

State of California
California Water Commission

**Third Notice of Public Availability of Modified Text
and Availability of Additional Documents**

Water Storage Investment Program Quantification Regulations

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Deadline for Public Comment: December 7, 2016

At its November 15, 2016 public meeting, the California Water Commission directed Commission staff to move forward with the public process to notice modified text and additional documents for public comment.

The Commission directed the Executive Officer to make the modified regulatory language, and any additional conforming modifications, available for public comment, with any additional supporting documents and information, for a period of at least 15 days as required by Government Code section 11346.8. The Commission further directed the Executive Officer to consider written comments submitted during the public review period and make any further modifications that are appropriate available for public comment for at least 15 days, and present the regulation to the Commission for further consideration.

All regulatory documents for this rulemaking are available online at the following website:

<https://cwc.ca.gov/Pages/QuantificationRulemaking.aspx>

The originally proposed regulatory language is shown in plain text. For the regulations, the first changes, made available for public comment from September 2 through October 3, 2016 are shown in underline to indicate additions and ~~striketrough~~ to indicate deletions. The next set of proposed changes is indicated by double underline to indicate additions and double ~~striketrough~~ to indicate deletions.

For the Technical Reference, initially made available for public comment from August 16 through October 3, 2016; Benefit and Economic Summary Tables and Water Quality Priority Worksheets, initially made available September 2 to October 3, 2016 changes are shown in underline to indicate additions and ~~striketrough~~ to indicate deletions. The new documents incorporated by reference replace those originally incorporated dated September 2, 2016.

In the Final Statement of Reasons, staff will respond to all comments received on the record during the comment periods. The Administrative Procedure Act requires that staff respond to comments received regarding all noticed changes during the official public comment periods. Therefore, staff will only address comments received during this 15-day comment period that are responsive to this notice, documents added to the record, or the changes detailed in the Proposed Revisions to Regulations.

Summary of Proposed Modifications

The following summary does not include all modifications to correct typographical or grammatical errors, changes in numbering or formatting, nor does it include all of the non-substantive revisions made to improve clarity.

Regulation Text

1. New text is added to section 6000 to provide readers with a clear understanding of how the Commission makes decisions in accordance with the Bagley-Keene Open Meeting Act.
2. The following changes were made to Section 6001, Definitions.
 - “Adaptive management” definition was edited to refer directly to the statutory definition in the Water Code to enhance clarity.;
 - “Temporal distribution” definition was deleted because the term is no longer used in the regulations, subsequent definitions were renumbered.
 - “Regional surface storage project” was edited to be consistent with Water Code section 79751(d).
 - “Resilience to the effects of climate change” was removed because the specific definition is not used in the regulations.
 - “Resiliency” was added to more clearly define the resiliency scoring component.

The following definitions were edited to further clarify the type of benefit in the definition, public, non-public, or public and non-public:

“Cost-effective(ness)”

“Discount rate”

“Duration of improvement”

“Ecosystem improvements”

“Planning horizon”

“Present value”

“Spatial resolution”

“Spatial scale”

The following definitions were edited for clarity or to incorporate other defined terms:

- “Calfed surface storage project” was edited to be more precise and consistent with the policies adopted by the Commission;
 - “Disadvantaged communities” was edited to use consistent wording with other definitions that refer to specific code sections;
 - “Existing environmental mitigation or compliance obligations” was edited to include decisions and determinations of federal agencies in the definition;
 - “Physical change” was edited to clarify and include either surface water or groundwater;
 - “Reservoir reoperation project” was edited to clarify by referring to the specific applicable Water Code section;
 - “Realization of benefit” was edited to clarify it is an amount of time that determines whether the benefit is realized;
 - “Temporal scale” was edited to clarify it is not a scheduled time.
 - “Undesirable results” is edited to clarify this term is used regarding groundwater only.
3. Section 6003(a)(1), pages 13-20, was modified to better articulate what is needed from the applicant:
 - (A) was modified to further clarify and be more explicit about contents of the executive summary. Specifically, the applicant must now explain how the project is integrated into other state water systems, and indicate whether the project is part of an integrated regional water management plan or other integrated plan, and how interactions with existing projects and operations support the description of integration. This change is necessary to support the Commission’s expressed policies supporting integration of new projects with existing water projects to enhance the water systems of the state. The applicant must also explain how the project increases flexibility of the state water systems it is integrated with, how the added water is important to increasing water system reliance and achieving public benefits,

the project's ability to contribute to sustainable groundwater management, the project's ability to expand, the physical and economic magnitude of public and non-public benefits, and other information the applicant wants the Commission to consider during the evaluation of its application. These new explanations are necessary to support Commission stated policies related to these requirements.

