

Guidelines for Preparing, Reviewing, and Processing Water Reclamation and Reuse Project Proposals Under Title XVI of Public Law 102-575, as Amended



**U.S. Department of the Interior
Bureau of Reclamation**

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These *Guidelines* explain the policies of the Bureau of Reclamation for implementing Title XVI of Public Law 102-575, as amended. As such, these *Guidelines* do not create or vest in any government agency, public or private entity or individual, rights that may be used against the United States Bureau of Reclamation.

List of Acronyms

CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CWA	Clean Water Act
EA	Environmental Assessment
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FWCA	Fish and Wildlife Coordination Act
FWS	U.S. Fish and Wildlife Service
M&I	Municipal and Industrial
NHPA	National Historic Preservation Act
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NPDES	National Pollution Discharge Elimination System
O&M	Operation and Maintenance
OMB	Office of Management and Budget
P.L.	Public Law
P&G's	Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies

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Introduction

Purpose

This document provides information describing the Bureau of Reclamation's water reclamation and reuse program as authorized by the Reclamation Wastewater and Groundwater Study and Facilities Act of 1992 (Title XVI of Public Law [P.L.] 102-575, as amended). It also provides information on how to comply with statutory requirements of Title XVI and Reclamation policy applicable during the preconstruction phase of project development.

This report addresses common questions that project sponsors and others may have in several areas: the Title XVI program, funding, the feasibility study and report, environmental requirements, Reclamation priorities and cost sharing. The guidelines address applicable contents of a complete feasibility study, economic analysis, National Environmental Policy Act (NEPA) and other environmental requirements, cost-sharing procedures, determining financial capability, and demonstration projects.

Background

The Reclamation Wastewater and Groundwater Study and Facilities Act of 1992, referred to as Title XVI of P.L. 102-575, directs the Secretary of the Interior (Secretary), acting pursuant to the Reclamation Act of 1902, as amended, to undertake a program to investigate and identify opportunities for water reclamation and reuse. The Act authorized Reclamation to participate in the construction of five recycling projects, four of which have been receiving Federal construction funding (see appendix C).

In 1996, Congress enacted the Reclamation Recycling and Water Conservation Act (P.L. 104-266) which amended Title XVI and authorized Reclamation to participate in an additional 18 projects, including two research and development projects (see appendix C). In addition, Congress specified prerequisites that must be met before construction funds can be appropriated for a project. These prerequisites are:

1. Reclamation or the non-Federal project sponsor has completed a feasibility study that complies with the provisions of the Act;
2. The Secretary has determined that the non-Federal sponsor is financially capable of funding the non-Federal share of the project costs; and
3. The Secretary has approved a cost-sharing agreement with the project sponsor.

In addition, Reclamation must ensure completion of appropriate environmental compliance under NEPA during the feasibility stage before construction funding can be disbursed.

Title XVI was amended again in 1998 by the Oregon Public Lands Transfer and Protection Act (P.L. 105-321) to include construction authorization for an additional water recycling project in Oregon.

Questions and Answers on the Title XVI Program

General

1. What is Title XVI?

Title XVI of P.L. 102-575, as amended in 1996 by P.L. 104-266 and again in 1998 by P.L. 105-321, is the Reclamation Wastewater and Groundwater Study and Facilities Act of 1992. Section 1602 of the Act provides, in part, the following:

"The Secretary of the Interior (hereafter 'Secretary'), acting pursuant to the Reclamation Act of 1902 (Act of June 17, 1902, 32 Stat. 388) and Acts amendatory thereof and supplementary thereto (hereafter 'Federal reclamation laws'), is directed to undertake a program to investigate and identify opportunities for reclamation and reuse of municipal, industrial, domestic, and agricultural wastewater, and naturally impaired ground and surface waters, for the design and construction of demonstration and permanent facilities to reclaim and reuse wastewater, and to conduct research, including desalting, for the reclamation of wastewater and naturally impaired ground and surface waters."

The Act also provides a program for Federal participation (through cost sharing) of specific water reuse projects up to certain amounts specified in the Act.

2. What is a water reuse project?

Title XVI, section 1602, defines it as a project which reclaims **and** reuses municipal, industrial, domestic, or agricultural wastewater, or naturally impaired groundwater and/or surface waters. Project water can be used for a variety of purposes including environmental restoration, fish and wildlife, groundwater recharge, municipal, domestic, industrial, agricultural, power generation or recreation.

3. Which projects do these guidelines apply to?

These guidelines apply specifically to water reclamation and reuse projects authorized by two amendments to Title XVI; P.L. 104-266, the Reclamation Recycling and Water Conservation Act of 1996, and P.L. 105-321, the Oregon Public Lands Transfer and Protection Act of 1998 (see appendix C for a list of projects). These guidelines apply whether the feasibility report is prepared by the project sponsor or by Reclamation. Unless rendered obsolete by future amendments to Title XVI, Reclamation will also apply the general provisions of these

guidelines to current and future water recycling projects not yet authorized for construction, and future demonstration projects. Those projects for which funds had been appropriated prior to January 1, 1996, are not subject to the requirements of these guidelines.

4. Who in Reclamation should a project sponsor or other interested party contact concerning the Title XVI program?

Generally, the first contact is with the Regional Water Recycling Coordinator. A list of coordinators and a map showing the regional boundaries is provided in appendix B.

5. Who plans and constructs the project?

Title XVI projects are constructed and owned by the non-Federal project sponsor, in contrast to many traditional Reclamation projects. The sponsor can, by itself or in cooperation with Reclamation, initiate the planning of the project. Reclamation may cost share in this phase, subject to the availability of appropriated funds. The sponsor may also elect to prepare the feasibility report using its own resources. Reclamation will provide advice on preparation of necessary reports and will review the reports to determine if the project meets the feasibility criteria of Title XVI.

The sponsor is responsible for constructing, as well as operating and maintaining, the project. The sponsor generally will make its own arrangements for consulting engineering, construction management, and other specialized services when necessary. When a sponsor determines it impractical to obtain these services, Reclamation may be able to perform them upon request. The cost of these Reclamation services would then be included in the total project cost and shared according to the cost-share agreement.

6. What is the definition of a Title XVI demonstration project?

Reclamation defines a demonstration project as one that is sized appropriately to demonstrate practicality and that also promotes application of new and innovative technologies, promotes nontraditional application of current technology where as yet unproven, or establishes the feasibility of recycling water to local institutions when an unproven technology is employed.

