American River Basin Study

Executive Steering Committee Meeting # 3

October 24, 2017, 1-3 pm

City of Folsom — Distinctive by Nature
City of Roseville California
City of Sacramento
PCWA — water • energy • stewardship
RWA — Regional Water Authority
El Dorado County Water Agency
U.S. Department of the Interior — Bureau of Reclamation
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Meeting Agenda

1. **Introductions**
2. **Recap of to-date development and the Plan of Study**
   - Study objectives and anticipated outcomes
   - Basin Study Requirements
   - Federal and non-Federal cost-shares & Reporting Requirements
   - Team roles and responsibilities
   - Schedule and product dependency
3. **Discussion**
   - Relationship with other projects and program
   - scenarios to be evaluated in the ARBS
4. **Near-term Activities (3-6 month)**
5. **Next-Steps/Action Items**

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Recap

March 2016 - Reclamation released a soliciation seeking letters of interest for prospective Basin Study candidates

June 2016 - Proposal for an American River Basin Study (ARBS) submitted by six non-Federal Partners

- Placer County Water Agency
- City of Roseville
- City of Sacramento
- El Dorado County Water Agency
- City of Folsom
- Regional Water Authority

September 2016 - Award of $650K by Reclamation for the ARBS; $1.8M proposed by non-Federal Partners as in-kind matching contributions.

June 28, 2017 –MOA for the ARBS fully signed by Reclamation and six non-Federal Partners

December 28, 2020 – MOA expires

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WaterSMART Basin Studies

Focus

- Evaluate the impacts of **climate change** and help ensure sustainable water supplies by identifying strategies to address **imbalances** in water supply and demand.
- Basins and subbasins in the 17 western states.

Utility

- The resulting **recommendations** DO NOT constitute Federal decisions or authorization; however, further feasibility studies for such purposes are possible under the authorizing legislation.

Required Basin Study Elements

- Develop projections of future water supply and demand in the basin, including an assessment of risk to the water supply relating to potential changes in climate.
- Analyze how existing water and power infrastructure and operations will perform in the face of changing water realities (including ecosystem, recreation, and water quality).
- Develop adaptation and mitigation strategies specific to the American River Basin within the broad context of the SSJRBS to address identified imbalances between current and future supplies and demands.
- Complete a trade-off analysis of the identified options, including an analysis of all options in terms of their relative cost, environmental impact, risk, stakeholder response, or other common attributes.