- Section 6003(a)(1)(H)(4) was edited to add item (a) regarding component to the contents of a preliminary adaptive management strategy to ensure the Commission has information about how a project will be managed adaptively, re-lettered item (d) was edited to clarify text regarding operational decisions and include an explanation of the decision making process to change project operations if conditions of the project are not as anticipated, and item (e) was added because funding of adaptive management plans is an important element to ensuring the development of the plan and the success of the project.
 - Section 6003(a)(1)(I) and (K) were edited with minor wording changes for clarity.
 - Section 6003(a)(1)(L) was edited to make language consistent within the section.
 - Section 6003(a)(1)(N) was deleted because the information requested was moved to other items such as item (A); subsequent sections were renumbered accordingly.
 - Section 6003(a)(1)(Q) was edited to better explain how the applicant needs to apply for public benefits associated with the relative environmental value analysis, as well as update the version date of the Water Quality Priority Application Tables incorporated by reference.
 - Section 6003(a)(1)(S) was edited to more precisely request the most recent version of environmental documentation instead of all versions because the Commission determined only the most recent version would be helpful to the evaluation of the application.
 - Section 6003(a)(1)(W) was edited to specify the list of permits required in the application must be those related to the proposed project.
 - Section 6003(a)(1)(AA) was added to gather information regarding environmental mitigation and compliance obligations and public benefits which is needed in the review of the application. The applicant is required to list all of these obligations to ensure the Commission only funds environmental mitigation and compliance obligations associated with providing the project benefits, as required by Water Code section 79753.
4. Section 6004, pages 20-27, has been edited for clarity. Benefits have been clarified by using the appropriate adjective "public or non-public" throughout the text of the regulation. Minor wording changes were made throughout to improve consistency with other portions of the regulations. Section 6004(a) was edited to specify the negative impacts to be considered are of similar physical units, location and timing, to clarify which impacts should be considered. Section 6004(a) was also clarified to explain that the requirement on applicants to use the Technical Reference to calculate public benefits is a requirement, but acknowledge the Technical Reference allows methods that are not included to be used if they are properly justified. Section 6004(a)(1) was modified to include the future conditions provided by the Commission to be used, and incorporated by reference. Section 6004(a)(1) was further clarified to incorporate by reference the CalSim-II and DSM2 models dated November 2, 2016 as the required models to be used by specific projects. Section 6004(a)(1)(B) was edited to include clarifying language that all existing mitigation and compliance obligations shall be included in the without-project future conditions to ensure the Program complies with Water Code section 79753. Section 6004(a)(1)(E) was added to clarify and specify which types of projects must use the provided model products. Section 6004(a)(1)(F) was added to allow applicants reasonable options to analyze and quantify the flood control benefits to be responsive to comments regarding the complexity of the application. Modeling for flood control benefits is a complex, multi-step process. The added language allows applicants the flexibility to make use of existing analysis and data, and not require all applicants to develop new hypothetical flood events from the provided climate

change hydrology. The monetization of benefits must still follow the requirements laid out in the regulations and Technical Reference. Section 6004(a)(4)(E) was edited to allow applicants to make more use of analysis provided in an existing feasibility study as part of their cost-effectiveness and alternative cost analysis. Section 6004(a)(4)(F) was modified to allow applicants to summarize results of alternatives analysis in an existing feasibility study or other documents for determining the lowest cost of feasible alternatives to provide the same public benefits. Section 6004(a)(4)(G) was edited to require applicants to monetize the physical benefits using avoided cost and the minimum of alternative cost value and willingness to pay value. Section 6004(a)(5)(B) was edited to clarify that project costs estimated prior to 2015 must be escalated to 2015 dollars so that all costs and benefits are at 2015 constant dollars. Edits in section 6004(a)(5)(B) made section 6004(a)(5)(C) unnecessary so section 6004(a)(5)(c) was deleted. Section 6004(a)(7)(A)(4) has been edited to more clearly explain how environmental mitigation and compliance obligations should be handled in the cost allocation, including clarifying whether the public benefit cost share may include environmental mitigation or compliance obligations. Section 6004(a)(7)(A)(5) was deleted as it is no longer necessary. Section 6004(a)(8)(B) was edited to require applicants to describe how operations of their projects could be adapted to sustain the public benefits claimed under other potential future projects and water management actions. Section 6004(a)(8)(D) was added to include project performance during a 5-year drought.