Application of a known technology that merely demonstrates feasibility in a different site or geographic region, or modification of an already successfully applied technology, would not qualify as a demonstration project.

7. How were these guidelines developed?

Reclamation developed these guidelines in consultation with non-Federal project sponsors and other interested parties. As part of the consultation, Reclamation held a public workshop to obtain views and comments on a draft version of these guidelines.

Funding

1. How does a project sponsor get money for construction?

Construction funds can be provided only for projects specifically authorized by Congress pursuant to Title XVI. Typically, Reclamation makes a funding recommendation on construction of an authorized project in the President's annual budget request to the Congress. Projects not yet authorized for construction will require specific congressional authorization before Reclamation will request Congress to appropriate funds for construction. Further, such projects must have met the following requirements set forth in section 1631 of the Act:

- (a) a feasibility report that complies with the provisions of Title XVI (see appendix A) has been completed by Reclamation or the non-Federal project sponsor;
- (b) the Secretary has determined that the non-Federal project sponsor is financially capable of funding its share of the project's costs; and
- (c) the Secretary has approved a cost-sharing agreement with the non-Federal project sponsor which commits the non-Federal project sponsor to funding its proportionate share of the project's construction costs on an annual basis.

In addition, Reclamation must comply with NEPA and other environmental laws on its action, in this case a funding agreement for construction.

For demonstration projects, construction funds can be provided for specifically authorized projects or under the general authority of section 1605 of Title XVI, upon completion of the above listed prerequisites and the appropriation of funds.

2. How does a project sponsor obtain Federal funds for a feasibility study of a project that is not yet authorized for construction?

Section 1604 of the Act provides Reclamation general authority to participate with non-Federal sponsors to determine the feasibility of proposed water reclamation and reuse projects. The Federal share of such studies shall not exceed 50 percent of the total study cost.

Pursuant to the Act, these Federal study costs would be considered as part of the total cost of a project if the project studied is then constructed with Federal financial participation. These study costs, along with all other project costs including designs, estimates, and construction outlays, would then be allocated according to the applicable cost-sharing formula for the construction of the project.

Federal funds for feasibility studies must be included in the President's budget request to the Congress. Due to the Federal budget formulation process, the sponsor must notify Reclamation at least 2 years prior to the fiscal year in which the funds are sought so that Reclamation can consider such funding in its budget development process.

3. How much Federal funding is allowed by law?

Reclamation is authorized to participate in all of the currently authorized water recycling projects at funding levels up to 25 percent of the total project cost. However, section 1631 limits the Federal contribution to a maximum of \$20 million (1996 dollars) per project for all projects that did not receive construction funding prior to January 1, 1996.

For demonstration projects, the Federal contribution is limited to a maximum of \$20 million per project. A Federal contribution in excess of 25 percent for a demonstration project cannot be made unless the Secretary determines that the project is not feasible without such Federal contribution. In this case, the maximum Federal share may be up to 50 percent of the total project costs.

4. What contribution must the sponsor make?

The Act requires the sponsor to provide at least 75 percent of the total planning, design and construction costs. Certain kinds of in-kind contributions are allowed. In addition, the sponsor must pay all operation and maintenance (O&M) costs of the project.

For a demonstration project, the Act requires the sponsor to provide at least 75 percent of the cost, unless the demonstration project is not feasible without a greater Federal contribution, in which case the sponsor is required to pay at least 50 percent.

Although the law authorizes Reclamation to provide up to 50 percent of the O&M costs for certain demonstration projects, it is Reclamation's policy to **not** provide funds for this purpose, unless it is determined the sponsor cannot operate the project without such funding. The two research and development projects authorized in the 1996 amendment (P.L. 104-266) specifically require the project sponsor to pay for O&M costs.

5. Will all construction projects receive a 25 percent cost share?

With the Administration's and Congress' priority to balance the Federal budget, and with the maximum Federal share limited to \$20 million per project, Reclamation may be unable to fund all authorized Title XVI construction projects at a full 25 percent cost share. Title XVI, as amended, allows **up to** 25 percent; it does not require a full 25 percent cost share. The total Federal share, assuming a full 25 percent for all 19 projects authorized after 1992, is estimated to be more than \$180 million. At the direction of Congress, Reclamation has developed criteria for prioritizing its limited resources among the many proposed projects. Future project funding requests to Congress will be based on the degree to which authorized projects meet the prioritization criteria.

6. Can the sponsor obtain funds immediately?

Construction monies will not be available for any authorized project until such funds have been specifically appropriated by Congress. Because of the Federal budget process, there may be a time lag between completion of a feasibility study, approval of the cost-share agreement by the Secretary, and appropriation of funds by Congress. In some cases, funds may be appropriated by Congress for a project in anticipation of completing feasibility prerequisites, but until all feasibility and environmental requirements are met, Reclamation may not be able to sign a cost-sharing agreement to fund construction.

7. Are these projects subject to repayment?

No. These are locally sponsored and owned projects, with Reclamation participation in planning, design and construction, and with local funding of O&M. These are not federally owned and constructed facilities, as is the case with traditional Reclamation projects. Individual authorizations will specify the terms of funding.

Feasibility

1. What process is used to determine if a project qualifies under Title XVI?

A project must first meet the definition of a water reclamation and reuse project pursuant to Title XVI, and then satisfy the requirements outlined in Title XVI. These guidelines describe the contents of a complete feasibility study, how financial capability is to be determined, how NEPA and other environmental requirements will be satisfied, and how cost-share agreements are to be developed. Reclamation will work closely with project sponsors to implement Title XVI requirements and to coordinate with applicable State program requirements. Also, as stated earlier, to receive construction funding under Title XVI, a water recycling project must be specifically authorized by Congress.

2. What is a feasibility study?

A feasibility study is a process which leads to a decision on whether or not to implement a project, and will be performed by Reclamation and/or a project sponsor. Title XVI has specific requirements for the contents of the feasibility study report, which are different from feasibility reports required for traditional Reclamation projects. These requirements are noted in appendix A. These guidelines provide details on the content of a Title XVI feasibility report.

3. Who actually prepares the feasibility study report?

Generally, private (engineering) consulting firms will be hired by the sponsor to conduct the study and prepare the report. The consultant, on behalf of the sponsor, can also provide an important liaison with Reclamation and other participating Federal and local agencies in development of the proposed project. Reclamation can also, at the sponsor's request, assist in defining and preparing the feasibility study, subject to available funding and staff.

4. If a project sponsor has already prepared a feasibility report which does not conform to Reclamation's recommended format, what should the sponsor do?

