

- The meeting is being recorded
- Please mute your microphone
- Please use the chat function for questions
  - The chat will be monitored, and questions read to the presenters
  - Questions not pertinent to a specific presentation will be saved to the end of the meeting

# **Eloy And Maricopa-Stanfield Basin Study**



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## **Stakeholder Meeting**

Friday May 20, 2022, 9:00 AM – 10:30 AM

# Welcome and Introductions

- **Mayor Craig McFarland, City of Casa Grande and Pinal Partnership Board of Directors**



# Agenda

- Welcome and Key Introductions
- Basin Study Summary
- Tasks worked on during the past year
- On-going Tasks
- Timeline and Budget Update
- Future Grant Opportunities
- Questions/Discussion
- Future Upcoming Meeting(s)
- Closing Remarks

**Eloy and Maricopa-  
Stanfield Basin Study**





# Eloy and Maricopa-Stanfield (EMS) Basin Study

## Primary Goal:

Help water managers  
plan for uncertain  
future in water  
resources



Central Arizona Project Canal near Florence

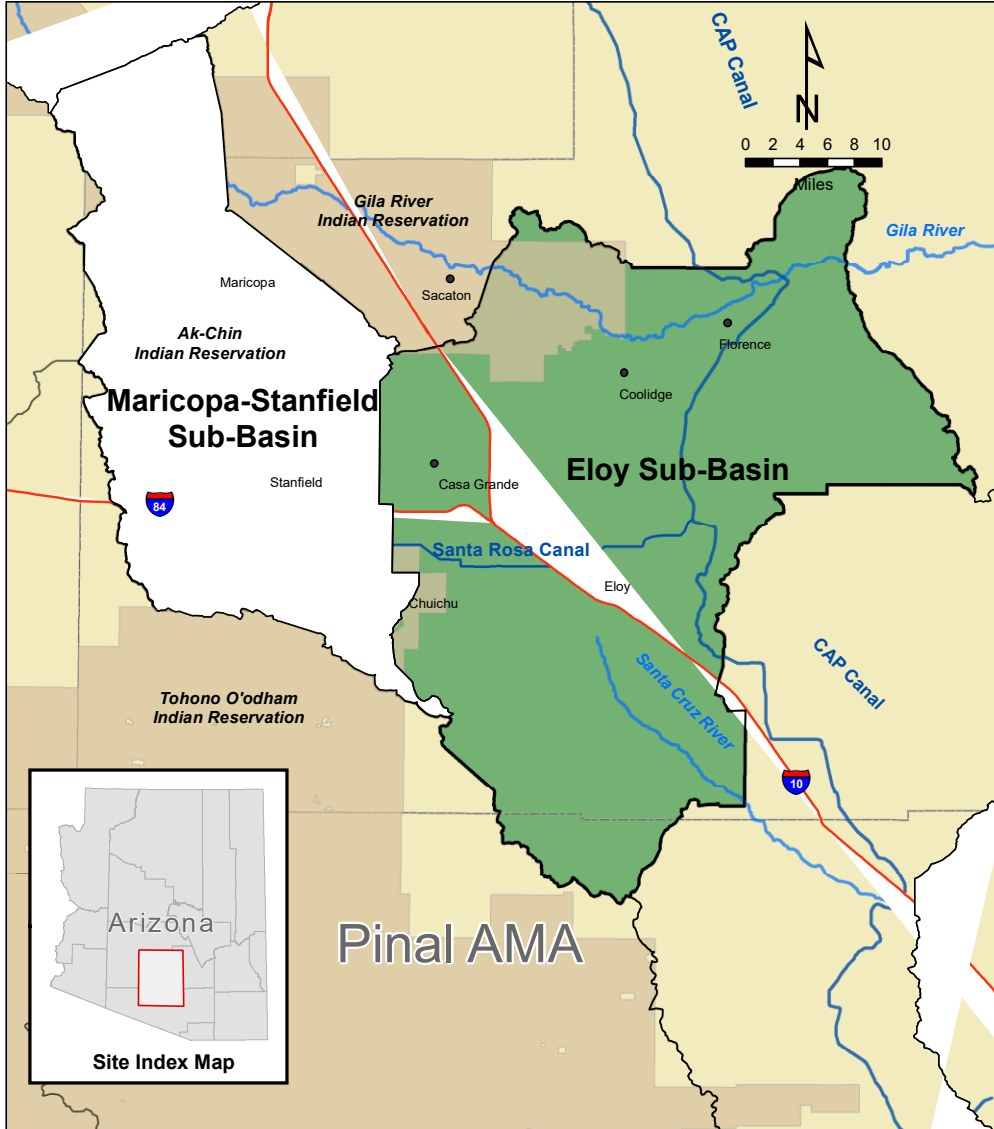


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# EMS Basin Study – Study Area



- Located south of Phoenix metropolitan area in Pinal County
- Study area: 1575 sq. mi.
- Pinal Active Management Area (AMA) as defined by Arizona Department of Water Resources (ADWR)
- Water demand has historically been dominated by agriculture sector
- Agriculture and agribusiness contributes \$1.1 billion to local economy

# Pinal County Major Attributes



- Agriculture sector
- Rapid growth



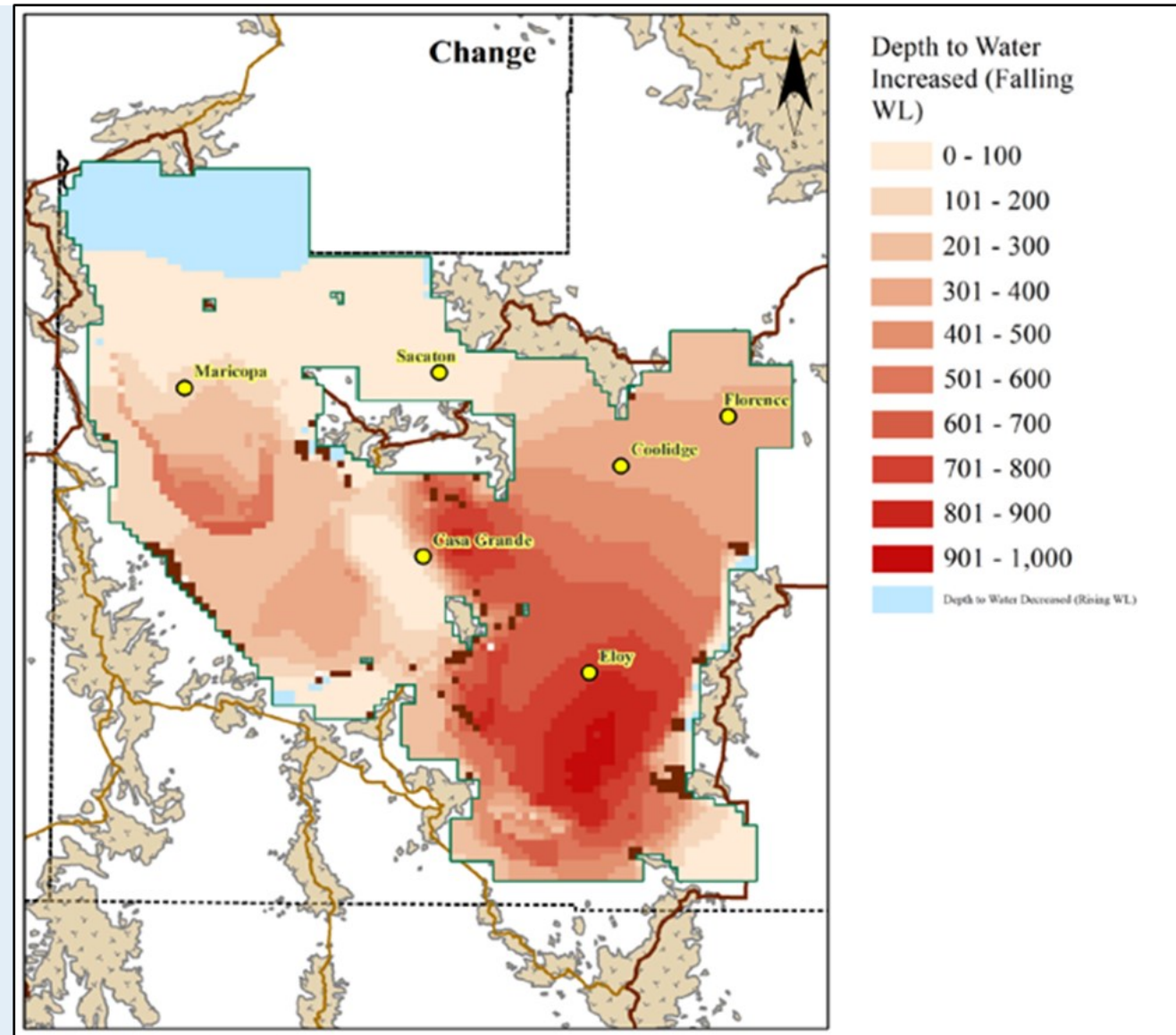
# Projected Long-Term Problem

Projected Deficit:

8.1 million acre feet

“Looking out 100 years, there is insufficient groundwater in the Pinal Active Management Area to support all existing uses and issued assured water supply determinations.”

ADWR Presentation to the House Ad Hoc Committee on Groundwater Supply in Pinal County, October 11, 2019



Projected aquifer change over 100-years adapted from ADWR

# EMS Basin Study

- Study began in November 2018
- 4½ year study
- Budget of \$1,860,000
- Planning period though 2060



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# Basin Study Update

- First meeting Kickoff November 2018
- Annual Meetings: January 2020 and April 2021
- Tasks Worked on Since Last Annual Meeting
  - Adaptation and Mitigation Workshop
  - Groundwater Model with Adaptation and Mitigation strategies
  - Trade-Off Analysis
  - Infrastructure

# Basin Study Tasks

**1**

**Develop Climate  
Projections**

**2**

**Conduct Supply  
and Demand  
Assessment**

**3 & 4**

**Update and Run  
Groundwater  
Model**

**5**

**Conduct  
Infrastructure  
Analysis**

**6**

**Adaptation and  
Mitigation  
Strategies**

**7**

**Conduct  
Economic/Trade-  
Off Analysis**

**8**

**Prepare Basin  
Study Report**



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# Basin Study Tasks

1  
Develop Climate  
Projections

2  
Conduct Supply  
and Demand  
Assessment

3 & 4  
Update and Run  
Groundwater  
Model

5  
Conduct  
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Analysis

6  
Adaptation and  
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7  
Conduct  
Economic/Trade-  
Off Analysis

8  
Prepare Basin  
Study Report



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# Adaptation and Mitigation Strategies Workshop

- Facilitated Brainstorming session held on May 17 and 18, 2021
- Roughly 40 Stakeholders representing federal, county, city and tribal agencies alongside agriculture and other interested parties participated
- Participants put in virtual breakout rooms to brainstorm

# Adaptation & Mitigation Strategies

A&M Category	Strategy
<b>Municipal Conservation &amp; Reuse</b>	(1) Effluent Utilization – Direct Potable Reuse (DPR)
	(2) Effluent Utilization – Indirect Potable Reuse (IPR)
	(3) Green Stormwater Infrastructure (GSI) & Low Impact Development (LID)
	(4) Reduce Municipal Sector Per Capita Water Use
<b>Changes to Agricultural Practices &amp; Land Use</b>	(5) Pay for Acres to Come Out of Production
	(6) Convert to Less Water Intensive Crops
	(7) Convert Agricultural Lands to Developed Lands
	(8) Improve Irrigation Efficiency
<b>Supply &amp; Infrastructure Investments</b>	(9) Build Infrastructure for Regional Aquifer Recharge
	(10) Build a Regional Water Treatment Plant
	(11) Import Supplies – New Infrastructure
	(12) Import Supplies – Existing Infrastructure

