

Regional Drought Contingency Plan & Regional Water Reliability Plan Joint Meeting



February 8, 2017



MWH

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part of



Stantec



Today's Agenda

1 Regional Water Supply Reliability Program Branding

2 Project Management Update

3 RDCP / RWRP Refresher

4 Vulnerability Assessment Update

5 Next Steps – Mitigation Actions






1. Regional Water Supply Reliability Program Branding

Roseville & PCWA

2. Project Management Update

- Status of Scopes and Budgets (RDCP/RWRP/IRWMP)
- Status of Project Agreements (RWRP)

Status of Scopes and Budgets

RDCP & RWRP Tasks	Status	Consultants		
		Budget	Expended	Remaining
Task 1 –Vulnerability Assessment		\$ 128,300	\$ 122,200	\$ 6,100
Task 2 –Mitigation Actions & Response Actions		\$ 122,000	—	\$ 122,000
Task 3 –Conjunctive Use Program Operational Analysis		\$ 190,900	—	\$ 190,900
Task 4 –Implementation Road Map (operational & administrative framework, update process, framework for larger conjunctive use opportunities & regional groundwater bank)		\$ 74,400	—	\$ 74,400
Task 5 –Documentation and Reporting (RDCP & RWRP)		\$ 90,800	—	\$ 90,800
Task 6 –Prepare Proposition 1 IRWM Planning Grant Application		\$ 25,000	\$ 13,302	\$ 11,698
Task 7 –CVP Partner Engagement		\$ 25,000	—	\$ 25,000
Task 8 –Administrative Activities (RDCP DPTF, C&O Plan, drought monitoring; RDCP & RWRP work plans; RDCP & RWRP project management)		\$ 52,700	\$ 32,700	\$ 20,000
TOTALS		\$ 709,100	\$ 168,202	\$ 540,898

Status of Project Agreements

ARB IRWM Plan 2018 Update

Proposed 2018 Update Tasks	Update to:		
	Meet 2016 IRWM Plan Standards	Address Changed Conditions	Reflect IRWM Plan Implementation & Ongoing Efforts
Category (a): Project Administration			
Task 1 – Administration	To Meet Grant Agreement Requirements		
Task 2 – Invoicing			
Task 3 – Reporting			
Category (b): Plan Update			
Task 4 – Update Region Description			
4.1 Update Climate Analysis	■	■	
4.2 Update Water Quality	■		
4.3 Update Basic Information		■	■
Task 5 – Update Planning Coordination and Integration	■	■	■
Task 6 – Update IRWM Plan Governance		■	■
Task 7 – Update IRWM Plan Framework			
7.1 Update Objectives and Strategies	■	■	■
7.2 Update Project Review Process	■		
7.3 Update IRWM Web-based Interface	■		
7.4 Update and Add Projects; Conduct Project Prioritization and Vetting	■	■	■
Task 8 – Update IRWM Plan Implementation	■	■	■
Task 9 – Prepare IRWM Plan Update			
9.1 Draft IRWM Plan Update	■	■	■
9.2 Final IRWM Plan Update	■	■	■
Category (c): IRWM Plan Outreach			
Task 10 – IRWM Plan Development Outreach	■		
Task 11 – IRWM Plan Public Workshops	■	■	■

Total IRWMP Update Budget \$ 606,260

Leverage Existing Work (RDCP/RWRP) \$ 238,840

Additional RWA In-Kind \$ 56,730

DWR IRWM Grant \$ 250,000

Remaining (unfunded) \$ 60,690

3. Regional Drought Contingency Plan/ Regional Water Reliability Plan (RDCP/RWRP)

Drought Planning Task Force Meeting

What is an RDCP?

- Drought contingency planning processes are structured to address the following questions:
 - How will we recognize the next drought in the early stages?
 - How will drought affect us?
 - How can we protect ourselves from the next drought?
- Proactive approach to building long-term resiliency to drought
- \$200K planning grant from Reclamation Drought Response Program

North American Basin RDCP

- **GOAL** to increase the resiliency of the region's water resources in the face of future climate and drought conditions.
- **PURPOSE** is to develop (1) a prioritized list of actions to improve regional water supply reliability, and (2) recommendations for implementation
- Study Participants:
 - 5 water agencies with Reclamation water service and settlement contracts
 - 12 water agencies in North American Basin
 - RWA, Water Forum, DWR, Reclamation

What is an RWRP?

