



November 8, 2016

The Honorable Joseph Byrne, Chair

California Water Commission

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Submitted via e-mail: WSIPComments@cw.com

Subject: EDF Comments on Water Storage Investment Program Proposed Revision to Regulations (11-7-16)

Dear Chair Byrne and Commission Members:

On behalf of Environmental Defense Fund I am writing to provide the following comments on the Water Storage Investment Program (WSIP) Proposed Revision to Regulations, dated November 7, 2016.

Background: Summary of “flexibly managed environmental water”

Each water storage project will generate certain public benefits, which in many cases will include water for the environment. While valuable, many of the claimed benefits associated with additional environmental flows will be accrued through project operation, such that they occur at a fixed time and place. For example, the routine, scheduled deliveries to downstream water users of water generated by a storage project might increase downstream flows during delivery months and may improve freshwater habitat.

The draft regulations provide a robust framework for evaluating these improvements, but we think it is important to distinguish between these fixed or constrained benefits—again, those that are pledged to other uses—and those that can be managed flexibly. In contrast to flows strictly associated with project operation, flexibly managed environmental water is water that can be moved or held in groundwater or surface storage and withdrawn or released from storage over time, independent of how a project is operated for non-environmental water supply and other purposes, in order to flexibly provide a range of environmental benefits. For example:

- A surface storage project could reserve a certain amount of water each year that is intended to be used at a time when it would provide the maximum environmental benefit (e.g., cold water flows for salmon or Delta outflow). This water would be “flexibly managed” in contrast to other flows that are scheduled around deliveries to downstream users and may not provide optimal environmental benefits.

We recommend that the Commission require project applicants to quantify both kinds of environmental water that will be generated by storage projects—fixed and flexible—and specify where the flexibly managed supplies could be made available, and at what times of year.

Background: Maintaining groundwater in storage for environmental benefit

There are significant public benefits that can be generated by groundwater storage projects. Some groundwater storage projects will rely on recharge systems to replenish groundwater levels. Recharge benefits groundwater-dependent ecosystems if it raises the water table below them enough to sustain them, but only so long as the water added to storage is left in place. If the water levels fall again, the benefit to the groundwater-dependent ecosystem will be lost.

So, it is our hope that all water added to and maintained in groundwater storage to support habitats and streamflow will be included in the evaluation of public benefits associated with project applications, even though this means it will not be withdrawn and used in the future for water supply.

Specific recommendations for language in the draft regulations:

Section 6001

In order to capture the concept of “flexibly managed environmental water,” the role of an environmental water manager, and the value of leaving groundwater in storage, we suggest adding the following definitions and language to Section 6001:

(32) “Environmental water manager” means an entity, existing or established in the future, designated by the State with responsibility for managing environmental water to provide the maximum environmental benefit, in close coordination with CDFW, the State Water Board, and the Department.

(33) “Flexibly managed environmental water” means water that can be held in groundwater or surface storage and withdrawn or released from storage over time, independent of how a project is operated for non-environmental water supply and other purposes, in order to flexibly provide a range of environmental benefits as environmental water needs develop and change across the state.

(41) “Groundwater storage project” means a designed project that captures, infiltrates, injects, or recharges (direct or in-lieu) water supplies into a groundwater basin for later use or to avoid or address undesirable groundwater results, potentially by leaving the added groundwater in storage indefinitely.

Section 6004(a)(1)(B)

We request that the following change be made to this section to encourage project applicants to evaluate groundwater levels and conditions, and the availability of water that could be managed flexibly

to provide environmental benefits, when developing the without-project future conditions section of their application.

The without-project future conditions shall include the infrastructure, population, land use, water use, water operations, **groundwater levels and conditions of groundwater-dependent ecosystems, availability of flexibly managed environmental water supply**, laws, regulations and other characteristics relevant to the analysis of the project, including all existing mitigation or compliance obligations. The without-project future conditions shall be developed using best available information on current conditions and include projects, programs, and water management actions that would be reasonably expected to occur in the foreseeable future. To be included in the without-project future conditions, projects, programs, and water management actions must be under construction or approved and permitted. Potential sources of uncertainty in future conditions are addressed in section 6004(a)(8).

Section 6004(a)(2)

We request that the following change be made to this section to encourage project applicants to evaluate groundwater levels and conditions, and the availability of water that could be managed flexibly to provide environmental benefits, when developing the with-project future conditions section of their application.