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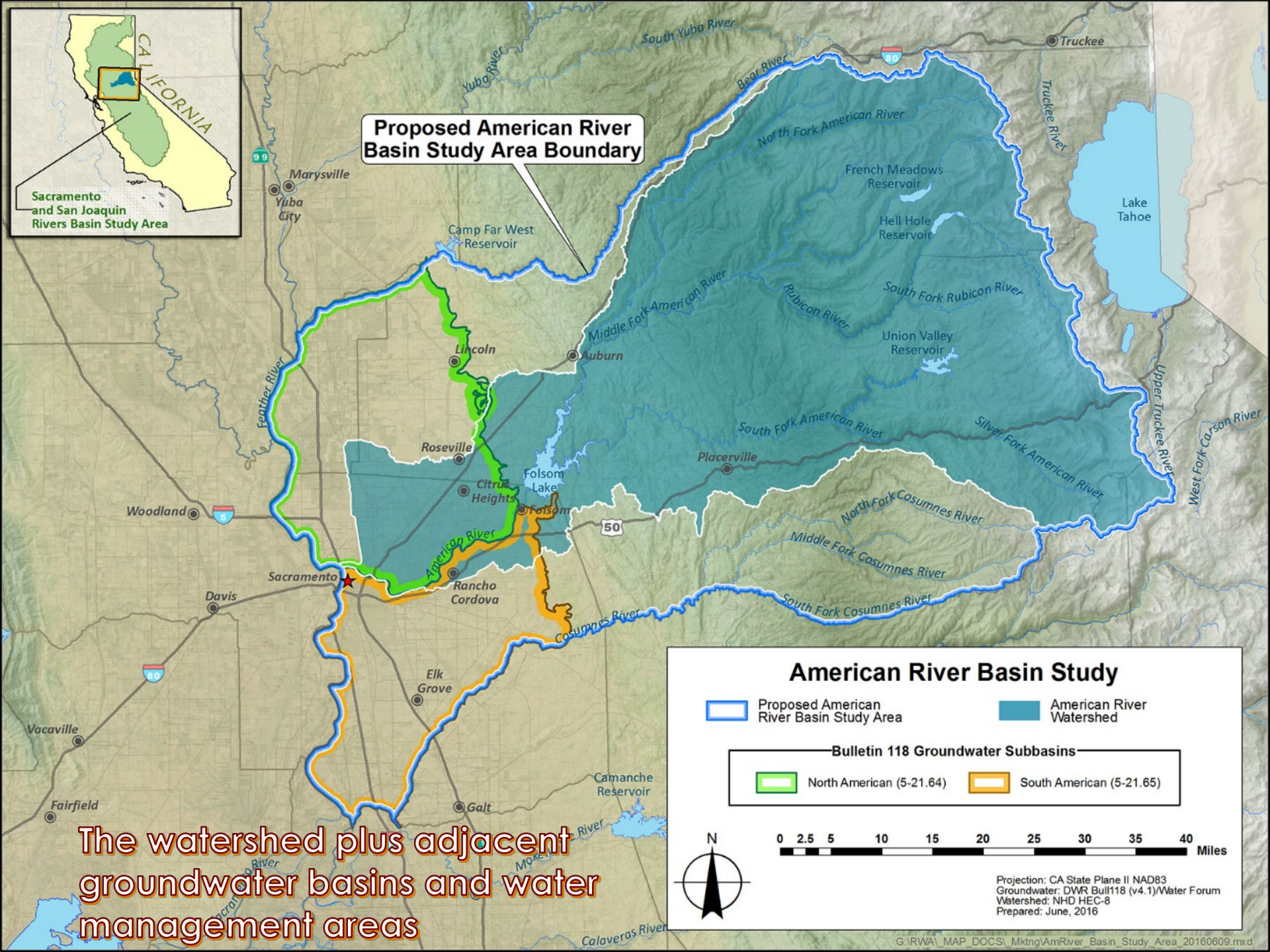

The watershed plus adjacent groundwater basins and water management areas

Study Objectives

- Further refine the assessment of water supplies and demands for the American River Basin
- Address regional **demand-supply imbalance** and infrastructure deficiencies under the existing and **future climate change conditions**.
- Improve regional collaboration for sustainable water resources management.
- Improve **coordination of local and Federal water management** to improve regional water supply reliability and develop strategies to increase Reclamation's operational flexibility of Folsom Reservoir to meet all purposes of the CVP.
- Align water management tools, strategies, and planning efforts of Reclamation and water agencies in the basin.

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Anticipated Outcomes

- Unified modeling data, and assumptions for Federal and Regional planning in the American River Basin (climate change hydrology, upper watershed operations, and temperature).
- Assessment of imbalance at build-out under climate change conditions
- Assessment of how a range of selected adaptations can reduce these imbalances

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Federal and Non-Federal Cost-Share

Reclamation

- $650k for preparation of the ARBS
- $60k re-programmed from 2016 Reclamation American River Technical Services Work to prepare climate hydrology needed for ARBS
- Requesting additional funds from Reclamation's Basin Study Program to fund remaining TSC work

Non-Federal Partners Costs

- In-kind $1.7 million (includes cost-share products, non-Federal Partners staff time, and additional direct expenditure)
- Additional direct expenditure costs:
  - $30k POS (Q1 2017) (PCWA, SAC, Folsom, Roseville, EDCWA)
  - $30k Revised Demands under Climate Change (Q1 2018) (PCWA, SAC, Roseville)
  - $200k additional adaption Strategies to be analyzed (e.g. RiverARC, Alder Creek). (Q4 2018) (PCWA, SAC, Folsom, Roseville, EDCWA)