- 2013 RWA Strategic Plan calls for development of a Regional Water Reliability Plan
- Approach to reliability planning is to identify:
 - Vulnerabilities of each agency
 - Mitigation measures to help overcome vulnerabilities
- Intent is to have “basic levels of service” as defined by each water agency under varying conditions
- Considers both current and long-term (20 years) demands

4. Vulnerability Assessment Update

RDCP Six Required Elements

1. Drought Monitoring

- Establish data metrics to indicate drought conditions

2. Vulnerability Assessment

- Assess risks and impacts of current and future droughts

3. Mitigation Actions

- Identify & prioritize actions to mitigate vulnerabilities

4. Response Actions

- Identify & prioritize response actions to ongoing drought

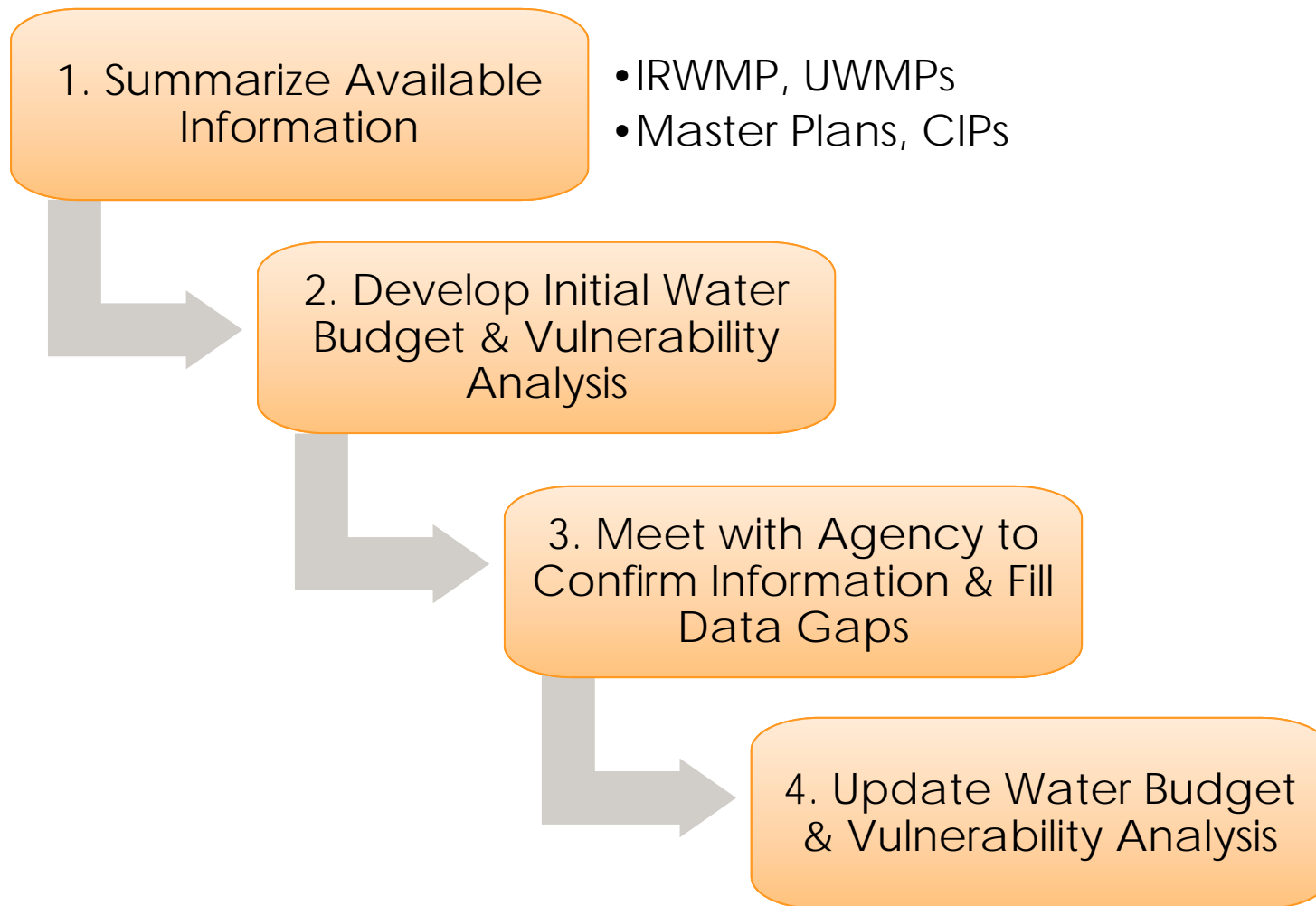
5. Operational & Administrative Framework

- Define procedures for conducting drought monitoring, initiating mitigation and response actions

6. Update Process

- Define process for monitoring and updating the RDCP

Information Gathering Process



Agency Interview Summary

Met with 23 agencies during
December and January

- Received good information on regional interties, and updates to water budgets
- Received some vulnerabilities and opportunities
- Difficulty in obtaining information on comparable cost of water

