

Maricopa Association of Governments
Water Quality Advisory Committee
May 21, 2014

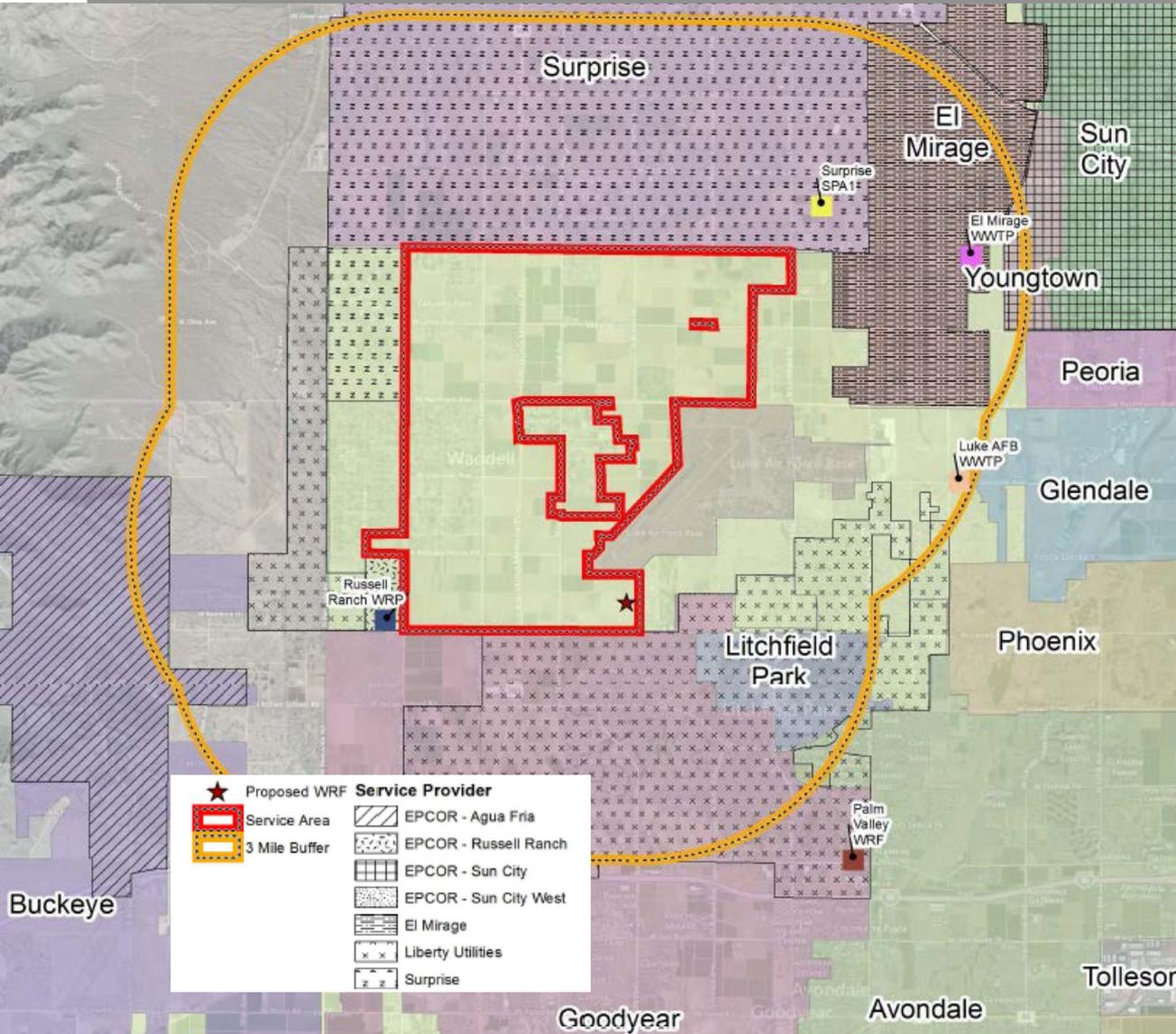
West Valley Regional Water Reclamation Facility

Sponsors:

City of Glendale
Maricopa County

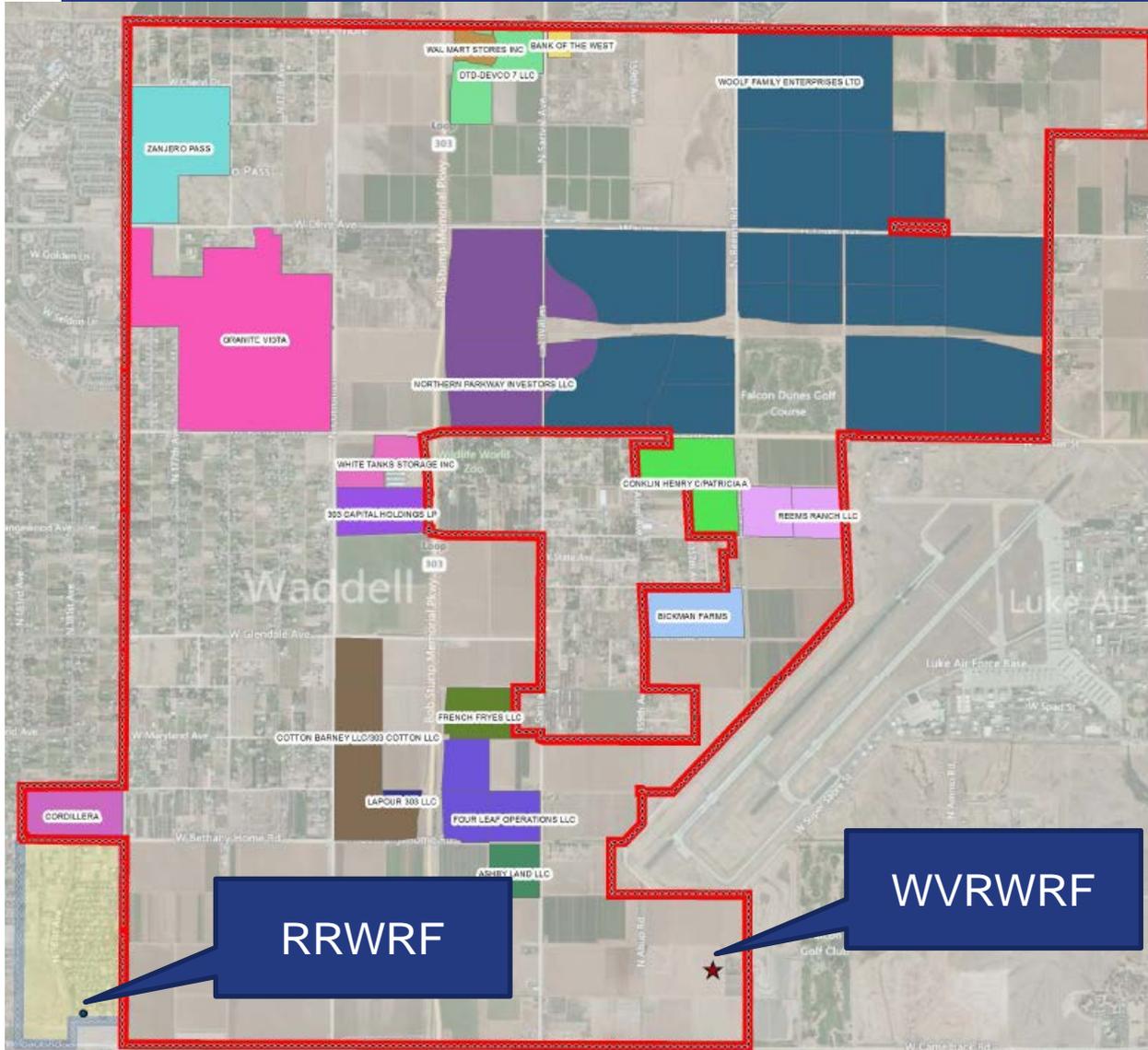


West Valley Regional WRF



- 17 square miles
- Ag and LDR existing land uses
- Glendale MPA and County land
- EPCOR White Tanks WTP water service area overlaps

WVRWRF Service Area



- Gravity fed system
- 20 miles of sewer main at buildout
- Bisected by Loop 303 and Northern Parkway

WVRWRF

RRWRF

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
- 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 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 daily, mgd)	% of Average Daily 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