5. Section 6006, pages 27-31, has been edited to clarify Commission decision making regarding eligibility of projects. Specifically, section 6006(c) has been edited to limit the applicant's additional data to address staff-identified deficiencies in the application during the basic eligibility review. Section 6006(c) has also been edited to provide additional Commission review of applications that staff believes do not meet the completeness or basic eligibility requirements and ensures the Commission is aware of staff's determination. Section 6006(c)(2) has also been revised for clarity to ensure the Commission makes any determinations regarding a project's eligibility.
6. Section 6007, pages 31 – 37 was been edited for clarity. Changes to this section were made in response to comments received and Commission direction. Specifically, the water system improvement component was removed and the resiliency component expanded. Section 6007(a) has been edited to remove unnecessary text and reflect the removal of water system improvement. Section 6007(b) was edited for clarity and consistency and to remove the term “technical reviewers” as staff will be performing the technical review. Section 6007(b)(1)(D) was added to clarify how public benefits that an applicant does not monetize will be considered and evaluated. Section 6007(c) text has been edited to more clearly explain the relative environmental value evaluation, including noting the order of the priorities and criteria listed in the regulation does not impact their importance. Section 6007(d) was edited in response to Commission direction and public comment to remove language regarding water system improvement and add additional text regarding the resiliency component including the project performance during a drought. Section 6007(e) was edited by removing unnecessary text.
7. Section 6008 (renumbered Section 6009), pages 37 -- 41 has been edited to reflect changes caused by removing water system improvement and expanding the resiliency category. This section has also been renumbered as section 6009 to better sequence the steps in the application review process within the regulation. Section 6008(a) was edited to show the changes in component criteria from 5 components to 4 from the removal of water system improvement. Section 6008(b) (renumbered 6009(b)) was edited to show the change in point values of the component criteria as directed by the Commission at its November 15, 2016 meeting. Public benefit ratio/non-monetized public benefit remains the component worth the most points (33) as this criterion considers the magnitude and monetized value of public benefits in a climate adjusted scenario. This is followed by relative environmental value (27) which focuses on water quality and ecosystem public benefits and reflects how well a project's ecosystem and water quality benefits meet State priorities. These two

categories make up 60% of the return on public investment score for a project. Resiliency (25 points) examines projects integration and flexibility and the projects ability to continue to provide public benefits in an uncertain future. Lastly implementation risk (15 points) examines risks associated with the project that might inhibit the projects implementation. Section 6008(c)(1) was edited to better explain the steps used in normalizing criteria component metrics to scoring point values in response to comments received during the first 15-day comment period. Section 6008(f) was edited to clarify the steps involved in generating a component score for relative environmental values. Section 6008(g) was edited to remove scoring text for water system improvement and add text for scoring resiliency, consistent with the Commission's direction.

8. Section 6009 (renumbered Section 6008), page 41, was edited to clarify the Commission decision making process in the appeal process and timelines for posting of information on the Commission's website. In response to public comment, staff clarified that all documentation related to appeals will be posted on the Commission's website, and that responses to the appeals shall also be made available on the Commission's website. This section was also clarified to explain the Commission will hear public comment on any appeal, consistent with the provisions of the Bagley-Keene Open Meeting Act. This section was also renumbered to Section 6008 to better reflect the stepwise process.
9. Section 6010 was edited to remove unnecessary language and make minor clarifying edits and insert regulatory cross-references.
10. Section 6011, pages 46 – 48, was edited throughout to account for the removal of the water system improvement component in the scoring procedures. Section 6011(b)(4) was edited to make the score adjustment language simpler. Section 6011(c)(4) was deleted because it is not found in Proposition 1, Chapter 8. Section 6011(d) was edited for clarity. Section 6011(e) was edited to show sequencing of steps in the process. Section 6011(g) was edited to clearly state the minimum amount of time between posting ranking information and a Commission meeting.
11. Section 6012, pages 48 – 49, was edited to clarify the relation of agency findings and public benefits considered in scoring.
12. Section 6013, pages 49 – 53, was edited for clarity. Section 6013 (a)(1)(C) was edited to clarify that the applicant needs to submit information regarding any potential impacts from the project on other projects that have received a maximum conditional eligibility determination to ensure the Commission understands the impacts of its decisions. Section 6013 (d) was edited to clearly state the timeline for posting applicant progress reports on the Commission website. Section 6013(f)(3), page 51, was edited to clarify that a new model run and new cost allocation is not required. Because the administering agencies must have contracts with applicants to adaptively manage benefits by this stage of the process additional modeling is not necessary.
13. Section 6014, pages 60 – 63, was edited to more fully explain the Commission's role in managing public benefits, including making data and reports on project public benefits available to the public and providing a venue for the public to interact with the Commission regarding the public benefits being received from projects. Additionally, the regulations now provide required elements of the contract between agencies administering the public benefits and applicants to ensure the contracts meet the requirements of the Commission and that public benefits invested in by the Commission are being realized. These requirements are necessary to ensure public agencies and applicants have a level playing field from which to negotiate certain terms of the contract and understand that these provisions are required by the Commission to obtain public investment funds.
14. Section 6015(a)(1), pages 63 – 65, was edited to remove a reference to Government Code section 6254.7 because the piece of code is not relevant to these regulations. Section 6015(b) was edited to simplify the text and to allow sufficient time for an entity response.