Cost of Water

- Key mitigation strategy is expected to be expanded conjunctive use
- Cost has been identified as a barrier to implementing conjunctive use
- We have had difficulty obtaining comparable / consistent cost information such that win-win scenarios can be developed

Cost of Water

Looking for consistent set of information across all agencies for each source of water:

- **Corpus** = cost of raw water supply
- **Debt Service** = fixed cost of debt service on existing infrastructure
- **Variable** = operation maintenance and energy

1 Outcome: Updated Water Portfolios

1. Available Water Supplies (surface water, groundwater, recycled water)
2. Production Capacity (WTP, wells)
3. Water Demand (current, buildout)
4. Historical Monthly Deliveries
5. Reliability Targets (Level of Service: desired, restricted)
6. Regional Interties (Existing and Planned)
7. Water Supply Delivery Capacity
8. Cost of Water

Outcome: Draft Intertie Map

3 Outcome: Vulnerabilities



Vulnerability Examples

SW Institutional Threats	CVP/Folsom Lake Operations, Evolving Regulations (Curtailment, Environmental Flows), Hodge Flow
SW Physical Threats	Climate Change/Variability, Inability to Divert during Low Storage/Flow, Source Contamination
GW Institutional Threats	Drinking Water Standards, State Water Quality Regulations, SGMA
GW Physical Threats	Groundwater Contamination, Groundwater Production Capacity
Institutional Limitations on Sharing Supplies	Existing POU/Service Area Limitations, Disparity in Cost of Water, Diverse Agency Goals & Interest
Physical Limitations on Share Supplies	Inconsistent Fluoridation Practice, Limited Interties Capacities, Pressure Zones, Real-time Data Sharing
Threats to Infrastructure Integrity	Aging Infrastructure, Geologic Hazards, Flooding Hazards, Security Threats

4 Outcome: Opportunities



Vulnerabilities & Opportunities

	Expand Regional Interties	Expand Use of Existing GW Capacity	Enhance Regional GW Banking	Expand Recycled Water Use	Reduce Institutional Barriers	Expand Out-of-basin Transfers	Increase Surface Storage	Access SW Via The Sacramento River	Other Infrastructure Improvement
SW Institutional Threats			✓		✓	✓	✓	✓	
SW Physical Threats	✓	✓	✓	✓		✓	✓	✓	✓
GW Institutional Threats	✓	✓	✓						
GW Physical Threats	✓	✓	✓	✓					✓
Institutional Limitations on Sharing Supplies			✓		✓	✓			
Physical Limitations Sharing Supplies	✓						✓	✓	✓
Threats to Infrastructure Integrity	✓				✓				✓

5. Next Steps – Mitigation Actions

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5. Operational & Administrative Framework