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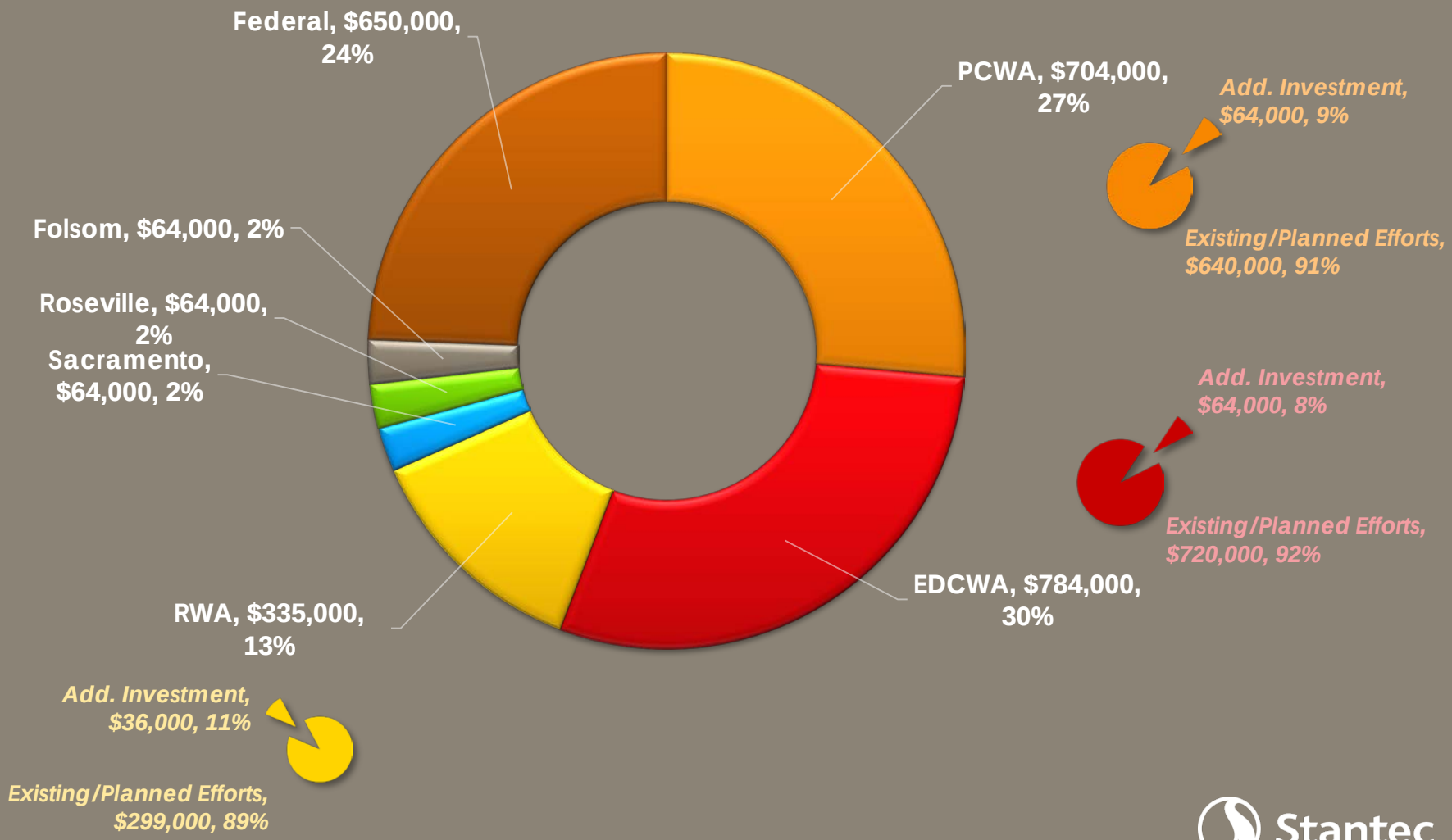
ARBS Cost = $2,665,000

Strategy: Minimum 50% non-federal cost share required. A higher percentage indicates greater commitment.



