

# **WATER RECYCLING FUNDING PROGRAM GUIDELINES**

Amended on October 15, 2019



**California State Water Resources Control Board  
Division of Financial Assistance**

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## LIST OF ACRONYMS AND ABBREVIATIONS

DAC	Disadvantaged Community
Division	Division of Financial Assistance
CPUC	California Public Utilities Commission
CWSRF	Clean Water State Revolving Fund
IUP	Intended Use Plan
JPA	Joint Powers Authority
O&M	Operation and Maintenance
PM	Project Manager
RWQCB	Regional Water Quality Control Board
SDAC	Severely Disadvantaged Community
State Water Board	State Water Resources Control Board
WRFP	Water Recycling Funding Program
User	Existing and Future Users

## **I. INTRODUCTION**

The Water Recycling Funding Program (WRFP) is administered by the Division of Financial Assistance (Division). It supports the State Water Resources Control Board's (State Water Board's) Water Recycling Policy and provides funding for water recycling projects that offset or augment state or local fresh water supplies and water recycling research. These Guidelines establish requirements to obtain WRFP funding; water recycling construction projects must also comply with the applicable requirements of the *Policy for Implementing the Clean Water State Revolving Fund* (CWSRF Policy).

The guidelines are divided into nine sections:

- Section I is an introduction;
- Section II is definitions of terms used in these guidelines;
- Section III describes the requirements for planning grants;
- Section IV describes the requirements for construction grants and loans;
- Section V describes the requirements for recycled water research funding;
- Section VI describes the requirements for recycled water pilot project grants;
- Section VII describes the authority to execute agreements;
- Section VIII describes the State Water Board's reservation of authority; and
- Section IX describes other requirements.

Applicant and project eligibilities may vary based on the funding sources available at the time a project or research is approved for funding. Generally, the availability and limitations for WRFP funding will be described in the CWSRF's annual Intended Use Plan (IUP), but may also be described in a separate solicitation for applications.

Division staff will provide additional application assistance to small disadvantaged communities upon request. Staff may travel to provide one-on-one application assistance.

## **II. DEFINITIONS**

This section supplements the definitions located in the current CWSRF Policy. Please see the CWSRF Policy for additional definitions that may apply to the WRFPP:

([https://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/srf/cwsrf\\_policy.shtml](https://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/cwsrf_policy.shtml)).

Unless otherwise defined below, the definitions used in the CWSRF Policy shall apply to these Guidelines.

“Economic Analysis” means the procedure to determine the costs and the benefits of the project regardless of who contributes the resources or who receives the benefits.

“Existing User” means an entity that currently exists or will exist prior to the project’s Initiation of Operation and would use fresh water if recycled water were not made available.

“Future User” means an entity that does not and will not exist prior to the project’s Initiation of Operation and would use fresh water if recycled water were not made available.

“Initiation of Operation” means the actual date the water recycling facilities initiate operation and the entity begins using the facilities for their intended purpose.

“Local Public Agency” means any:

1. City, county, city and county, district,
2. group of agencies, created by or pursuant to state law and involved with water or wastewater management,
3. group of agencies related by a joint powers authority (JPA), memorandum of understanding, or other formal collaborative governance agreement, or
4. other local public body or regional political subdivision of the state created by or pursuant to state law and involved with water or wastewater management.

State agencies and departments are not included in this term.

“Recycled Water” is defined in California Water Code §13050(n).

“Water Recycling” means the process of treating wastewater to produce recycled water for beneficial use, the storage and distribution of recycled water to the place of use, or the actual use of recycled water.

“Plan of Study” means a description of the planning that will be done as part of a Planning Grant. Additional guidance to develop a complete Plan of Study is described in Appendix A.

### **III. PLANNING GRANTS**

This section discusses the requirements for recycled water planning grants. The purpose of the planning grant is to encourage Local Public Agencies to investigate the feasibility of recycling wastewater and assist them with completing planning for water recycling projects by supplementing local funds. Approval of a planning grant does not obligate the State Water Board to provide subsequent financial assistance.