Technical Reference Document

1. Abbreviation for CDFW was added to the Abbreviation list and used throughout (in place of DFW). This change in abbreviation is made elsewhere in the document, and is a nonsubstantive change.
2. The following changes appear in Section 1 Introduction.
 - Opening section, second and third paragraphs. Text added regarding the use of climate change data and analysis to be consistent with later existing sections.
 - Opening section, fourth paragraph. Text added to clarify that unmitigated impacts in addition to benefits must be quantified to ensure all benefits and detriments are considered by the Commission in the application.
 - Opening section, fifth paragraph. Clarification added for applicants using a method other than one included in the Technical Reference to indicate that, although datasets from the Technical Reference are required, a method not included in the Technical Reference may be used to quantify public benefits.
 - Section 1.1, second paragraph. Minor edit for clarity.
 - Section 1.1, second paragraph. Text added to clarify that unmitigated impacts in addition to benefits must be quantified.
 - Section 1.2, three paragraphs in bottom half of page 1-3. Text added to clarify when methods are recommended (versus required).
 - Section 1.2. Final paragraph added to clarify that unmitigated impacts in addition to benefits must be quantified, even in cases where text in later sections refers only to benefits for brevity.
3. The following changes appear in Section 2 Defining the Without-Project Conditions.
 - Section 2.1, second paragraph. Text added regarding the use of climate change data and analysis, consistent with later sections.
 - Section 2.1, third paragraph. “Existing” deleted as inconsistent terminology.
 - Section 2.3, final paragraph. Edited to clarify that the REV analysis requires a description of current conditions in addition to future conditions.
 - Table 2-1. Edited for consistency with regulation
 - Section 2.5, final paragraph. Clarification that applicants are not required to revise an existing feasibility study, but simply explain important differences between its analysis and the application’s analysis. This avoids inconsistency with federal feasibility requirements, and reduces effort to update an existing feasibility study, per comments received.
 - Section 2.6, final paragraph. Edited for consistency with the use of climate change data and analysis and to clarify that a CEQA document may not include all information potentially needed.
 - Section 2.6.1, first paragraph. Deletion of unnecessary text per comment received.
 - Section 2.6.1, second paragraph. Edited for consistency with the use of climate change data and analysis.
 - Section 2.6.2, pg. 2-9 (below the list of NMFS RPA actions). Edited and added text for consistency with climate change requirements and with revisions to the regulation that allow applicants to use other analytical methods in some circumstances.
 - Section 2.6.3, first paragraph. Added and corrected citations.
 - Section 2.6.3, third paragraph. Existing text edited for clarity and consistent terminology.

- Section 2.6.3, third paragraph. Text added to end of paragraph gives clearer direction on what changes applicants can and cannot make to the CalSim II model.
 - Section 2.6.4, final paragraph. Updated text based on more current status of SGMA program.
 - Section 2.10, second paragraph. Edited for clarity and to delete repetitive and unnecessary directions.
 - Section 2.11, first paragraph. Edited for clarity and to delete unnecessary text.
 - Section 2.11, second paragraph. Cross reference to section 2.12 added.
 - Section 2.12. Section has been significantly revised based on updated model and climate data provided to applicants. Additional table and text describe extreme climate conditions that applicants must use as the basis of their uncertainty analysis. Due to the large number of changes to text, tables, and formats, the revised section is shown as one complete change relative to the August version of the Technical Reference.
4. The following changes appear in Section 3 Defining the With-Project Conditions.
- Section 3.5, first and second paragraphs. This section describes what must be provided in an applicant’s feasibility study. Edits are to improve clarity and to specify date of feasibility study completion.
 - Section 3.5, cost allocation bullet. In response to a comment, the text is edited to clarify that applicants are not required to revise the cost allocation in an existing feasibility study.
 - Section 3.5, economic feasibility bullet. Edited to recognize that an existing feasibility study, especially one prepared under federal guidelines, need not assess economic feasibility from a state perspective.
5. The following changes appear in Section 4 Calculating Physical Changes.
- Section 4.2, second paragraph. Text deleted as unnecessary.
 - Section 4.2.1, first paragraph. Minor edits for clarity. “Should” changed to “must” to indicate a requirement.
 - Section 4.2.1.1, entire section. Edits for clarity and to indicate which model selection criteria are required (“must”) and some that are simply provide advice (“should”).
 - Section 4.2.1.2, entire section. Based on staff comments, quality of analysis criteria are significantly simplified to be clearer and to align with technical review section of the regulation.
 - Section 4.2.1.3, second paragraph. Final sentence deleted as unnecessary.
 - Sections 4.2.1.4 and 4.2.1.5. Minor edits.
 - Section 4.2.1.6, all but initial paragraph. Significant edits to provide consistency with revised regulation. Allows, but does not require, applicants to include additional years besides 2030 and 2070 to construct planning horizon analysis. Describes how to interpolate between years. Specifies that benefits or impacts occurring after 2070 must be held at 2070 level.
 - Section 4.2.2, first paragraph. Sentence deleted for consistency with revised regulation.
 - Section 4.2.2, fifth paragraph. Web location of citation added.
 - Section 4.2.4, second paragraph. Edited for clarity and to state that the REV analysis also requires current condition metrics.
 - Section 4.2.4, Agreements bullet. Minor edit for clarity.

