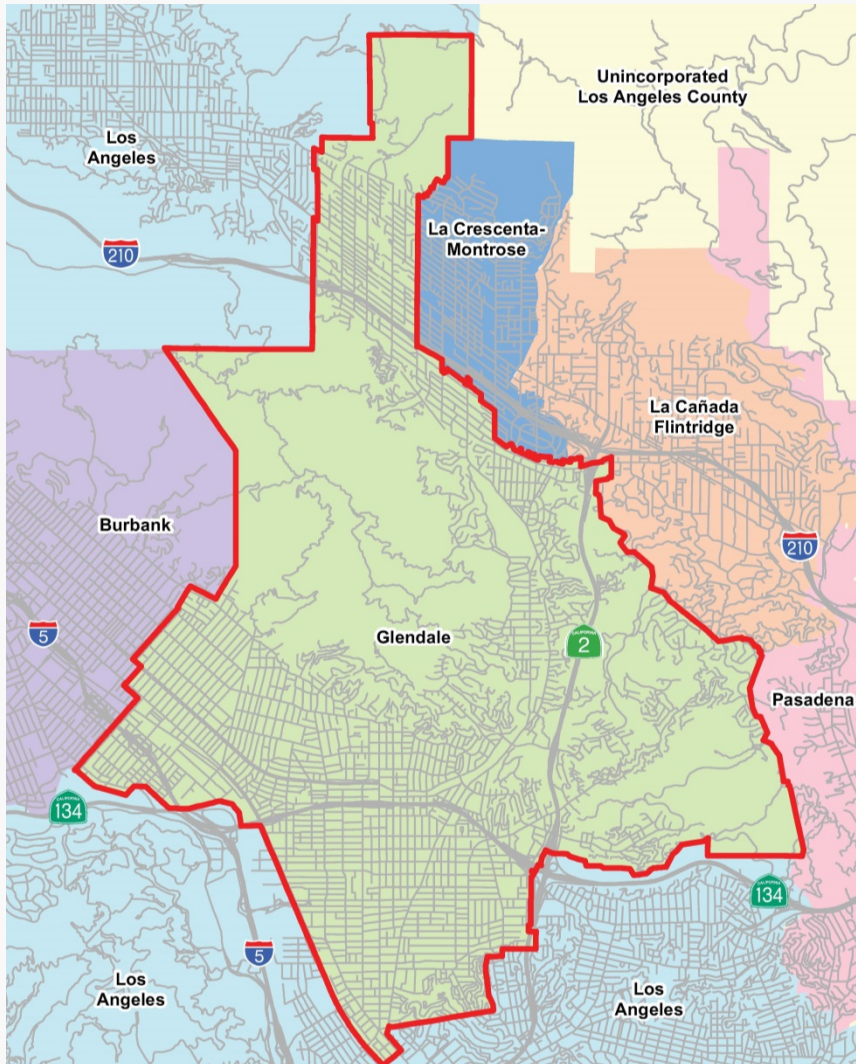


## Recycled Water Update

WaterReuse – Los Angeles  
August 8, 2017

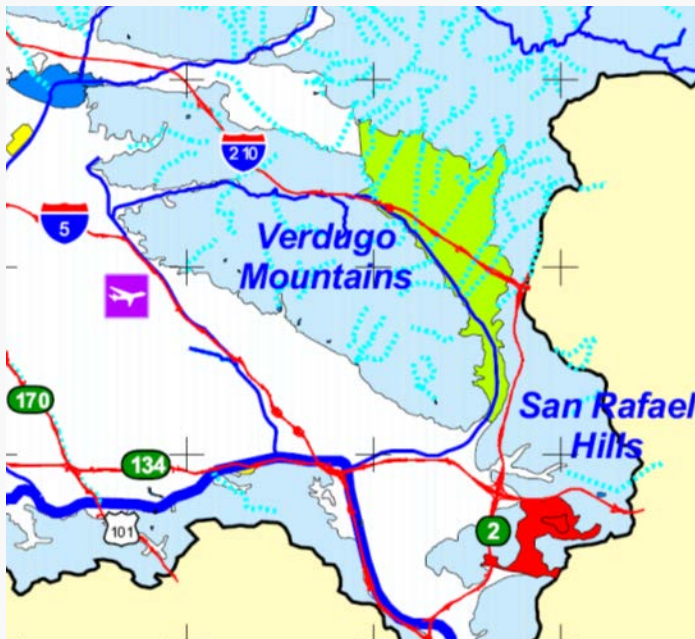


# City of Glendale & Water



- Incorporated 1906
- Third largest City in LA County
- Approx. 200,000 Residents
- Approx. 34,000 water services
- One of Founding MWD Member Agencies in 1928
- Pumper in San Fernando Basin and Verdugo Basin – 30% to 40% local supply
- Co-owner of LA – Glendale Water Reclamation Plant
- First recycled water use in 1978
- Currently over 7% of demand is local recycled water