#### **A. Eligibility**

1. Generally, all costs necessary to determine the feasibility of using recycled water and to select an alternative to offset or augment the use of fresh/potable water from state or local supplies may be eligible for the planning grant. The Plan of Study will be used to determine the costs eligible for grant funding.
2. The grant will generally cover 50 percent of the eligible planning costs up to the maximum established by the State Water Board in the CWSRF Intended Use Plan, or as otherwise limited by the State Water Board. A disadvantaged community (DAC) or severely disadvantaged community (SDAC) may receive 100 percent of the eligible planning costs up to the maximum established by the State Water Board.
3. Only Local Public Agencies are eligible to receive a planning grant.
4. Each proposed study must be distinct from previous WRFPP grant funded studies. The applicant should confer with Division staff before applying for additional planning grants to ensure that new studies are distinct and eligible.
5. The Division will establish an eligibility date in the planning grant agreement. Planning costs incurred after the eligibility date established in the agreement are eligible for reimbursement. Planning costs incurred prior to the eligibility date established in the agreement are ineligible for reimbursement.
6. A proposed study is not required to be on the CWSRF Fundable List to receive a planning grant.

#### **B. Application and Grant Agreement**

1. Applicants must submit a complete planning grant application to receive a planning grant. A Plan of Study must be included in each planning grant application. Applications for planning grants are accepted on a continuous basis. The application form and instructions are included in Appendix A.
2. After an application has been started, the Division will assign a Project Manager (PM) to assist the applicant with its planning grant application.
3. Division staff may request additional information from the applicant regarding the application to ensure that the requirements of the Guidelines are met.
4. After the Division determines that the application satisfies the requirements of these Guidelines, the Division may develop a planning grant agreement for execution.
5. The grant agreement will generally require that the final project report be submitted within two (2) years of the execution of the grant agreement.

- a. Grant agreements for studies considering potable reuse as an alternative will generally require that the final project report be submitted within three (3) years of the execution of the grant agreement.
  - b. For good cause, the Division may extend the deadlines or modify other conditions specified in the grant agreement.
6. The Division may include other appropriate conditions and expiration dates in the grant agreement.

### **C. Project Report**

#### **1. Draft Project Report**

- a. The Plan of Study must include the development of a draft project report. The recipient must submit a draft project report to the Division for review and comment on or before the due date established in the grant agreement.
- b. Appendix B provides an outline for the project report which represents an appropriate level of analysis and due diligence for a thorough study.

#### **2. Midcourse Meeting**

- a. Planning grant recipients must conduct a mid-course meeting to review and discuss the progress of the study and the contents of the draft project report. The meeting should include applicant staff, the principal consultants, Division staff, and any other interested and appropriate persons.
- b. Division staff may provide comments on the draft project report and will acknowledge receipt of the draft project report after the mid-course meeting.

#### **3. Final Project Report**

- a. The recipient must submit a final project report to the Division for review on or before the due date established in the grant agreement. The contents of the report should be consistent with the Plan of Study. The final project report must be stamped by an Engineer registered in the State of California.
- b. The final project report must analyze all feasible project alternatives and recommend a project or determine that a water recycling project is not feasible.
  - i. If the alternatives analysis determines that water recycling is infeasible, the applicant must document this determination in the final project report.
  - ii. The uncertainty of future rate increases, political or public opinion, or other unpredictable factors are not acceptable bases for determining that water recycling is infeasible.
- c. The final project report must address comments provided by Division staff on the draft project report.



- d. Division staff may request additional information regarding the final project report to ensure that it meets the requirements of the Guidelines and the planning grant agreement.
- e. Once Division staff determines that the final project report meets the requirements of the Guidelines and the planning grant agreement, Division staff will acknowledge acceptance of the final report.

#### **D. Disbursement of Funds**

1. Instructions and forms for requesting disbursement of funds will be provided after the planning grant agreement is executed.
2. Grant funds will be provided in two disbursements.
  - a. Up to 50 percent of the grant may be disbursed after Division staff acknowledges receipt of the draft project report.
  - b. The remainder of the grant amount may be disbursed after Division staff accepts the final project report.
3. Recipients qualifying as a DAC or SDAC may request disbursement as costs are incurred. The recipient must submit the final project report prior to disbursement beyond 90 percent of the financing amount.
4. Following final disbursement, the final grant amount will be adjusted to reflect the actual eligible planning costs. Any undisbursed grant funds will be de-obligated.

### **IV. CONSTRUCTION FUNDING**

This section discusses the requirements for recycled water construction funding.

#### **A. Eligibility**

Project construction costs are eligible to the extent consistent with federal and state authority, requirements established by the State Water Board, and the availability of funding. The following are eligibility requirements for WRFPP construction funding.

