

Maricopa Association of Governments

Public Hearing

August 21, 2014

# West Valley Regional Water Reclamation Facility

Sponsors:

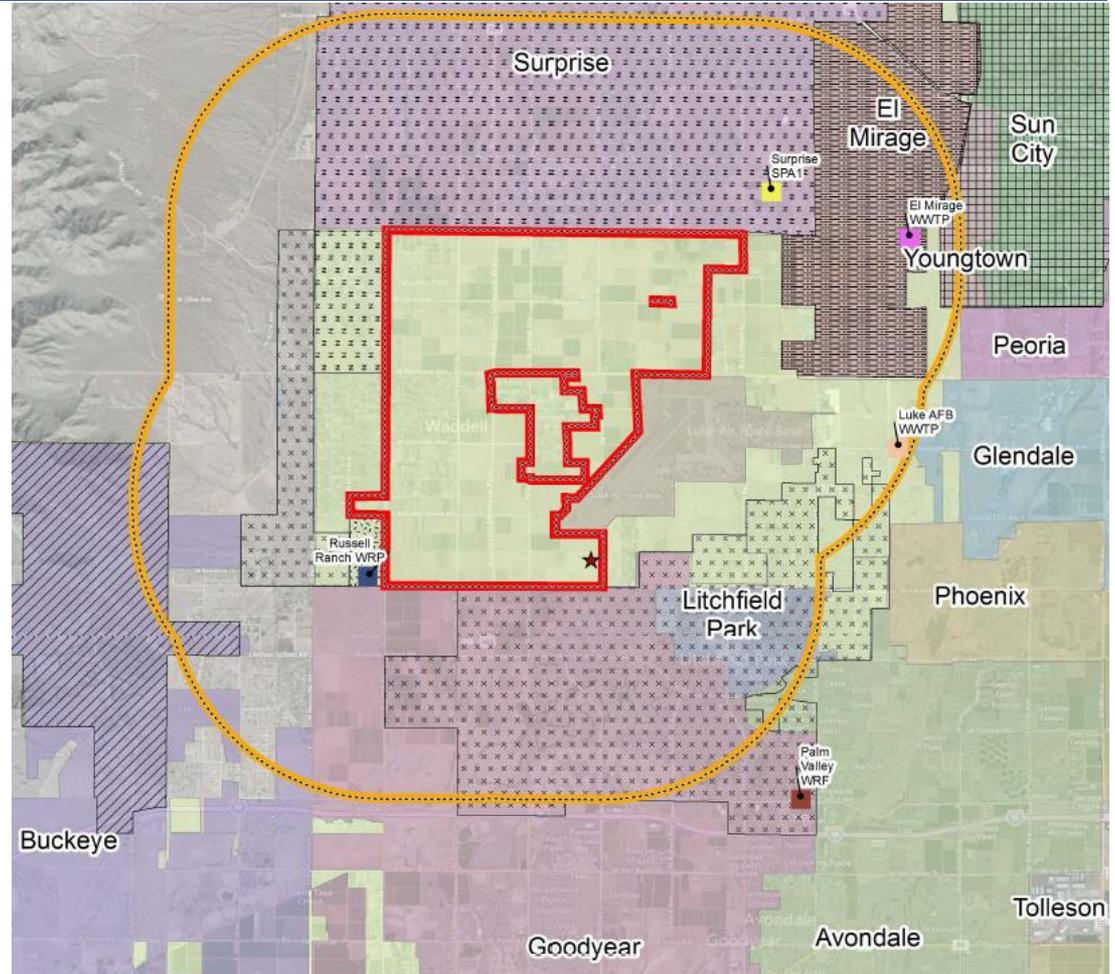
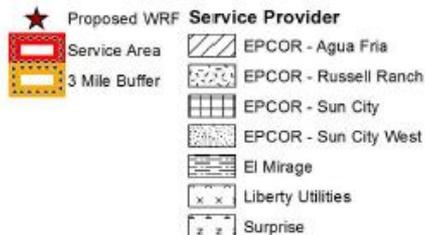
City of Glendale

