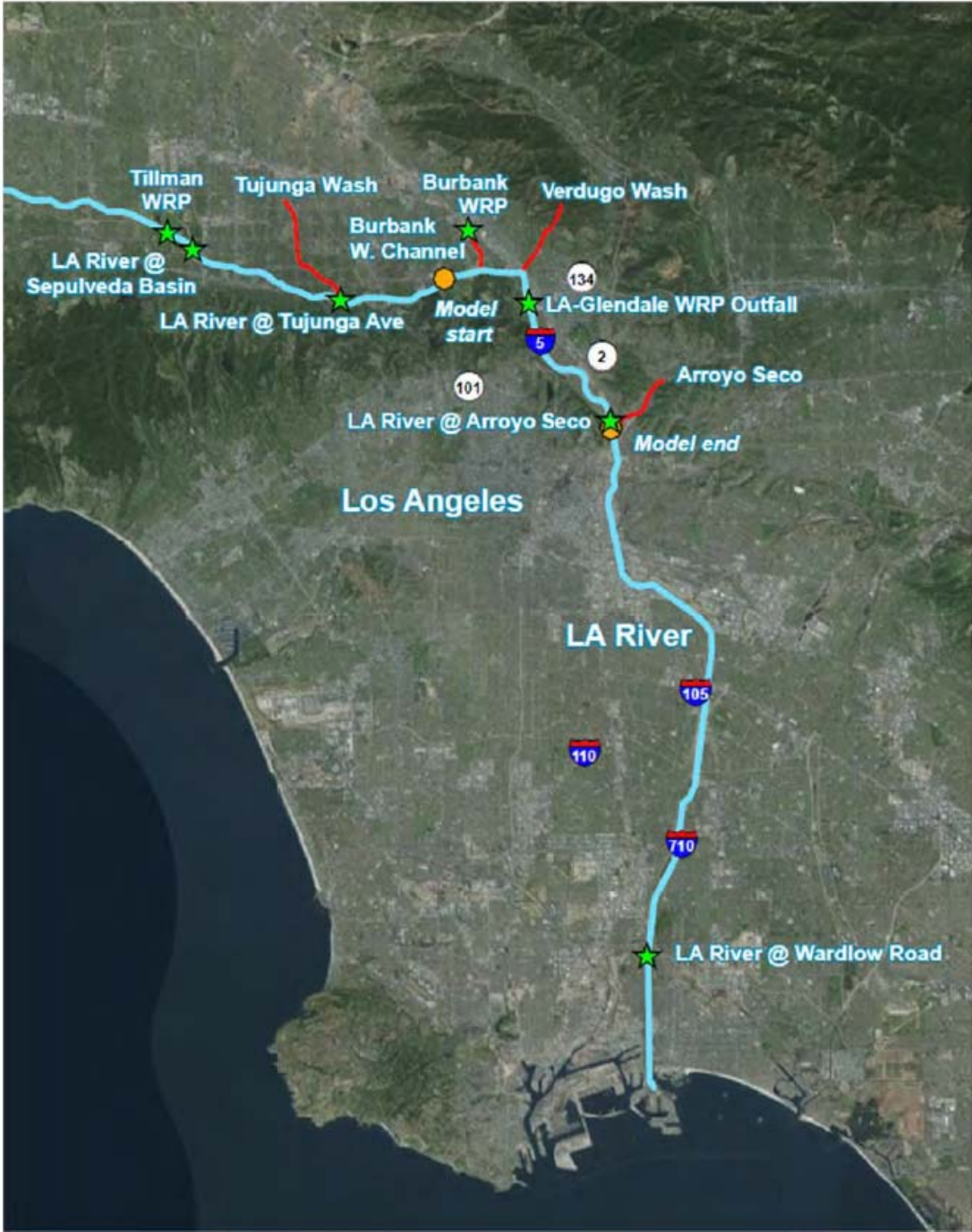


Figure 1. Study area. Study area is between the model start and model end points.



Increased use of Recycled Water and the LA River

- ▶ Project effects most noticeable in August (2005-2015)
- ▶ Winter/Spring Flows are 100 to 1,000 CFS
- ▶ Average August flows for LA River
 - ▶ 58.2 CFS at Tujunga Avenue
 - ▶ 92.9 CFS above confluence with Arroyo Seco
- ▶ Activities that have potential to impact LA River Flow
 - ▶ Flows from BWRP in August will be reduced from 6.9 to 2.8 CFS
 - ▶ LA-GWRP's petition proposes 12.5 to 4.4 CFS reduction in August
 - ▶ Comment letter listed several other activities
 - ▶ Not enough information to allow meaningful analysis for flow reduction



Potential Physical Impacts (August 2008 Conditions)

	Baseline	BWRP Only	BWRP+LA-GWRP
Average Velocity	1.45 ft/s	1.42 ft/s (-2%)	1.37 ft/s (-5.6%)
Average Depth	9"	8.88" (-2.2%)	8.52" (-5.3%)
Wetted Area	136.96 acres	135.82 (-0.83%)	134.19 (-2.02%)

"The modeled Project effects and cumulative project effects are very minor, and fall well within the range of data collection and hydraulic model uncertainty and error. The Project hydrologic effects would likely be almost undetectable in the field and the cumulative effects barely detectable."



Potential Biological Impacts



Photo 1: Depicts the outflow from the Burbank Western Channel into the Los Angeles River at the north western edge of the Study Area. Photo was taken from the bike path at the western end of Segment 1 facing northwest.

- ▶ Less than significant impacts to biological resources
 - ▶ 0.48" change in average flow depth not expected to drop water levels below aquatic plant root zones
 - ▶ Less than ½" reduction in water level will not impact fish migration or movement of native aquatic species
 - ▶ No measurable impacts in all other hydraulic conditions



Burbank does not have naturally occurring rights to groundwater. All water in the City is imported. And we intend to use all of it.



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