##### **1. General**

- a. Projects seeking construction funding from the WRFPP shall comply with the CWSRF Policy in addition to the specific requirements of these Guidelines. These Guidelines and the CWSRF Policy are complementary and describe the complete funding requirements for water recycling construction projects.
- b. Depending upon the funding source, eligible applicants may include Local Public Agencies, 501(c)(3) nonprofit organizations qualified to do business in California, public utilities, federally and non-federally recognized Native American tribes on the Native American Heritage Commission's list, and mutual water companies.
  - i. A project proposed by a mutual water company, a JPA with municipal water company member(s), or a utility serving the public and regulated by the California Public Utilities Commission (CPUC), must

have a clear and definite public purpose, and must benefit the customers of the water system and not the investors.

- ii. A private, for-profit public water system applicant must be actively regulated by the CPUC in order to be eligible.
- c. Water recycling construction projects must offset or augment state or local fresh water supplies.
- d. A water recycling construction project may receive any combination of grant and loan financing available to the State Water Board for which it is eligible.
  - i. Water recycling construction projects may receive up to 100 percent funding of eligible costs, as limited by the State Water Board in the CWSRF IUP or a State Water Board resolution.
  - ii. Specific terms, limitations, and eligibilities of the WRFPP construction funding will generally be noted in the annual CWSRF IUP, but may also be described in a separate solicitation for applications.

## **2. Eligible Costs**

The following costs are generally eligible for WRFPP funding. The applicant must separate the eligible and ineligible costs in application documents and its disbursement requests, as appropriate.

- a. Construction of recycled water treatment facilities, storage facilities, pumping facilities, and groundwater recharge facilities.
- b. Construction of recycled water distribution systems, including onsite improvements.
- c. Planning, design, construction management, value engineering, and administration directly related to project implementation.
- d. Development, construction, and monitoring of a pilot-scale or demonstration-scale plant as part of the construction of a full-scale treatment facility project. A pilot-scale or demonstration-scale plant is distinct from the pilot projects described in Section VI.
- e. Reasonable costs to provide an emergency backup water supply for the recycled water system.
- f. Contingency for change orders approved by the Division for increased costs, provided the costs are eligible and consistent with the original scope of the project.

## **3. Ineligible Costs**

- a. Operation and maintenance costs;
- b. Project components not included in the application and original scope of the project.
- c. Costs previously reimbursed by the State Water Board or other funding sources.

#### **4. Capacity Limitations**

Eligible project capacity will be based on Recycled Water Market Assurances. A minimum of 50 percent of the eligible project capacity must serve Existing Users. Eligible component sizes or cost categories will be based on reasonable design criteria necessary to deliver the eligible project capacity. Costs associated with constructing pipelines or treatment capacity in excess of the eligible project capacity are ineligible for funding. When components or cost categories include a combination of eligible and ineligible costs, the ineligible costs will be estimated on an incremental basis.

#### **5. Grant Funding Awards**

- a. The grant amount will be established in the financing agreement.
  - i. The grant will be based on the reasonable, estimated construction cost<sup>1</sup> for the project unless the final construction cost for the project is known at the time the financing agreement is executed.
  - ii. The grant will be established as 35 percent of the reasonable, estimated construction cost for the project or the final construction cost for the project, if known at the time the financing agreement is executed, up to the maximum established by the State Water Board in the CWSRF IUP or as otherwise limited by the State Water Board.
  - iii. The grant amount will not be increased or decreased after it is established in the financing agreement, provided the project is completed.
- b. Grant funds may be disbursed for actual, eligible construction costs up to the grant amount in the financing agreement. Any undisbursed grant funds will be de-obligated.
- c. Unless otherwise established by statute, regulation, or State Water Board policy, construction grants will be disbursed according to the geographic location of the projects. Grant funds will be geographically disbursed to the following counties:
  - i. A minimum of 40 percent of the funds will be disbursed to projects within Los Angeles County, Orange County, Riverside County, San Bernardino County, San Diego County, or Ventura County.
  - ii. A minimum of 40 percent of the funds will be disbursed to projects within the remaining California counties.
  - iii. The remaining 20 percent will be disbursed to water recycling projects located in any California county.

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<sup>1</sup> The estimated construction cost is limited to construction related activities and does not include planning, design, change orders, construction management, or engineering during construction.

## **B. Application and Funding Approval**

### **1. Application**

- a. Applicants for water recycling construction funding must submit a complete application. Receipt of an application is not a commitment to provide funding.
- b. The application forms and instructions incorporate those used to apply for CWSRF funding, and can be found at [https://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/srf/srf\\_forms.shtml](https://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml).

