



Study Proposal to Evaluate San Joaquin Valley Conveyance Water Resilience Portfolio Action 19.3



California Water Commission
October 21, 2020

San Joaquin Valley Challenges



- ❖ Recurring extreme weather events intensified by climate change
- ❖ Chronic water supply shortages
- ❖ Increasing flood risk
- ❖ Degraded water quality
- ❖ Declining environmental conditions
- ❖ Subsidence from groundwater overdraft
- ❖ Insufficient flood & supply conveyance capacity

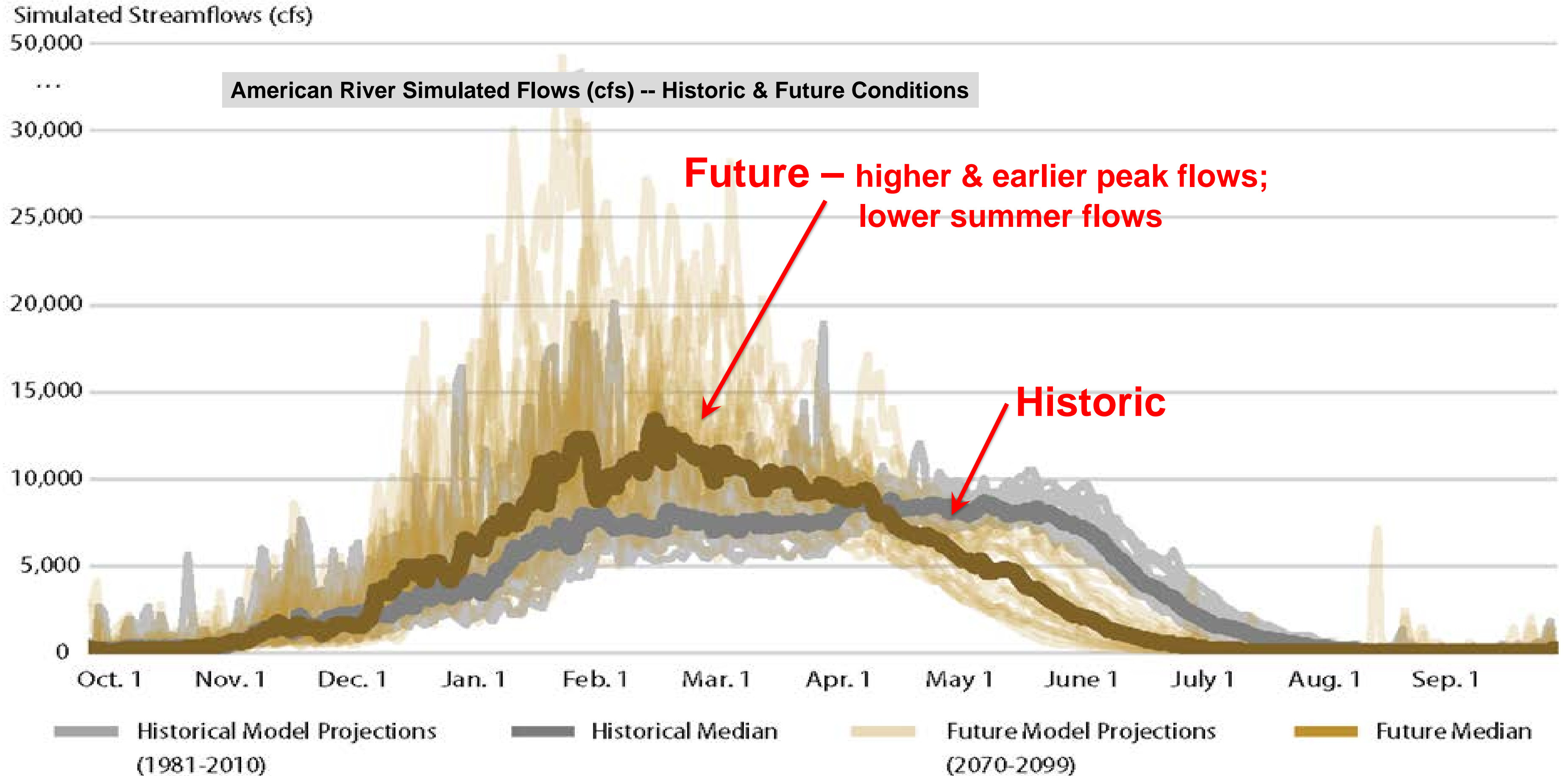


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Low water level at Folsom Lake (January 2014)