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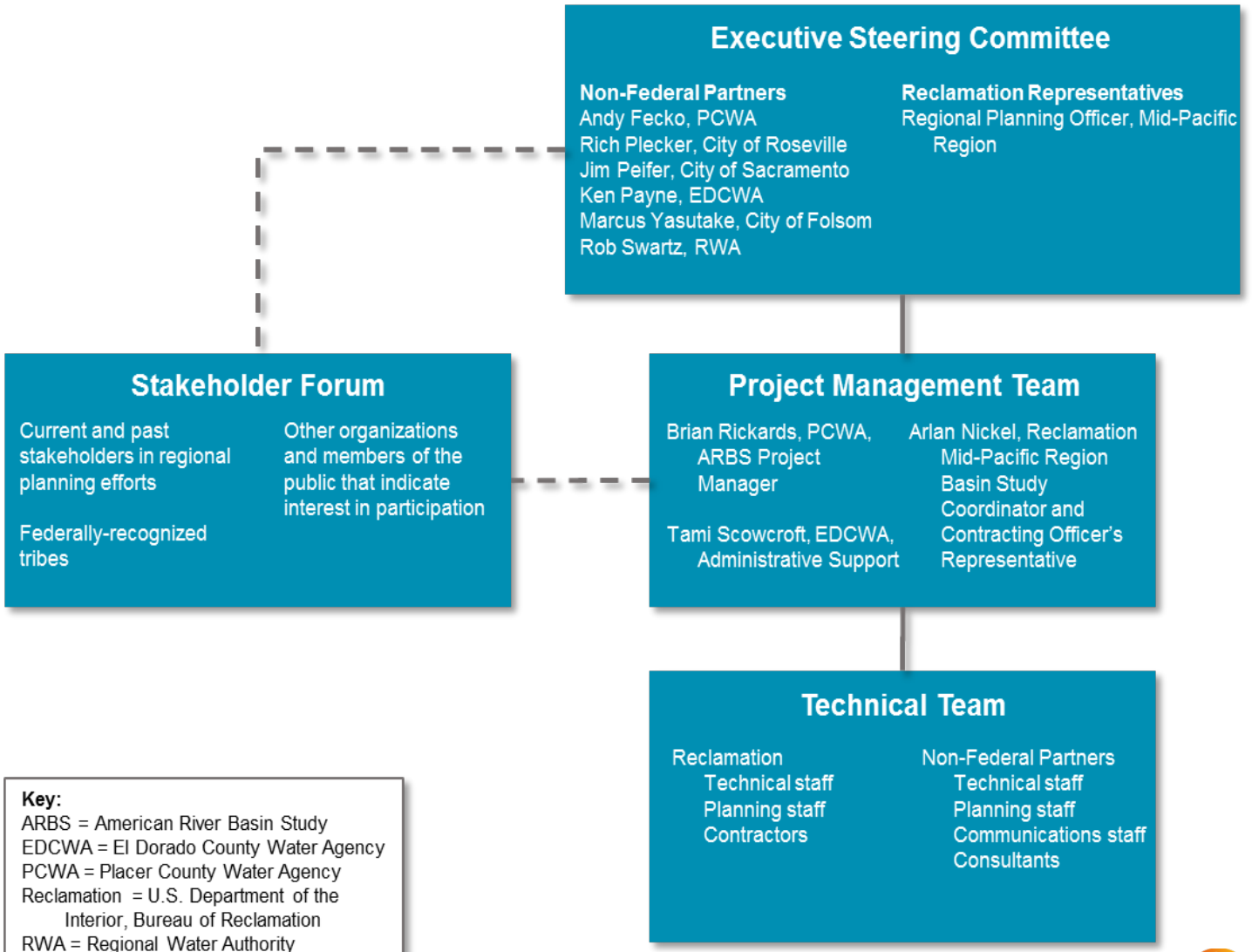
Management Structure