- Section 4.3.6. Next to last paragraph has been added that describes how applicants shall incorporate reasonable assumptions about SGMA implementation.
- Section 4.3.8.9 and all other sections. CalSim-II changed to CalSim II.
- Section 4.3.9, second paragraph. Added clearer direction on what changes applicants can and cannot make to the CalSim II model, consistent with section 2.6.3.
- Section 4.4.1, last paragraph. Minor edits to clarify in-lieu storage.
- Section 4.4.4, first paragraph. Clarified that the analysis shall be consistent. Sentence before the bullet list edited for consistency with text in section 4.3.6.
- Sections 4.4.6, 4.4.6.2, 4.4.6.4. Minor edits.
- Section 4.7.2.2, 4.7.2.3, and 4.7.2.4. Sections updated for consistency with revised regulation, ecosystem priorities, and REVs.
- Tables 4-10 and 4-11 are updated for consistency with revised ecosystem priorities.
- Section 4.7.6, second paragraph. The word “future” removed because some REVs require current condition evaluation also. This edit is made several more times and for the same reason.
- Section 4.7.6.4 and 4.7.6.5. Heading levels corrected.
- Section 4.7.6.5, third paragraph. Edits for clarity and to fix an incorrect cross-reference.
- Table 4-12 has been reformatted. The only change to the content of the table is the addition of a row describing the EDT model, which is also described in text. The EDT model appears as the last row in the Riverine Effects subsection of the table.
- Section 4.7.6.5, page 4-117. Description of EDT model added (next to last subsection).
- Section 4.7.6.5, final paragraph. Last subsection edited to identify a recently-released report on Delta smelt.
- Section 4.8, second paragraph. Edit to clarify: groundwater restoration is already one of the priorities of the State Water Board, so should not be called out separately.
- Section 4.8.2 and 4.8.3. Sections have been updated for consistency with revised regulation, water quality priorities, and REVs.
- Section 4.8.4, first paragraph. Sentence edited for clarity
- Table 4-13 is updated for consistency with revised water quality priorities.
- Section 4.8.5.1, first and second paragraphs, including the Priority 3 subsection. Edited for clarity and consistency with State Water Board priorities
- Section 4.8.5.1, Priority 3 subsection. Edited for clarity and to provide better references, per staff comment.
- Section 4.8.6.1, first paragraph. The word “future” removed because some REVs require current condition evaluation also.
- Section 4.8.6.1, subsection titled “Define the Spatial Extent...”. The word “future” removed for same reason. Other edits to improve clarity and consistency of terminology.
- Section 4.8.6.1, subsection titled “Define the Temporal Scale...”. Edits to improve clarity and remove unnecessary sentence.
- Section 4.9.2.1, first paragraph. Edited to remove redundant and unnecessary text.
- Section 4.9.2.2, first paragraph. Edited to remove vague and unnecessary text.
- Section 4.9.2.4, first paragraph. Text deleted, per staff comment. Risk of dam failure is extremely difficult to quantify, so is not required.
- Section 4.9.4, first two paragraphs and bullet list. Text has been edited to clarify better the steps for with-project vs. without-project analysis.

- Section 4.9.4, third paragraph. “Should” changed to “may”, to clarify that methods are optional.
 - Section 4.9.4.1, last paragraph on page 4-148 and final paragraph of section, page 4-150. “Should” changed to “may”, to clarify that methods are optional.
 - Section 4.9.4.4, last sentence. Edit clarifies the minimum standard for constructing a flow-frequency curve, per staff comment.
 - Section 4.9.5, first paragraph. Text deleted as overly restrictive, per staff comment.
 - Section 4.11.1, first paragraph. Citation changed from the regulation to the statute.
 - Section 4.11.2.3, first paragraph. Changed “above” to “up to”, to restrict funding for drought emergencies only to that needed for public health and safety, in response to comments.
 - Section 4.12.5, fourth bullet. Removed the word “current”. Consistent with the regulation, water supply analysis is only required to use a comparison at the future conditions.
 - Section 4.13.3.1, fourth paragraph. Edited to use a cross reference to another section instead of a website reference.
6. The following changes appear in Section 5 Monetizing the Value of Project Benefits.
- Opening section. First paragraph edited to state that unmitigated impacts are to be monetized in addition to benefits.
 - Opening section. Fourth paragraph edited for clarity.
 - Section 5.1.1. Several edits in the first two paragraphs improve clarity.
 - Section 5.1.1. Addition in the third paragraph explains the underlying concept used for some alternative cost methods.
 - Section 5.2.6, first paragraph. In response to staff comment, sentence added as a cross-reference to section 6.5 on updating project cost estimates.
 - Section 5.2.6, second and third paragraphs. Edited to provide clearer direction and remove unnecessary text.
 - Section 5.2.6, Table 5-1. Table headings edited to be clear and consistent with accompanying text. Based on staff comment, the manufacturing sector producer price index was replaced with a broader inflation index, the GNP implicit price deflator. The original index was determined by staff to be narrow in its focus on manufacturing, while the GNP-based index is based on price level changes in all sectors.
 - Section 5.2.6.2. Text updated using a preferred index (based on staff comment and consistent with changes to Table 5-1), and example calculations updated accordingly.
 - Section 5.2.8. Edits to remove inconsistent terminology and to clarify requirements.
 - Section 5.2.8.1. Paragraph added allowing applicants to use economic unit values developed for 2030 conditions to the 2070 condition monetization. This is consistent with the same change in the revised regulation. For the same reason, a footnote to Table 5-3 has been revised.
 - Section 5.2.8.2 first paragraph. Adds a cross-reference to a similar discussion in Section 4.2.1.6, and modifies some words for clarity and consistent terminology. Final sentence is moved to next paragraph for improved readability.
 - Section 5.2.8.2 second paragraph. Changes “shall” to “may” because monetization for current conditions is not required. In second sentence, “can” changed to “shall” to require extrapolation if current conditions are not monetized. Sentence about other future years moved from first paragraph.