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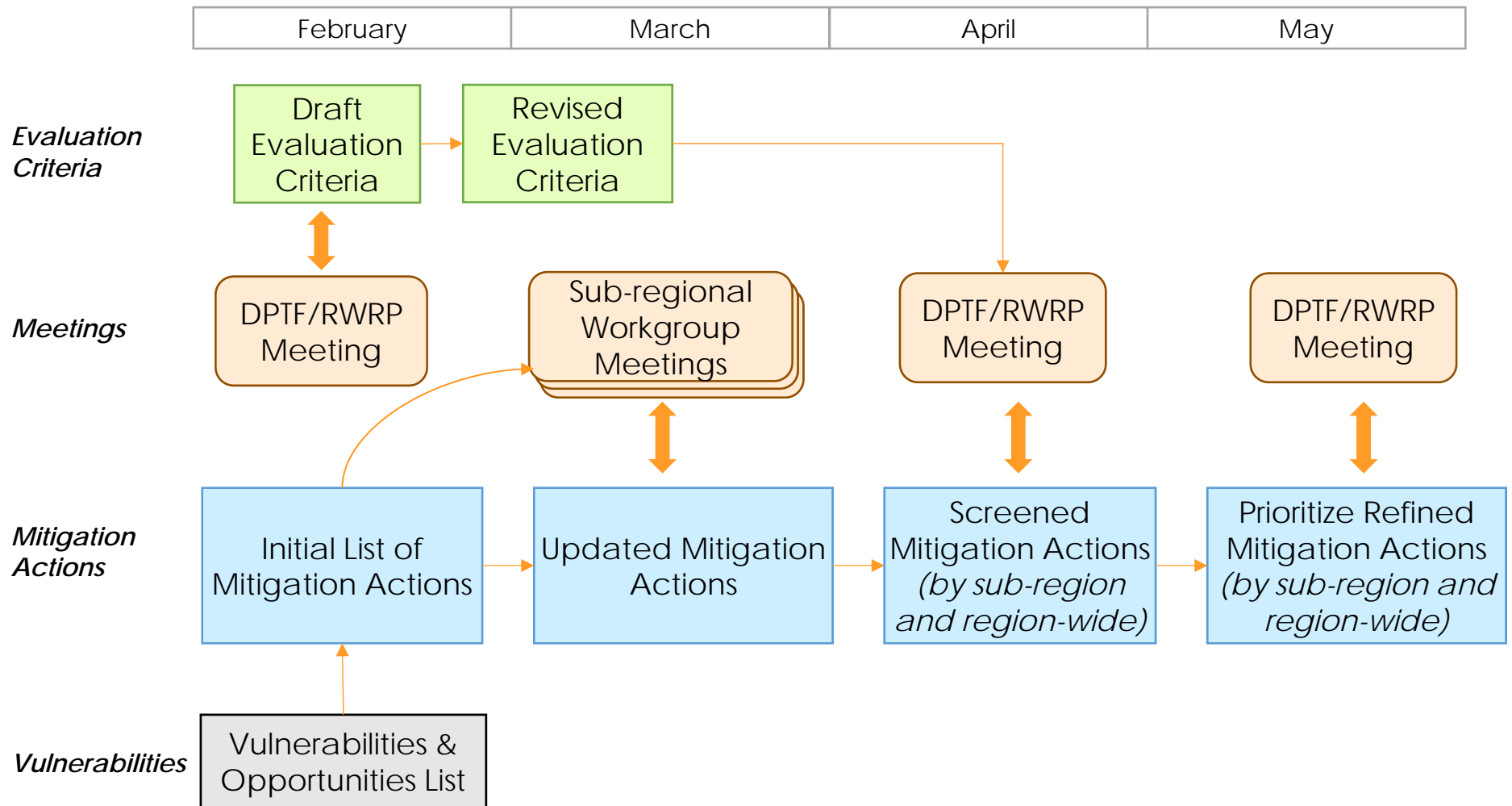
6. Update Process

- Define process for monitoring and updating the RDCP

Approach for Mitigation Actions

1. Develop mitigation actions to address identified vulnerabilities:
 - Opportunities identified through agency interviews
 - ARB IRWMP & Sacramento-San Joaquin Basin Study
2. Develop evaluation criteria & metrics
3. Engage participants and stakeholders to develop subregional and regional mitigation actions and opportunities

