MEETING AGENDA - ESC #1

AMERICAN RIVER BASIN STUDY

DECEMBER 6, 2016

2:30 PM- 4:30 PM

REGIONAL WATER AUTHORITY
5620 BIRDCAGE STREET, STE. 180
CITRUS HEIGHTS, CA 95610

Meeting Name: Executive Steering Committee, American River Basin Study
Purpose. Information Update and adoption of the MOA/POS
Expected Outcome(s): Approval of the draft MOA/POS; any related guidance or direction to the Project Manager and technical team.

Participants:

Name	Initials	Name	Initials
Andy Fecko, Director, Resource Development, Placer County Water Agency (PCWA)		Marcus Yasutake, Director, Environmental and Water Resources, City of Folsom	
Rich Plecker, Director, Environmental Utilities, City of Roseville		Ken Payne, Interim General Manager, El Dorado County Water Agency	
Jim Peifer, Senior Engineer, City of Sacramento		Rob Swartz, Manager, Technical Services, Regional Water Authority	
Brett Ewart, Senior Engineer, City of Sacramento		Arlan Nickel, Reclamation Liaison/Contracting Officer Representative	
Brian Rickards, ARBS Project Manager		Michelle Denning, Reclamation Regional Planning Officer	
Mike Finnegan (Meeting Facilitator)		Carol Margetich, Business Services Administrator, City of Roseville	
Tami Scowcroft, EDCWA		Sean Bigley, Public Affairs and Comm Administrator, City of Roseville	
Vanessa Nishikawa, MWH			
Rebecca Guo, MWH			
Yung-Hsin Sun, MWH			