The project sponsor should submit to Reclamation its feasibility report and an Executive Summary which refers to section(s) of the report or other documents which contain the information called for in these guidelines (see the following section regarding the contents of the feasibility report). If the information called for is not already available, the sponsor should prepare the information and include it in the submittal. Reclamation will review the submittal and work with the sponsor to identify any additional information or analyses that may be needed, and draw as much as possible from feasibility work already done for State programs or as part of a region-wide water recycling study.

5. What purposes may be included in project proposals?

Uses of the water may be for municipal and industrial (M&I) water supply, irrigation supply, groundwater recharge, fish and wildlife enhancement, or outdoor recreation. Funds can be used for water quality improvement features where improvement of the water is needed to allow for reuse.

6. Can Title XVI funds be used to construct conventional wastewater treatment facilities?

Reclamation will not become involved in projects having wastewater treatment upgrades as a sole purpose, or fund those portions of wastewater treatment plants that are necessary to meet water quality discharge requirements. Such activities are more appropriately funded under the Clean Water Act (CWA) State Revolving Fund authorization.

7. How important is a regional perspective in developing a water reuse project?

Reclamation considers a regional or watershed perspective in the formulation and evaluation of water reclamation and reuse projects to be important. The integration of water reclamation and reuse with other water resource and supply options in the context of a regional or watershed perspective will help ensure that maximum benefits are received from the investment made by the Federal Government. A project sponsor may also find that much of the feasibility information required under Title XVI can be drawn from an existing regional study.

8. Must detailed construction plans and specifications be approved by Reclamation?

No. These are local projects to be owned and operated by the non-Federal sponsor; therefore, Reclamation does not need to approve detailed construction plans and specifications. However, as part of the feasibility study, an engineering cost estimate for proposed project construction must be provided in sufficient detail to permit evaluation of the project. Reclamation would also need this cost estimate to complete the cost-share agreement, conduct the financial capability determination, and schedule appropriations for the project.

Construction cost estimates will generally include costs for major structures, facilities, or other types of construction as appropriate for the project. Direct construction costs should be based on quantities and unit prices. Lump-sum estimates should be used only for items of relatively small cost and where developing the estimates are impractical or unnecessarily costly. Indirect costs, including contingency costs, should be less than or equal to 20 percent of total construction costs.

9. What economic information should be included?

A feasibility report must include the cost effectiveness and the economic benefits of the project, as discussed in the "Economic Analysis" section of these guidelines. An economic analysis is required to enable Reclamation to ensure a wise investment of very limited Federal funds available for water recycling projects.

National Environmental Policy Act and Other Environmental Requirements

1. Does the National Environmental Policy Act apply?

Yes. Reclamation is charged with considering the impacts of its actions on the environment, including the impacts of funding actions. A funding agreement for construction of a Title XVI water recycling project is a Federal action under NEPA. Reclamation is responsible for the NEPA documentation, but may base this on information provided by the sponsor in the feasibility study or in a separate document. Reclamation will conduct any needed coordination activities with other environmental requirements. More detail on NEPA and other Federal environmental compliance activities is contained in the "NEPA" section of these guidelines.

2. Will other Federal agencies be involved?

Yes. In many cases, depending on the particular project, other Federal or State agencies will be involved.

For example, the U.S. Fish and Wildlife Service (FWS) will be consulted during the planning of projects. In addition, the sponsor must consult with the National Marine Fisheries Service (NMFS) if anadromous fisheries and/or coastal waters are involved. Reclamation is also responsible for investigations required under the Fish and Wildlife Coordination Act (FWCA).

As another example, the CWA requires a National Pollution Discharge Elimination System (NPDES) permit for point source discharges to protect water quality. Depending on the State, this permit is acquired from the State or the regional office of the Environmental Protection Agency. A permit under section 404 of the CWA from the U.S. Army Corps of Engineers may be required for any actions affecting a wetland or other waters of the United States.

Any portion of these costs that is project-related may be included in the total project cost and shared with the project sponsor according to the cost-share agreement.

Project Priorities

1. Why should Reclamation develop project priorities?

Congress has directed Reclamation to develop and apply criteria to prioritize among water recycling projects. Prioritizing for budget purposes is necessary because Reclamation's budget constraints may preclude full cost sharing for all authorized projects up to the maximum of 25 percent of project costs.

2. What process will Reclamation use to set project priorities among authorized projects?

Reclamation will annually assess available feasibility reports prepared by project sponsors, as well as other preconstruction prerequisites, to determine when specific projects may be ready for construction funding. Reclamation will then apply its criteria to prioritize funding recommendations to Congress.

3. How will Reclamation prioritize among authorized projects?

Pursuant to Title XVI and other Federal laws, Reclamation will place priority on projects that accomplish the following:

- reduce, postpone, or eliminate development of new or expanded water supplies;
- reduce or eliminate the use of existing diversions from natural watercourses;
- reduce the demand on existing Federal water supply facilities;
- improve surface or groundwater quality, or the quality of effluent discharges, except where the purpose is to meet surface discharge requirements;
- help fulfill Reclamation's legal and contractual water supply obligations, such as Indian trust responsibilities;
- serve the Federal environmental interests in restoring and enhancing habitats and providing water for federally threatened and endangered species.

Reclamation will also place priority on projects that:

- promote and apply a regional or watershed perspective;
- serve a Native American community;
- serve a small, rural, or economically disadvantaged community;
- provide significant economic benefits.

Cost Sharing

1. What project sponsor costs are eligible for inclusion in the cost-share agreement?

Reclamation will follow existing standard practices when determining what project sponsor costs are to be included in a cost-share agreement. This is described in the "Cost-Sharing Procedures" section of these guidelines.

2. Must the sponsor pay the costs of Reclamation's participation?

If pre-construction and construction funding is provided by Reclamation, the costs of Reclamation's participation in the project will be included in the total project cost and shared according to the cost-share agreement.