Process for Developing Mitigation Actions



Draft Evaluation Criteria



Contribution to Objectives

- Assesses project's contribution to each of the objectives

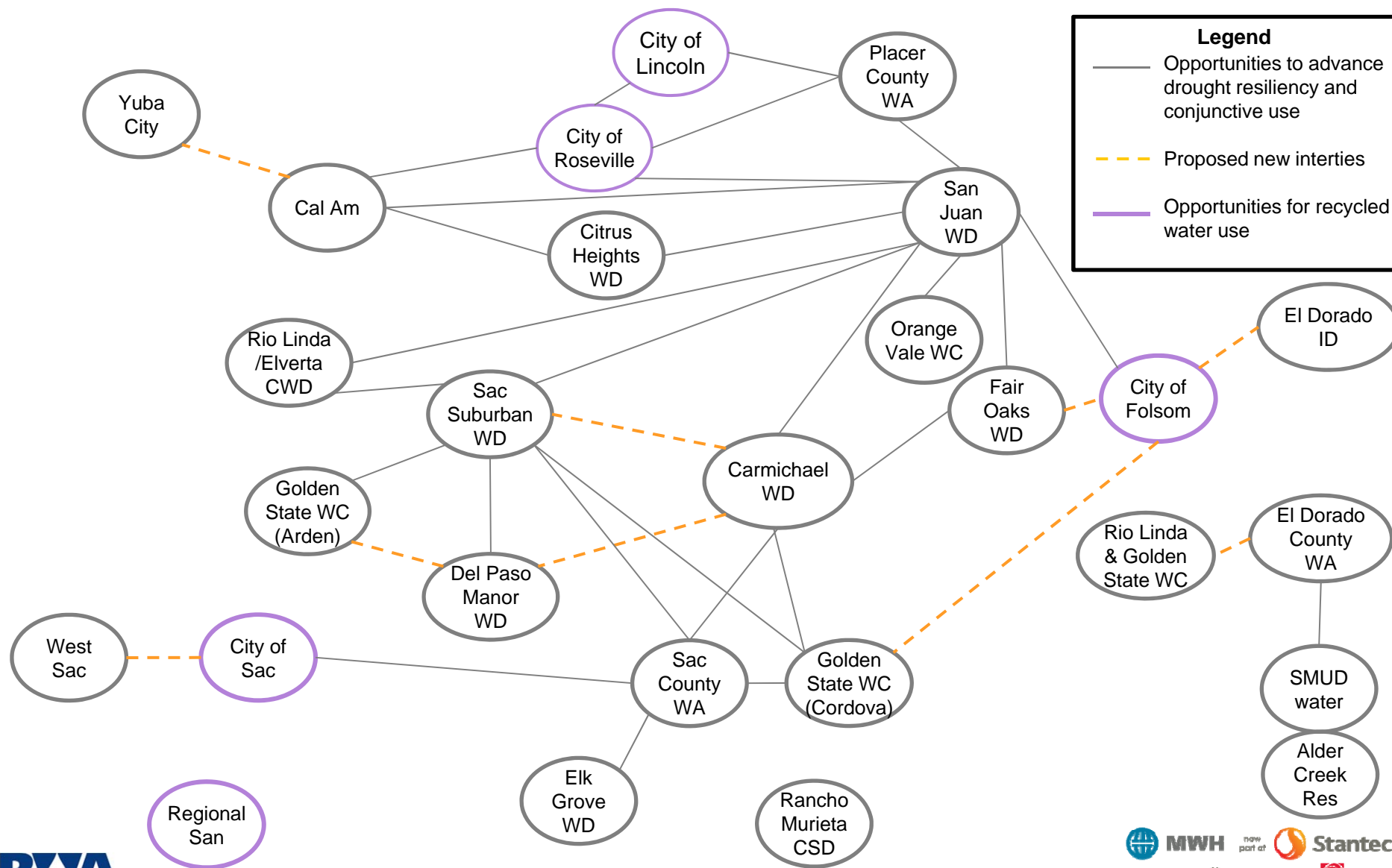
Project Readiness

- Assesses the readiness of the project to be implemented