- Section 5.2.8.2, paragraph and bullets below Table 5-4. Text has been revised to provide clearer explanation of how and under what circumstances applicants may use additional years for monetization and interpolation.
- Section 5.2.8.2 final paragraph. Added sentence to advise applicants to consider both physical and economic changes or trends when monetizing benefits.
- Section 5.3, opening section. Based on comments received, this section has been revised to be consistent with other text in the technical reference and with the revised regulation. The revised text states that applicants must use each applicable quantification approach, and describes the process to combine or select the results of more than one approach.
- Section 5.3.1, third paragraph in Step 1. Text has been edited and example numbers revised to be clearer and simpler.
- Section 5.3.1, last two paragraphs in Step 1. Based on staff comments, first two sentences deleted as confusing. Other minor edits for clarity.
- Section 5.3.1, third paragraph in Step 2, first bullet. Clarifies that net benefit is the standard for determining an appropriate alternative cost.
- Section 5.3.1, fifth paragraph in Step 2. Sentence added clarifying how applicants can use an alternatives comparison in an existing feasibility study, consistent with revised regulation.
- Section 5.3.1, sixth and seventh paragraphs in Step 2. Several edits clarify that net benefit is the standard for determining an appropriate alternative cost.
- Section 5.3.2, first paragraph. Minor edit.
- Section 5.3.3, first paragraph. Edited to remove avoided cost, which should have its own estimate and not use estimated unit costs.
- Section 5.3.3, second and third paragraphs added, in response to comments to provide more direction to applicants about when the provided unit values may be appropriate versus another method.
- Section 5.3.3, fifth paragraph. Unnecessary phrase deleted.
- Section 5.3.3. Final paragraph added in response to comments, to clarify that the provided values may not be appropriate for large changes in quantities.
- Section 5.3.6. This new section has been added in response to comments. It allows applicants to include real economic costs to third parties if applicants can justify and document them.
- Section 5.4, second paragraph. Edits for clarity and consistent terminology.
- Section 5.4.1.2, first paragraph. “Shall” changed to “may”, consistent with regulation and other sections.
- Section 5.4.1.2, first paragraph. Sentence added clarifying how applicants can use an alternatives comparison in an existing feasibility study, consistent with revised regulation.
- Section 5.4.2, second paragraph. Minor edits.
- Section 5.4.2, bottom of page 5-26. Minor edits in numbered list of steps. Step 2 includes reiterates that net benefits are to be quantified.
- Section 5.4.2.1, first paragraph. Sentence deleted as not required.
- Section 5.4.2.2, paragraph above Figure 5-2, page 5-29. “Shall” changed to “may”, consistent with regulation and other sections.