### **2. Additional WRF Application Requirements**

- a. Applicants must submit Recycled Water Market Assurances. Recycled Water Market Assurances document the commitment of Existing and Future Users to use the recycled water produced by the project. Detailed descriptions of Recycled Water Market Assurances are contained in Appendix C.
- b. Applicants must submit a User connection schedule for the water recycling project that includes the following:
  - i. A description of each User, including whether the User is an Existing or Future User,
  - ii. the type of Market Assurance for each User,
  - iii. the beneficial use type for each User, consistent with use types described in Appendix D,
  - iv. the expected annual recycled water deliveries for each User, and
  - v. the planned dates each User will be connected.

### **3. Funding Approval**

- a. All applications shall comply with and be evaluated consistent with the latest amendment of the CWSRF Policy and these Guidelines. Note that the applicant must submit a project report, or its equivalent, that contains the applicable information outlined in Appendix B of these Guidelines in lieu of the information outlined in the CWSRF Policy.
- b. Water recycling construction projects must be on the CWSRF Fundable List consistent with the CWSRF Policy to receive financing.
- c. Unless otherwise established by statute, regulation, or the IUP, the Division will prioritize Water Recycling Projects for financing as follows.
  - i. Projects that benefit or are submitted by a severely disadvantaged community (SDAC) or support the human right to water in California.
  - ii. Potable reuse projects that increase the drinking water supply.
  - iii. Projects that construct or extend Recycled Water distribution systems. Distribution systems include pumping, storage, pipeline

systems, and other associated appurtenances necessary to deliver Recycled Water to Existing and Future Users.

- iv. Projects that construct or expand Recycled Water treatment facilities.

## **C. Reporting**

### **1. Annual Reports**

- a. The recipient must annually report to the Division on the volumes of recycled water delivered to the Users identified on the User connection schedule. For guidance on preparing the annual report see Appendix D.
- b. The first report is due on February 28<sup>th</sup> following the first full calendar year of operations.

### **2. Reporting Period**

- a. The recipient must continue to report annually until the earlier of the following:
  - i. at least 80% of the total eligible project capacity is delivered for at least one full calendar year, or
  - ii. five (5) full calendar years of operation.
- b. If the recipient has not delivered at least 80% of the total eligible project capacity after five (5) full calendar years of operation, then the final report must include a description of the action(s) the recipient intends to take to achieve the project's original goal.

## **V. RESEARCH GRANTS**

This section discusses the requirements for recycled water research grants. The purpose of water recycling research grants is to identify and address the highest priority recycled water research needs to advance the production and use of recycled water in California.

### **A. Eligibility**

1. Research costs are eligible to the extent consistent with federal and state authority, requirements established by the State Water Board, and the availability of funding. The applicant must separate the eligible and ineligible costs for disbursement requests or reporting matching funds.
2. Specific terms, limitations, and eligibilities for water recycling research grants may also be described in a separate solicitation for proposals.
3. Each research effort must be distinct from previous WRFP grant funded research. Research may build on previous WRFP grant funded research, but the scope of the research must be different from the previous research. Applicants and researchers should confer with State Water Board staff before applying for additional research grants to ensure that research proposals are distinct and eligible.

4. The Division will establish an eligibility date in the research grant agreement. Research costs incurred after the eligibility date established in the agreement are eligible for reimbursement.
5. Research is not required to be on the CWSRF Fundable List to receive a research grant.
6. Research is not limited to the uses of recycled water specified in California Code of Regulations, Title 22, and may include additional forms of reuse, such as onsite reuse, agricultural reuse, industrial reuse, and stormwater capture and use.
7. Indirect costs are ineligible for grant funds.
8. All travel is subject to the restrictions set forth in Section IX.C of these Guidelines and the grant agreement.

#### **B. Research Proposal and Grant Agreement**

1. Specific evaluation criteria and deadlines for water recycling research grants may additionally be developed and described in a solicitation for proposals.
2. Division staff may request additional information from applicants to ensure that the requirements of the Guidelines and/or a solicitation are met.
3. A Recommended Funding List will be developed consistent with the Guidelines and/or a solicitation and presented to the State Water Board for approval.
4. After the State Water Board approves the Recommended Funding List, the Division will develop grant agreements for execution.
5. The Division may include appropriate conditions and expiration dates in the grant agreements.

#### **C. Disbursement of Funds**

1. Instructions and forms for requesting disbursement of funds will be provided after the research grant agreement is executed.
2. Following final disbursement, the final grant amount will be adjusted to reflect the actual eligible research costs. Any undisbursed grant funds will be de-obligated.

### **VI. PILOT PROJECT GRANTS**

This section discusses the requirements for recycled water pilot project grants. The purpose of water recycling pilot project grants is to increase the body of knowledge regarding technologies, processes, or methods to provide recycled water through the innovative application of current and new technologies.