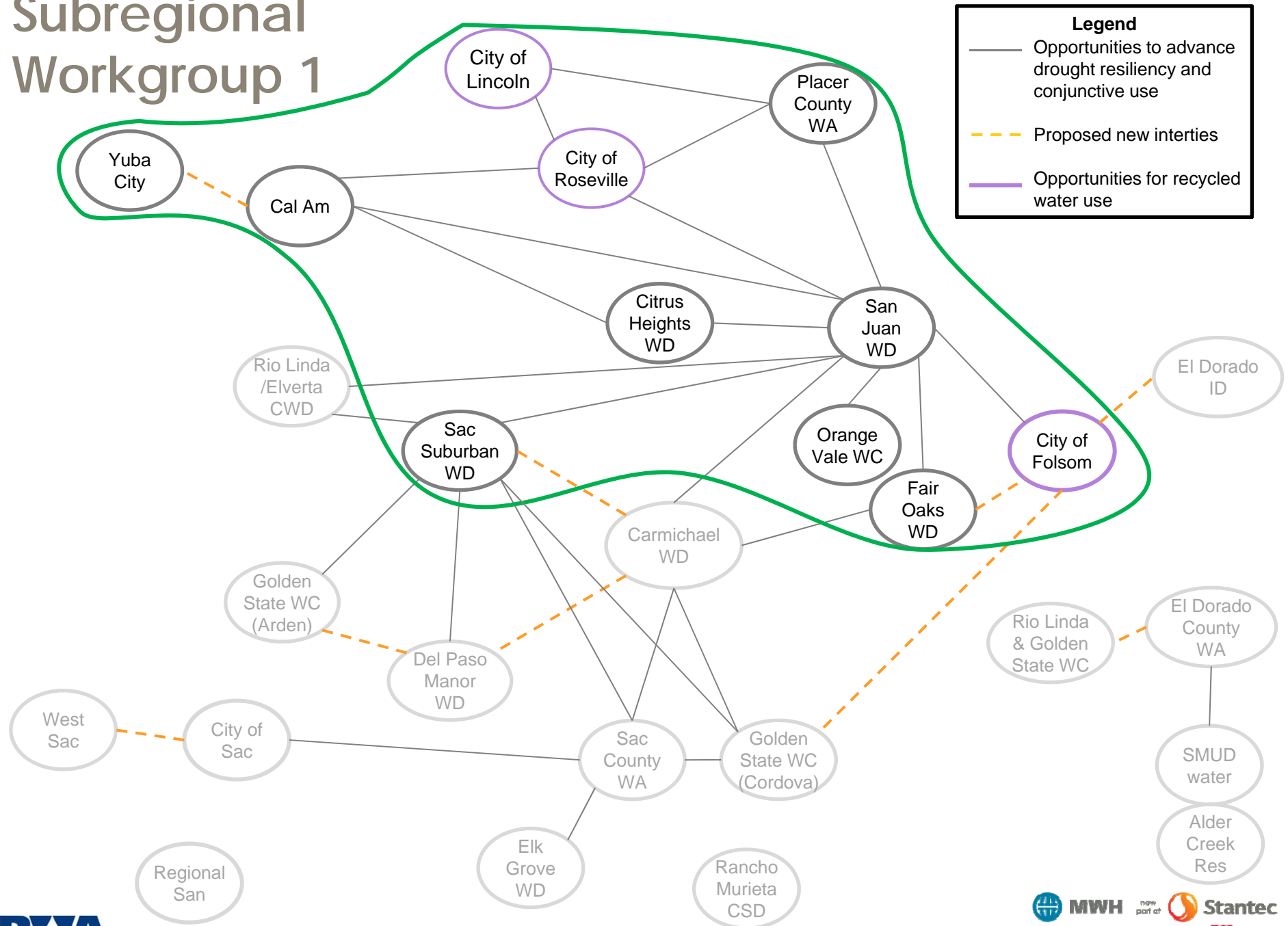
Implementation Complexity

- Assesses how likely a project will be implemented within a reasonable timeframe to achieve its potential benefits

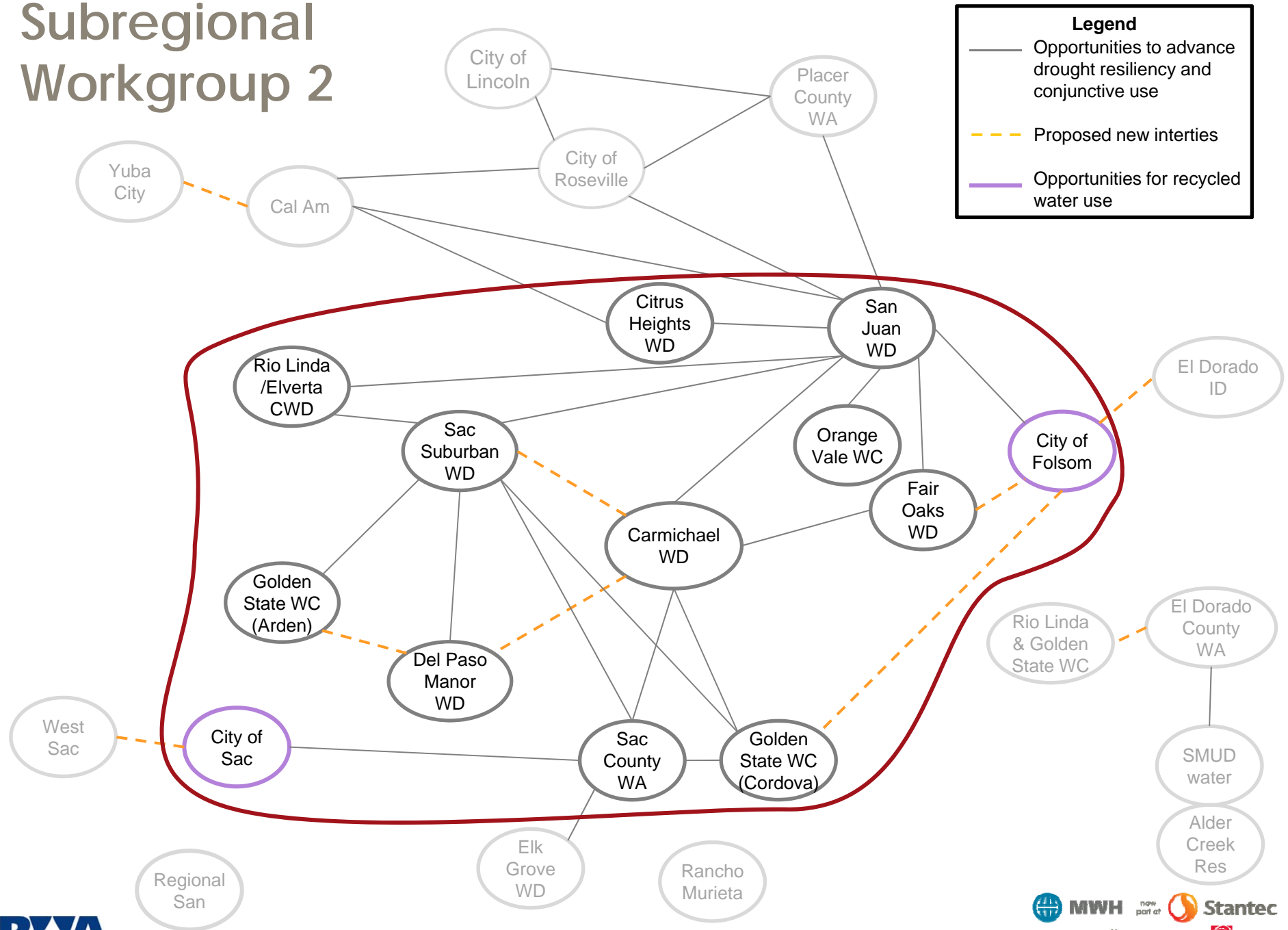
Regional and Subregional Opportunities Identified by Agencies