- Section 5.4.2.3, fourth paragraph in recommendation, page 5-34. Clarified to include endangered and threatened species.
 - Section 5.4.4.2, final paragraph. “Shall” changed to “may”, consistent with regulation and other sections.
 - Section 5.4.5.1, next to last paragraph. Cross-reference corrected.
 - Section 5.4.5.2, third paragraph. Sentence moved from fifth paragraph.
 - Section 5.4.5.1, fifth paragraph. First sentence moved and the remainder deleted as redundant and unnecessary.
 - Section 5.4.5.7, next to last paragraph, page 5-48. Citation corrected.
 - Section 5.4.6.1, bottom of page 5-50. Cross-reference added to allow another method.
7. The following changes appear in Section 6 Estimating Project Costs
- Opening section, second paragraph. Edited for consistent terminology.
 - Section 6.2.3, first paragraph. Edited in response to comment, and clarifies that only the unit prices need to be updated if older than 5 years.
 - Section 6.3, first paragraph. Capital cost items listed moved into the bullet list just below, for consistent display.
 - Section 6.3, last bullet. Permitting is included in response to comment.
 - Section 6.3. Last sentence added that financing costs are not to be included as a capital cost.
 - Section 6.4. Edited for clarity and consistent terminology.
 - Section 6.5. First sentence edited to specify construction cost index. Second sentence deleted as repeating information in earlier sections.
8. The following changes appear in Section 7 Comparing Benefits to Costs
- All changes are for consistent terminology.
9. The following changes appear in Section 8 Allocating Costs to Beneficiaries
- Section 8.1, final bullet list. Edited to be consistent revised regulation.
 - Section 8.2, numerous places. The word “participant” changed to “beneficiary” for consistency with other sections
 - Section 8.2, first bullet on page 8-4. “Monetized” removed in the first sentence because it is not consistent with the second sentence.
 - Section 8.3. Minor edits for consistent terminology.
10. The following changes appear in Section 9 Determining Cost Effectiveness and Public Benefit Ratio
- Section heading changed to be consistent with “public benefits ratio” terminology in the revised regulation. This edit also occurs in other places in this section.
 - Opening. Edited based on staff comments, to provide more complete direction and to be consistent with the revised regulation and other, cross-referenced sections.
 - Section 9.1. Text edited for clarity and consistency with other sections.
 - Section 9.2, first paragraph. Edited for clarity.
 - Section 9.2, second paragraph. Edited for clarity.
 - Section 9.3, second paragraph. Edited for terminology and clarity.
 - Section 9.2. Edited for clarity.

11. The following changes appear in Section 10 Uncertainty Analysis.
- Opening paragraph. Edited for change in terminology.
 - Second paragraph has minor changes for clarity.
 - Third paragraph edited to be consistent with revised regulation and to clarify how uncertainty is used in scoring.
 - Section 10.1 Edited to indicate revised climate change analysis and consistent terminology.
 - Section 10.1 Second paragraph deleted as unnecessary and confusing.
 - Section 10.2 Edited for consistency with revised regulation
 - Section 10.3 Minor edits to clarify that the analysis focuses on public benefits.
 - Section 10.4 Added to be consistent with corresponding section in revised regulation
12. The following changes appear in Section 11 Metrics
- Table 11-4. A metric added for terrestrial species, consistent with ecosystem priorities, per staff comment.
 - Footnote in Tables 11-4 and 11-5 modified to add current condition for evaluation of ecosystem and water quality metrics.
 - Table 11-10 Title, subtitle, and last row changed from “return on investment” to “public benefit ratio”, consistent with the regulation. Other minor changes for clarity
13. The following changes appear in Section 12 Glossary. All edits were identified by staff.
- The following definitions were changed to be consistent with definitions in the regulation.
 - Application; CALFED surface storage projects; Conjunctive use project; Current condition; Delta; Ecosystem improvements; Emergency response; Flood control benefit; Groundwater dependent ecosystem; Permits; Public benefit ratio; Recreational purpose; Return on investment (deleted); Trigger; Undesirable result(s); Water quality improvements;
 - The following definitions were added or revised to improve clarity.
 - Average water deliveries; CWA 303(d) list; Delta outflow; Dry and critical years average water deliveries; Flow regimes; Measurable improvements; Pollutant; Spatial scale; Temporal scale;
14. The following changes appear in Section 13 References
- A number of citations in the reference list were misplaced, incomplete, missing, or not used in the text. These have been corrected.
 - Some citations have been added or revised based on new or revised text in this November release.
 - Some webpage addresses have been updated. Underlining of URL’s has been removed to avoid confusion with new text added.
 - A set of citations for early sections of the Technical Reference were inadvertently omitted in the August release. These are now included in section 13.13, and its section heading changed accordingly.
15. The following changes appear in the Appendices to the Technical Reference
- Appendix A has been substantially revised to incorporate revisions to the datasets and model products provided to applicants. Additional information is provided on the extreme climate conditions that applicants must use for uncertainty analysis. Due to the large

number of changes to text, tables, and formats, the Appendix A replacement is shown as one complete change relative to the August release.

- Appendix B, reference list. The webpage address of the CALFED document has been updated in the references.
- Appendix C, page C-5. Based on staff comment, a brief description of another reference document (Griffin, 2006) has been added, and is also added in the reference list.
- Appendix D, page D-2. The citation to a personal communication has been revised for consistency with other citations. The change is also shown in the reference list at the end of Appendix D.
- Appendix D. In Tables D-1, D-5, and D-6, the abbreviation “N” is revised to “Normal”.
- Appendix D. A new next-to-last paragraph is added to the appendix that cross-references a discussion of third-party costs that has been added as Section 5.3.6.
- Appendix E. In Table E-5, a citation (Medellin-Azuara et al) was inadvertently included in the table, and has been deleted. This citation belonged to the document from which Table E-5 information was drawn, namely the 2014 Recovery Plan. Staff did not independently review and cite Medellin-Azuara et al. for the technical reference.
- Appendix E, page E-19. Text revised for clarity and consistency with related discussion in section 5.4.2.