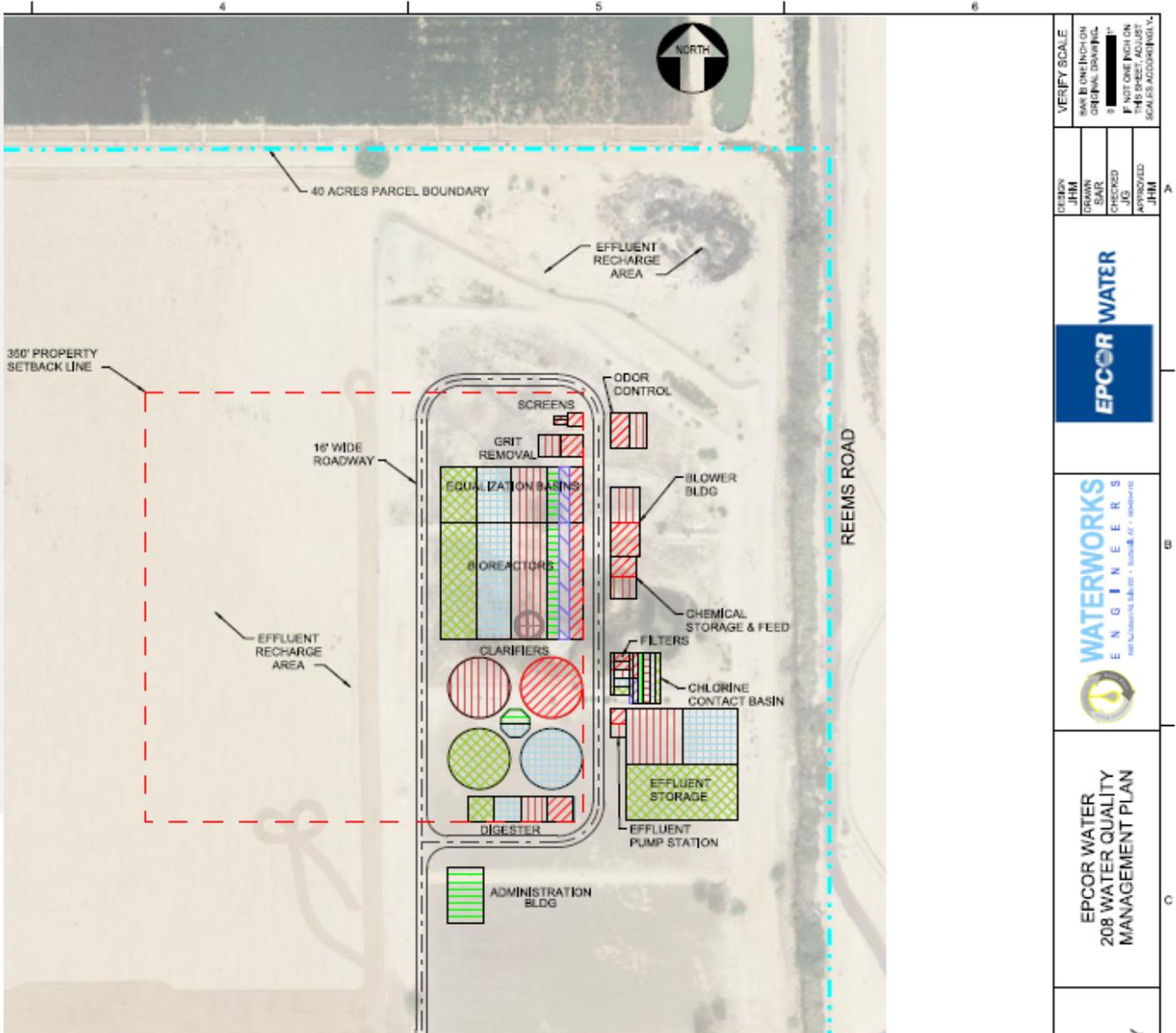
West Valley RWRf - Details

- Initial Capacity = .5 mgd
- Build-out Capacity = 8 mgd
- 40 acre site
- Class A+ Effluent
- On-site recharge - primary disposal method
- Reuse for existing and future customers
- Potential Groundwater Savings Facility
- Potential AZPDES discharge subject to coordination with neighboring communities
- Dewatered biosolids to landfill