# Groundwater Modeling Results of Adaptation and Mitigation Strategies

Hale Barter

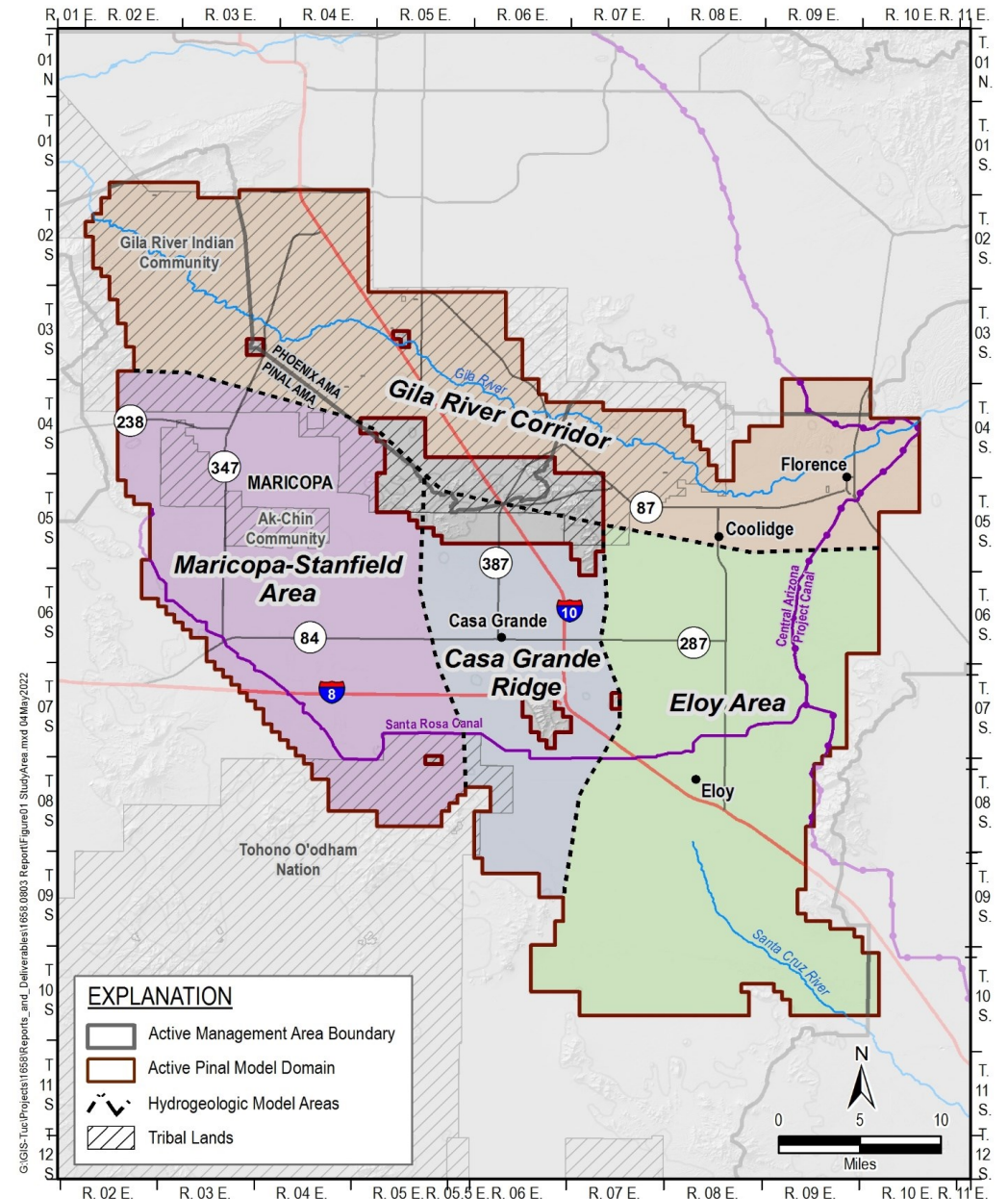


# Groundwater Model

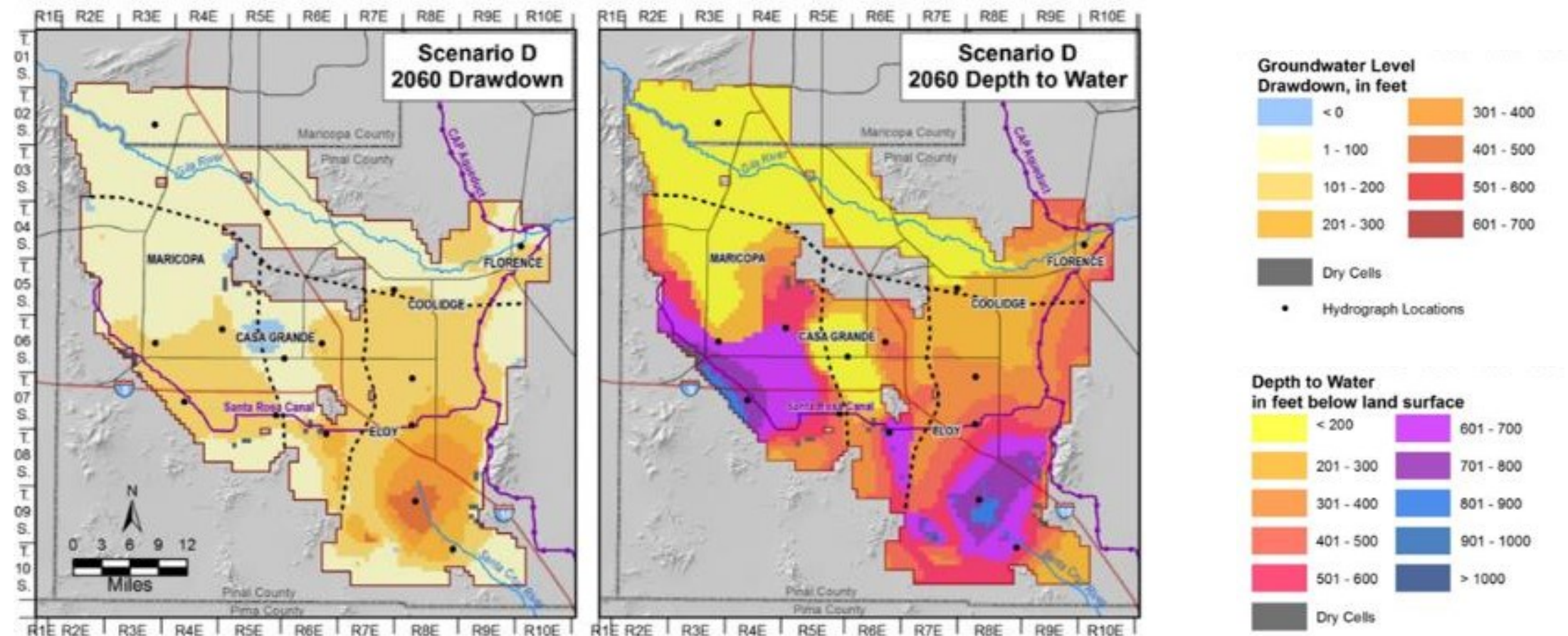
- ADWR (2019) Pinal AMA Model
- Updated years 2016 - 2018
- Thorough review determined model is acceptable for regional-scale comparison of future scenarios
- Model run through 2060 to evaluate:
  - 5 Future Scenarios: vary climate, ag pumping, population growth
  - 3 Mitigation & Adaptation Strategies: muni, ag, importation



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# Groundwater Conditions in 2060 (Scenario D)



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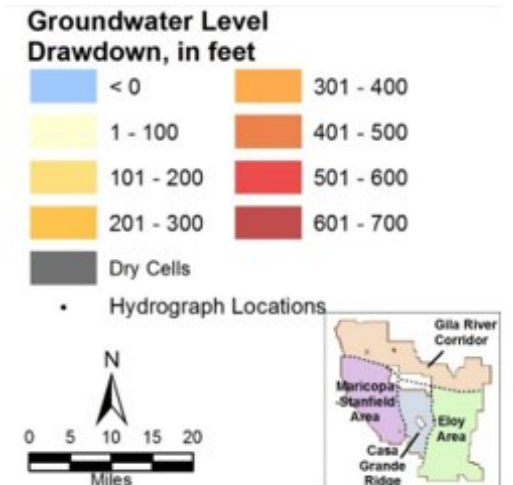
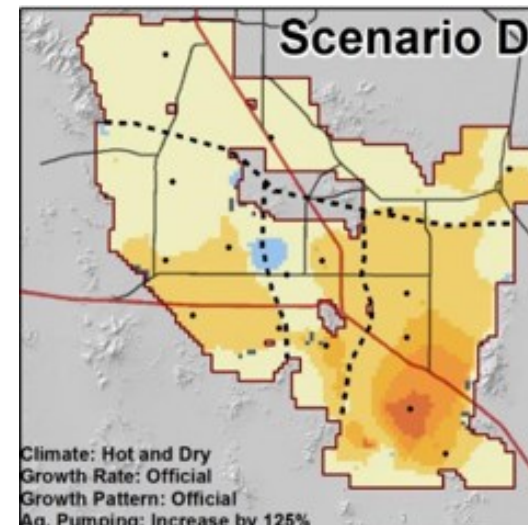
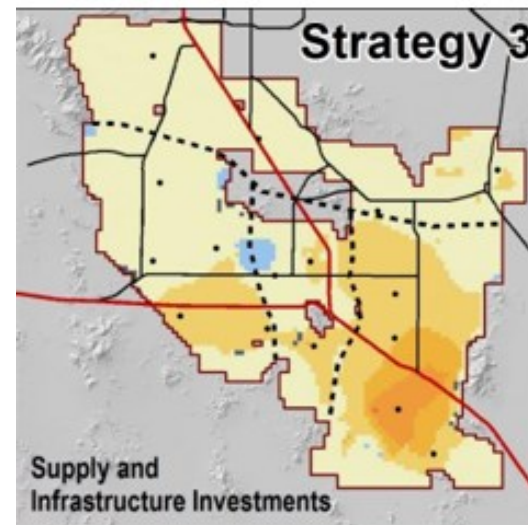
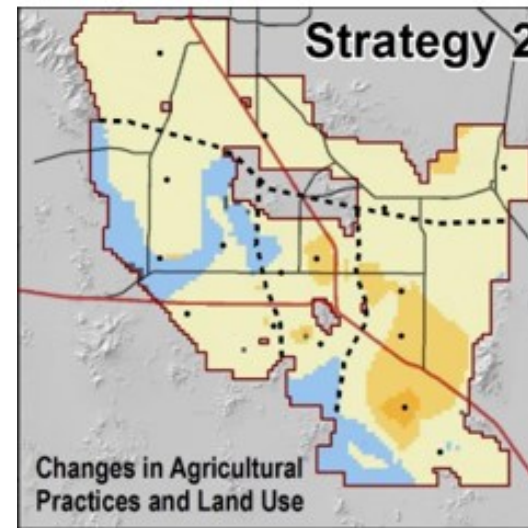
# Adaptation and Mitigation Strategies



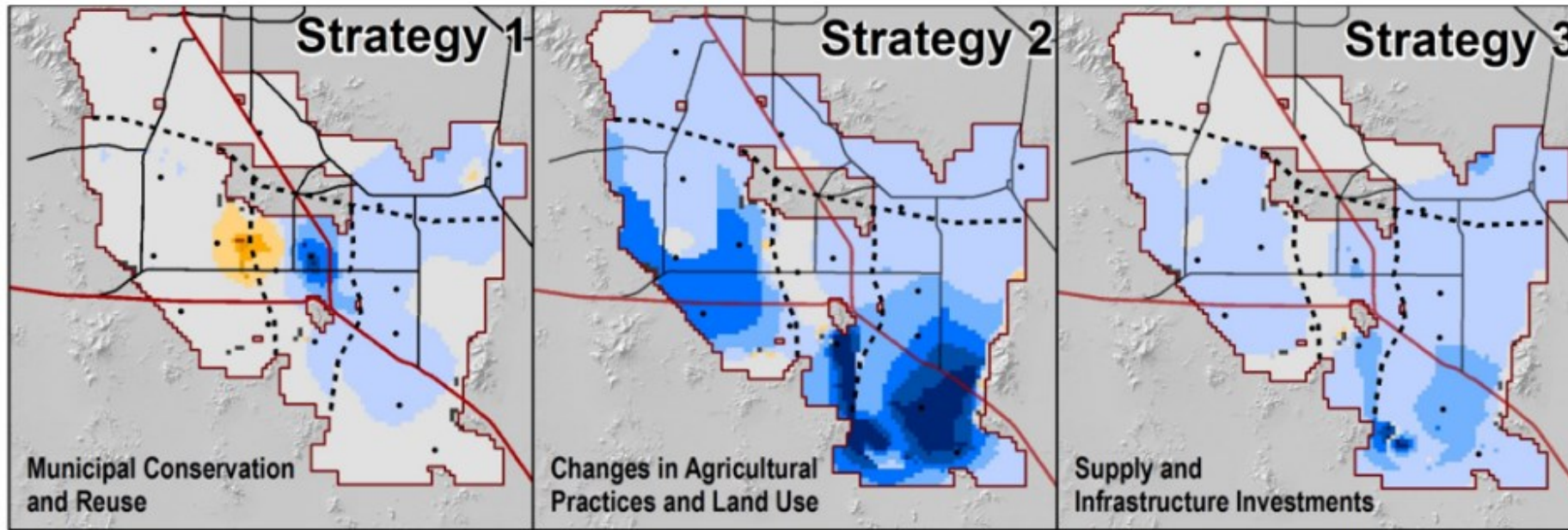
Strategy	Name	Description
Strategy #1	Municipal Conservation and Reuse	Promote additional conservation across the municipal sector and optimize the use of water supplies currently in the AMA
Strategy #2	Changes to Agricultural Practices and Land Use	Promote a persistent and vibrant agricultural sector through land use changes and improved agricultural practices
Strategy #3	Supply and Infrastructure Investments	Invest in new infrastructure to effectively move current and future water supplies into and around the AMA

*Strategies were developed in cooperation with Central Arizona Project by making modifications to Scenario D*

