

Aquifer Enhancement: Type II Groundwater Rights Consent Rule



Presented by
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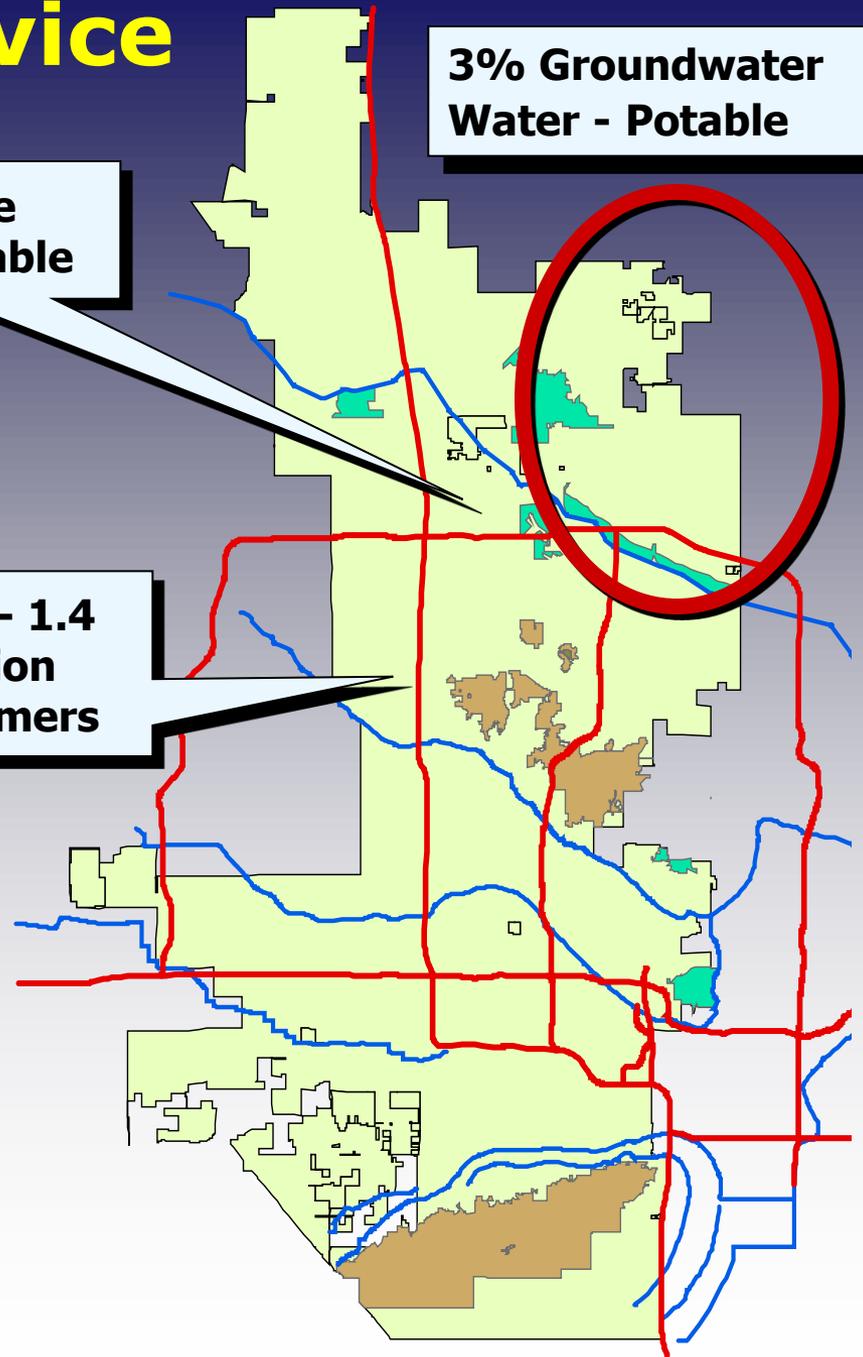
City of Phoenix