West Valley RWRf - Details

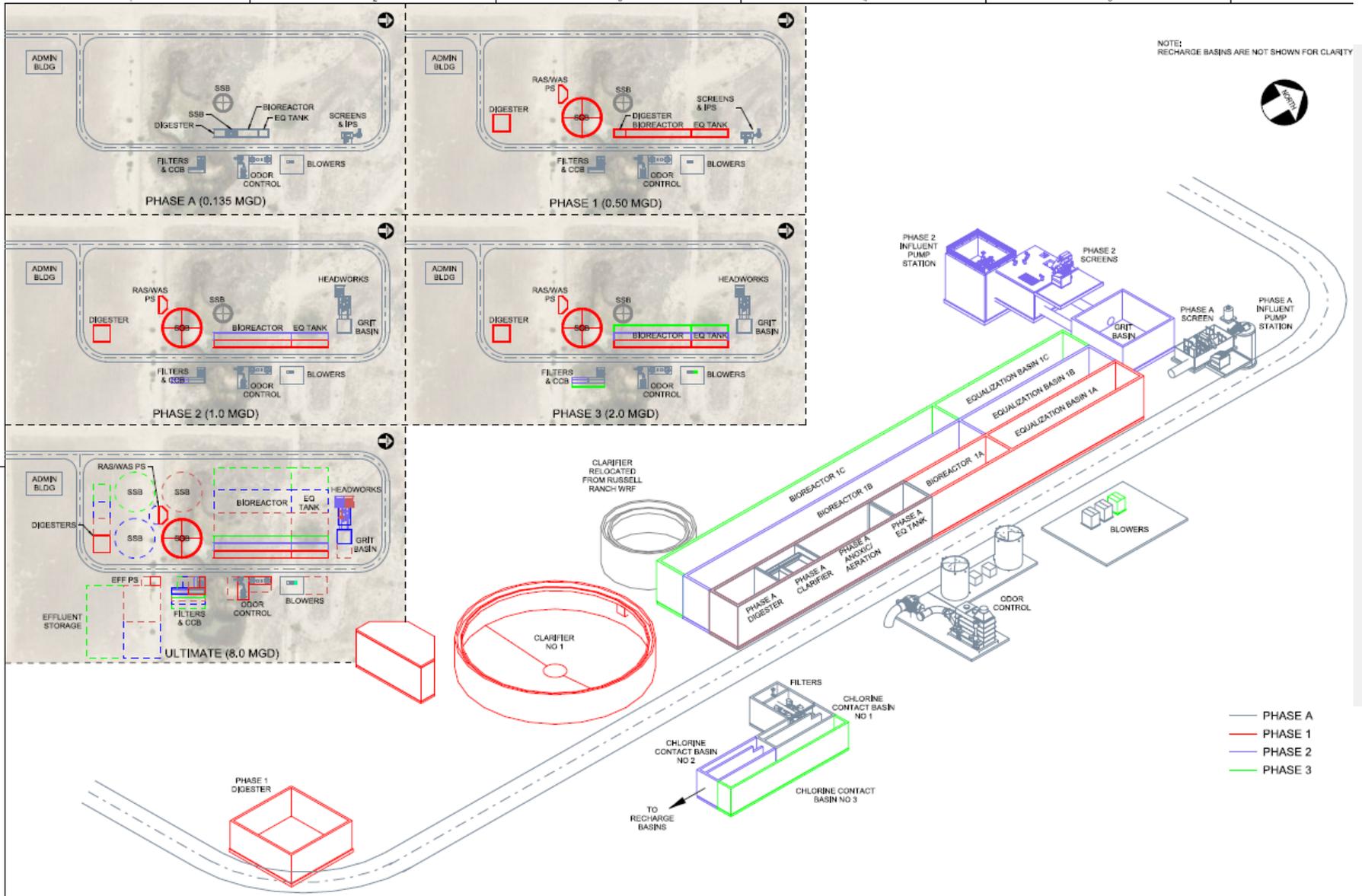
- Influent Pump Station
- Screen & Grit Removal
- Bioreactor with Nitrogen Removal
- Clarification
- Tertiary filtration
- Chlorination / de-chlorination
- Sludge holding and dewatering
- On-site recharge basins with avian controls
- Enclosure of nuisance causing components
- Aesthetically acceptable to Loop 303 Landowners

Site Layout



DESIGN JHM	DRAWN SAR	CHECKED JUG	APPROVED JHM	A	
<p>VERIFY SCALE DRAW TO ONE INCH ON GRAPHIC DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALE ACCORDINGLY</p>					<p>B</p> <p>C</p>
<p>EPCOR WATER 208 WATER QUALITY MANAGEMENT PLAN</p>					

Conceptual Schematic



WVRWRF – Construction Phasing

Phase	Description	Yr (Completion)	Capacity (MGD)	WVWRF (Costs)	Collection System (Costs)
Phase A	Concrete Below Grade Plant	2015	0.135	\$2,430,000	\$4,213,440
Phase 1	Concrete Below Grade Plant Phase A incorporated in Phase 1	2016	0.5	\$7,500,000	\$8,001,930
Phase 2		2019	0.5	\$7,000,000	\$5,865,120
Phase 3	Concrete Below-Grade Plant	2022	1	\$12,000,000	\$1,140,480
Phase 4		2026	2	\$22,000,000	\$3,072,960
Phase 5		2032	2	\$22,000,000	\$2,185,920
Phase 6		2038	2	\$22,000,000	-