Maricopa County

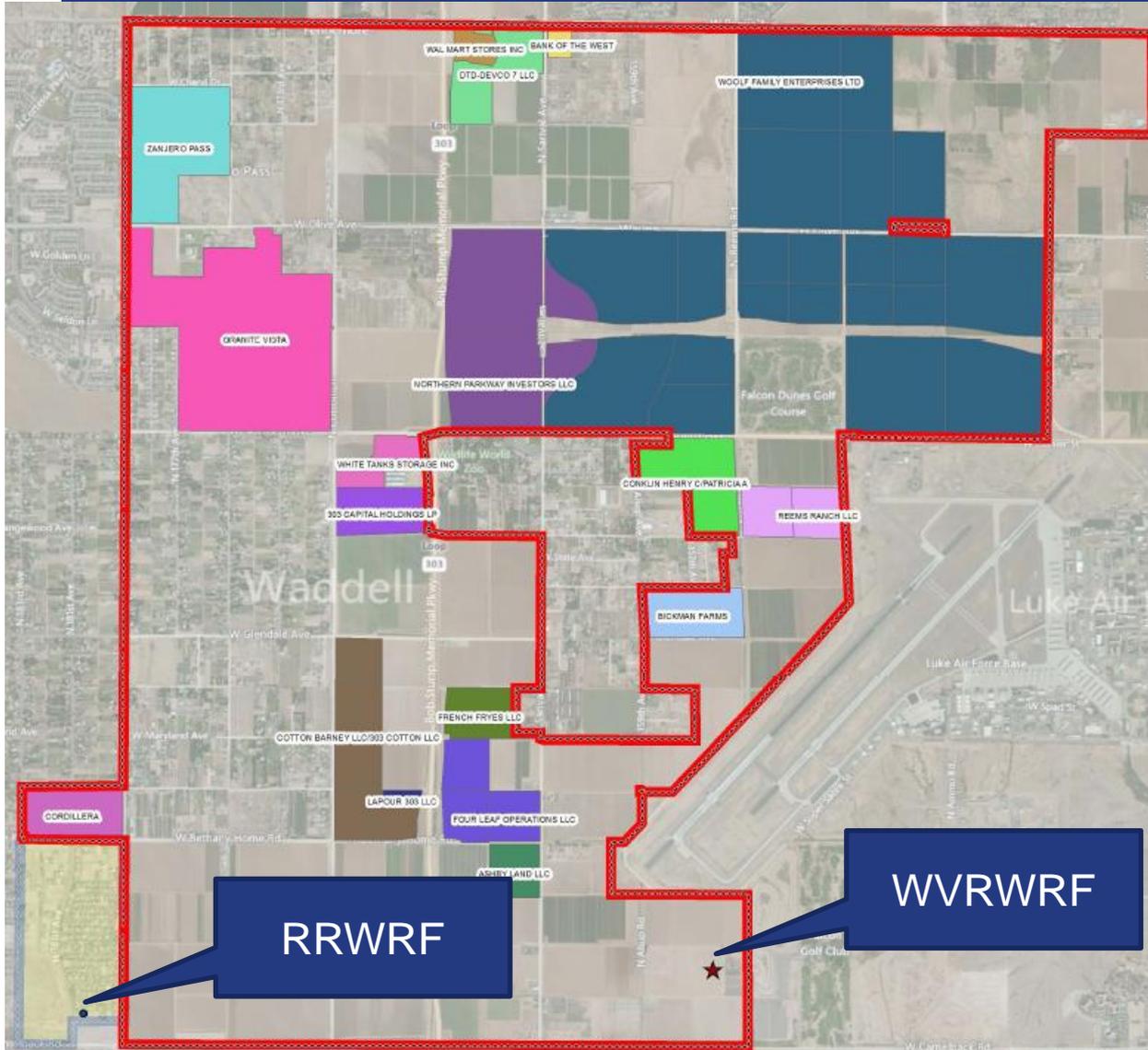


# West Valley Regional WRF

- 17 mi<sup>2</sup> area
- Agriculture and low density residential lands
- Glendale MPA and County land
- EPCOR White Tanks Water Treatment Plant provides potable water



