

**August 19<sup>th</sup> Meeting**  
**California Water Commission**  
**Issue Working Session**

**Integration Studies of Water Storage Projects**

**Objective**

Get tentative approval from Commission members on scope of integration studies.

**Issue Summary**

Water Code Section 79750(b) allocates funding from Proposition 1 to the California Water Commission to fund public benefits associated with water storage projects that improve the operation of the state water system, are cost effective, and provide a net improvement in ecosystem and water quality conditions.

Following are types of water storage projects that are eligible for funding:

- CALFED surface storage projects
- Groundwater storage projects
- Groundwater contamination prevention or remediation projects
- Conjunctive use projects
- Reservoir reoperation projects
- Local surface storage projects
- Regional surface storage projects

Given the potential diverse types of projects that could be funded and implemented, integration studies will need to be performed to ensure that the projects will still be viable when implemented and operated collectively and that they can still provide the public benefits as they would when operated individually. Further, a goal of the Water Storage Investment Program (WSIP) is to “promote integration of projects that will collectively provide benefits that are greater in sum than of the individual projects.”

Integration studies can be conducted to determine synergistic and antagonistic relationships between projects. Synergistic studies look at combining projects in a way that the sum of projects provides greater benefits than the individual projects or studies that look at ways of optimizing project performance. Antagonistic studies identify potential conflicts among projects that could render their operations unviable. Antagonistic studies will be designed to address the following questions concerning the potential implementation of multiple projects:

- How do the projects compete for new or recaptured water supply?
- How do the projects compete in meeting the demands of potential common beneficiaries?

**WSIP Integration Studies Options**

Following are options for conducting the integration studies.

**Option 1 (Staff Recommended): Perform Antagonistic Integration Studies during Full Application Review Phase**

Integration studies of multiple potential water storage projects will be performed by Commission and DWR staff to identify potential conflicts such as competing for the same water sources or meeting the same demands among the projects. These studies will be done after the applicants submit their full applications to the Commission for funding, and the projects have been determined to be eligible for funding. Separate integration studies will be performed for different regions in the state with multiple potential water storage projects whose operations could be in competition or conflict. The integration studies will be performed using project information and data provided by the applicants. Any conflicts found from the studies will be shared with the applicants to allow them the opportunity to work together to resolve the conflicts.

This option does not include evaluation of the potential synergies of the projects nor will staff attempt to optimize the operations of the projects. Projects at this point will be too far along in the project formulation process to allow for staff recommended changes. Potential synergistic and optimization of the projects will be left to the applicants to analyze. The Commission will provide early project information through scoping surveys and the pre-application process to provide potential applicants the opportunity to work with other projects in their region before full applications are due.

**Option 2: Perform Reconnaissance-Level Antagonistic and Synergistic Integration Studies during Pre-Application Review Phase**

Reconnaissance-level integration studies of multiple potential water storage projects will be performed by Commission and DWR staff during the pre-application review phase. Separate integration studies will be performed for different regions in the state with multiple potential water storage projects to evaluate potential conflicts in their operations. The integration studies will be performed using project information and data provided by the applicants. In addition to evaluating the potential conflicts among the projects, the integration studies will also evaluate potential synergies among the projects. Any conflicts or synergies found will be shared with the applicants so that they can work together to resolve the conflicts or integrate their projects before they submit their full applications.

The downside of conducting the integration study in the pre-application phase is that during the pre-application phase, potential projects and their operations may not be fully defined, and the projects have not been determined to be eligible for funding. It is possible that some of these projects will not be eligible for funding or opt not to complete full applications. Therefore the integration studies performed on these projects may expend resources unnecessarily.

**Option 3: Perform Antagonistic and Synergistic Integration Studies during Full Application Review Phase**

Integration studies of multiple potential water storage projects will be performed by Commission and DWR staff during the full application review phase. Separate integration studies will be performed for different regions in the state with multiple potential water storage projects to evaluate potential conflicts in their operations. The integration studies will be performed using project information and data provided by the applicants. In addition to evaluating the potential conflicts among the projects, the integration studies will also evaluate potential synergies among the projects. Any conflicts or synergies

found will be shared with the applicants so that they can work together to resolve the conflicts or integrate their projects before they submit their full applications.

The downside of conducting the integration study in the full application phase is that projects at this point will be too far along in the project formulation process to allow for staff/Commission recommended changes. Full applications require draft CEQA documentation, completed feasibility studies, and a majority of cost share partners identified. Projects will not have significant flexibility to change at this point in the process.