WVRWRF – Design Status

- Competitive RFP – design firms selected for:
 - WVRWRF Phase A and Phase 1
 - Sewer line connecting RRWRF to WVRWRF
 - Possible improvements to RRWRF
- Notice to Proceed (design) – May 23, 2014
- Complete Design – January, 2015
- Permitting – early 2015
- Construction Complete – early 2016

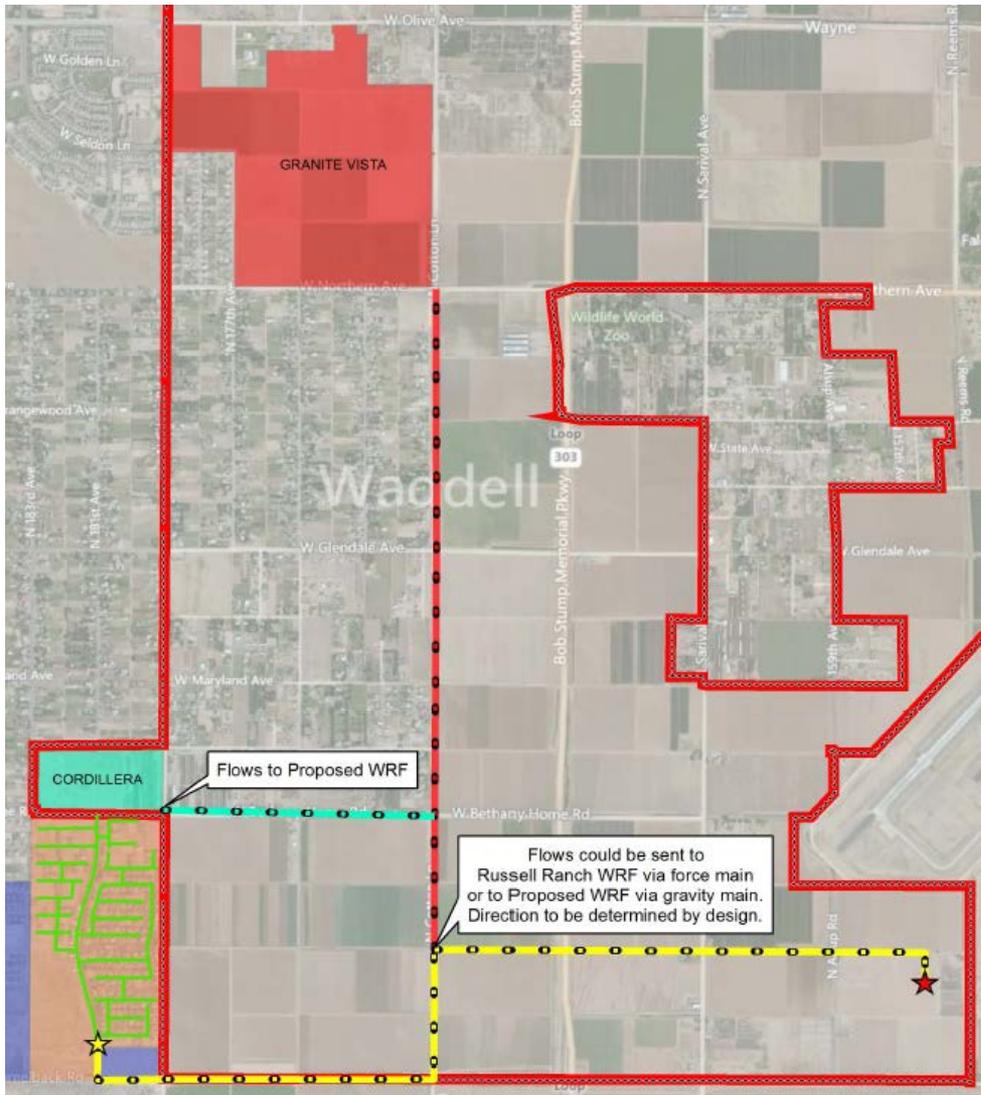
WVRWRF – Permitting

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 milestones defined in executed main extension agreements
- 40 acre site will be conveyed to EPCOR in one or two parts from the Loop 303 Landowner group
- EPCOR equity if necessary

Russell Ranch WRF – Interim Service



- 198,000 gpd APP
- 60,000 gpd permitted
- 34,000 gpd currently
- Add up to 138,000 gpd treatment on site
- Could serve Russell Ranch and Granite Vista Phase 1 (388 homes)
- Retire facility after connection to WVRWRF

Thank you!

Questions?

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