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1 Sign in and Introductions

2 Correspondence/Handouts

2.1 MOA – electronic delivery on 12/5/16, handouts available

2.2 POS- electronic delivery on 12/5/16, handouts available

2.3 Website Narrative-electronic delivery on 12/5/16

2.4 Resolution Narrative-electronic delivery on 12/5/16, handouts available

3 Review/approve agenda (Rickards)

4 Summarize last meeting (Rickards)

5 Project Manager Update (Rickards)

5.1 Review ARBS Critical Path Schedule - Enclosure 1

5.1.1 POS/MOA draft approval – Enclosure 2

5.1.2 PWS – update

5.2 Budget

5.3 Plan Requirement Updates

5.3.1 Communication & Outreach

http://www.pcwa.net/planning/arbs.html

5.3.2 Change Management Register

5.3.3 Risk Register

5.3.4 Technical Sufficiency Review

6 Action Items Summary

7 Open Discussion

8 Next Meeting

1. Week of January 23rd?

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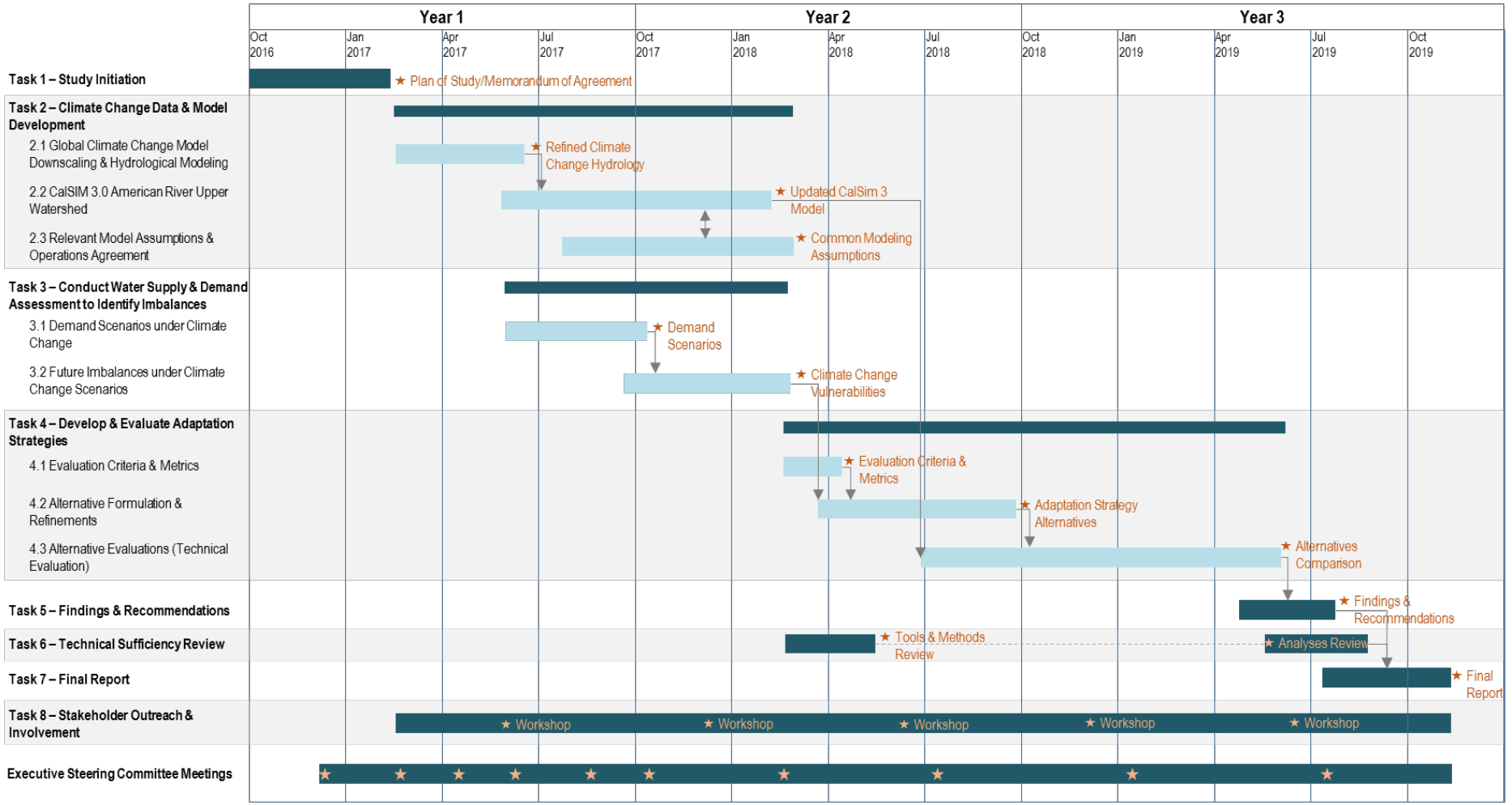
Enclosure 1

Study Schedule



Schedule assumes Memorandum of Agreement will be executed in February 2017.

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Enclosure 2

Costs in Table 4-2 have been revised (per 18 Nov discussion). DRAFT

- Summary of the draft changes:
  - All tasks –
    - Addition of $180,000 in Federal Share to cover MP Region staff during 3-year study; distributed over all tasks.
    - Addition of $49,000 in non-Federal Partner Share to cover increased LOE for participation during 3-year study.
  - Task 2 – Addition of $10,000 in Federal Share for subtask 2.3 to account for anticipated LOE for modeling assumptions.
  - Task 3 –
    - Previous task 3 split into 3.1 and 3.2.
    - Addition of $110,000 in Federal Share for 3.1/3.2 to account for anticipated LOE for demand scenarios under climate change and assessment of imbalances.
  - Task 4 –
    - Previous subtask 4.1 split into 4.1 and 4.2.
    - Subtask 4.2 – Addition of $50,000 in Federal Share to account for anticipated LOE for alternative formulation.
    - Subtask 4.3 – Addition of $100,000 in Federal Share to account for anticipated LOE for full evaluations of adaptation strategies.
  - Task 6 – Addition of $50,000 in Federal Share to account for LOE for FOUR reviews with both internal and external reviewers.
  - Task 7 – Addition of $70,000 in Federal Share to account for anticipated LOE to prepare draft and final reports.
  - Task 8 – Addition of $120,000 in Federal Share to account for anticipated LOE to implement C&O Plan (5 workshops, 12 requested presentations/briefings, content for Reclamation weekly staff notes).