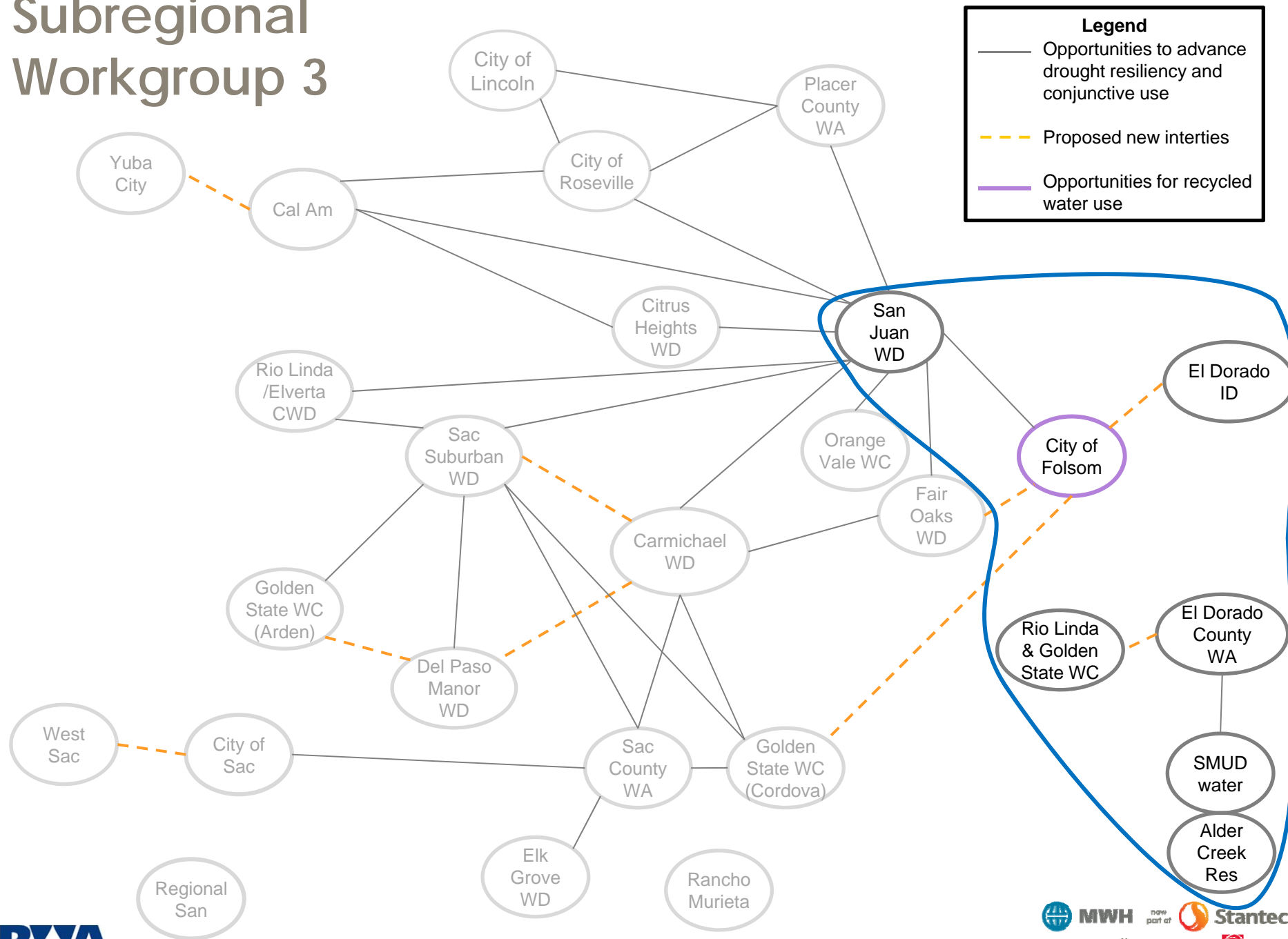
Subregional Workgroup 1



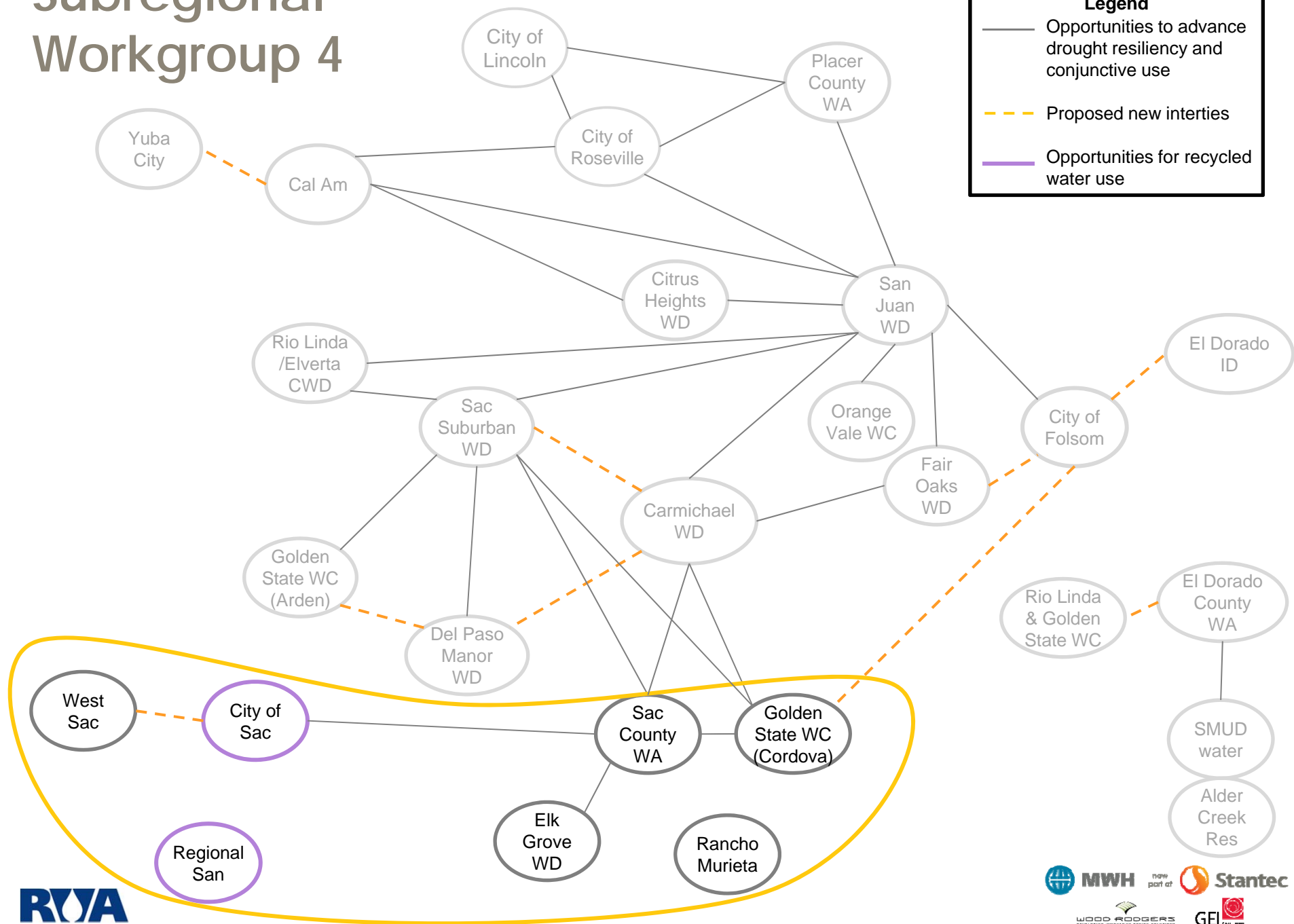
Subregional Workgroup 2



Subregional Workgroup 3



Subregional Workgroup 4



Workgroup Meeting Format

- Meeting Goals:
 - Update the initial list of mitigation actions
 - Develop sub-regional and regional mitigation actions to improve drought resiliency and enhance conjunctive use
 - Agency preferences for mitigation action
- Agencies will receive initial lists of mitigation actions 1-week ahead of the meeting
- 3 hour meeting

Next Steps

Feedback on Vulnerability TM and Agency Portfolios

February 10th

Feedback on Evaluation Criteria and Metrics

February 15th

Schedule Subregional Workgroup Meetings

February

Conduct Subregional Workgroup Meetings

Week of March 6th

Next Joint DPTF/RWRP Meeting

April 12th