With-Project Future Conditions. The applicant shall define and assess the with-project future conditions for the years 2030 and 2070. The with-project future conditions shall be based on the without-project future conditions and include all additions or modifications specific to the proposed project. Additions or modifications include proposed changes in infrastructure, population, land use, water use, water operations, **groundwater levels and conditions of groundwater-dependent ecosystems, availability of flexibly managed environmental water supply**, laws, regulations, and other characteristics that describe the with-project future condition.

Section 6004 (a) (3)

We suggest adding the following language to require project applicants to consider and explicitly articulate the degree of flexibility of the benefits associated with their project.

(a) (3) Calculation of Physical Changes and Resulting Benefits. The applicant shall quantify and describe the physical changes, including public and non-public physical benefits. The physical changes are the difference between the with-project future conditions and without-project future conditions at the same reference points in time. The determination of potential public and non-public physical benefits (i.e., positive or beneficial physical changes) shall account for any negative physical changes or impacts that are not fully mitigated. **The determination of potential physical benefits shall also account for the degree of flexibility associated with those benefits, and whether the benefits are associated with predetermined conditions of project operation or if the project could be managed (in conjunction with CDFW, the State Water Board, and/or an environmental water manager) to provide the benefits at different times or locations for different water year types.**

(A) To calculate the physical changes, the applicant shall:

1. Use a geographic scope, spatial resolution, and time-step that are sufficient to accurately quantify the physical benefits claimed. **To quantify change in the availability of flexibly**

managed environmental water, the time-step should specifically reveal how much flexibly managed environmental water is available in surface or groundwater storage at different times of the year for different water year types.

2. Document how calculations of expected physical changes are derived and show the relationship between the proposed project, its operations, and the expected physical changes, including public and non-public physical benefits created or caused by the proposed project. The operations of the proposed project shall be described in detail. Any changes in the project's water operations and related physical benefits during the planning horizon shall be disclosed.

(B) To calculate the degree of flexibility associated with potential physical benefits, the applicant shall specify how much flexibly managed environmental water could be made available, in what locations, and at what times of year for different water year types.

(C) The applicant shall disclose and quantify, where possible, any impacts or negative effects the proposed project would impose on the ecosystem, water quality, uses and storage of water, or resources relative to the without-project future condition during the planning horizon, to the extent that those impacts are less than fully mitigated. If the analysis used to quantify the negative effects is different from that shown in the applicant's CEQA or other environmental documents, the applicant shall describe how and why they are different and the implications of those differences.

Section 6007, Table 1

The following modifications would clarify that maintaining groundwater levels to support instream benefits and groundwater dependent ecosystems is an ecosystem priority. The current language is limiting in that it only recognizes these benefits when associated with maintaining groundwater and surface water interconnection.

8. **Restore and/or maintain** groundwater and surface water interconnection, **as well as groundwater levels generally,** to support instream benefits and groundwater dependent ecosystems.

Section 6009

Adding the language below to the scoring section will allow the Commission to recognize the benefits of flexibly managed environmental water in their scoring of projects.

(j) In recognition of the importance of managing environmental water supplies to generate the greatest statewide ecosystem benefit, applicants that dedicate flexibly managed environmental water generated by their project, as quantified in Section 6004(a), to management by the environmental water manager will be awarded additional points, equivalent to 10% of the expected return for public investment score calculated in (i), that will be summed with the score calculated in (i) to produce a total expected return for public investment score..

(1) The 10% increase in project score will apply to any project that dedicates its flexibly managed environmental water supplies to management by the environmental water manager, regardless of the quantity of the flexibly managed environmental water supply.

Section 6014(a)(2)

This language would allow another entity (including but not limited to the “environmental water manager” discussed above) to contract with project applicants to manage public benefits by allocating and providing for the delivery of flexibly managed environmental water supplies to their most valuable use at a given time.

(b) Pursuant to the requirements of Water Code section 79755, any project funded under the Program shall enter into a contract with CDFW, the State Water Board, and the Department (managing agencies), or with another entity designated by the State to manage environmental water allocations, to manage that portion of the public benefits of the project that is flexibly managed environmental water. These contracts shall supersede any preliminary operations, monitoring, and management commitments made in the Program application.

We very much appreciate the onerous task before the Commission and staff, and we also recognize the short timeline under which you are working. We wish to express our appreciation for the laudable efforts of the Commission and the Commission staff to execute this important program.

Thank you for the opportunity to comment on the WSIP regulations. Please don't hesitate to contact us if we can be of further assistance.

Sincerely,

Maurice Hall, Associate Vice President, Ecosystems – Water
Environmental Defense Fund