# Sources of Supply



- MWD = 58 %
- San Fernando Basin = 29 %
  - GNOU, GSOU, GCOU – Glendale Water Treatment Plant
  - VOC's, Cr6
- Verdugo Basin = 6 %
  - Low groundwater levels
- Recycled Water = 7 %
  - San Fernando Basin return-flow-credit = recycled water is recycled more than once

# GWP – Pioneer in Recycling



- 1976: City of Glendale is a co-owner of the new LA – Glendale Water Reclamation Plant
- 1978: First recycled water use was for cooling towers at GWP's Grayson Power Plant
- 1992: The "Forest Lawn Project" was the first of several recycled system expansion projects
- 1992-2014: Glendale invested over \$20.3 million in expansions
- 2016: Over 7% of Glendale's water demand is supplied by local recycled water



# GWP – Regional Cooperation

ENGINEERING-SCIENCE, INC. ■ KOEBIG & KOEBIG, INC.

A Joint Venture

1053 Sunset Boulevard, Los Angeles, California 90012 • Telephone 213/629-3182

March 13, 1969

Department of Public Works  
City of Los Angeles  
City Hall - Room 800  
Los Angeles, California 90012

City Council  
City of Glendale  
City Hall  
Glendale, California 91205

Attention: Mr. Lyall A. Pardee  
City Engineer

Attention: Mr. C. E. Perkins  
City Manager

Gentlemen:

FEASIBILITY STUDY FOR GLENDALE-LOS ANGELES WATER RECLAMATION PLANT  
TRANSMITTAL OF FINAL REPORT

The Cities of Glendale and Los Angeles on March 6, 1968, entered into a joint powers agreement to conduct a study to determine the feasibility and economy of the City of Glendale's proposal to construct a joint water reclamation plant in the Glendale area. Acting in behalf of the joint-powers, the City of Los Angeles on July 22, 1968, contracted with the Joint Venture of Engineering-Science, Inc., and Koebig & Koebig, Inc. to perform engineering services for this work. Transmitted herewith in fulfillment of our contract is the final report entitled FEASIBILITY STUDY FOR GLENDALE-LOS ANGELES WATER RECLAMATION PLANT. This report represents the culmination of a comprehensive program of engineering study and scientific investigation of the many facets of the feasibility of the proposed Glendale-Los Angeles Water Reclamation Plant.