#### **A. Eligibility**

1. Project costs are eligible to the extent consistent with federal and state authority, requirements established by the State Water Board, and the availability of funding. Division staff will determine eligible and ineligible project costs. The applicant must separate the eligible and ineligible costs for

disbursement requests or reporting matching funds.

2. Specific terms, limitations, and eligibilities for water recycling pilot project grants will generally be described in a separate solicitation for proposals.
3. Each pilot project must be distinct from previous WRFP grant funded pilot projects. The applicant should confer with Division staff before applying for additional grants to ensure that the pilot project is distinct and eligible.
4. Pilot projects eligible for grant funding are distinct from a pilot-scale or demonstration-scale plant developed as part of the construction of a water recycling treatment facility project.
5. The Division will establish an eligibility date in the solicitation or grant agreement. Project costs incurred after the eligibility date are eligible for reimbursement.
6. Pilot projects are not required to be on the CWSRF Fundable List to receive a grant agreement.

#### **B. Solicitation and Grant Agreement**

1. Specific evaluation criteria and grant calculations, limitations, deadlines, and availability will generally be described in a separate solicitation for proposals.
2. Division staff may request additional information from applicants regarding their proposals to ensure that the requirements of the Guidelines and the solicitation are met.
3. A Recommended Funding List will be developed consistent with the solicitation and presented to the State Water Board for approval.
4. After the State Water Board approves the Recommended Funding List, the Division will develop grant agreements for execution.
5. The Division may include appropriate conditions and expiration dates in the grant agreements.

#### **C. Disbursement of Funds**

1. Instructions and forms for requesting disbursement of funds will be provided after the grant agreement is executed.
2. Following final disbursement, the final grant amount will be adjusted to reflect the actual eligible costs. Any undisbursed grant funds will be de-obligated.

### **VII. AUTHORITY TO EXECUTE**

For routine, noncontroversial applications subject to these guidelines, the Executive Director, Deputy Director of the Division, or designee, is authorized to approve and execute financing agreements and amendments. Non-routine or controversial applications will be considered by the State Water Board at a State Water Board meeting.

## **VIII. BOARD RESERVATION OF AUTHORITY**

- A. Prior to execution of any agreement, the State Water Board reserves the right to modify these WRFP Guidelines as necessary to provide for effective and equitable use of WRFP funds, including:
  - 1. Reducing the eligible funding amount for any project for due cause;
  - 2. Conforming to applicable state and federal laws, rules, regulations, or agreements, including but not limited to agreements related to any bonds.
- B. The Deputy Director of the Division may update and amend the WRFP Guidelines Appendices and create new Appendices, as necessary for administrative or procedural changes not in conflict with these Guidelines.

## **IX. OTHER REQUIREMENTS**

### **A. State Cross-Cutters**

State financial assistance may be conditioned on a variety of state laws. Recipients will be expected to make representations and warrant compliance with state cross-cutting requirements including, but not limited to, those listed in Appendix O of the CWSRF Policy.

### **B. CEQA Decisions**

Public agencies must comply with CEQA when making a discretionary decision on a project. As the lead agency under CEQA, the applicant must comply with CEQA prior to carrying out, approving, permitting, and/or funding a project. If the applicant is not a public agency, the State Water Board will coordinate with other public agencies with responsibility regarding the project to identify a lead agency, if necessary. The State Water Board will review information provided by the applicant and determine independently how to comply with CEQA.

### **C. Work Outside the State**

Travel and work outside the state is subject to prior approval by the State Water Board. Please see the State Attorney General's website: <https://oag.ca.gov/ab1887>.



## **Appendix A. Water Recycling Facilities Planning Grant Application and Instructions**

The WRFPP planning grant application and instructions are available on the WRFPP website at:

[https://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/water\\_recycling/facilitiesplan.shtml](https://www.waterboards.ca.gov/water_issues/programs/grants_loans/water_recycling/facilitiesplan.shtml).

The planning grant application and instructions are also included in this appendix.

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## **Appendix B. Recommended Outline for Recycled Water Project Reports**

The following project report outline is not prescriptive, but is intended to provide guidance to Applicants when evaluating recycled water projects. A complete project report should provide Division staff with sufficient information to evaluate whether a recycled water project meets the requirements of the WRFPP Guidelines and applicable recycled water objectives and standards. Division staff may require the applicant to submit additional information to ensure that the project meets these requirements. The applicant should discuss its planned study or proposed project with Division staff to identify the information needed for a thorough project report.