City of Phoenix Service Area

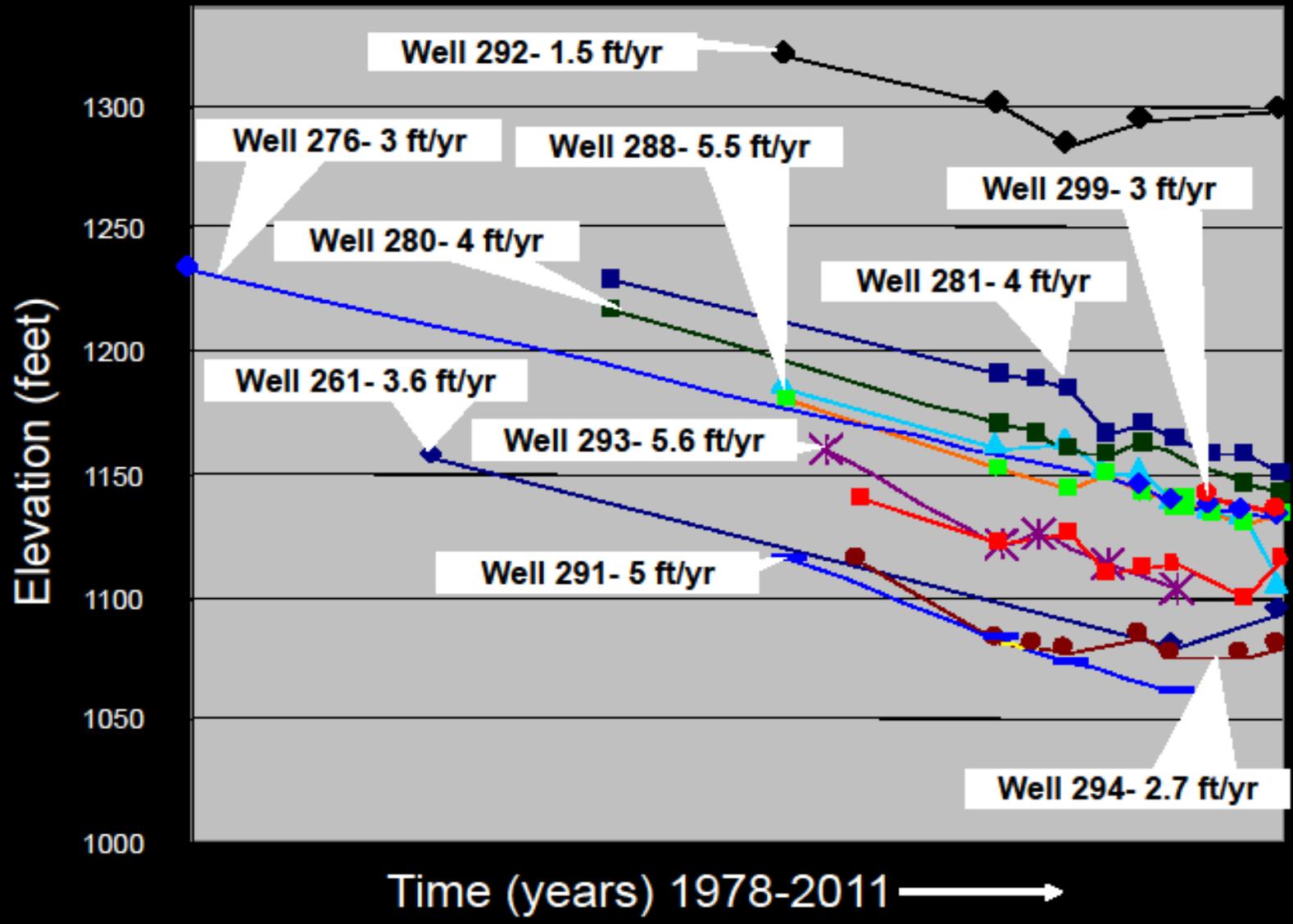
**97% Surface
Water - Potable**

**3% Groundwater
Water - Potable**

**2011 - 1.4
Million
Customers**



Phoenix Wells: Groundwater Levels



Aquifer Storage and Recovery Dual Purpose Well System

Injection/Storage



Injection/