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Team Roles and Responsibilities

- Reclamation
  - Mid-Pacific Region
  - TSC
  - Contractor
- Non-Federal Partners
- Stakeholders

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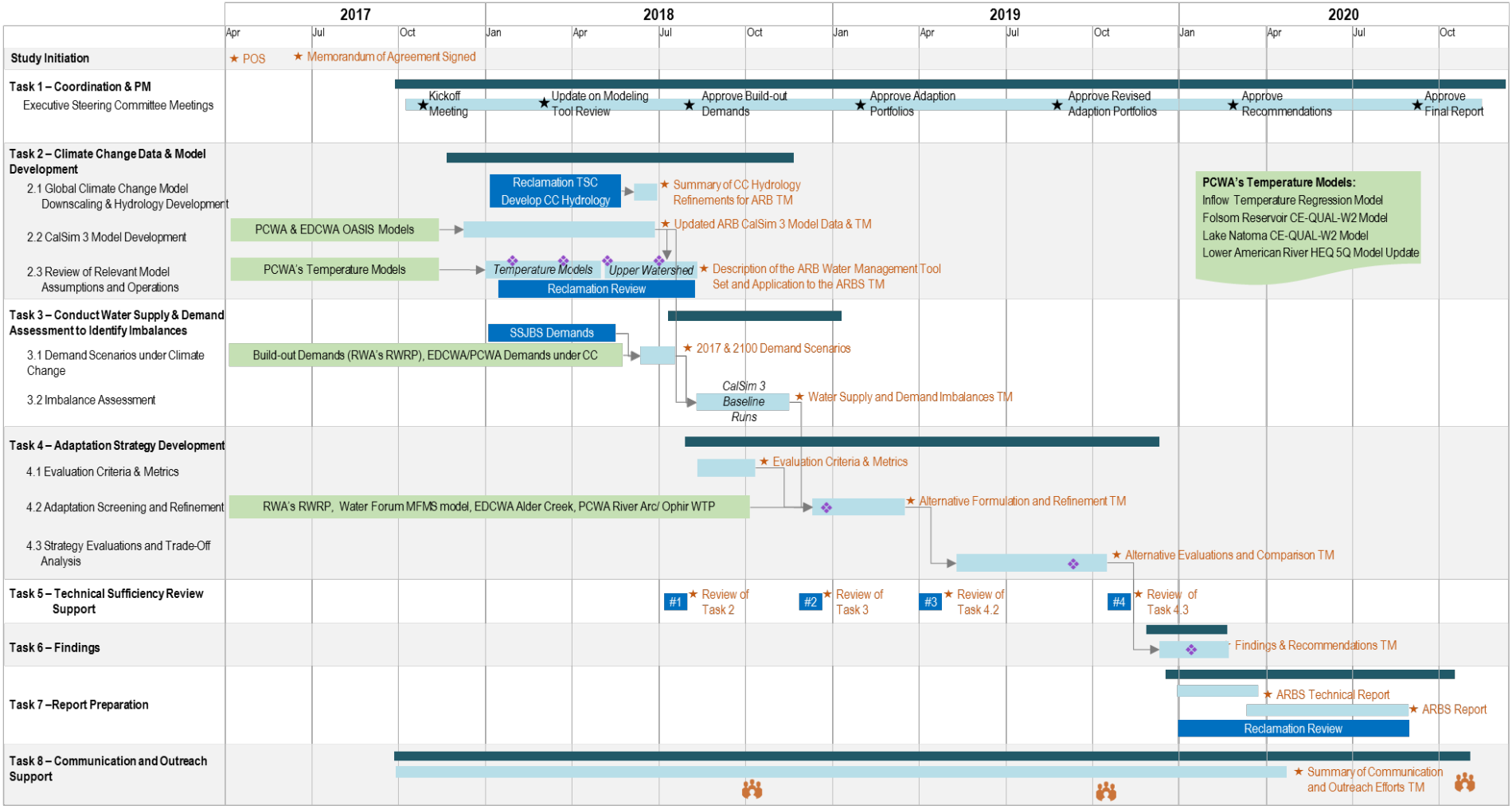
Schedule and Product Dependency