### **Project Report**

#### **A. Project Area**

1. Detailed map(s) showing:
  - a. Vicinity.
  - b. Relevant hydrologic (major streams, streams receiving waste discharges), geologic, and topographic features.
  - c. City boundaries.
  - d. Project site and service/study area boundary. (provide GIS shapefile of service/study area boundary to Project Manager).
  - e. Wholesale and retail water supply entity boundaries within study area and adjacent to study area.
  - f. Wastewater agency boundaries within and adjacent to study area.
  - g. Groundwater basin boundaries,
  - h. Existing recycled water distribution pipelines, storage, and users.
    - i. Each recycled water facilities alternative, showing approximate locations of distribution pipelines, storage, and potential users.
2. Existing land use, trends, and projected land use.
3. Existing population, trends, and population projections of study area (population projections must be cited from an independent source).

B. Water Supply Characteristics and Facilities

1. Description of all wholesale and retail entities.
2. All sources of water for study area, major facilities, costs (fixed and variable), subsidies, and customer prices.
3. Beneficial uses of receiving waters, degree of use, and portion of flow that is effluent.
4. Capacities of present facilities, existing flows, estimated years when capacities will be reached for existing major components (water treatment plants, major transmission, and storage facilities).
5. Groundwater basins; including quantities extracted by all users, natural and artificial recharge, losses by evapotranspiration, inflow and outflow of basins, and safe yield or overdraft.
6. Water quality of groundwater and surface water.
7. Water use trends, future demands, prices, and costs.
8. Sources for additional water and plans for new facilities (for both the local entity and the wholesalers).

C. Wastewater Characteristics and Facilities

1. Description of entities.
2. Description of existing facilities, including treatment/reuse processes and schematic(s), design criteria, current capacities, current flows, current water quality characteristics and beneficial uses of the water resources affected by the facility, and the current discharge location(s).
3. Wastewater treatment process schematics (existing and proposed) and flows for each stage of treatment (primary, secondary, and tertiary/advanced).
4. Description of current system users (% residential, commercial, industrial, etc.).
5. Water quality of effluent and any seasonal variation.
6. Additional facilities needed to comply with waste discharge requirements.
7. Sources of other problem constituents and control measures.
8. Existing water recycling users, quantities, and contractual arrangements.
9. Existing water rights for use of treated effluent after discharge.
10. Wastewater flow variations, hourly and seasonally.
11. Description of the current asset, operation, and maintenance management systems used at the treatment facilities.

D. Treatment Objectives for Discharge and Reuse

1. Future flow increases or other changes to the influent wastewater characteristics.
2. Required water qualities for potential uses.
3. Required health-related water qualities or treatment requirements for potential uses, operational and on-site requirements (backflow prevention, buffer zones, dual plumbing, etc.).
4. Wastewater discharge or reuse requirements and anticipated changes in requirements.
5. Water quality-related requirements of the RWQCB to protect surface or groundwater from problems resulting from recycled water use.

E. Recycled Water Market

1. Description of market assessment procedures.
2. Definition of logical service area based on results of market assessment.
3. Descriptions of all users or categories of potential users, including:
  - a. Type of use;
  - b. Expected annual recycled water use;
  - c. Peak use;
  - d. Estimated internal capital investment required (on-site conversion costs);
  - e. Necessary water cost savings;
  - f. Desire to use recycled water;
  - g. Date of possible initial use of recycled water;
  - h. Present and future source of water and quantity of use;
  - i. Quality and reliability needs; and
  - j. Wastewater disposal methods.
4. Summary tables of potential users and related data.

F. Project Alternative Analysis

1. Planning and design parameters and assumptions:
  - a. Delivery and system pressure criteria.
  - b. Peak delivery criteria.
  - c. Storage criteria.
  - d. Planning period over which a water recycling project is evaluated.

2. Water recycling alternatives to be evaluated:
  - a. Alternative markets:
    - i. Based on different levels of treatment.
    - ii. Based on geographical area.
  - b. Treatment alternatives:
    - i. Alternative levels of treatment.
    - ii. Alternative unit processes to achieve a given level of treatment.
    - iii. Plant treatment process prior to construction.
    - iv. Class of plant prior to and after construction (i.e. Class I, II, III, IV, or V).
  - c. Pipeline distribution alternatives:
    - i. Route alternatives.
    - ii. Pipeline lengths, diameter, and material.
    - iii. Quantity of service laterals and meters to be installed.
  - d. Storage alternatives:
    - i. Location, type, and material.
    - ii. Storage analysis using diurnal flows.
  - e. Pump/lift station alternatives:
    - i. Provide reason for new pump station and/or upgrades.
    - ii. Describe pump types, proposed well design, and proposed components (i.e. debris structure, SCADA controls, backup power, etc.).
    - iii. Provide flow design criteria (average daily flow, peak hour flow, proposed flow for future growth projections) and pump curves.
  - f. Sub-alternatives of each alternative:
    - i. Marginal analysis for selected alternative for certain categories of users or certain geographic areas.
    - ii. Use of water blending during peak irrigation months.
3. Non-recycled water alternatives:
  - a. Discussion of other potentially viable new sources of water.
  - b. Provide economic costs.
4. Water conservation/reduction analysis:
  - a. Description of analysis.
  - b. Impact on recycling, if any.