Storage
During
Off-Peak
Months

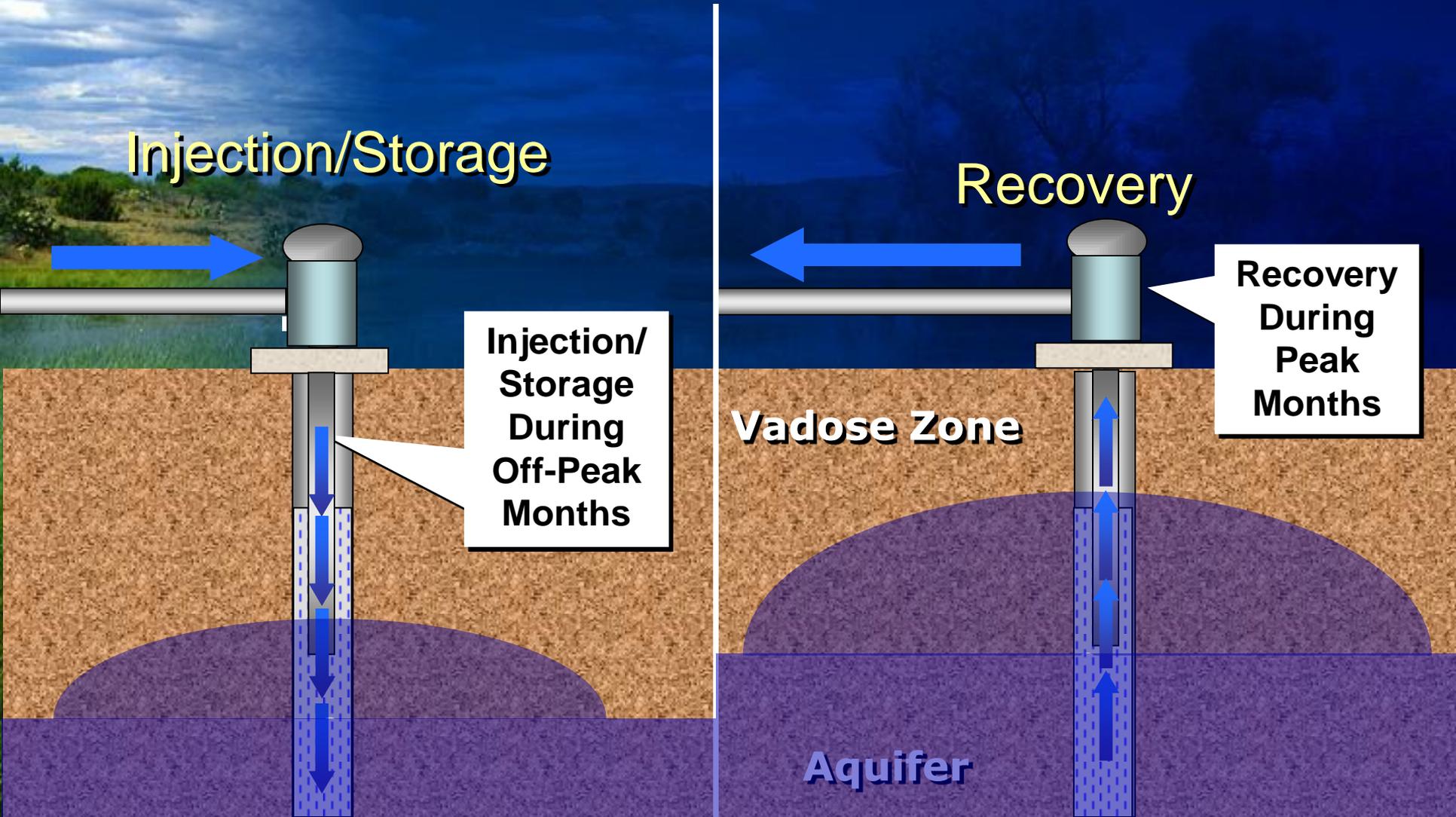
Recovery



Recovery
During
Peak
Months

Vadose Zone

Aquifer



Current Issue: Concern with Type II Groundwater Rights

City is concerned with non-exempt wells (existing and future) impacting stored resources by the City