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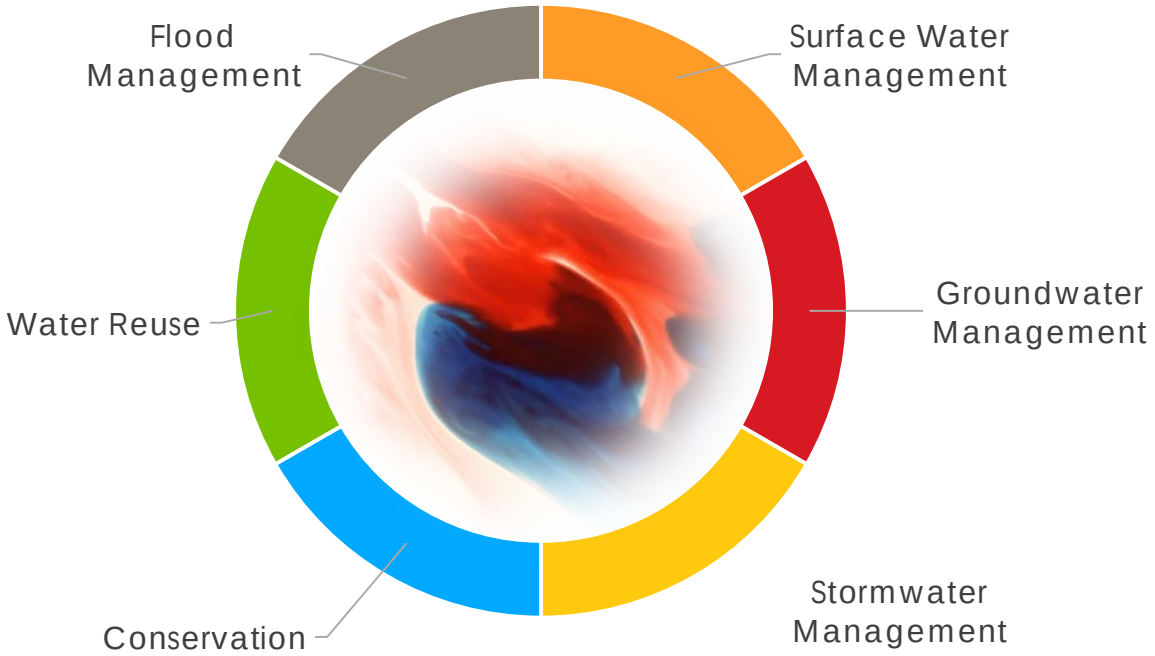
Other Related Regional Efforts

American River Basin Study
Executive Steering Committee Meeting

October 24, 2017

The Scope of What We Do

Integrated Water Management with
Many Possible Crosslinks and Benefits



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Outcome-based Regional Approach

Provides values in orchestrating distributed but integrated efforts to address different strategic intents and anticipated outcomes without overly burdening or encroaching autonomy of individual entities

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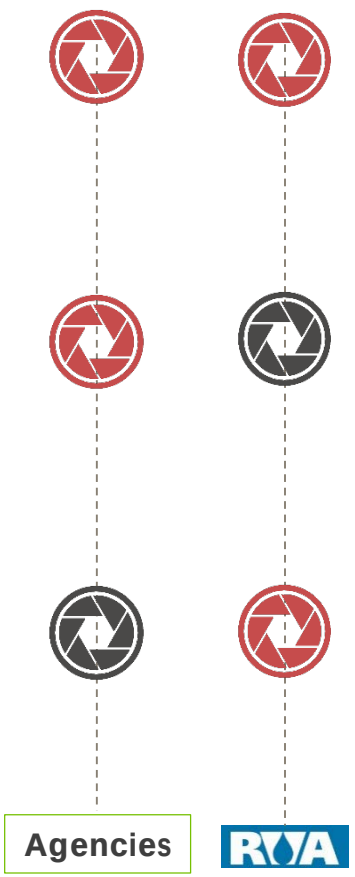
Outcomes and Focus