# Groundwater Conditions with Mitigation (2060)

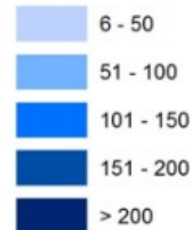


# Effect of Mitigation Strategies (2060)

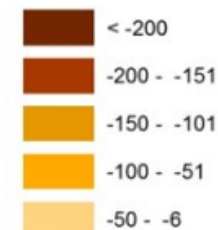


**Difference of 2060  
Depth to Groundwater**

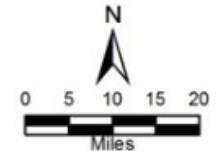
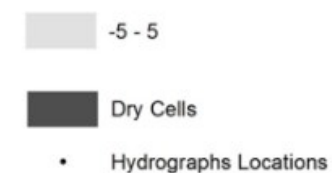
Shallower Depth to Groundwater  
than Scenario D, in feet



Deeper Depth to Groundwater  
than Scenario D, in feet



Nominal Change of Depth to Water  
(Mitigation  $\approx$  Scenario D)



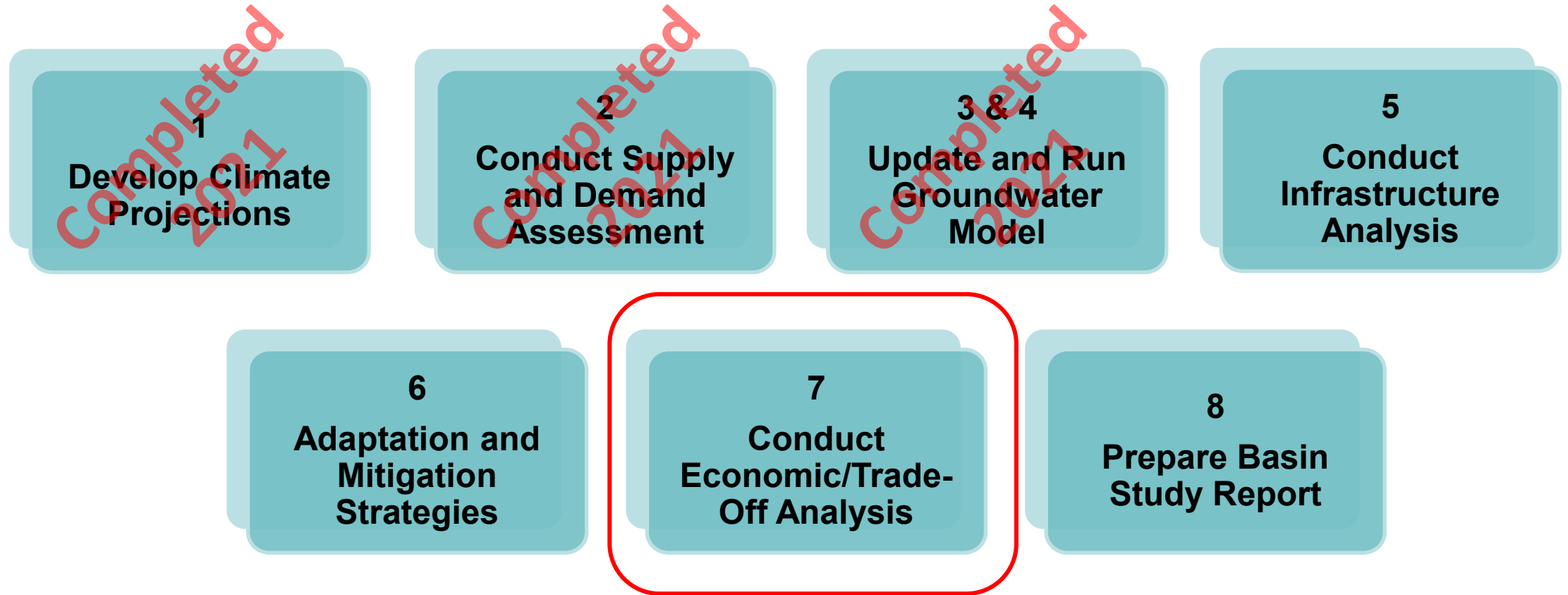
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# Basin Study Tasks



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# Adaptation & Mitigation Strategies

A&M Category	Strategy
<b>Municipal Conservation &amp; Reuse</b>	(1) Effluent Utilization – Direct Potable Reuse (DPR)
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<b>Changes to Agricultural Practices &amp; Land Use</b>	(5) Pay for Acres to Come Out of Production
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	(7) Convert Agricultural Lands to Developed Lands
	(8) Improve Irrigation Efficiency
<b>Supply &amp; Infrastructure Investments</b>	(9) Build Infrastructure for Regional Aquifer Recharge
	(10) Build a Regional Water Treatment Plant
	(11) Import Supplies – New Infrastructure
	(12) Import Supplies – Existing Infrastructure

# Evaluation Criteria

Criteria	Directionality
<b><i>Economic</i></b>	
(1) Municipal & Industrial Benefit	Benefit
(2) Agricultural Impact	Cost/Benefit
(3) Capital Cost	Cost
(4) OM&R	Cost
<b><i>Environmental</i></b>	
(5) Conservation and Sustainability	Benefit
(6) Surface Water Impact	Cost/Benefit
(7) Groundwater Aquifer Impact	Cost/Benefit
<b><i>Social</i></b>	
(8) Public and Political Perception	Cost/Benefit
(9) Barriers to Implementation	Cost
(10) Adaptation and Resilience	Benefit

Directionality	Category	Score
Benefit	High	3
	Moderate	2
	Low	1
	No Impact	0
Cost	Low	-1
	Moderate	-2
	High	-3



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# Criteria Importance

Criterion	Average Score	Weight Applied
(1) M&I Benefit	2.76	94%
(2) Agricultural Impact	2.35	80%
(3) Capital Cost	2.24	76%
(4) OM&R Cost	2.12	72%
(5) Conservation & Sustainability	2.53	86%
(6) Surface Water Impact	1.71	58%
(7) Groundwater Aquifer Impact	2.94	100%
(8) Public & Political Perception	1.94	66%
(9) Barriers to Implementation	2.29	78%
(10) Adaptation & Resilience	2.18	74%

Note: n=17.

Category	Score
Not Important	0
Low Importance	1
Moderate Importance	2
High Importance	3



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# Final Scores

Strategy	M&I Benefit	Agricultural Impact	Capital Cost	OM&R Cost	Conservation & Sustainability	Surface Water Impact	Groundwater Aquifer Impact	Public & Political Perception	Barriers to Implementation	Adaptation & Resilience
(1) Effluent Utilization – Direct Potable Reuse	2.88	0.00	-2.47	-2.18	2.82	0.41	1.65	-1.00*	-2.19	2.53
(2) Effluent Utilization – Indirect Potable Reuse	2.59	0.53	-1.82	-1.41	2.35	0.29	1.59	1.35	-1.18	2.41
(3) Green Stormwater Infrastructure and Low Impact Development	1.59	0.12	-1.88	-1.59	1.76	-0.06	0.94	1.18	-1.47	1.35
(4) Reduce Municipal Sector Per Capita Water Use	2.41	0.00	-1.18	-1.00	2.53	0.76	1.53	1.88	-0.76	2.06
(5) Pay for Acres to Come Out of Production	2.35	-2.00*	-3.00*	-0.94	2.29	1.12	2.53	-1.00	-1.59	2.18
(6) Convert to Less Water Intensive Crops	2.00	1.00*	-1.88	-1.53	2.35	0.88	2.12	0.12	-1.53	2.12
(7) Convert Agricultural Lands to Developed Lands	2.13	-1.00*	-1.38	-0.69	2.13	0.63	1.88	0.56	-1.06	1.94
(8) Improve Irrigation Efficiency	1.75	0.50*	-2.25	-1.81	2.13	0.69	1.75	1.38	-1.31	1.94
(9) Build Infrastructure for Aquifer Recharge	2.56	0.44	-2.44	-1.81	1.94	-0.19	2.25	1.56	-1.25	2.00
(10) Build a Regional Water Treatment Plant	2.63	0.50	-2.81	-2.50	2.06	0.63	1.13	0.69	-1.69	2.31
(11) Import Supplies – New Infrastructure	2.88	0.94	-3.00	-2.81	1.88	0.38	1.75	-1.00*	-2.56	2.50
(12) Import Supplies – Existing Infrastructure	2.94	0.75	-2.19	-1.94	2.00	0.38	1.25	-0.38	-1.63	2.31

Note: n=17. \*Median score used instead of mean score.

# Response Variability (std deviation)

Strategy	M&I Benefit	Agricultural Impact	Capital Cost	OM&R Cost	Conservation & Sustainability	Surface Water Impact	Groundwater Aquifer Impact	Public & Political Perception	Barriers to Implementation	Adaptation & Resilience	Average
(1)	0.08	0.21	0.20	0.18	0.10	0.20	0.21	0.32	0.19	0.13	0.18
(2)	0.15	0.24	0.16	0.15	0.20	0.17	0.23	0.19	0.16	0.15	0.18
(3)	0.18	0.15	0.15	0.18	0.17	0.25	0.15	0.17	0.18	0.20	0.18
(4)	0.20	0.10	0.16	0.13	0.22	0.14	0.15	0.22	0.23	0.27	0.18
(5)	0.22	0.35	0.32	0.21	0.23	0.18	0.11	0.22	0.28	0.20	0.23
(6)	0.20	0.34	0.20	0.24	0.18	0.18	0.11	0.25	0.27	0.23	0.22
(7)	0.22	0.32	0.27	0.18	0.20	0.16	0.18	0.26	0.25	0.14	0.22
(8)	0.19	0.34	0.17	0.19	0.13	0.16	0.18	0.23	0.22	0.21	0.20
(9)	0.16	0.22	0.16	0.16	0.25	0.16	0.18	0.21	0.25	0.22	0.20
(10)	0.15	0.17	0.10	0.18	0.25	0.23	0.25	0.28	0.24	0.15	0.20
(11)	0.09	0.25	0.00	0.10	0.27	0.25	0.24	0.33	0.16	0.18	0.19
(12)	0.06	0.25	0.16	0.21	0.26	0.19	0.20	0.27	0.20	0.18	0.20
<b>Average</b>	<b>0.16</b>	<b>0.25</b>	<b>0.17</b>	<b>0.18</b>	<b>0.20</b>	<b>0.19</b>	<b>0.18</b>	<b>0.25</b>	<b>0.22</b>	<b>0.19</b>	
<b>Key</b>											
Low Variability											
Moderate Variability											
High Variability											

Note: n=17.



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# Weighted vs Unweighted Scores

Strategy	Unweighted Rank	Weighted Rank
(1) Effluent Utilization – Direct Potable Reuse	10 <sup>th</sup>	8 <sup>th</sup>
(2) Effluent Utilization – Indirect Potable Reuse	3 <sup>rd</sup>	3 <sup>rd</sup>
(3) Green Stormwater Infrastructure and Low Impact Development	12 <sup>th</sup>	12 <sup>th</sup>
(4) Reduce Municipal Sector Per Capita Water Use	1 <sup>st</sup>	1 <sup>st</sup>
(5) Pay for Acres to Come Out of Production	7 <sup>th</sup>	7 <sup>th</sup>
(6) Convert to Less Water Intensive Crops	4 <sup>th</sup>	2 <sup>nd</sup>
(7) Convert Agricultural Lands to Developed Lands	2 <sup>nd</sup>	4 <sup>th</sup>
(8) Improve Irrigation Efficiency	5 <sup>th</sup>	6 <sup>th</sup>
(9) Build Infrastructure for Aquifer Recharge	6 <sup>th</sup>	5 <sup>th</sup>
(10) Build a Regional Water Treatment Plant	8 <sup>th</sup>	10 <sup>th</sup>
(11) Import Supplies – New Infrastructure	11 <sup>th</sup>	11 <sup>th</sup>
(12) Import Supplies – Existing Infrastructure	9 <sup>th</sup>	9 <sup>th</sup>

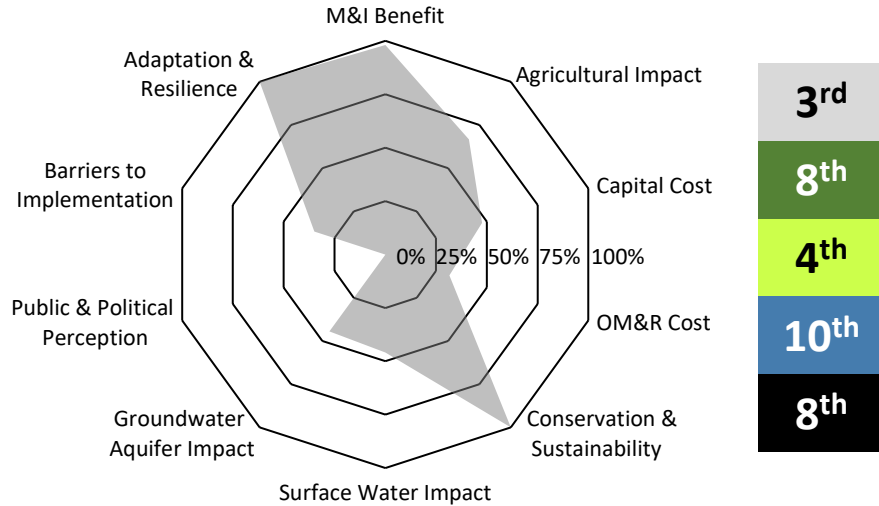
# Strategy Rankings (weighted scores)