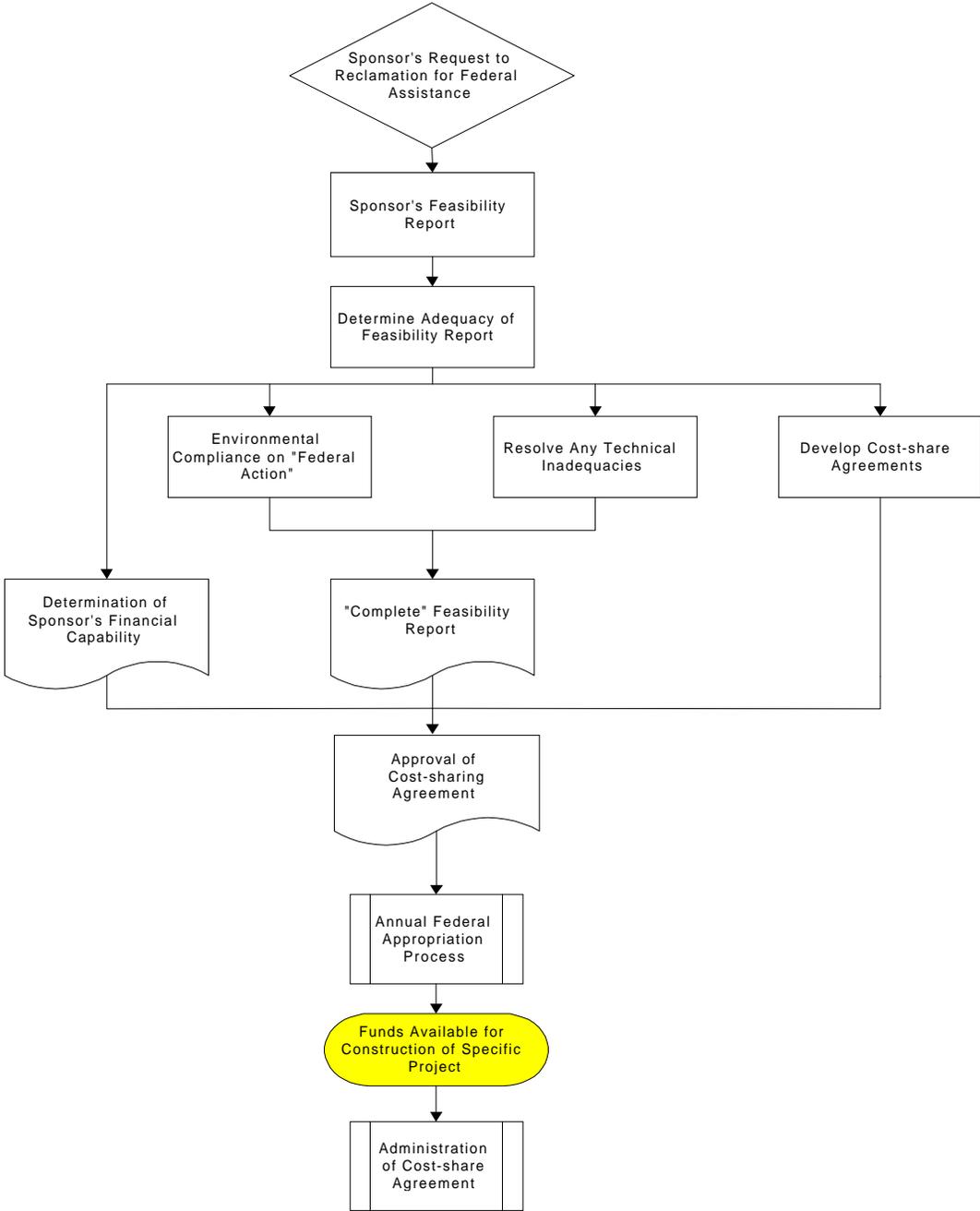
3. Can the sponsor use local funds for preconstruction and construction activities prior to availability of Federal funds?

The sponsor may decide to undertake preconstruction and construction activities with its own funds after Title XVI feasibility requirements, including all environmental compliance requirements, are met. Construction activities undertaken prior to completion of Federal environmental compliance may not be eligible for cost sharing, and the project sponsor assumes a risk that environmental requirements may trigger changes in the project design, or may outright prohibit a Federal contribution to the project in that form. Initiating construction before Federal funds are available will allow the sponsor to expedite the project; however, the sponsor should clearly understand that it does so with the knowledge that Federal funds may not be made available for the project.

4. Can expenditures of local funds for preconstruction and construction activities be reimbursed from Federal funds?

Yes. Preconstruction and construction expenses incurred by the organization may be credited as part of the sponsor's contribution to the project's costs, subject to the limitations described above.

Feasibility Process for an Authorized Project



Contents of a Complete Feasibility Report

A feasibility study may be prepared by the project sponsor or by Reclamation. Title XVI sets forth requirements for the contents of a feasibility study and appraisal study in sections 1603 and 1604 of the Act. Reclamation requires this information, as well as other pertinent information, to provide an evaluation of projects proposed for funding under the Act. These guidelines also apply to feasibility studies prepared for nonauthorized water reclamation and reuse projects and feasibility studies conducted under general Title XVI authority.

Topics addressed in the feasibility report must include identifying problems and needs, water reuse opportunities, description of alternatives, economic analysis, environmental analysis, legal and institutional requirements, and financial capability to implement the project. A complete feasibility study must also include Title XVI appraisal-level requirements.

If a feasibility report has already been completed by a project sponsor in another format, or the information is available in other reports such as regional studies, the sponsor can prepare an Executive Summary document following the suggested outline and provide references indicating where the supporting information may be found. The supporting information should be provided to Reclamation with the Executive Summary. Whichever method is used, it is important that all the topics in the outline be considered and all the information referenced be provided.

Recommended Feasibility Report Outline

Executive Summary

This can draw on existing reports and studies.

Introduction

Set forth the purpose of the study, who (what entity) prepared the study report, and the non-Federal sponsor(s) of the project.

Describe the study area and provide an area/project map. Define the study area in terms of both the site-specific project area where the water will be developed and used, and in the larger regional, watershed or river basin context.

Problems and Needs

Describe the key water management problem(s) for which water reclamation and reuse may provide a solution.

Describe the near- and long-term water demand and supplies in the study area—refer to section 1604 (c)(1). Identify quantities in acre-feet and when such quantities will be needed.

Identify the cost to develop those supplies, if known, and assess the level of certainty associated with those estimates.

Water Reuse Opportunities

Address the opportunities for water reuse in the study area and identify the sources of water, including quantities in acre-feet, that could be reclaimed.

Summarize the status of water reuse and water reclamation technology, as applied to this situation, and describe opportunities for development of improved technologies in the study area—refer to section 1603 (b)(2).

Identify all potential uses of reclaimed water, including, but not limited to, groundwater recharge, municipal, domestic, industrial, agricultural, power generation, environmental restoration, fish and wildlife, and recreation—refer to sections 1603 (b)(1) and 1604 (c)(2).