## Appendix B – Recommended Outline for Recycled Water Project Reports

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- c. Recommendation.
- d. Implementation.
- 5. Pollution control alternatives, if applicable, needed to comply with waste discharge requirements, and possible allocation of costs between recycling and pollution control.
- 6. No project alternative.
- 7. Information supplied for each alternative to include, but not be limited to:
  - a. Cost tables for each alternative with breakdown of costs by total capital (without grants), O&M, unit processes, equivalent annual cost, and per acre-foot cost.
  - b. List of potential users assumed for each alternative.
  - c. Economic analysis in dollars per acre-foot of recycled water produced or delivered<sup>2</sup>.
  - d. Energy analysis, including direct and construction energy.
  - e. Water quality impacts:
    - i. Effect on receiving water by removing or reducing discharge of effluent, including effect on beneficial uses resulting from reduced flow.
    - ii. Groundwater impacts.
- 8. Comparative environmental analysis<sup>3</sup> including:
  - a. Discussion of beneficial and adverse environmental impacts on the existing environment, future environment, and individual sensitive environmental issues identified through project management or public participation.
  - b. Analysis of direct, indirect, and cumulative impacts on sensitive environmental resources.
  - c. Appropriate mitigation measures not already included in the proposed action or alternatives, to mitigate adverse environmental impacts.
  - d. Thorough discussion of the environmental reasoning for selection of the chosen alternative for the project.

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<sup>2</sup> The State Water Board website provides two economic analysis models that the applicant may use:

[http://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/water\\_recycling/econ\\_analysis\\_tskfrce.shtml](http://www.waterboards.ca.gov/water_issues/programs/grants_loans/water_recycling/econ_analysis_tskfrce.shtml)

<sup>3</sup> If the Project Report will be part of a future CWSRF Construction Application, a comparative environmental analysis is required. It is not necessarily required by the WRF Planning Grant.

9. Comparison of above alternatives and recommendation of specific alternative.

G. Recommended Project

1. Description of all proposed facilities and basis for selection.
2. Preliminary design criteria.
3. Cost estimate based on time of construction:
  - a. Selected project alternative total cost.
  - b. Cost index.
  - c. Discount rate.
  - d. Useful life (years).
  - e. Life cycle costs (present worth included O&M costs).
  - f. Operations and maintenance yearly costs.
  - g. Replacement costs.
4. List of all potential users, quantity of recycled water use, peak demand, and commitments obtained.
5. Reliability of facilities as compared to user requirements.
6. Implementation plan:
  - a. Coordination with water suppliers, determination of recycled water supplier and needed agreements or ordinances.
  - b. Commitments from potential users and ability and timing of users to join system and make on-site investments.
  - c. Tentative water recycling requirements of RWQCB.
  - d. Water rights impact.
  - e. Permits required for project implementation.
  - f. Detailed schedule including, but not limited to, notice-to proceed, construction completion, initiation of operations, etc.
7. Operational plan - responsible people, equipment, monitoring, irrigation scheduling, etc.
8. Description of any key issues to be resolved, particularly items that may significantly impact the project budget or schedule.

H. Construction Financing Plan and Revenue Program

1. Sources and timing of funds for design and construction.

2. Pricing policy for recycled water.
3. Costs that can be allocated to water pollution control.
4. Annual projection of:
  - a. Water prices for each user or category of users.
  - b. Recycled water used by each user.
  - c. Annual costs (required revenue) of recycling project.
  - d. Allocation of costs to users.
  - e. Unit costs to serve each user or category of users.
  - f. Unit price of recycled water for each user or category of users.
  - g. Sensitivity analysis assuming portion of potential users fail to use recycled water.
5. Sunk costs and indebtedness.

I. Appendices

1. Tables of all abbreviations.
2. Copies of letters of interest or intent from recycled water users, other documentation of support from potential users, or draft letters to potential users regarding interest/intent.
3. Draft of recycled water mandatory use ordinance or model user contract.
4. Drafts of necessary agreements, such as wholesale-retail agreement, joint powers agreement, etc.
5. Hydraulic calculations, model output summaries, other related conclusion supporting information.