Tables

1. The Physical and Economic Benefit Tables have been edited to reflect the removal of Water System Improvement and subsequent renumbering of tables in the file.
2. The Water Quality Priority Application Tables have been modified to reflect the relative environmental value criteria in Table 4 of the regulations. Additional edits have been made to clarify questions and needed information within the tables.

Additional Incorporated Documents Added to the Record

In the interest of completeness, staff has also added to the rulemaking record and invites comments on the following documents incorporated by reference into the regulations:

- Water Storage Investment Program Technical Reference Document, November 2016
- Physical and Economic Benefits Summary Tables, November 2016
- Water Quality Priorities Application Tables, November 2016

These documents are updated from earlier versions of the same documents. These documents are available for inspection at the California Water Commission office at 901 P Street, Sacramento, CA or by downloading the documents from the California Water Commission website at <https://cwc.ca.gov/Pages/QuantificationRulemaking.aspx>

Additional Documents Added to the Record

Staff has added to the rulemaking record and invites comments on the following data and model products, which are updated from those originally noticed on September 9, 2016, and which are referenced in the updated Water Storage Investment Program Technical Reference, November 2016:

- Without-Project 2030 Future Conditions:
 - Climate and VIC results: WSIP_2030_Statewide_Grid_Montly_11-2-16.zip
 - CalSim-II model and output: WSIP_2030_CALSIM_11-2-16.zip

- DSM2 model and output: WSIP_2030_DSM2_11-2-16.zip
- Without-Project 2070 Future Conditions:
 - Climate and VIC results: WSIP_2070_Statewide_Grid_Montly_11-2-16.zip
 - CalSim-II model and output: WSIP_2070_CALSIM_11-2-16.zip
 - DSM2 model and output: WSIP_2070_DSM2_11-2-16.zip

The following additional documents have been added to the rulemaking record. These are additional documents cited by the Technical Reference.

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These documents are available for inspection at the California Water Commission office at 901 P Street, Sacramento, CA.

Additionally, a list of references from the Water Storage Investment Plan Technical Reference, first published in August 2016 and incorporated by reference during the first public comment period, is below and lists those additional documents added to the rulemaking file because of the incorporation of the Technical Reference. These references are separated by section of the Technical Reference.

These documents are available for inspection at the California Water Commission office at 901 P Street, Sacramento, CA.

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Available at: <http://www.water.ca.gov/waterplan/cwpu2013/final/index.cfm>

Sections of interest include:

- Volume 2 Regional Reports: DWR hydrologic region water usage by type (i.e., surface water and groundwater)
- Volume 3 Resource Management Strategies:
 - Conjunctive Management and Groundwater
 - Groundwater/Aquifer Remediation
- California's Groundwater Update 2013:
<http://www.water.ca.gov/waterplan/topics/groundwater/index.cfm>

Water Level Data for Model Calibration (Not Exhaustive)

- DWR's Water Data Library: <http://www.water.ca.gov/waterdatalibrary>
- USGS' National Water Information System: <http://maps.waterdata.usgs.gov/mapper/index.html>

DWR Groundwater Information Center and Interactive Maps

- <http://www.water.ca.gov/groundwater/>
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Agency Contacts

Inquiries concerning the substance of the proposed regulation may be directed to:

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Further, the agency representative to whom nonsubstantive inquiries concerning the proposed administrative action may be directed to:

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Please note that public comments on the changes to the proposed regulations should be directed to the address below.

Public Comments

Written comments will only be accepted on the modifications identified in this Notice. Comments may be submitted by postal mail or by electronic submittal no later than 5:00 pm on the due date to the following:

Postal mail:
California Water Commission
P.O. Box 924836
Sacramento, CA 94236

Electronic submittal:
Joe Yun
WSIPcomments@cwcc.ca.gov

Please note that under the California Public Records Act (Gov. Code § 6250 et seq.), your written and verbal comments, attachments, and associated contact information (e.g., your address, phone, email, etc.) become part of the public record and can be released to the public upon request.

In order to be considered by the Commission, comments must be directed to the Commission in one of the two forms described above and received by the Commission by 5:00 p.m., on the deadline date for public comment listed at the beginning of this notice. Only comments relating to the above-described modifications to the text of the regulations shall be considered by the Commission.

If you need this document in an alternate format or another language, please contact the Commission's Office Technician at (916) 651-7501 no later than five (5) business days from the release date of this notice.

Si necesita este documento en un formato alternativo u otro idioma, por favor llame al Técnico de la Oficina de la Comisión al (916) 651-7501 no más de cinco (5) días laborales a partir de la fecha del lanzamiento de este aviso

CALIFORNIA WATER COMMISSION



Taryn Ravazzini
Acting Executive Officer

Date: 11/22/2014