# WVRWRF Service Area



- Entirely gravity fed system
- 20 miles of sewer mains at buildout
- Bisected by Loop 303 and Northern Parkway

# West Valley Regional WRF

- EPCOR Water Arizona Inc (EPCOR) will provide regulated water, wastewater and recycled water service within the proposed service area
- Concurrent application to expand EPCOR's Agua Fria Wastewater CC&N or create a new service area
- Signed agreements with 19 landowners for approximately 3,600 acres
- Existing Russell Ranch WRF will be retired after connection to WVRWRF is established

# Projected Population and Flow

Year	Population	Dwelling Units	Wastewater Flow (gpd)
2016	559	175	44,000
2026	6,883	2,151	1,760,000
2036	15,826	4,946	4,600,000
2045	22,565	7,052	7,040,000

- Projections are based on a Conceptual Land Use Plan prepared by the Loop 303 Landowner Group
- City of Glendale General Plan supersedes

# 2045 Projected Flow by Land Use

Land Use	Total Area (acres)	% Area	Total Flow (avg mgd)	% of Flow
Residential	4,600	42%	1.8	25%
Industrial	3,300	30%	2.5	36%
Commercial	1,500	13%	1.6	24%
Mixed	475	5%	.7	10%
Other	1,000	10%	.4	5%

- Projections based on a Conceptual Land Use Plan prepared by the Loop 303 Landowner Group
- City of Glendale General Plan supersedes Conceptual Plan