Table 4-2. Proposed American River Basin Study Budget

Task	Description	Non-Federal Partners' Share[1]	Federal Share[2]	Total Cost
Task 1 – Study Initiation	• Technical Scoping and Detailed POS, and MOA	**$ 46,000** [4]	**$ 6,000**	**$ 52,000**
Task 2 – Climate Change Data and Model Development	• Climate change data and downscaling • CalSim 3 Model development • Agreements on assumptions and operations of upstream local projects	**$ 1,311,000** [4]	**$ 336,000**	**$ 1,647,000**
Subtask 2.1 – Global Climate Change Model Downscaling and Hydrological Modeling	• Obtain downscaled GCM data for the American River Basin from SSJRBS • Refine the SSJRBS WEAP model for American River Basin • Develop refined runoff hydrology for CalSim 3 using WEAP hydrological model, using downscaled GCM data	*$ -*	*$ 102,000* [3]	*$ 102,000*
Subtask 2.2 – CalSim 3 American River Upper Watershed	• Update CalSim 3 Model representation of the upstream local project operations on the North, Middle, and South Forks of the American River • Update regional infrastructure representation and agency-specific water supply portfolios	*$ 852,000* [4]	*$ 173,000*	*$ 1,025,000*
Subtask 2.3 – Relevant Model Assumptions and Operations Agreement	• Obtain agreements with Reclamation on various upstream model assumptions and operations, including temperature models to be incorporated into CalSim 3	*$ 459,000* [4]	*$ 61,000*	*$ 520,000*
Task 3 – Conduct Water Supply and Demand Assessment to Identify Imbalances	• Imbalances between existing and future water supply and demands	**$ 40,000** [4]	**$ 174,000**	**$ 214,000**
Subtask 3.1 – Demand Scenarios under Climate Change	• Prepare future demand scenarios reflective of climate change	*$ 20,000* [4]	*$ 87,000*	*$ 107,000*
Subtask 3.2 – Future Imbalances under Climate Change Scenarios	• Assess the imbalances between existing and future water supply and demands under climate change scenarios on a regional basis	*$ 20,000* [4]	*$ 87,000*	*$ 107,000*

Table 4-2. Proposed American River Basin Study Budget (continued)

Task	Description	Non-Federal Partners' Share[1]	Federal Share[2]	Total Cost
Task 4 – Develop and Evaluate Adaptation Strategies	• Identify and evaluate adaptation strategies to address the imbalances (vulnerabilities) • Conduct an alternative analysis to evaluate and prioritize strategies	**$ 536,000** [4]	**$ 469,000**	**$ 1,005,000**
Subtask 4.1 – Evaluation Criteria and Metrics	• Develop criteria and metrics to evaluate the adaptation strategies	*$ 60,000* [4]	*$ 26,000*	*$ 86,000*
Subtask 4.2 – Alternative Formulation and Refinement	• Develop management actions for adaptation strategies and preliminary screening • Formulate and compare adaptation strategy alternatives	*$ 341,000* [4]	*$ 152,000*	*$ 493,000*
Subtask 4.3 – Alternative Evaluations (Technical Evaluation)	• Limited technical evaluation of management actions for adaptation strategies for preliminary screening • Alternative evaluation, refinements, and comparative analyses; each with multiple climate change scenarios • Limited secondary CVP/SWP system effects evaluation for alternatives (temperature, hydropower production, and Delta water quality)	*$ 135,000* [4]	*$ 291,000*	*$ 426,000*
Task 5 – Findings and Recommendations	• Prepare a draft report summarizing the findings and recommendations, and conduct a Quality Assurance/Quality Control review	**$ 16,000**	**$ 38,000**	**$ 54,000**
Task 6 – Technical Sufficiency Review	• Conduct Reclamation Technical Sufficiency Reviews of technical information, data, models, analyses, and conclusions	**$ 10,000**	**$ 76,000**	**$ 86,000**
Task 7 – Final Report	• Develop a draft and final report summarizing the findings of the ARBS	**$ 10,000**	**$ 96,000**	**$ 106,000**
Task 8 – Stakeholder Outreach and Involvement	• Develop a Communication and Outreach Plan, implement the plan, and document the process	**$ 31,000**	**$ 146,000**	**$ 177,000**
TOTAL ARBS BUDGET		**$ 2,000,000**	**$ 1,341,000**	**$ 3,341,000**