Description of Alternatives

As appropriate, describe all of the alternatives that were considered to accomplish the water supply objective being addressed with the project. These measures may include structural and/or nonstructural measures such as water conservation. (Note that these alternatives may have already been addressed in other reports.)

In addition, describe the no action alternative as well as the action that the sponsor would take if Federal funding was not provided for the project.

Provide an analysis of at least two alternative measures or technologies available for water reclamation, distribution, and reuse for the project under consideration—refer to section 1604 (c)(3). Coordinate these alternatives with those in the environmental analysis, if possible. Additional alternatives may be appropriate for individual projects.

Provide a description of each alternative including the physical, institutional, or operational features needed for a fully functioning alternative, and how each alternative would operate.

Provide an engineering cost estimate for proposed project construction in sufficient detail to permit evaluation of the project. Construction cost estimates will generally include costs for major structures, facilities, or other types of construction as appropriate for the project. Direct construction costs should be based on quantities and unit prices. Lump-sum estimates should

be used only for items of relatively small cost and where developing the estimates are impractical or unnecessarily costly. Indirect costs, including contingency costs, should be less than or equal to 20 percent of total construction costs.

Provide a map or drawing for each alternative.

Identify quantities of water in acre-feet that would be reclaimed by each alternative and when such quantities would be needed.

Discuss the market for, or dedicated use of, the water which would be reclaimed by each alternative, including expressions of interest or contractual commitments for using the water—refer to section 1604 (c)(6).

Describe any barriers to the use of reclaimed water in the study area and how these barriers would be overcome—refer to sections 1603 (b)(3) and 1603 (b)(4).

Provide a specific quantified analysis—refer to section 1604 (c)(5)—of whether the proposed development of water reclamation and reuse measures would:

- (a) reduce, postpone, or eliminate development of new or expanded water supplies;
- (b) reduce or eliminate the use of existing diversions from natural watercourses or withdrawals from aquifers; or
- (c) reduce the demand on existing Federal water supply facilities.

Identify what those other sources would be, quantities in acre-feet of those sources, identify when such quantities and sources would be needed, the costs to develop the other sources, and assess the level of certainty associated with those estimates.

Discuss how each alternative would promote or apply a regional or watershed perspective to water resource management or cross-boundary issues.

Economic Analysis of Alternatives

Present an analysis of the economic feasibility of the proposed project relative to other alternatives as described later in the "Economic Analysis" section of these guidelines.

Environmental Analysis of Alternatives

Provide the environmental information on the alternatives which Reclamation will need in order to fulfill its obligations under NEPA. If possible, these alternatives should be consistent with those considered in the feasibility report. This includes information on the existing

environment including social and cultural resources and endangered species; an assessment of the environmental impacts of each alternative; identification of applicable Federal and State environmental requirements; and mitigation measures where appropriate. It is suggested the sponsor work closely with Reclamation to define alternatives and prepare this information. Refer to the "Environmental Requirements" section of these guidelines for further discussion on this subject.

Legal and Institutional Requirements

Describe the results of the consultation activities under the Endangered Species Act (ESA), FWCA, and other applicable Federal and State laws, that have occurred between the non-Federal sponsor and appropriate Federal, State, regional, and local authorities during the study—refer to section 1603 (c).

Identify the public health and environmental quality issues associated with each alternative. Include Federal, State, and local public health and environmental regulatory requirements associated with the reuse alternatives and the ability of the alternatives to meet those requirements—refer to section 1604 (c)(4).

Provide an analysis of the effects of the change of reclaimed water from its current use to the proposed alternative use, including economic and environmental effects, and effects on downstream water rights. Discuss any water right issues and how they would be resolved.

Discuss how the project meets other legal and institutional requirements, such as contractual water supply obligations, Indian trust responsibilities, water rights settlements, regional water quality control boards, or other requirements not previously addressed.

Discuss any unresolved issue(s) associated with the project, how the issue(s) will be resolved, and how the project would be affected if the issue(s) is not resolved.

Identify any legal or institutional constraints, not discussed above, that would affect the ability of the sponsor to implement the project.

Financial Capability of the Sponsor

Present the proposed schedule for project implementation and the plan for funding the project's construction and operation, maintenance, and replacement costs, including the non-Federal and other Federal sources of funding.

Document the sponsor's financial capability to fund the non-Federal share of the project costs following Reclamation guidelines contained in this report for documenting financial capability of non-Federal partners of water recycling projects—refer to section 1604 (c)(7). This is addressed in greater detail in the "Financial Capability" section of these guidelines.

Research Needs

Briefly identify basic research needs required to expand the uses of reclaimed water in a safe and environmentally sound manner that have resulted from the study of reclaimed water use in the study area—refer to section 1603 (b)(5).

National Environmental Policy Act and Other Applicable Federal Environmental Statutes

Introduction

A Reclamation agreement to provide construction funds for a locally sponsored water recycling project is a Federal action to which NEPA applies. NEPA and accompanying Council on Environmental Quality (CEQ) regulations require Reclamation to determine the environmental impacts of its proposed actions prior to implementing the proposed actions.

The ESA, the FWCA, the National Historic Preservation Act (NHPA), and other environmental statutes, as well as cultural resources, Native American and environmental justice requirements also apply to such funding agreements. Reclamation must determine, in consultation with the appropriate agencies, whether certain species or other resources will be affected by a specific project.

Policies

Reclamation will not execute a cost-share agreement for construction of a water reclamation and reuse project until NEPA and other environmental and cultural resource requirements are met. A project will not be included in Reclamation's budget request for Federal construction funding unless it has been determined that NEPA and other requirements will be met prior to or during the year for which funding is sought. A feasibility study is not complete for purposes of Reclamation seeking Title XVI appropriations until NEPA and other environmental requirements are met. If locally funded construction of a water recycling project is begun by the local project sponsor before these requirements are met, the project sponsor assumes the risk that their action may result in no Federal funding for the project, either through their irretrievable commitment of a resource during construction, or through construction of an alternative whose impacts cannot be mitigated.

Responsibilities Under NEPA

Reclamation is responsible for meeting NEPA requirements, but a project sponsor can help by providing information and the necessary data analysis. Reclamation will work closely with each potential project sponsor to identify how best to do this, and to coordinate with the sponsor to meet any other environmental requirements that apply to the project. If possible, the feasibility study will contain environmental information that can assist Reclamation to comply with NEPA; it is possible to combine the feasibility and NEPA analysis in one document.