Strategy	A&M Category	Economic Criteria	Environmental Criteria	Social Criteria	Overall Rank
(1) Effluent Utilization – Direct Potable Reuse	3 <sup>rd</sup>	8 <sup>th</sup>	4 <sup>th</sup>	10 <sup>th</sup>	8 <sup>th</sup>
(2) Effluent Utilization – Indirect Potable Reuse	2 <sup>nd</sup>	2 <sup>nd</sup>	8 <sup>th</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>
(3) Green Stormwater Infrastructure and Low Impact Development	4 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>	7 <sup>th</sup>	12 <sup>th</sup>
(4) Reduce Municipal Sector Per Capita Water Use	1 <sup>st</sup>	1 <sup>st</sup>	5 <sup>th</sup>	1 <sup>st</sup>	1 <sup>st</sup>
(5) Pay for Acres to Come Out of Production	4 <sup>th</sup>	12 <sup>th</sup>	1 <sup>st</sup>	11 <sup>th</sup>	7 <sup>th</sup>
(6) Convert to Less Water Intensive Crops	1 <sup>st</sup>	5 <sup>th</sup>	2 <sup>nd</sup>	8 <sup>th</sup>	2 <sup>nd</sup>
(7) Convert Agricultural Lands to Developed Lands	2 <sup>nd</sup>	4 <sup>th</sup>	3 <sup>rd</sup>	5 <sup>th</sup>	4 <sup>th</sup>
(8) Improve Irrigation Efficiency	3 <sup>rd</sup>	10 <sup>th</sup>	6 <sup>th</sup>	4 <sup>th</sup>	6 <sup>th</sup>
(9) Build Infrastructure for Aquifer Recharge	1 <sup>st</sup>	7 <sup>th</sup>	7 <sup>th</sup>	3 <sup>rd</sup>	5 <sup>th</sup>
(10) Build a Regional Water Treatment Plant	3 <sup>rd</sup>	9 <sup>th</sup>	10 <sup>th</sup>	6 <sup>th</sup>	10 <sup>th</sup>
(11) Import Supplies – New Infrastructure	4 <sup>th</sup>	6 <sup>th</sup>	9 <sup>th</sup>	12 <sup>th</sup>	11 <sup>th</sup>
(12) Import Supplies – Existing Infrastructure	2 <sup>nd</sup>	3 <sup>rd</sup>	11 <sup>th</sup>	9 <sup>th</sup>	9 <sup>th</sup>

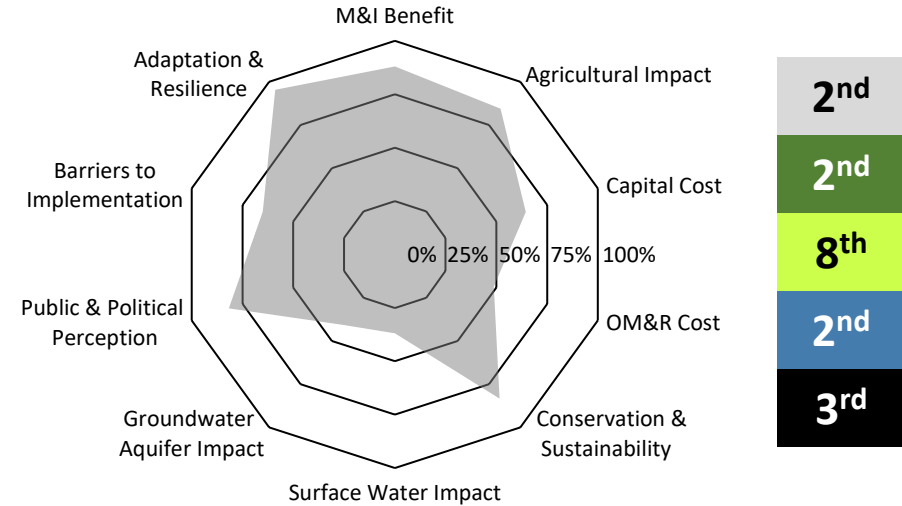


# Municipal Conservation and Reuse

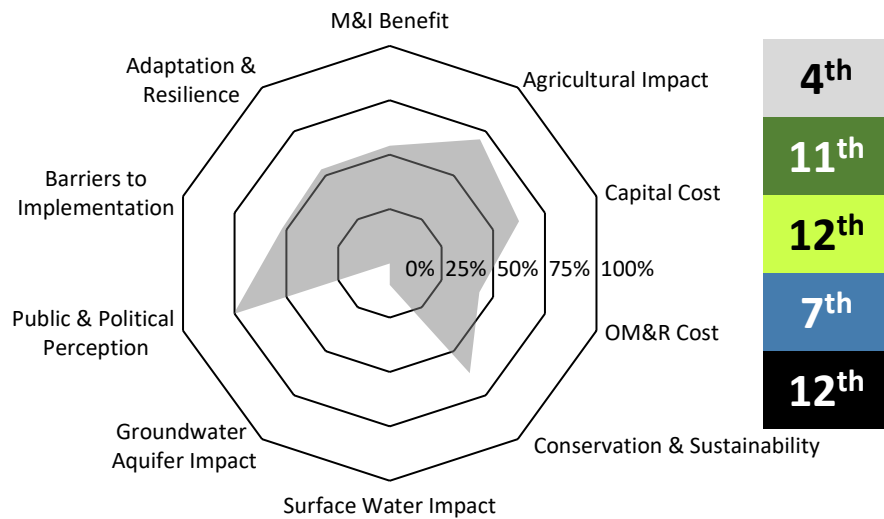
## Effluent Utilization – Direct Potable Reuse



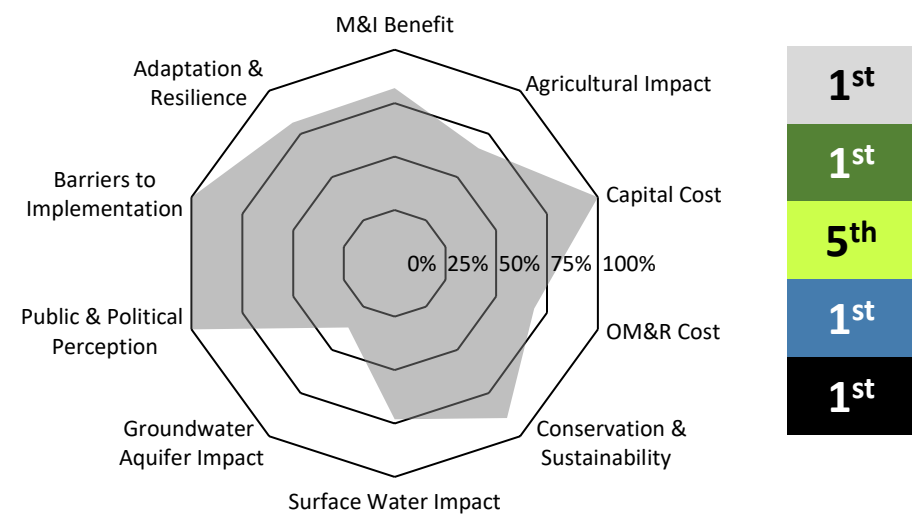
## Effluent Utilization – Indirect Potable Reuse



## Green Stormwater Infrastructure & Low Impact Development

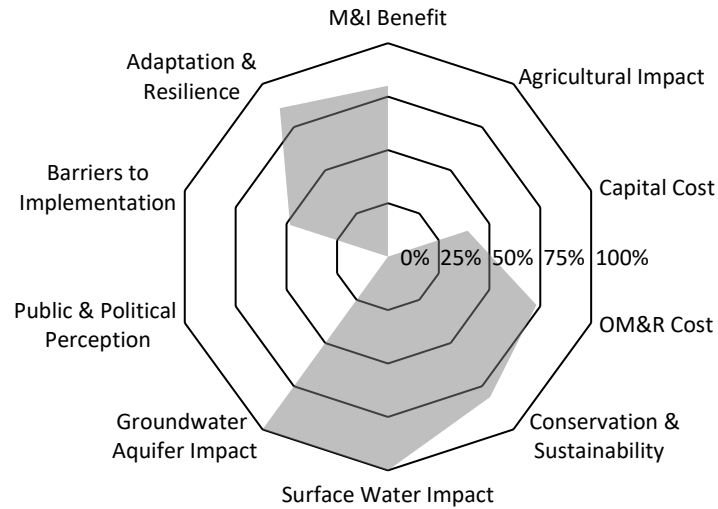


## Reduce Municipal Sector Per Capita Water Use

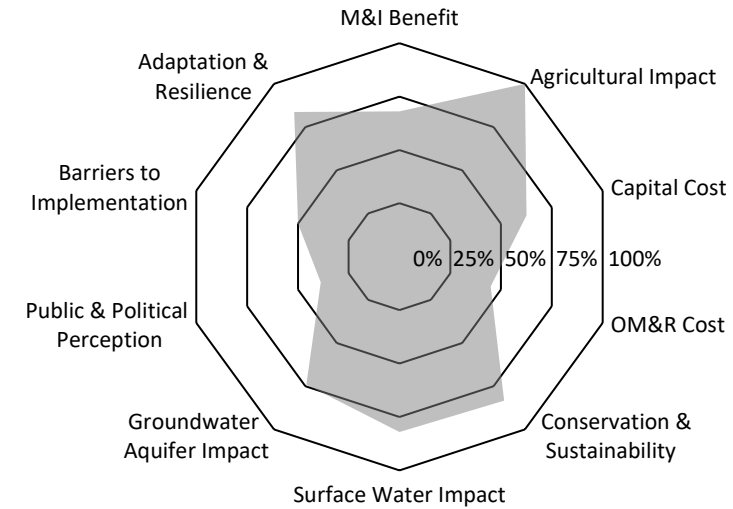


# Changes to Agricultural Practices and Land Use

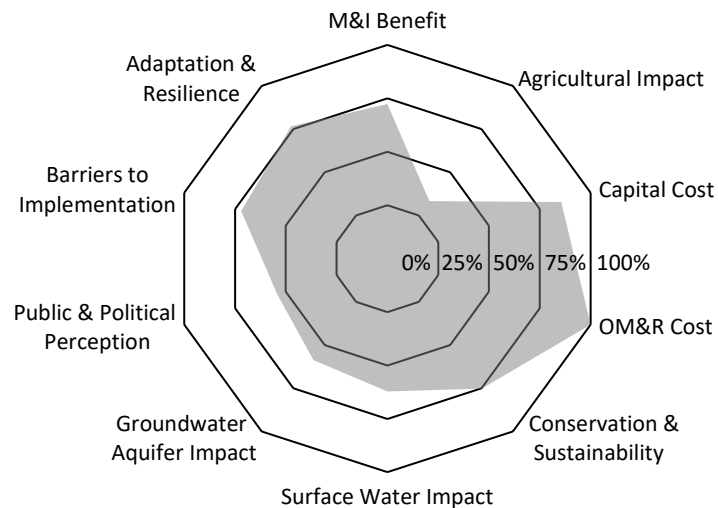
Pay for Acres to Come Out of Production



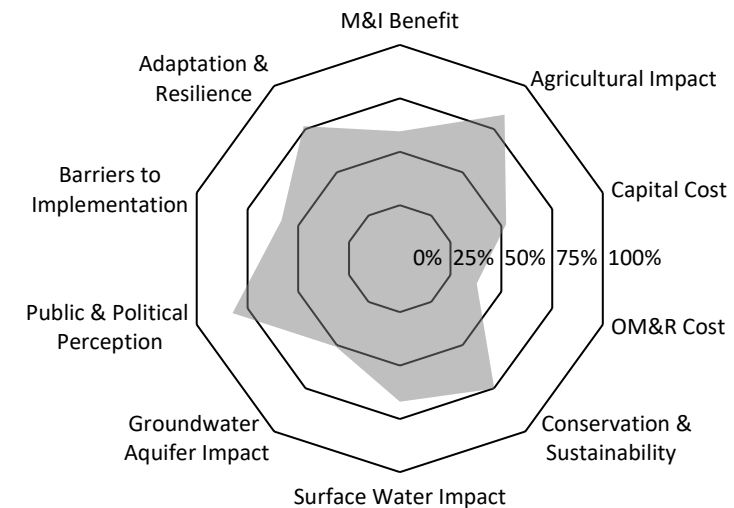
Convert to Less Water Intensive Crops



Convert Agricultural Lands to Developed Lands

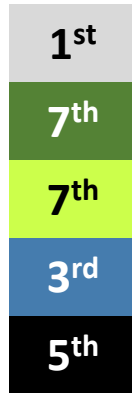
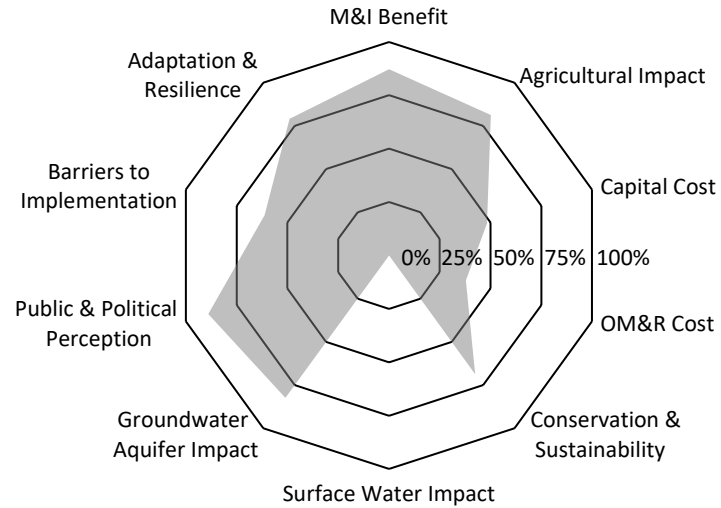