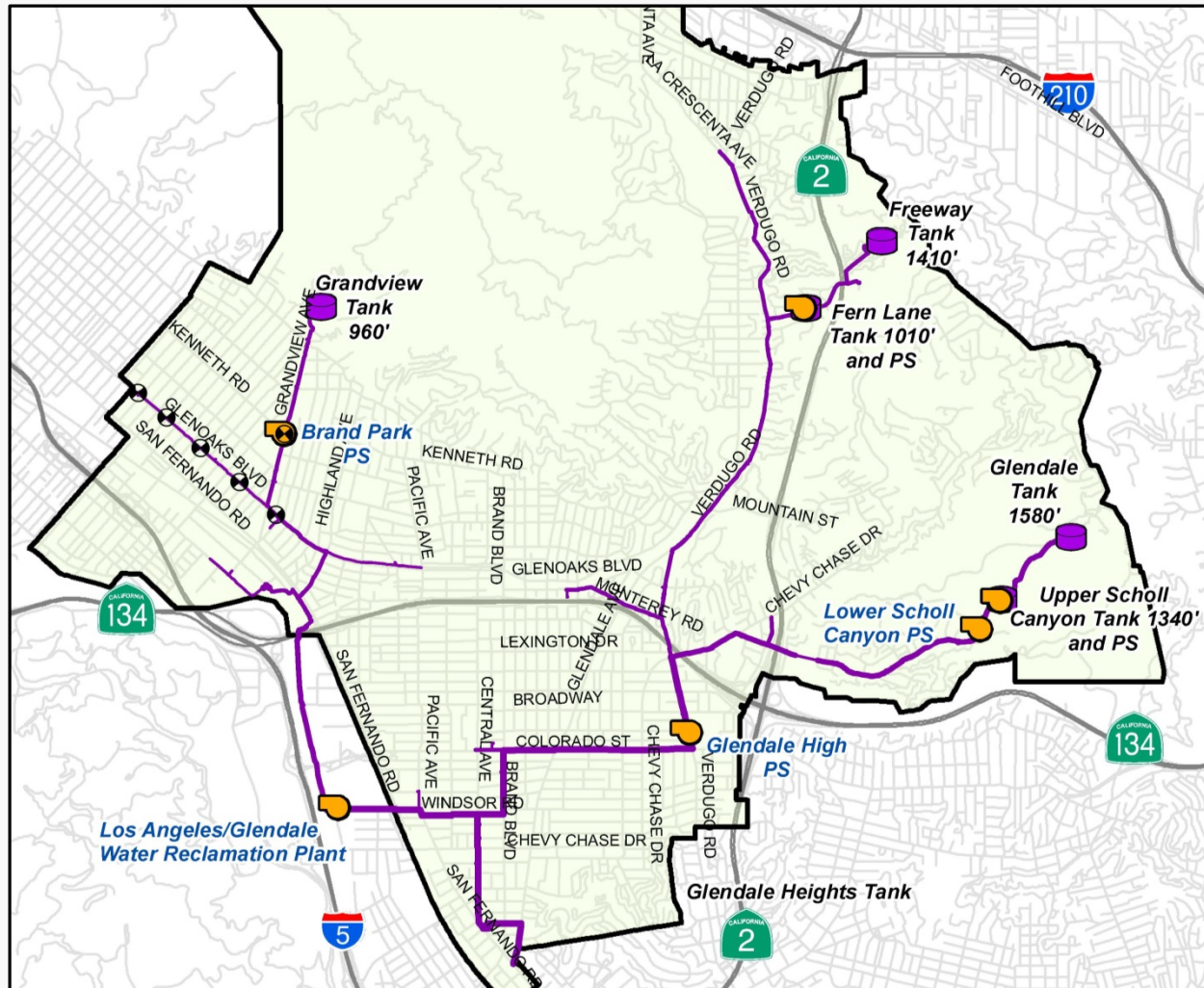
- Cooperation between the Cities of Glendale and Los Angeles began in 1968 for regional reclamation facilities.
- Cooperation continued with completion of the Glendale-LADWP Bette Davis Project to extend Glendale's recycled water system to serve portions of Griffith Park in 2015.
- Regional cooperation continues in 2017 on completion of the ULARA Salt and Nutrient Management Plan by all of the ULARA agencies.

# Recycled System



- Approximately 21 miles of recycled water mains
- 6 RW pump stations
- 5 RW storage tanks
- 78 recycled water meters
- Uses include irrigation, cooling, dual-plumbing, dust control

# Current System Map





# Cross-Connection Program



- A major concern for when recycled water is used on sites served with potable water is cross connection.
- Users are required to submit application for RW use.
- Initial & routine site inspections are required to ensure no cross connections occur.