Reclamation is responsible for an independent analysis of alternatives. If the sponsor chooses, it may hire and fund a contractor to prepare NEPA documentation (third-party contracting), subject to certain limits and disclosures. Reclamation must work closely with whomever prepares the NEPA documentation package, to assure all essential information is obtained, and the analysis is adequate to meet NEPA standards.

NEPA Compliance Process

Once it has been established that there is a proposed Federal action, in this case a proposed funding agreement for construction, Reclamation's next step is to determine relevant issues and the potential magnitude of environmental impacts. To do this, Reclamation uses one of several tools, depending on the action and the issues involved. These tools range from an environmental assessment (EA) leading to a finding of no significant impact; an EA leading to a determination of potential significant effects and preparation of an environmental impact statement (EIS); and an EIS with record of decision. Each involves a different level of effort, time and resources.

Not all water recycling projects will require a full EIS process or substantial public involvement. But at a minimum, an EA should be available to the public for review. Federal funding of water recycling project construction does not fit under one of Reclamation's categorical exclusions from the EA/EIS process. Reclamation's NEPA Handbook provides details on this process.

Schedule of NEPA Compliance

Title XVI requires NEPA compliance in the appraisal/feasibility stage. Title XVI also requires a feasibility study (by a project sponsor or Reclamation) to address, among other things, environmental quality issues, and at least two alternatives to the project. Reclamation expects this will include assessment of impacts, identification of applicable Federal and State requirements, and mitigation measures, as appropriate.

Scope of Alternatives

Reclamation will look at the entire water recycling project as proposed, and its alternatives, including no Federal action, rather than just the impact of the Federal funds on the project. To the extent possible, the alternatives presented in the feasibility report should match the NEPA alternatives. Defining and coordinating alternatives in the feasibility, environmental and economic studies is best done on a case-by-case basis. A significant change in the project design could result in a need to change the NEPA analysis or alternatives. Similarly, the results of analyzing NEPA alternatives can result in changes in the project.

Environmental Compliance Funding

Title XVI allows Reclamation and the project sponsor to cost share feasibility efforts, including environmental studies to be used for NEPA compliance, subject to availability of funds. Under specific Title XVI project authorities, Reclamation can cost share all project costs up to 25 percent. Under general Title XVI authority, Reclamation can cost share up to 50 percent for feasibility studies.

Coordination of NEPA Activities with the Feasibility Study

Because a number of projects are already authorized for construction under Title XVI, some project sponsors have already completed their own feasibility report. In these instances, NEPA activities may be completed or even started after the project sponsor's feasibility report is nearly complete. In these cases, the NEPA process may uncover information on alternatives, potential environmental impacts, or mitigation not identified in the feasibility study that could significantly affect project design or construction, or operational decisions, or even Federal funding decisions. In such a case, it may be necessary to revise the feasibility study or project plans in order to receive Federal funds.

Other Environmental Statutes

For all other environmental requirements not discussed in this section, Reclamation and the project sponsor will work closely together to identify and comply with the requirements for a particular proposed project, and to determine who is responsible for each (Reclamation or the project sponsor). Typically, these are all considered as a package within the NEPA process at the feasibility stage. For some authorized Title XVI projects, modifications in this timing may be necessary. For some requirements, such as section 7 ESA consultation, Reclamation is responsible and must take the lead. In some cases, such as obtaining CWA permits, the project sponsor is responsible.

In any particular project, these actions may include, but are not limited to:

- consult under ESA with the FWS or the NMFS if any endangered or threatened species may be affected;
- consult under the FWCA regarding any modifications to a water body that would affect fish and wildlife;
- identify any NPDES, 404, or other permits required under the CWA;

- identify any affected historic sites or cultural resources under the NHPA or other cultural resource statutes, and consult with the State Historic Preservation Officer and Advisory Council for Historic Preservation;
- identify any Native American or other trust resources affected;
- consider the environmental justice implications of the proposed project;
- coordinate with any State environmental requirements, such as California Environmental Quality Act (CEQA); and
- identify and coordinate with any State or Federal public health requirements for the project or the use of the water supplied.

Coordination with State Environmental Quality Acts

Title XVI projects may also need to comply with State environmental quality statutes. For example, Title XVI projects in California have a State environmental impact assessment requirement. The information from this process will be very useful in assisting Reclamation to meet its NEPA obligations. But there are differences in compliance with the two laws, and CEQA compliance cannot automatically substitute for Reclamation's NEPA compliance obligations. The same is true of other State environmental impact assessment requirements. If timing permits, these differing requirements may be addressed in a single document.

The Endangered Species Act

A funding agreement for construction of a water recycling project is an action covered by the ESA. Under section 7 of the ESA, Federal agencies are required to ensure that actions they fund, permit, or carry out are not likely to jeopardize the continued existence of any species federally listed as threatened or endangered, or adversely affect or destroy critical habitat designated for those species.

The ESA compliance process begins with a request to either the FWS or NMFS for a report of any listed species or listed critical habitat in or near a proposed project area. If the FWS or NMFS determines that there are no listed species or listed critical habitat in or near the proposed project area, then compliance has been completed. If there are listed species or critical habitat in or near the proposed project area, then Reclamation prepares a biological assessment to determine if the project may affect listed species in the area. Reclamation may designate the project sponsor or its contractor to prepare this assessment, but Reclamation, as the responsible Federal agency, must conduct formal consultation if that becomes necessary. If Reclamation determines there is no affect to listed species or critical habitat then compliance is

completed. If, however, Reclamation determines that the proposed action may affect, but is not likely to adversely affect the listed species, it must obtain the concurrence of either the FWS or NMFS.

If the biological assessment shows that a species or its habitat may be adversely affected, formal consultation is required. Formal consultation is concluded when the FWS or NMFS publishes a final biological opinion as to whether or not the project is likely to jeopardize the continued existence of any species (referred to as "jeopardy" or "no jeopardy"). Reclamation has an opportunity to review and comment on this opinion before it is final. A jeopardy opinion usually identifies reasonable and prudent alternatives to the project that would avoid placing the species in jeopardy or affecting critical habitat, and any reasonable and prudent measures to reduce incidental taking of the species.

Reclamation must notify the FWS or NMFS if it accepts the alternative, and must agree to implement the measures, before the proposed project may proceed. Reclamation will include these measures in any funding agreement for project construction as commitments of the project sponsor.

The Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act of 1934, as amended, requires Federal agencies proposing to construct or to issue permits for construction of projects affecting streams, lakes or other watercourses to consult with the FWS and State wildlife agencies prior to final approval of the project. Reclamation is required to consider recommendations made by wildlife agencies concerning the project's wildlife aspects, and if not implementing them, identify why not. Reclamation may adopt changes in project plans to mitigate damage to wildlife resources and, where possible, to enhance such resources. Reclamation, however, retains the authority to decide which mitigation measures recommended by the FWS, if any, to incorporate into the project plan. The mitigation recommendations made by the FWS are incorporated into the NEPA process in preparing an EIS or EA.

Reclamation will involve the sponsor in the process of developing mitigation measures with the FWS. Once agreed upon, these measures will become part of the project design, and will be so identified in the record of decision or the finding of no significant impact. At this point, implementation or inclusion of these measures in the project will be required—refer to section 1604 (c).

Economic Analysis

Introduction

A feasibility study for a Title XVI water reclamation and reuse project must include an assessment of the economic feasibility of the project relative to other water supply alternatives that could be implemented by the local sponsor. This assessment needs to demonstrate the degree to which the water recycling alternative is cost-effective, and the economic benefits that are to be realized after implementation. Reclamation must protect the Federal investment in water recycling, and use limited Federal financial resources prudently. Reclamation will coordinate the need for economic information with Title XVI feasibility report requirements and requirements of State programs.

Coordination with Other Feasibility Efforts

As noted in these guidelines, a feasibility report for a Title XVI water recycling project must include an evaluation of "at least two measures or alternative technologies available for water reclamation, distribution, and reuse for the project under consideration." In addition, the evaluation must address whether the project will:

- reduce, postpone, or eliminate development of new or expanded water supplies;
- reduce or eliminate the use of existing diversions from natural watercourses or withdrawals from aquifers; or
- reduce the demand on existing Federal water supply facilities.

Evaluations conducted to meet these requirements will generally provide the necessary framework for completing the economic analysis.

In many cases, the economic analysis prepared by the non-Federal sponsor to meet the economic justification requirements of local and State entities may fulfill many of the requirements of Title XVI legislation. In those cases, ensuring that the analysis meets the legislative requirements of Title XVI should only require minimal additional effort on the part of the non-Federal sponsor. Where necessary, Reclamation will coordinate requirements of this analysis with those of State and other Federal water recycling funding programs. For example, the draft guidebook prepared by the California Urban Water Agencies and the WaterReuse Association of California may be used as a model. Similarly, project sponsors in Texas may submit economic analyses prepared for its State program.

Application of Principles and Guidelines

The basic guidelines for evaluating water development projects at the Federal level are embodied in the "Economic and Environmental Principles and Guidelines for Water and Related Land Resource Implementation Studies" (P&G's). The essence of the P&G's as well as the Title XVI legislation is that alternatives are to be evaluated. The evaluation technique for M&I benefits in the P&G's is to examine the most likely alternative for obtaining the water supply. This is similar to the legislative requirement in Title XVI for an evaluation of alternatives. Thus, the technique to be employed in evaluating reuse projects is primarily the comparison of the cost of providing water of like quality from alternative sources.

However, Title XVI water reclamation and reuse projects are primarily locally sponsored projects with Reclamation participation. The local sponsor owns the project and is responsible for O&M, therefore, the projects are not to be construed as Federal projects. Because these projects are not federally built and owned, the P&G's National Economic Development test will not be applied. Rather, the economic analysis described in this section will be used to evaluate the economic benefits of the project.

The Economic Analysis

The analysis included in the feasibility report should start with conditions that exist at present in the area and provide projections of the future with and without the program or project. The difference between the "with" and "without" condition is a measure of the benefits to be gained by implementing the project. Emphasis in the analysis should be given to the contributions that the plan could make toward alleviation of economic problems and the meeting of future water demand.

Most Title XVI projects fall within the M&I water supply arena, i.e., these projects are reusing wastewater, which frees up potable water for other M&I purposes. The cost of providing this potable water from alternative sources can be used as a simple measure of the benefits of the project.

Alternative costs are used in estimating the value of a water supply, provided an alternative selected is a likely and realistic Federal or non-Federal alternative which would satisfy the same demand. Moreover, the alternative must be viable in terms of engineering and financing. The estimate of alternative costs should be based upon the same standards or criteria with respect to interest rate and period of analysis that are used by municipalities to compare the average annual costs of alternative new sources of water supply available to them.

The information displayed in the feasibility report would show the cost of this alternative as related to the cost of the recycling project. The difference between the costs is a measure of the benefits attributable to the recycling project. For example, if the alternative was additional

diversions from an imported source of supply, the information displayed would show the cost of this diversion relative to recycling. Other examples are desalting sea water or implementation of conservation practices.

In cases where there is no likely single-purpose Federal or non-Federal source of future supply, the estimate of M&I benefits may be based on the average annual cost of the most recent addition to M&I water supply in the project area.

Measuring Cost Effectiveness

While there is a conceptual difference between economic benefit evaluation and cost effectiveness, cost effectiveness may be a viable means of evaluating alternatives, as long as the Title XVI legislative requirements are addressed. Economic benefits are concerned with additions to the Nation's output of goods and services and/or improvements in the efficiency of production of those goods and services, whereas cost effectiveness is more typically associated with the comparison of alternatives for producing the intermediate product, in this case the water supply, and is expressed as the value of water produced per dollars spent.

Cost-Sharing Procedures

Requirements

Title XVI, as amended, requires an approved cost-sharing agreement for construction funding, which commits the project sponsor to annual funding of its share of the project's construction costs. Title XVI also requires Reclamation to notify the Congress within 30 days of signing a cost-sharing agreement.

Procedures

In preparing cost-share agreements, Reclamation will follow procedures in the Reclamation Financial Assistance Handbook and in Reclamation Manual ACM 01-01. Reclamation will also adhere to its policy memorandum of August 25, 1997. This memorandum, titled "Criteria and Procedures for Reviewing Cost-Share Agreements on Reclamation Projects," provides guidance on the types of local costs which may be included for cost-sharing purposes. A copy of this memorandum is included in appendix D. The memorandum specifically address requirements for water recycling projects and provides the requisites for obtaining and following up on "single audits," as prescribed by OMB Circular A-133 ("Audits of States, Local Governments and Non-Profit Organizations"). The cost-sharing agreement must contain information about these requirements.

Reclamation will abide by the standard definitions of cooperative agreement and grant agreement in choosing the funding vehicle for any one action. The degree of Reclamation participation in the action(s) covered by the agreement is the key factor. A grant agreement is used when Reclamation's participation in the activity is minimal. Cooperative agreements are used when Reclamation has a greater degree of involvement in the activities. Title XVI requires Reclamation to participate in the planning, design and construction of those projects specifically authorized for construction. Therefore, a cooperative agreement is the appropriate funding vehicle to be used to fund construction projects.