Strategy — **Aspiration and Collective Negotiation**

- Regional Visions/Scenarios
- Regional Master/Tactical Plans

Actions — **Subregional and Project Implementation**

- Planning/Feasibility/Approval
- Business Case/Governance

Platform — **Common Basics**

- Data/Tools
- Rules/Procedures

FOCUS primary
secondary

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Example Key Activities

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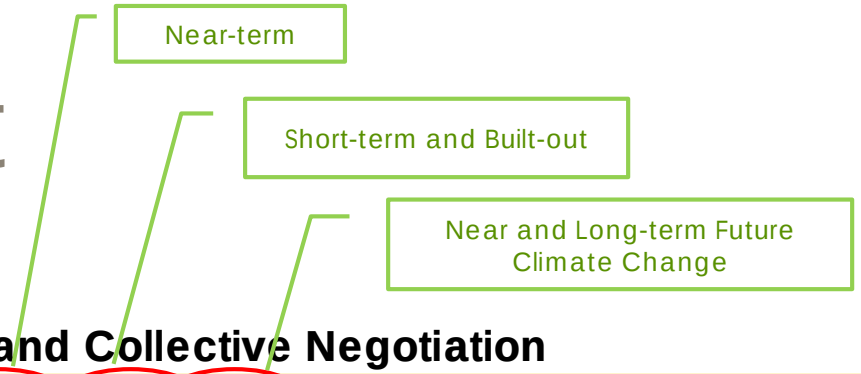
How they Fit



Strategy — Aspiration and Collective Negotiation

- Regional Visions/Scenarios (e.g., RDCP, RWRP, ARBS)
- Regional Master/Tactical Plans (e.g., SWRP, IRWMP)

Actions — Subregional and Project Implementation

- Planning/Feasibility/Approval
- Business Case/Governance

Platform — Common Basics

- Data/Tools (e.g., ARBS)
- Rules/Procedures

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How they Fit

Reclamation engagement

Strategy — Aspiration and Collective Negotiation

- Regional Visions/Scenarios (e.g., RDCP, RWRP, ARBS)
- Regional Master/Tactical Plans (e.g., SWRP, IRWMP)

Actions — Subregional and Project Implementation

- Planning/Feasibility/Approval
- Business Case/Governance

Platform — Common Basics

- Data/Tools (e.g., ARBS)
- Rules/Procedures

System operation models (SW with GW; upstream and CVP/SWP system)
CC data and upstream operations
Folsom Lake and Lower American River Temperature Models

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How they Fit

Strategy

Aspiration and Collective Negotiation

- Regional Visions/Scenarios (e.g., RDCP, RWRP, ARBS)
- Regional Master/Tactical Plans (e.g., SWRP, IRWMP, GSP)

Actions

Subregional and Project Implementation

- Planning/Feasibility/Approval (e.g., PCWA's RiverArc, EDCWA's SWRP)
- Business Case/Governance (e.g., WMSP; PCWA's RiverArc, EDCWA's SWRP)

Platform

Common Basics

- Data/Tools (e.g., ARBS, GSP)
- Rules/Procedures (e.g., WMSP)

Groundwater Models;
Monitoring and reporting

Water Accounting Framework, or equivalent

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Feedback on

The first look at a renewed perspective on regional collaboration

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Near-term Activities (3-6 months)

1. CalSim 3 Base Model preparation
   - Upstream models review and incorporation
   - Regional distribution and allocation updates
   - CC hydrology and evaluation method
2. Review and Acceptance of Lower American River and Folsom Lake Temperature Models
3. Demand Projections
   - Agency demand updates
   - Statewide demands under CC
4. Refine interconnection among projects and programs, and the product dependency

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Next-Steps/ Action Items

- ESC meeting in 6 months
- PMT meetings are monthly
- Technical Team meetings, as needed

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