Table 4-3. Non-Federal Partners' Complementary Cost-Share Efforts

Description	Proponent(s)	ARBS Task	Cost Share	Cost-Share Schedule
ARBS POS and MOA – Development of detailed ARBS POS and MOA.	EDCWA, Folsom, PCWA, Roseville, RWA, Sacramento	Task 1	$ 36,000	Oct 2016 – Feb 2017
Alder Reservoir Feasibility Update – The Alder Reservoir is included in the Sacramento-San Joaquin River Basin Study as a potential climate change adaptation measure. This effort is updating the feasibility evaluation of a range of water supply and hydropower generation scenarios.	EDCWA	Subtask 2.2	$ 195,000	Jul 2016 – Dec 2017
		Subtask 2.3	$ 105,000	
Alder Reservoir Options Development Analysis – This effort includes development and analysis of the range of water supply and hydropower generation options for Alder Reservoir.	EDCWA	Subtask 2.2	$ 33,000	Aug 2016 – Oct 2017
		Subtask 2.3	$ 17,000	
Integrated Regional Watershed Management Program: River Models and Water Supply Alternatives – Development of consistent models to allow for integration of the South Fork American River model and SMUD facility operation model. The intent is for this model and work to be integrated with the ongoing PCWA modeling effort.	EDCWA	Subtask 2.2	$ 188,000	Jul 2016 – Jun 2019
		Subtask 2.3	$ 102,000	
		Subtask 4.2	$ 40,000	
		Subtask 4.3	$ 40,000	
Inflow Temperature Regression Model for Folsom Lake – Integration of the inflow temperature regression model with those being developed in the ongoing EDCWA modeling effort.	PCWA	Subtask 2.2	$ 62,000	Feb 2016 – Feb 2018
		Subtask 2.3	$ 34,000	
Folsom Reservoir CE-QUAL-W2 Model – Integration of the CE-QUAL-W2 model with those being developed in the ongoing EDCWA modeling effort.	PCWA	Subtask 2.2	$ 250,000	Feb 2016 – Feb 2018
		Subtask 2.3	$ 134,000	
Lake Natoma CE-QUAL W2 Model – Integration of the CE-QUAL-W2 model with those being developed in the ongoing EDCWA modeling effort.	PCWA	Subtask 2.2	$ 62,000	Feb 2016 – Feb 2018
		Subtask 2.3	$ 34,000	
Lower American River HEQ 5Q Model Update – Integration of the HEC 5Q model with those being developed in the ongoing EDCWA modeling effort.	PCWA	Subtask 2.2	$ 42,000	Feb 2016 – Feb 2018
		Subtask 2.3	$ 22,000	

Table 4-3. Non-Federal Partners' Complementary Cost-Share Efforts (continued)

Description	Proponent(s)	ARBS Task	Cost Share	Cost-Share Schedule
RiverArc Project – The proposed RiverArc Project is a new water facility that will use surplus water from the Sacramento River to benefit the Sacramento region and the statewide water delivery system. Near-term activities that will be complementary to the ARBS include ongoing planning efforts and the upcoming feasibility study and Calsim modeling.	PCWA, Roseville, Sacramento	Subtask 4.2	$ 60,000	Jun 2016 – Jun 2019
		Subtask 4.3	$ 60,000	
Regional Water Reliability Plan – Locally-led effort to identify the most promising regional opportunities to improve water supply reliability by evaluating opportunities for intra- and interregional transfers and exchanges, to reduce water use, to support interregional groundwater management and conjunctive use efforts, to support recycled water planning, and to utilize shared infrastructure and resources. The agency-level vulnerability assessments are identifying existing and future water supply and demand imbalances. Development of the plan includes development of evaluation criteria and metrics, and identification of response actions and mitigation strategies at both the agency and project levels.	RWA	Subtask 3.1	$ 15,000	Apr 2016 – Dec 2017
		Subtask 3.2	$ 15,000	
		Subtask 4.1	$ 50,000	
		Subtask 4.2	$ 200,000	
		Task 1 Total	**$ 36,000**	
		Subtask 2.2 Total	**$ 832,000**	
		Subtask 2.3 Total	**$ 448,000**	
		Subtask 3.1 Total	**$ 15,000**	
		Subtask 3.2 Total	**$ 15,000**	
		Subtask 4.1 Total	**$ 50,000**	
		Subtask 4.2 Total	**$ 300,000**	
		Subtask 4.3 Total	**$ 100,000**	
		TOTAL (All Subtasks)	**$ 1,796,000**	