Effects of Climate Change Necessitate Wholesale System Changes



Water Resilience Portfolio Actions

Improving San Joaquin Valley System Flexibility, Reliability & Resilience

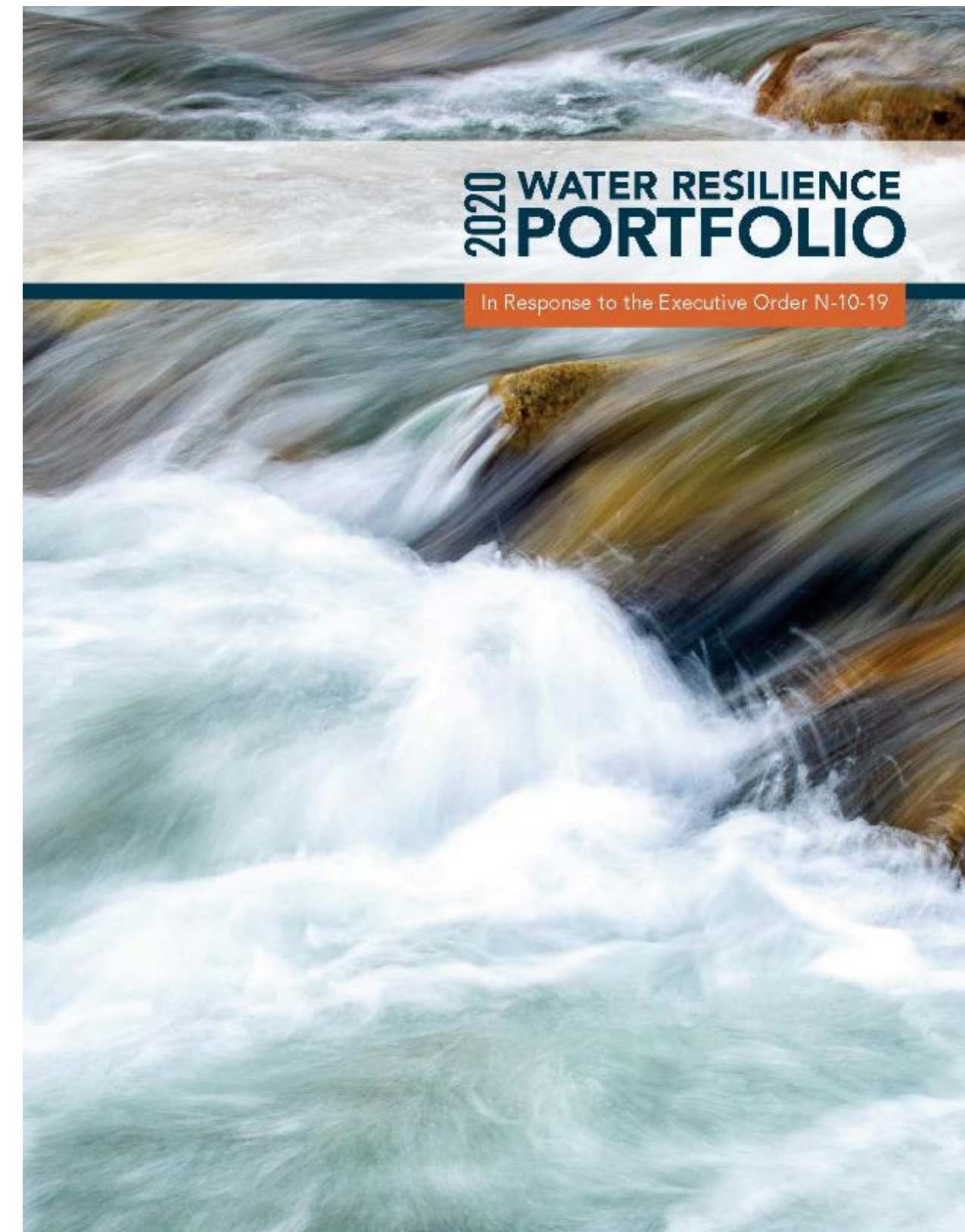
Action 19.3 -- Conduct a feasibility analysis for improved and expanded capacity of federal, state, and local conveyance facilities to enhance water transfers and water markets. The analysis must incorporate climate change projections of hydrologic conditions.

Related Actions

Action 3.4 – Streamline groundwater recharge and banking efforts and facilitate redirection of high flows to replenish aquifers, including on agricultural lands

Action 25.4 – New regional flood management strategy (SJ Valley Flood Master Plan)

Action 27.1 – Watershed-scale climate vulnerability and adaptation assessments to reduce risks to water supply, ecosystems, and water quality.



Principles for Preparing & Implementing Water Resilience Portfolio Actions

- ❖ **Prioritize** - *multi-benefit approaches* that meet multiple needs at once
- ❖ **Utilize** - *natural infrastructure* such as forests and floodplains
- ❖ **Embrace** - *innovation and new technologies*
- ❖ **Encourage** - *regional approaches* in watersheds
- ❖ **Incorporate** - *successful approaches* from other parts of the world
- ❖ **Integrate** - *investments, policies and programs* across state government
- ❖ **Strengthen Partnerships** - *with local, federal and tribal governments, water agencies and irrigation districts, and other stakeholders*

Proposed Study Steps, Schedule & Outcomes

Steps	Duration	Outcome / Deliverable
Engage Stakeholders and Review Prior Studies	~ 6 months	Technical memo documenting the findings of prior studies and identification of information gaps
Prepare Plan of Study	~ 8 months	Plan of Study report describing purpose and formulation of conveyance actions for evaluation in Conceptual Study
Conduct Conceptual Study	~ 18 months	Conceptual Study report documenting the evaluation and performance of conveyance alternatives; Determine if additional / detailed study is warranted

Engaging Stakeholders & Reviewing Prior SJV Studies

- Regional Groundwater Sustainability Plans (GSPs) – local GSAs
- Central Valley Flood Protection Plan (CVFPP) – DWR
 - Climate Change Reservoir Vulnerability Analysis
 - Regional Flood Management Plans
 - Conservation Study
 - Basin-wide Feasibility Studies
 - Bypass improvement reports
- Comp Study Conjunctive Use Report – USACE
- Water Available for Replenishment (WAFR) – DWR
- System Reoperation Study – DWR
- Merced Watershed Study – DWR
- Tuolumne Watershed Study – DWR
- Upper San Joaquin Storage Investigation – USBR
- Trans Valley Canal – USBR
- Delta Conveyance – USBR
- DMC Recirculation – USBR
- San Joaquin Valley (SJV) Blueprint
- Fresno State University Conveyance Planning
- Public Policy Institute of California (PPIC) reports and studies related to GSPs and SJV water management



Questions & Comments



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