Improve Irrigation Efficiency

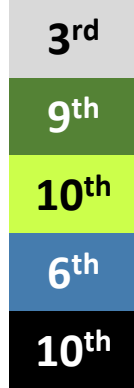
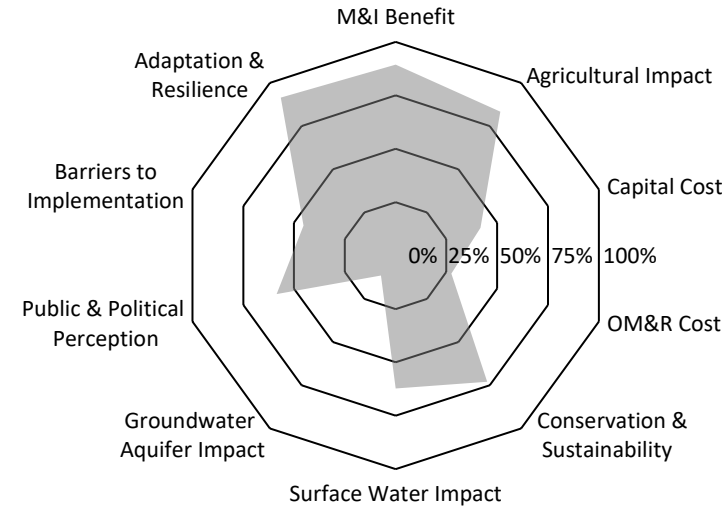


# Supply and Infrastructure Investments

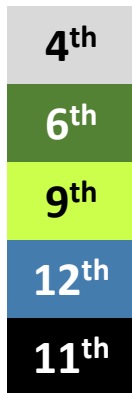
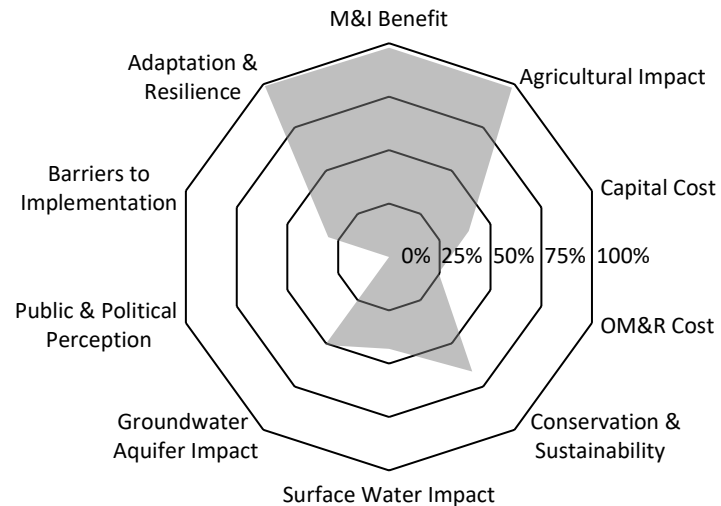
Build Infrastructure for Aquifer Recharge



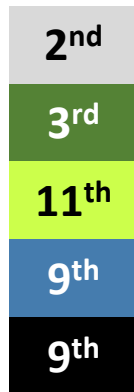
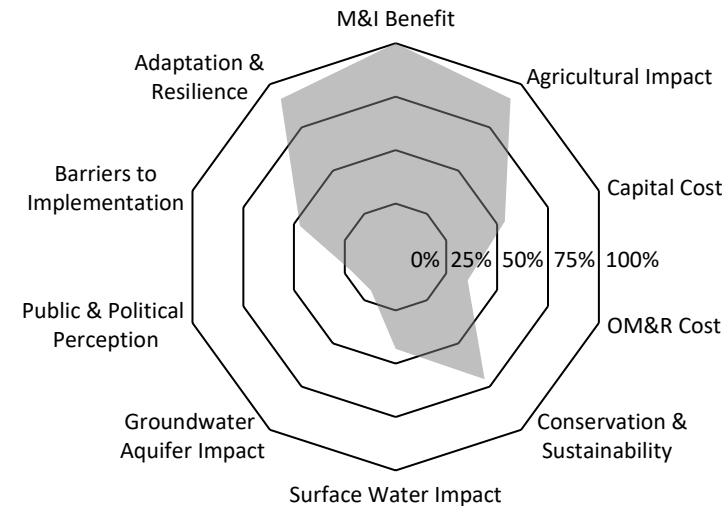
Build a Regional Water Treatment Plant



Import Supplies – New Infrastructure



Import Supplies – Existing Infrastructure



# Recap of Results

Strategy	A&M Category	Economic Criteria	Environmental Criteria	Social Criteria	Overall Rank
(1) Effluent Utilization – Direct Potable Reuse	3 <sup>rd</sup>	8 <sup>th</sup>	4 <sup>th</sup>	10 <sup>th</sup>	8 <sup>th</sup>
(2) Effluent Utilization – Indirect Potable Reuse	2 <sup>nd</sup>	2 <sup>nd</sup>	8 <sup>th</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>
(3) Green Stormwater Infrastructure and Low Impact Development	4 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>	7 <sup>th</sup>	12 <sup>th</sup>
(4) Reduce Municipal Sector Per Capita Water Use	1 <sup>st</sup>	1 <sup>st</sup>	5 <sup>th</sup>	1 <sup>st</sup>	1 <sup>st</sup>
(5) Pay for Acres to Come Out of Production	4 <sup>th</sup>	12 <sup>th</sup>	1 <sup>st</sup>	11 <sup>th</sup>	7 <sup>th</sup>
(6) Convert to Less Water Intensive Crops	1 <sup>st</sup>	5 <sup>th</sup>	2 <sup>nd</sup>	8 <sup>th</sup>	2 <sup>nd</sup>
(7) Convert Agricultural Lands to Developed Lands	2 <sup>nd</sup>	4 <sup>th</sup>	3 <sup>rd</sup>	5 <sup>th</sup>	4 <sup>th</sup>
(8) Improve Irrigation Efficiency	3 <sup>rd</sup>	10 <sup>th</sup>	6 <sup>th</sup>	4 <sup>th</sup>	6 <sup>th</sup>
(9) Build Infrastructure for Aquifer Recharge	1 <sup>st</sup>	7 <sup>th</sup>	7 <sup>th</sup>	3 <sup>rd</sup>	5 <sup>th</sup>
(10) Build a Regional Water Treatment Plant	3 <sup>rd</sup>	9 <sup>th</sup>	10 <sup>th</sup>	6 <sup>th</sup>	10 <sup>th</sup>
(11) Import Supplies – New Infrastructure	4 <sup>th</sup>	6 <sup>th</sup>	9 <sup>th</sup>	12 <sup>th</sup>	11 <sup>th</sup>
(12) Import Supplies – Existing Infrastructure	2 <sup>nd</sup>	3 <sup>rd</sup>	11 <sup>th</sup>	9 <sup>th</sup>	9 <sup>th</sup>

# Conclusion and Future Opportunities

Screened strategies across *economic*, *environmental*, and *social* effects

- Identified key *strengths* and *weaknesses*

Used simple low-high *qualitative measurement*

- **Pro:** Evaluated a *wide range* of strategies and impacts
- **Con:** Low *accuracy* and high *uncertainty*

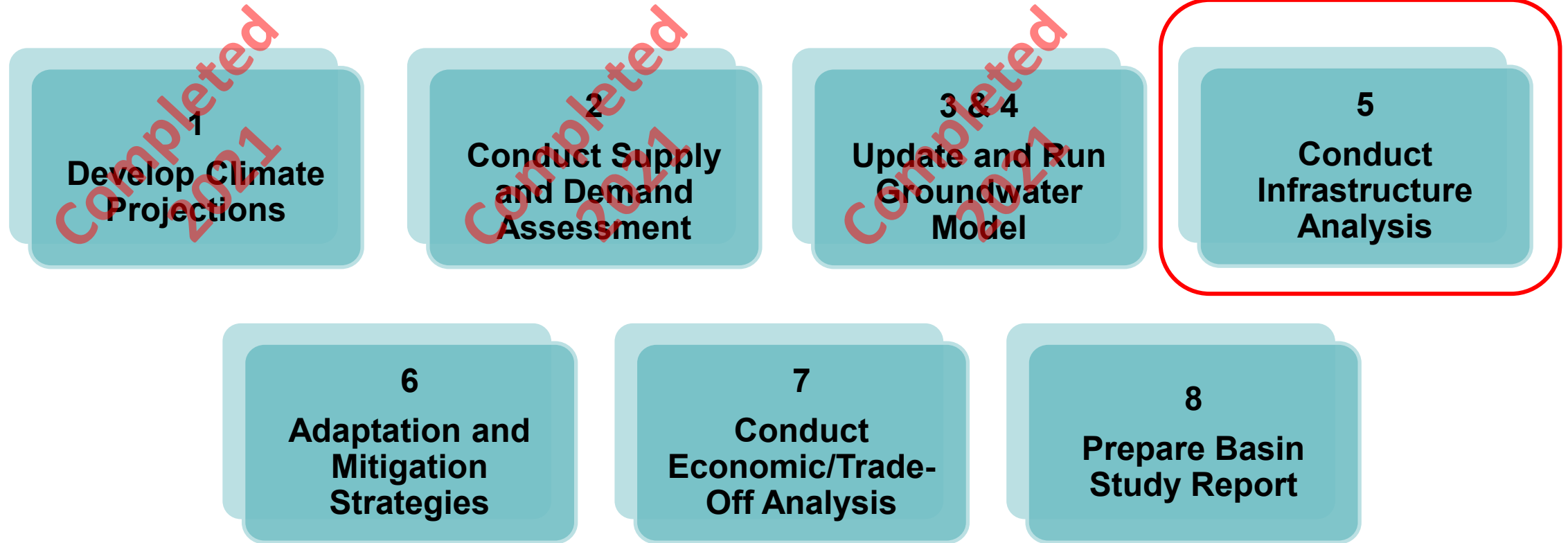
Multiple conflicting objectives (*trade-offs*)

- No strategy performs the “*best*” along every criterion
  - Top strategy overall (4) only performs the best along *3 of 10* criteria
  - Strategy (11) also performs near the best along *3 of 10* criteria, yet ranks 11<sup>th</sup> overall

Future Opportunities

- This work helps *inform* and *prioritize* future work

# Basin Study Tasks



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# Infrastructure Analysis - Inventory