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## **Appendix C. Recycled Water Market Assurances**

The following describes acceptable Recycled Water Market Assurances.

### **A. Mandatory Use Ordinances**

A mandatory use ordinance is a local law adopted by a retail water purveyor requiring the use of recycled water in place of another source of water. For the ordinance to be acceptable to the Division as a Market Assurance, it should specify the following:

- The types of uses for which recycled water is mandatory;
- The conditions under which recycled water must be used or under which new development must be plumbed for future recycled water use;
- Procedures for determining the water users required to either convert to recycled water service or be plumbed to accept recycled water upon new water service;
- Procedure to provide notice to potential users that they are subject to the ordinance and provide users with information about the project, the responsibilities of the users under the ordinance, the price of the recycled water, and description of the on-site retrofit requirements.
- Procedures for users to request a waiver.
- A penalty for noncompliance with the ordinance. Acceptable penalties are discontinuance of fresh/potable water service, a fresh/potable water rate surcharge of at least 50 percent of the freshwater rate, or an equally effective penalty.

If the applicant implementing the recycled water project does not have the legal authority to enforce a mandatory use ordinance (for example, a sewerage agency), the mandatory use ordinance may be implemented by the retail water purveyor.

### **B. User Contracts**

A user contract is a binding agreement between a recycled water purveyor and Users, signed by both parties. A letter of commitment to sign a User Contract is acceptable for execution of the financing agreement. An acceptable contract should contain the following provisions:

- A commitment to use the recycled water;
- The annual amount of recycled water the User agrees to use;
- The sites and the types of recycled water uses;
- Specifications regarding the conditions of use and the quality of recycled

water;

- The price of the recycled water;
- Description of the regulatory and water purveyor's on-site retrofit requirements needed to convert from freshwater to recycled water.
- Dates when the commitment to use recycled water will begin and end.

### **C. Special Assessments**

A special assessment district formed for the purpose of using recycled water may be considered as a Recycled Water Market Assurance. The Division will determine the eligibility of a special assessment district as a user assurance on a case-by-case basis. The Division may use the criteria used to evaluate mandatory use ordinances and user contracts where appropriate, and may use other relevant criteria to determine that the special assessment provides a reasonable assurance that the recycled water will be used.

## **Appendix D. Annual Report Requirements**

The following is a description of the requirements for annual reporting of recycled water deliveries associated with a funding agreement.

- A. Reports may be submitted in hard copy or electronic form and should be limited to 8 ½ x 11-inch format. The annual reports shall be prepared and submitted in accordance with the WRFPP Guidelines, Section IV.C.
- B. Annual reports are due by February 28<sup>th</sup> for the previous calendar year. The first annual report shall cover the period from the Initiation of Operation through the end of the first full calendar year of operation.
- C. The annual report shall include the following:
  1. The total planned and actual annual recycled water deliveries by User in the User connection schedule provided in the application.
  2. A summary table (see format below) of total annual recycled water deliveries by month and use category. If the recycled water deliveries are supplemented with potable or fresh water by the recipient, provide the monthly and total amounts, by category.
  3. Operation and maintenance costs of the project for the year.
  4. A cost or rate (to the end user) comparison of recycled water versus potable/fresh water during the year.
  5. Review the funding agreement and address any outstanding special conditions for the project.
  6. A brief discussion on actions being taken to increase recycled water deliveries if the project is not meeting its planned recycled water use level.
- D. The recipient may discontinue submitting annual reports to the Division once the recipient has reported that recycled water deliveries for the project have reached at least 80% of the total eligible capacity for at least one full calendar year or the Project has been in operation for at least 5 full calendar years, whichever occurs first.

Appendix D – Annual Report Requirements

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Annual Recycled Water Deliveries<sup>a</sup> (acre-feet)

Use Type <sup>b</sup>	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
<b>Total</b>													

Notes:

a. Report project related deliveries, not agency-wide deliveries.

- b. Use Types:
- |                              |                          |  |
|------------------------------|--------------------------|--|
| Drinking water augmentation  | Agricultural irrigation  | Geothermal energy production                                 |
| Raw water augmentation       | Landscape irrigation     | Seawater intrusion barrier                                   |
| Reservoir water augmentation | Golf course irrigation   | Recreational impoundment                                     |
| Groundwater recharge         | Commercial<br>Industrial | Natural system restoration,<br>wetlands and wildlife habitat |