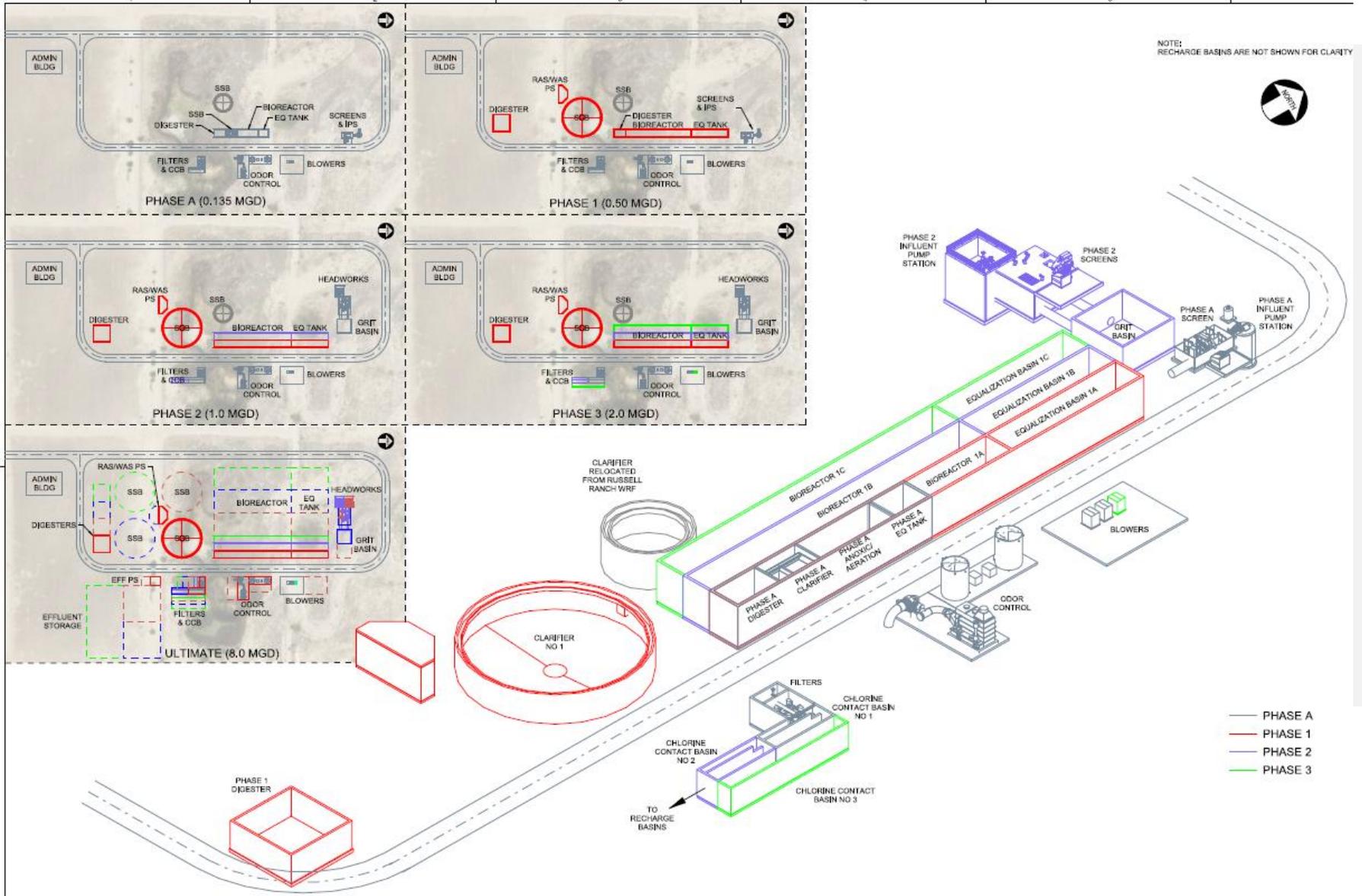
# West Valley RWRf - Details

- Initial Capacity = 150,000 gpd
- Ultimate Capacity = 8 mgd
- 40 acre site
- Class A+ Effluent
- On-site recharge to Luke Cone of Depression
- Source of reclaimed water for non-potable uses
- Potential Groundwater Savings Facility
- Potential AZPDES discharge subject to coordination with neighboring communities
- Dewatered biosolids to landfill

# West Valley RWRf - Details

- Influent Pump Station
- Screen & Grit Removal
- Bioreactor with Nitrogen Removal
- Clarification
- Tertiary filtration
- Chlorination / de-chlorination
- Sludge holding and dewatering
- On-site recharge basins with avian controls
- Enclosure of nuisance causing components

# Conceptual Layout



# Site Layout



# WVRWRF – Construction Phasing

Phase	Description	Yr (Completion)	Capacity (MGD)	WVWRF (Costs)	Collection System (Costs)
Phase A	Concrete Below Grade Plant	2015	0.15	\$2,430,000	\$4,213,440
Phase 1	Concrete Below Grade Plant	2016	0.5	\$7,500,000	\$8,001,930
Phase 2		2019	0.5	\$7,000,000	\$10,080,000
Phase 3	Concrete Below-Grade Plant	2022	1	\$12,000,000	\$2,185,920
Phase 4		2026	2	\$22,000,000	-
Phase 5		2032	2	\$22,000,000	-
Phase 6		2038	2	\$22,000,000	-

# WVRWRF – Status

- Use Compatibility and Consistency Determination – July 2014
- 60% design for WRF – end of August 2014
- 30% design for sewer line – end of August 2014
- Design Complete – December 2014
- Military Compatibility Permit – January 2015
- CC&N from Corporation Commission – early 2015
- Approval to Construct - early 2015
- Construction Start – April 2015