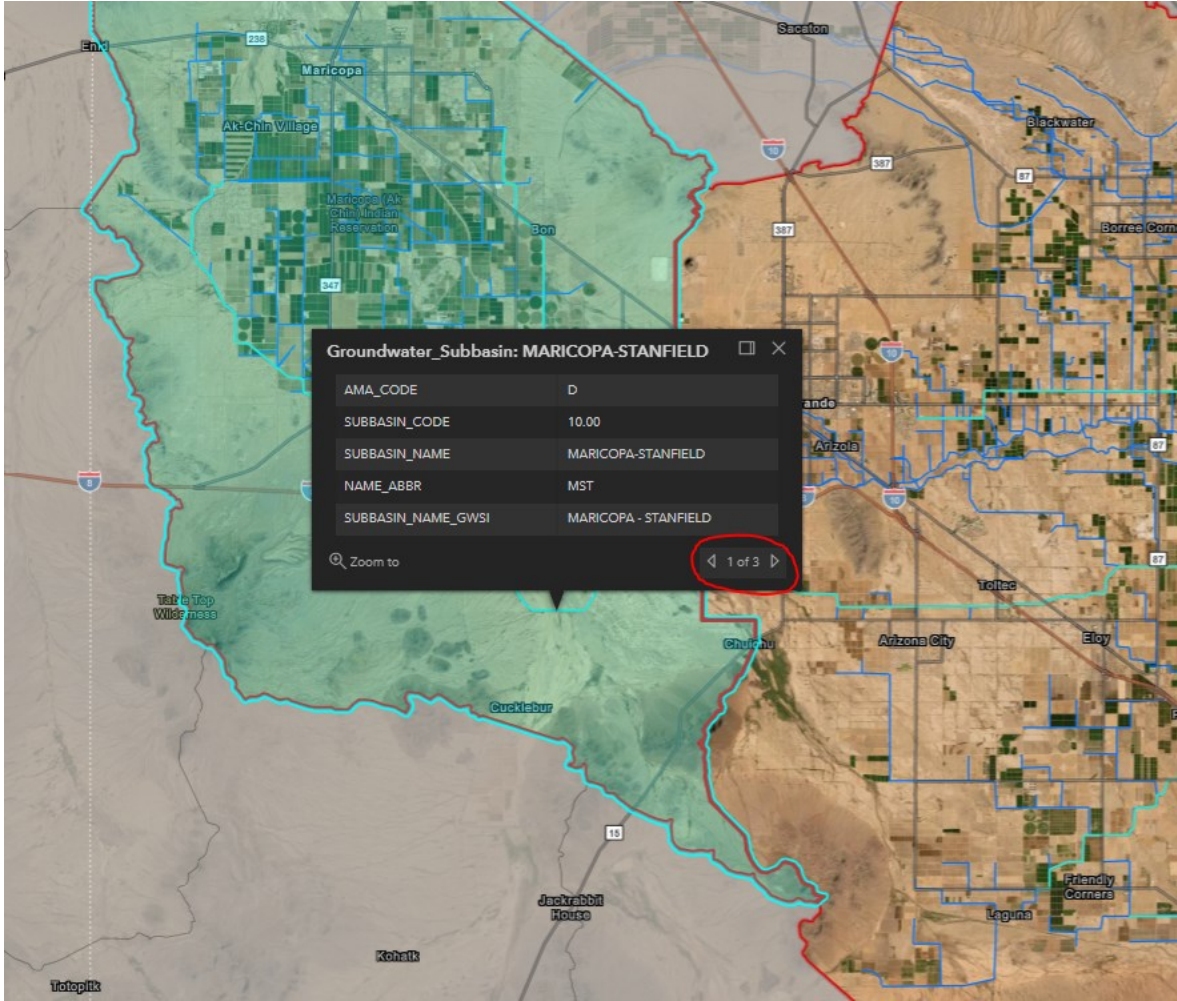
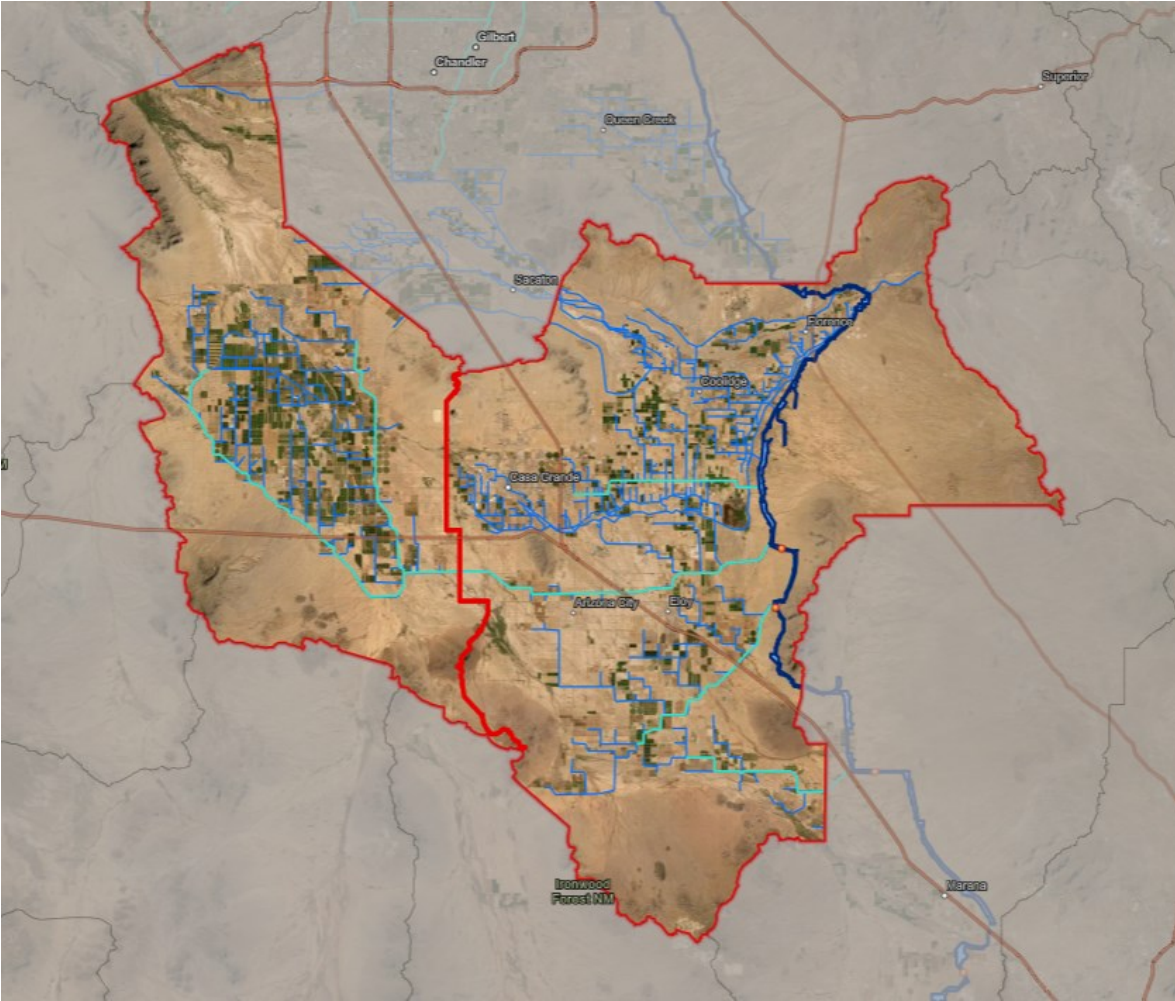
**Goal:** Document existing infrastructure as well as legal, regulatory, and environmental characteristics that could impact future water use and development in the EMS basin.

**Approach:** Developed infrastructure working group. Met regularly to discuss the GIS layers and data sources, improve user experience, and group layers into easy to search categories.

**Results:** Interactive GIS tool with approx. 50 layers of data that can be used to help determine water solutions for the future.



# Infrastructure Analysis – Inventory (continued)



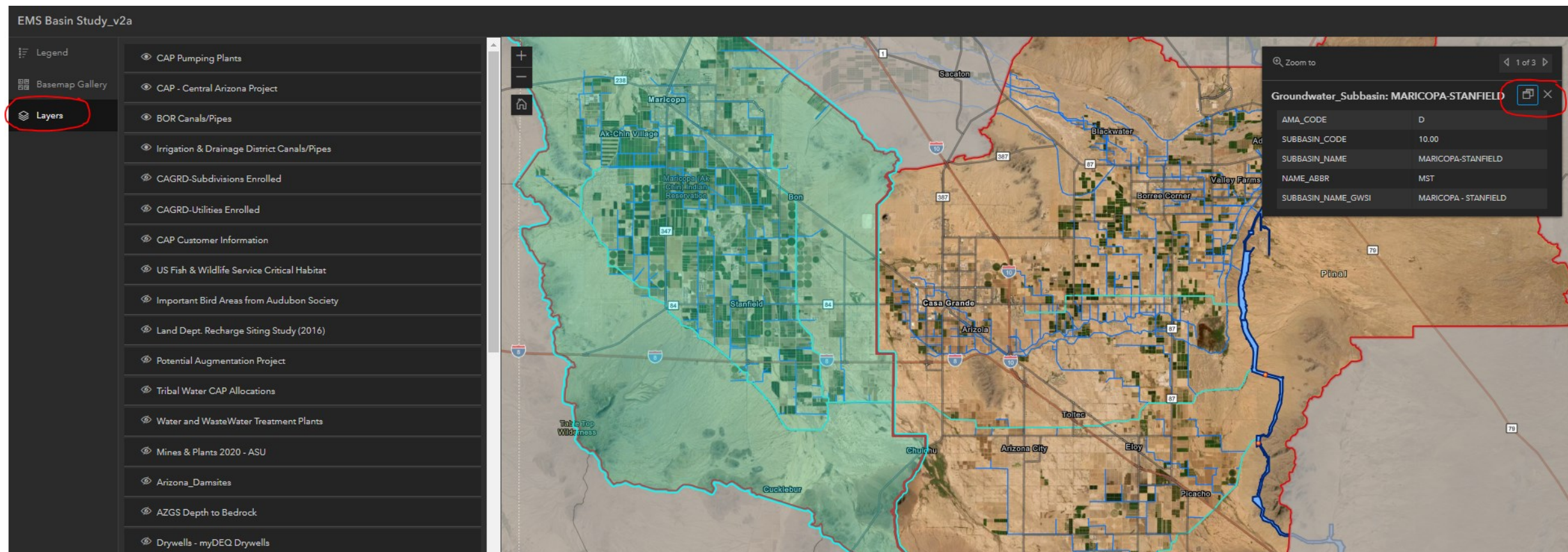
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PINAL  
PARTNERSHIP

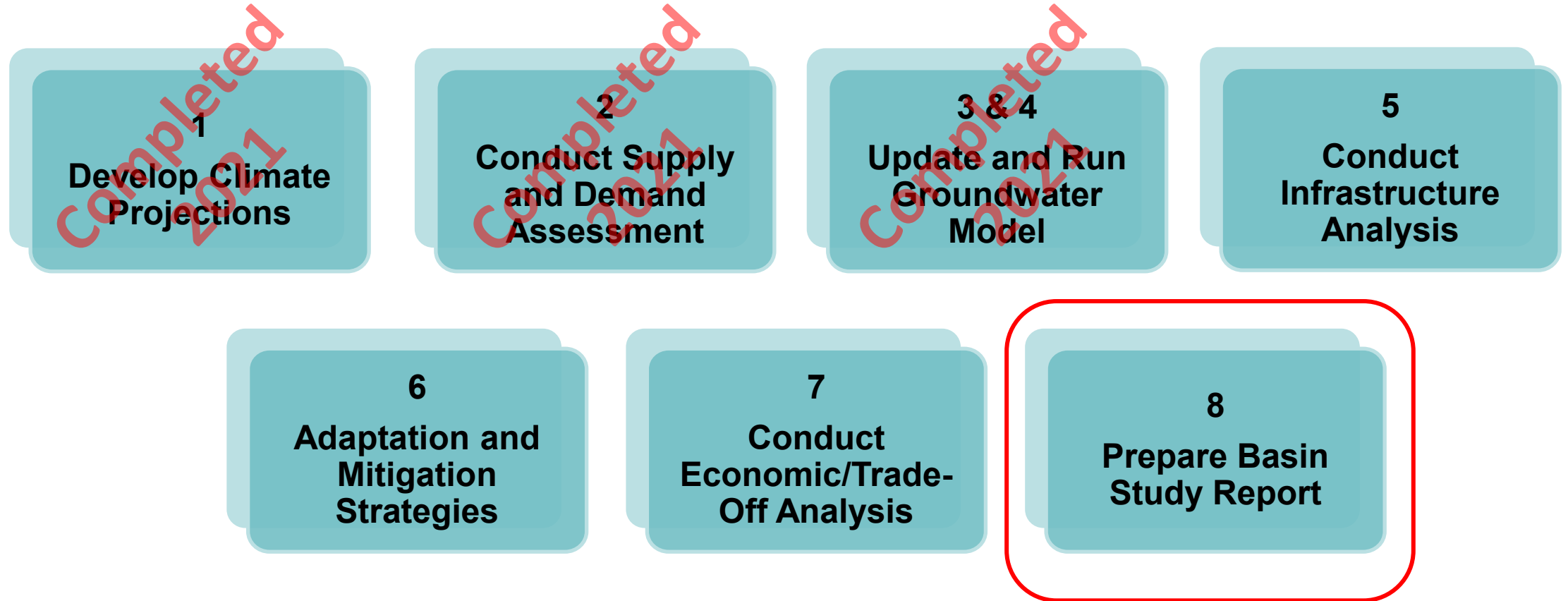


# Infrastructure Analysis – Inventory (continued)



Find link in the chat box.