Well #280

Well 300

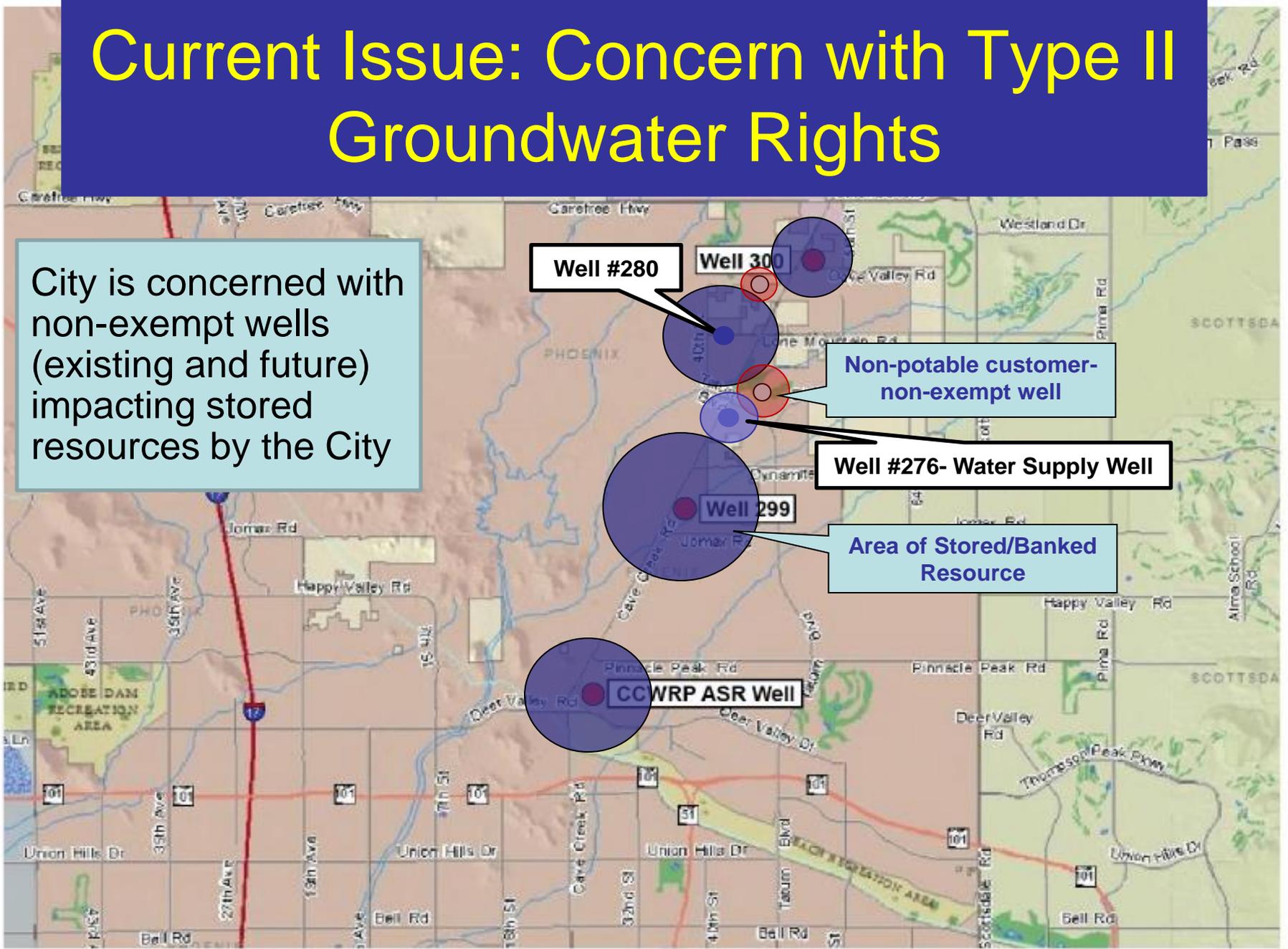
Non-potable customer-non-exempt well

Well #276- Water Supply Well

Well 299

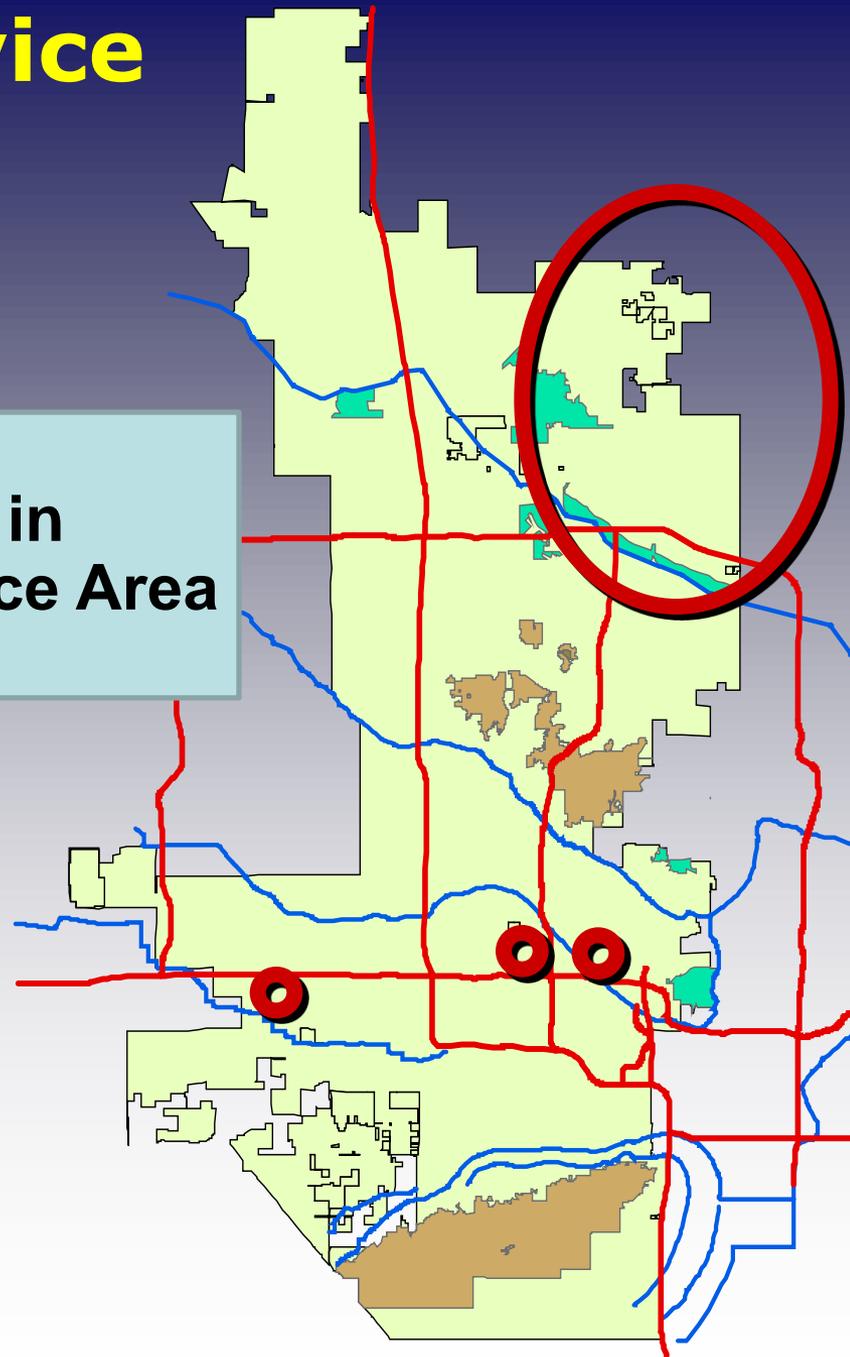
Area of Stored/Banked Resource

CCWRP ASR Well



City of Phoenix Service Area

Type II Groundwater Issue Occur in Other Regions of the City's Service Area



Type II Groundwater Rights Consent Rule

- Provides assurances for Cities that existing groundwater & stored resources would be protected for the future.
- Under the Consent Rule: potential solutions to non-potable customers
 - City provide alternative engineered solutions (e.g., stranded well or pipe connection)
 - City provide rate modification agreement
 - If best cost-effective option is to drill non-exempt well then an “agreement of operations” will need to be drafted between City & non-potable customer.

Questions ?

**City of Phoenix
Water Services Department**

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