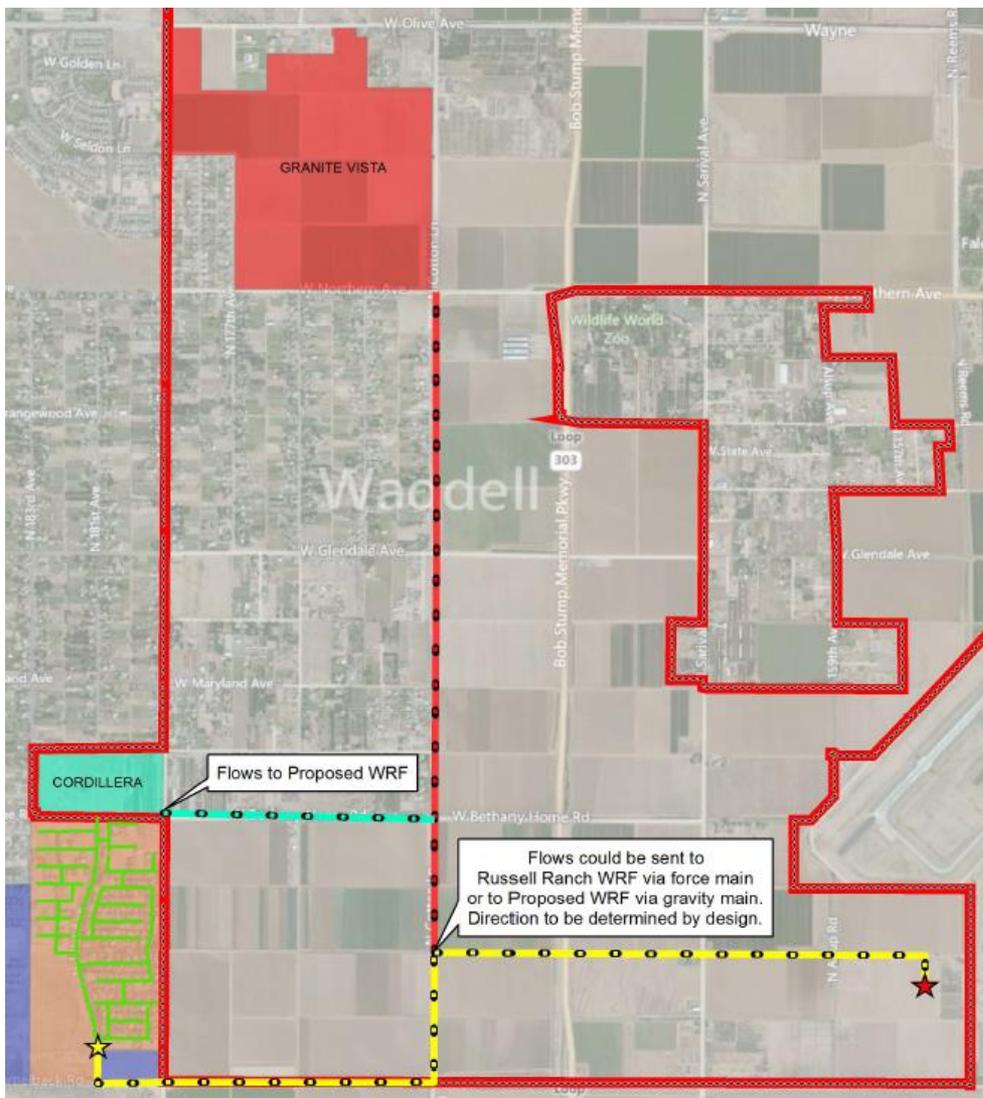
# WVWRF – Permitting

Requirement	Regulatory Entity
208 Plan Amendment	MAG, City of Glendale, Maricopa County Environmental Services Department, State WQMWG, ADEQ, USEPA
Certificate of Convenience and Necessity	Arizona Corporation Commission
Approval To Construct	Maricopa County Environmental Services Department
Approval of Construction	Maricopa County Environmental Services Department
Air Quality Permit	Maricopa County Environmental Services Department
Underground Storage Facility	Arizona Department of Water Resources
Annual Operating Permit	Maricopa County Environmental Services Department
Aquifer Protection Permit	Arizona Department of Environmental Quality
AZPDES Permit	Arizona Department of Environmental Quality
Special Use Permit – Military Overlay Zone	Maricopa County Planning and Development Department

# WVRWRF – Financing

- Contributions in Aid of Construction
- Advances in Aid of Construction with repayment windows
- Funding tied to the development process
- 40 acre site for WRF will be conveyed to EPCOR from the Loop 303 Landowner group in one or two parts
- EPCOR equity if necessary

# Russell Ranch WRF – Interim Service



- 198,000 gpd APP
- 60,000 gpd permitted inflow
- 35,000 gpd current inflow
- Evaluating options to add 138,000 gpd of additional treatment on the site
- Upgraded facility could serve Russell Ranch and Granite Vista Phase 1 (380 homes)
- Retire facility after connection to WVRWRF

**Thank you!**

**Questions?**

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