# Basin Study Tasks



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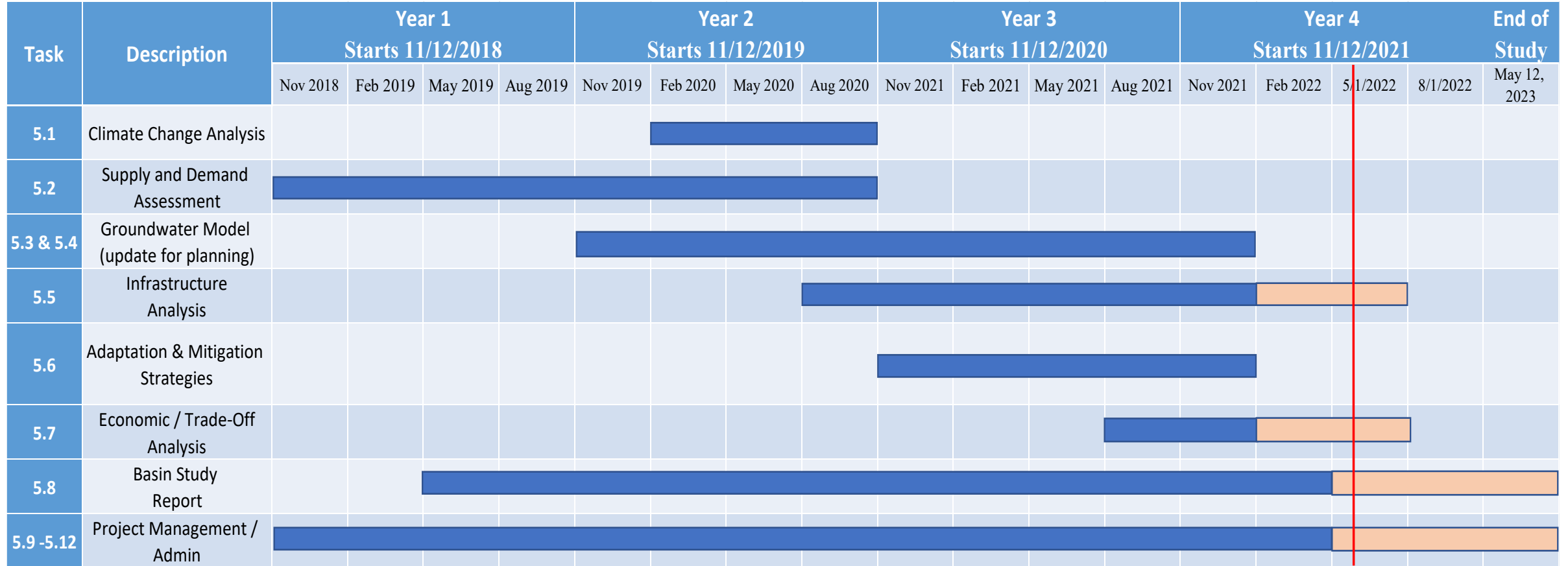
PINAL  
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# Basin Study Report

- Initial Draft
- Team Review
- Bureau of Reclamation Policy Review
- Publish the Report



# Updated Schedule



On-going Tasks



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PINAL  
PARTNERSHIP

# Budget Update

	<u>Reclamation</u>	<u>Pinal Partnership</u>
Original Budget (\$1,360,000)	\$680,000	\$680,000
Modification (1,860,000)	\$930,000	\$930,000
Spent to date		
Labor	\$780,000	\$500,000
Reports		<u>\$873,000</u>
Total	\$780,000	\$1,373,000





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# U.S. Bureau of Reclamation WaterSMART Program

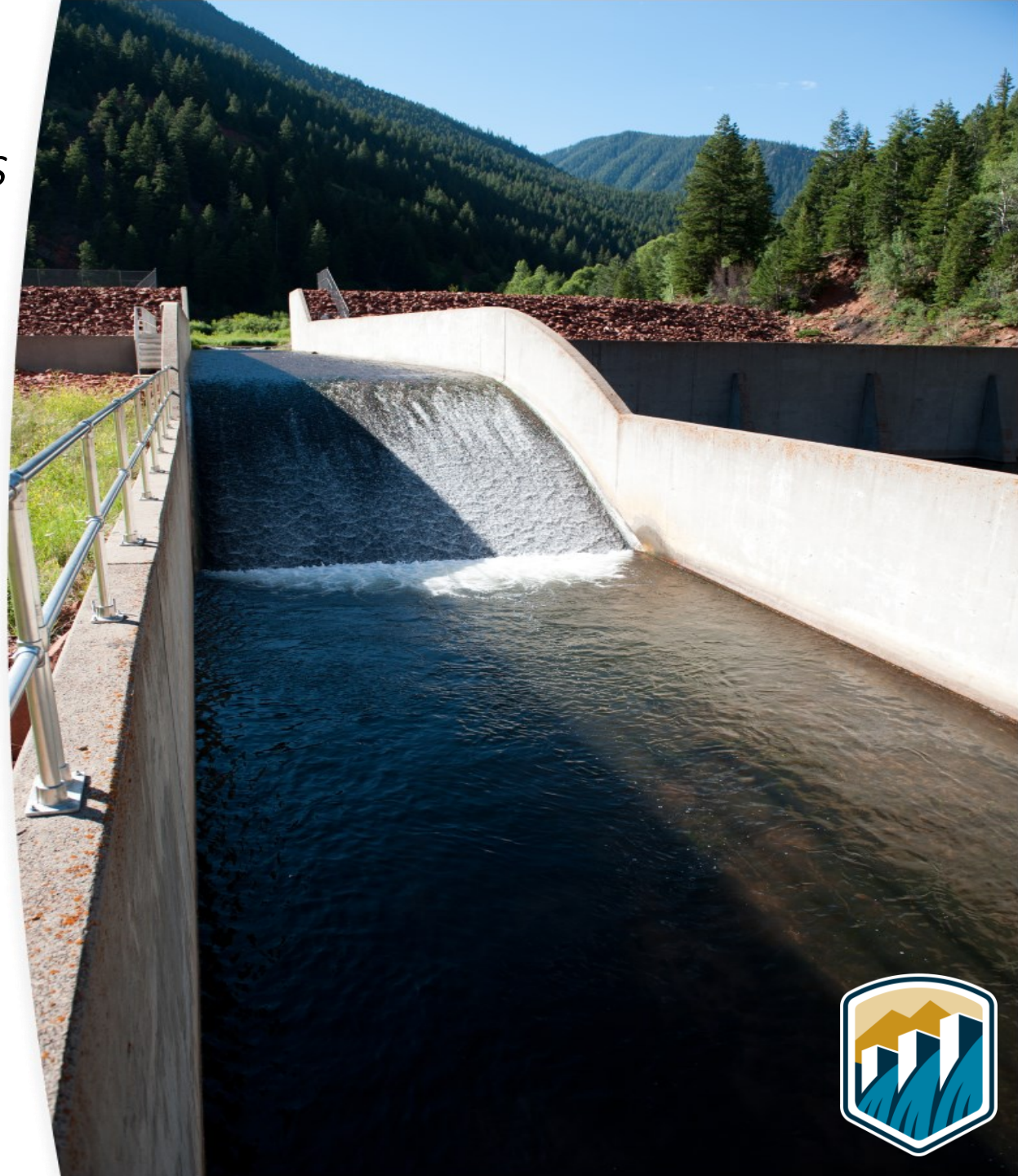
Lisa Rivera, Natural Resource Specialist  
Phoenix Area Office  
May 20, 2022



# WaterSMART Program

*Sustain and Manage America's Resources for Tomorrow*

- Working to achieve a sustainable water strategy to meet the Nation's water needs
- Managed out of Reclamation's Denver Office
- Relies on collaboration with stakeholders to develop local solutions to water supply issues



# WaterSMART Program Framework



Provides a framework for Interior to support water supply reliability for multiple water users





# Build a Foundation Through WaterSMART

## Planning

- Cooperative Watershed Management Program - Phase I
- Drought Contingency Planning
- Water Marketing Strategy Grants
- Water Conservation Field Services
- Title XVI Projects

## Science and Tools

- Applied Science Grants
- Drought Resiliency Projects
- Basin Studies
- Water Management Options Pilots

## On-the-Ground Projects

- Drought Resiliency Projects
- Small-Scale Water Efficiency Projects
- Water & Energy Efficiency Grants
- Environmental Water Resources Projects
- Title XVI Projects



# WaterSMART Program Basics

- ➔ **Most WaterSMART activities are grant programs**
- ➔ **Generally, a 50% non-Federal cost share is required for grants**
- ➔ **Applicants include entities such as states, tribes, cities, water districts, irrigation districts, flood control districts, non-profits\*, and watershed groups\* within the 17 western states**
- ➔ **Funding is allocated through annual competitive processes**



# Water Management Options Pilots

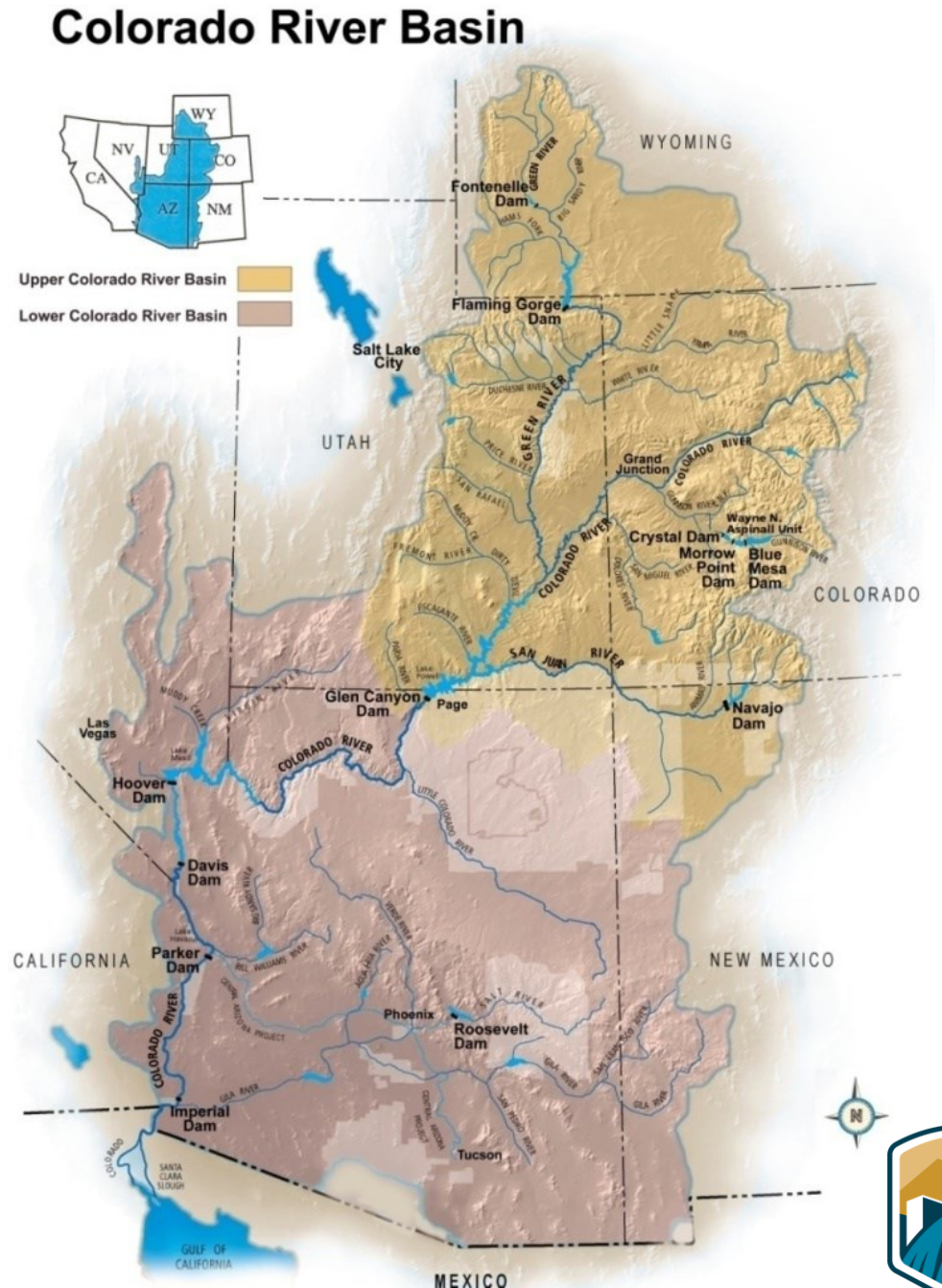
## *Basin Study Program*

**Objective:** Technical efforts that build upon *completed* Basin Studies, such as additional, updated, or expanded analysis to further develop strategies identified in a Basin Study.

Entities submit a *Letter of Interest* to Reclamation.

## Funding

- 50% non-Federal cost share required
- These pilots *are not* grants or financial assistance
- Reclamation funding must be used for Reclamation staff time or contractors



# Water Management Options Pilots

## *Previously Selected Pilots*

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- Sacramento Regional Water Bank
- Exploration of Water Savings from Irrigation Management Tools in the Lower Colorado River Basin
- Santa Fe Integrated Water Management System Model Development for Resource Optimization
- Santa Ana Watershed-Wide Water Budget Decision Support Tool
- Evaluating Low Impact Development and Surface Water – Groundwater Interaction in the Los Angeles Basin
- Toolbox for Sequencing Voluntary On-Farm Water Conservation Projects and Accounting for Water Savings in the Deschutes Basin
- East Fork Irrigation District Sediment Management Plan





# *WaterSMART Grants*

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- **Water & Energy Efficiency Grants (WEEG)**

**Objective:** Support projects that conserve and use water more efficiently, implement or increase renewable energy production, and mitigate risk of future water conflict.  
(*Quantifiable* water or energy savings.)