# Current Projects

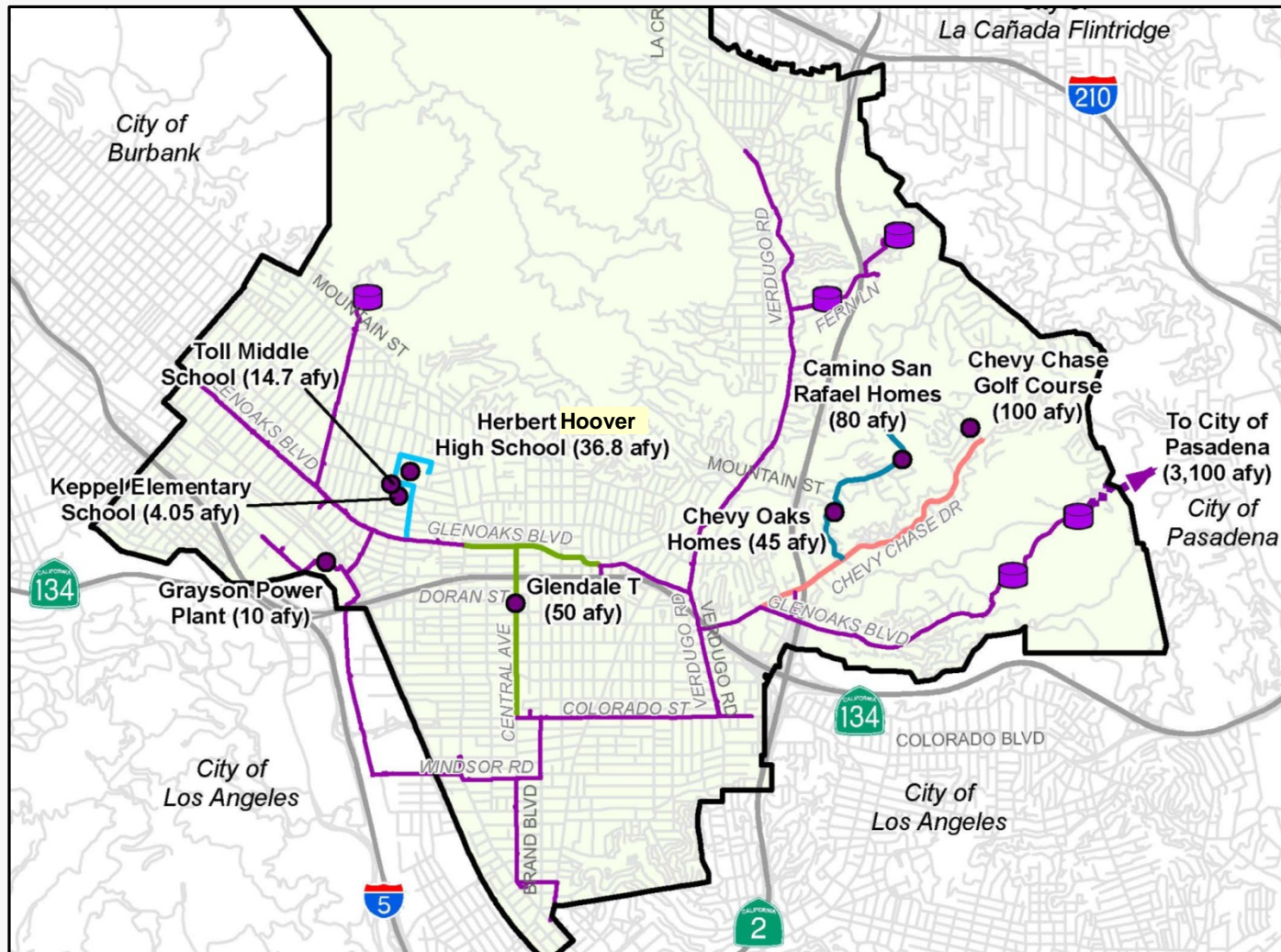


- Hoover, Keppel, Toll
  - \$2.9 million project, with \$1.6 million Prop. 84 grant
  - 5,890 lf of 8" pipe
  - Seven Service Connections for three Glendale Public Schools
  - Construction to be completed by October 2017
  - Close communication and coordination with school officials
  - 55 ACFT/year

# GREATER LOS ANGELES COUNTY REGION PROPOSITION 84 IMPLEMENTATION 2015 IRWM GRANT SOLICITATIONS AND APPLICATION

Activities	Schedule
DWR Release Draft Program Guidelines & PSP.	Mid-March 2015
IRWM 5 Steering Committees call for projects.	March 2015
LA County FCD prepares and submits request to use as needed consultant to prepare application packet. FCD prepares Board Letter requesting approval to apply for grant funds.	March 2015
IRWM 5 Steering Committees call for projects and Final list of Projects for Leadership Committee to consider for the Application.	April 2015
DWR Public Meetings	Mid-April
Projects Presentations to Leadership Committee for approval. Consultant begins preparing application with project proponents.	May 2015
DWR Release Final Program Guidelines & PSP.	Late-May 2015
Consultant continues preparing application with project proponents.	June 2015
DWR Applicant Workshops.	Early-July 2015
FCD & Grants staff reviews and approves application packet.	July 2015
Application Due to DWR.	Early-August 2015
DWR Announce Draft Recommendations for Public Review & Comment.	Early-November 2015
DWR Announce Final Awards.	Mid-December 2015

# Future System Map





# Pasadena/Glendale



- 1993 Agreement between Pasadena and Glendale for Recycled Water
- Glendale's system built to accommodate Pasadena's demands – including LADWP's pumping facility at LAGWRP
- Glendale's 50% share of LAGWRP tertiary treated water allocated for Glendale's and Pasadena's RW systems
- Regional benefit of reducing imported water from MWD

# Lessons Learned



- Mandatory watering restrictions can inadvertently affect recycled use.
- The recycled system percent availability becomes more critical with dual-plumbed buildings vs. irrigation.
- Regional cooperation for interconnections help with reliability – Glendale – Burbank interconnection completed in 2016.

# Conceptual Projects



- Distillation?
  - Potential for DPR using the power plants distillation facilities once DPR regulations are adopted?
- Verdugo Park WTP
  - Surface Water Augmentation for groundwater under the direct influence?



# Q & A



**TO SUPPORT  
CONSERVATION  
WE USE RECYCLED  
WATER FOR  
IRRIGATION**



**DO NOT DRINK**