- **Small-Scale Water Efficiency Projects (SWEPP)**

**Objective:** Small-scale on-the-ground projects (identified through previous planning efforts) that seek to conserve, better manage, or make more efficient use of water supplies.



# ***Drought Response Program***

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- **Drought Contingency Planning**

**Objective:** Development of comprehensive drought plans.

- **Drought Resiliency Projects**

**Objective:** On-the-ground projects and modeling tools that increase water supply reliability or improve water management, building long-term resilience to drought.



# Water Conservation Field Services Program (WCFSP)

*5 sub-activities*

- Water Management Planning
- System Optimization Review (SOR)
- Designing Water Management Improvements
- Demonstrating Conservation Project Technologies
- Technical Assistance

Note: Locally, the WCFSP program is managed by the Lower Colorado Basin regional and area offices.

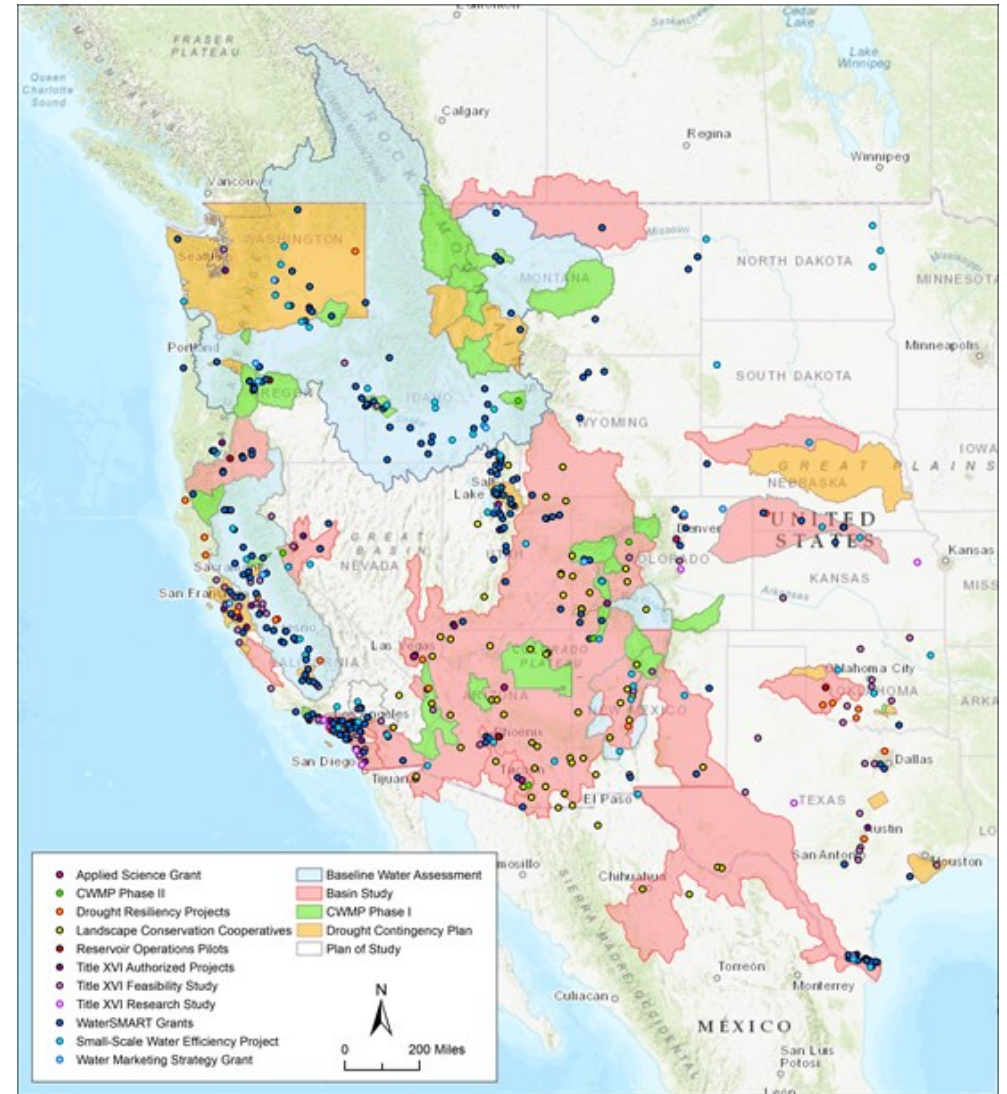
Interior Region 8: Lower Colorado Basin



# WaterSMART Data Visualization Tool

- Interactive website with WaterSMART Program information, including:
  - All funded projects
  - Interactive maps
  - Featured project tours

[www.usbr.gov/watersmart/](http://www.usbr.gov/watersmart/)



# How to Find Funding Opportunities

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- WaterSMART funding announcements are posted on the [Grants.gov](https://www.Grants.gov) website.
- More information also available on Reclamation's WaterSMART website: [usbr.gov/watersmart/](https://usbr.gov/watersmart/)
- Send an email to [watersmart@usbr.gov](mailto:watersmart@usbr.gov) with your name and email address to receive WaterSMART Program updates. Or, complete the form on our website.
- Notice of Funding Opportunity (NOFO) open or expected in coming months for:
  - Drought Resiliency Projects (closes June 15, 2022)
  - Water and Energy Efficiency Grants (WEEG) (closes July 28, 2022)
  - Environmental Water Resources Projects (expected to open in June 2022)
  - Water Conservation Field Services Program (WCFSP) (expected to open in Sept 2022)



# WaterSMART Program Web Links

Note: Successful proposals for each program are available on the website

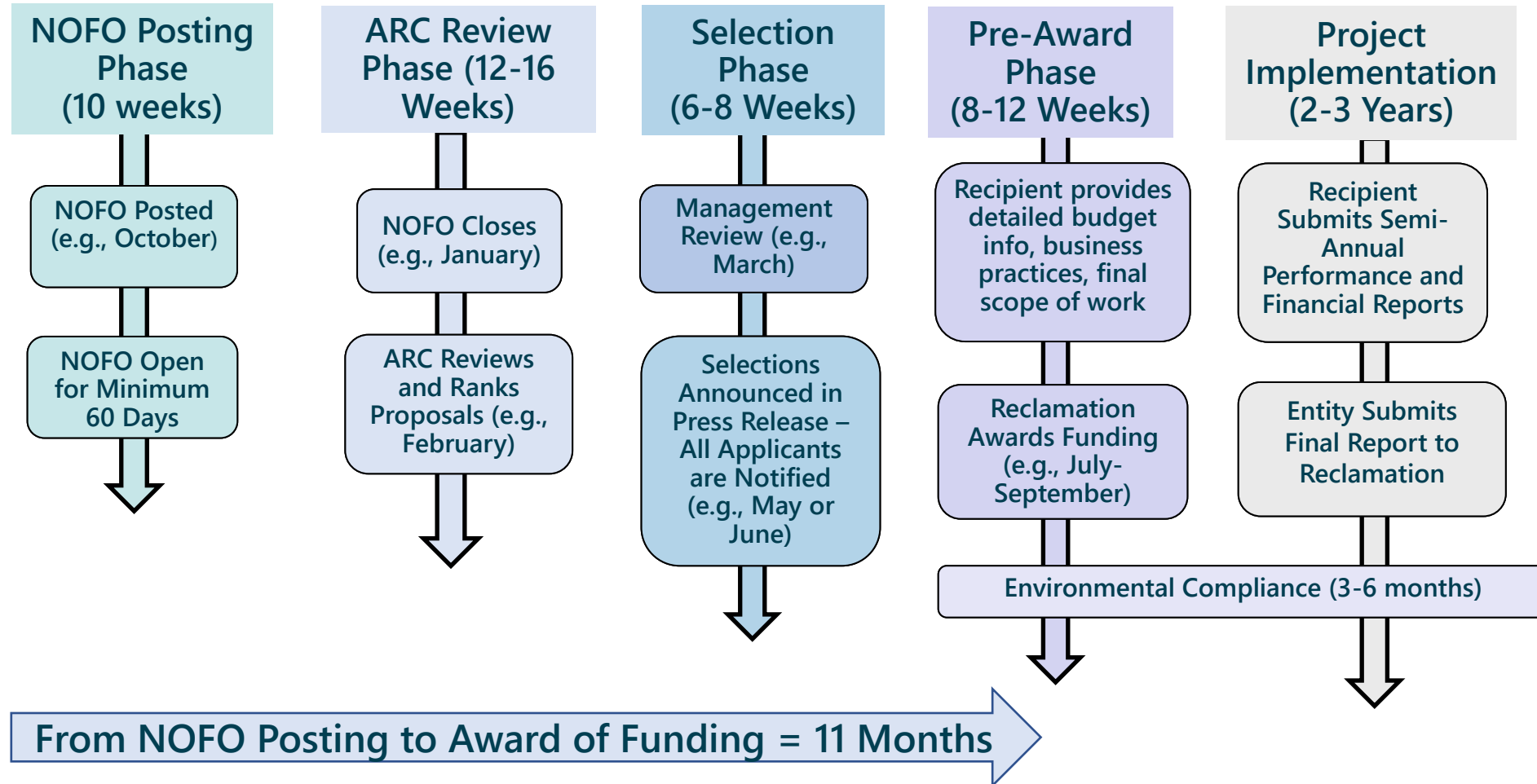
<b>Basin Study Program</b>	Basin Studies - <a href="https://www.usbr.gov/watersmart/bsp/index.html">https://www.usbr.gov/watersmart/bsp/index.html</a> Reservoir Operations - <a href="https://www.usbr.gov/watersmart/pilots/index.html">https://www.usbr.gov/watersmart/pilots/index.html</a> Applied Science - <a href="https://www.usbr.gov/watersmart/appliedscience/index.html">https://www.usbr.gov/watersmart/appliedscience/index.html</a>
<b>Title XVI Program</b>	<a href="https://www.usbr.gov/watersmart/title/index.html">https://www.usbr.gov/watersmart/title/index.html</a>
<b>WaterSMART Grants</b>	Water and Energy Efficiency Grants (WEEG) - <a href="https://www.usbr.gov/watersmart/weeg/index.html">https://www.usbr.gov/watersmart/weeg/index.html</a> Small-Scale Water Efficiency Grants (SWEP) - <a href="https://www.usbr.gov/watersmart/swep/index.html">https://www.usbr.gov/watersmart/swep/index.html</a> Water Marketing Strategy Grants - <a href="https://www.usbr.gov/watersmart/watermarketing/index.html">https://www.usbr.gov/watersmart/watermarketing/index.html</a>
<b>Water Conservation Field Services Program (WCFSP)</b>	<a href="https://www.usbr.gov/waterconservation/">https://www.usbr.gov/waterconservation/</a>
<b>Drought Response Program</b>	<a href="https://www.usbr.gov/drought/">https://www.usbr.gov/drought/</a>
<b>Cooperative Watershed Management Program (CWMP)</b>	<a href="https://www.usbr.gov/watersmart/cwmp/index.html">https://www.usbr.gov/watersmart/cwmp/index.html</a>





# WaterSMART Selection Process

## Sample schedule



# Environmental and Cultural Resource Compliance

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- All funded projects must comply with the Federal Environmental Policy Act (NEPA) and other Federal environmental and cultural resource laws.
- Contact the local Reclamation office to discuss the potential compliance requirements and associated costs.
  - Reclamation assists with covering some or all environmental compliance costs.
- This compliance must occur before any ground disturbing activities can take place, including installation of meters and similar devices.
- Expect compliance process typically takes 3 to 6 months.



# Tips for Applicants

## *Crafting grant proposals and submitting applications*

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- [Grants.gov](https://www.grants.gov) website has tutorial videos on how to register with and use the system. Register well in advance.
  - System for Award Management (SAM) registration must be renewed annually.
- Cost share must be *non-Federal funding*.
  - Could apply for state funding for the same project.
  - State funding can count as your cost share portion.
  - Water Infrastructure Finance Authority (WIFA) and State Revolving Funds (SRF) loans can count as cost share, *only if there is no loan forgiveness*.
- Project costs are reimbursed. (Not a lump sum grant.)
- Able to apply for multiple grants. If a project is selected for multiple awards, we'll award one opportunity providing the most benefit.
- For large projects, consider doing it in phases and applying for funding in sequential years.





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[usbr.gov/watersmart/](https://usbr.gov/watersmart/)

Send an email to [watersmart@usbr.gov](mailto:watersmart@usbr.gov) with your name and email address for WaterSMART Program updates.



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# Questions / Discussion



# Upcoming Meetings

## **Project Meetings**

tbd as needed

## **Final Stakeholder Meeting**

Spring 2023





# Closing Remarks

**Ron Fleming, President and CEO, Global Water Resources  
and Pinal Partnership Board of Directors**



For more information:

<http://pinalpartnership.com/ems-basin-study>

Valerie Swick [vswick@usbr.gov](mailto:vswick@usbr.gov)

Jake Lenderking [Jake.Lenderking@gwresources.com](mailto:Jake.Lenderking@gwresources.com)

**Thank You**