Reclamation will review each cost-sharing agreement annually.

Content of Agreements

An agreement must conform to requirements of the following OMB Circulars:

- A-87, "Cost Principles for State, Local and Indian Tribal Governments"
- A-102, "Grants and Cooperative Agreements with State and Local Governments"
- A-133, "Audits of States, Local Governments, and Non-Profit Organizations"

A cost-sharing agreement must also include a certification that O&M expenses are not included in the agreement, and are not in the bills and accounting records provided to Reclamation for auditing purposes.

Cost Sharing for Feasibility and Planning

Cost-share agreements for feasibility and planning activities, including environmental compliance actions, may be treated separately from construction. Approval of a cost-share agreement for these activities does not guarantee approval of a cost-sharing agreement for construction funding.

For feasibility and planning work done under general Title XVI authority (sections 1603 and 1604), the Federal cost share can be up to 50 percent. For feasibility and planning work done for projects specifically authorized for construction under Title XVI, the Federal cost share can be up to 25 percent.

Timing of Cost-Share Agreements

Reclamation will sign cost-share agreements for construction funding of a project only after a feasibility study has been completed which includes a statement of financial capability (the minimum "go-no go" for a project), and after completion of NEPA and other environmental compliance actions for the project.

Eligible Cost-Share Contributions

The memorandum, titled "Criteria and Procedures for Reviewing Cost-Share Agreements on Reclamation Projects," provides guidance on the types of local costs, in addition to construction, which may be included for cost-sharing purposes.

Financial Capability

Background

Pursuant to Title XVI, the non-Federal sponsor of a project must demonstrate financial capability to fund the non-Federal share of the construction costs. This demonstration must be included in the feasibility study and submitted to Reclamation along with any supporting documents.

A self-certification alone is not deemed adequate because Reclamation has a responsibility to ensure that Federal funds are prudently invested. Demonstration of financial capability will generally draw from those documents which were prepared by the entity providing the funding and/or were required to obtain the non-Federal funding.

The non-Federal sponsor must include a funding plan in the feasibility study which includes plans for funding the construction as well as the proposed method for funding the project O&M. The plan should include project life-cycle funding, i.e., it should show how repairs and replacements will be funded, as well as continuing O&M and environmental compliance costs.

Non-Federal Funding

The non-Federal partner may obtain the requisite funding by a variety of methods. If bonding authority is used, i.e. municipal bonds, a copy of the underwriter's report or prospectus should be included with the project submittal. This report will describe the inherent risk in the bond issue. A form of certification from the underwriter is necessary to demonstrate the bonds have been sold and the money made available to the sponsor. In those instances where non-Federal funding is dependent on the availability of Federal funds, an indication of bond rating and impending sale will suffice as preliminary documentation. If a bond election and/or formal approval of a governing body (Board of Directors or City Council) is required to provide taxing authority to refund the bonds, a certification of election results and/or a copy of the approved resolution should be included.

In instances where a State Revolving Fund will provide some or all of the non-Federal share, a certification of loan availability should be provided. Any Federal sources of funding involved in the project must also be identified, as all Federal sources of funding together cannot exceed 25 percent.

If another financing method is used, Reclamation will seek appropriate supporting documentation during review of the feasibility study.

Demonstration Projects

Background

Within the relatively new field of water recycling, Reclamation anticipates that water recycling projects will employ a range of different technologies, some of them highly experimental, and some by now "standard practice."

Title XVI provides Reclamation with general authority to undertake demonstration projects, and authorizes a Federal cost share of up to 50 percent for a given project. However, a Federal contribution exceeding 25 percent cannot be made unless the Secretary determines that the project is not feasible without such Federal contribution.

Reclamation's intent in supporting demonstration projects is to test the feasibility of emerging, or as yet untested, technologies for water recycling. Pilot studies, e.g. laboratory models, could be performed through Reclamation's research program or other appropriate means, while demonstration projects involving on-the-ground construction would be funded through Reclamation's Water and Energy Management and Development Program.

Definition of a Demonstration Project

To qualify as a demonstration project under Title XVI, a project must be consistent with Federal objectives, be sized appropriately to demonstrate practicality, and meet one or more of the following objectives:

- promote application of new and innovative technologies;
- promote non-traditional application of current technology where as yet unproven; or
- establish the feasibility of recycling water to local institutions when an unproven technology is employed.

Application of a known technology that merely demonstrates feasibility in a different site or geographic region, or modification of an already successfully applied technology would not qualify as a demonstration project.

Priorities for Demonstration Projects

Reclamation will place higher priority and/or a higher percentage of Federal cost-share funding for highly innovative projects based on the following factors:

1. Where there is a high degree of risk for the success for the project, but there is also potential for a high payoff.
2. The degree of innovation is substantial with the potential for widespread use.
3. Local sponsors or partners provide more than 75 percent of the cost share.
4. Project will contribute to solving a resource problem of national interest, such as endangered species recovery.
5. Project will reduce the cost of existing technologies and also serve some other Federal interest.

Project Ownership

It is Reclamation policy that the local sponsor retain ownership of any facilities constructed under the demonstration project program.

Although the Act provides that Reclamation may furnish up to 50 percent of O&M costs, it is Reclamation policy **not** to provide funds for this purpose, unless it is determined that the project cannot be operated without such funding, and the project clearly helps resolve a resource problem of national interest. The local sponsor will need to certify and demonstrate ability to fund O&M activities in the Demonstration Project Proposal. The two research and development projects specifically authorized under Title XVI both require the sponsor to fund O&M.

Demonstration Project Requirements

Funding of demonstration projects is considered a Federal action, therefore NEPA compliance by Reclamation is required. The appropriate NEPA document will be completed following these guidelines and the Reclamation NEPA Handbook, and work associated with completing NEPA compliance will be subject to cost-share provisions.

A Demonstration Project Proposal which addresses feasibility issues (see outline below), a statement of financial capability of the non-Federal sponsor, and a cost-sharing agreement that

follows these guidelines must be completed before a demonstration project can be funded for construction. Since a demonstration project is essentially a small-scale pilot, the level of detail in a proposal is likely to be less than a feasibility report for a full-scale authorized project.

Suggested Demonstration Project Proposal Outline

Executive Summary

This can draw on existing reports and studies.

Introduction

State the purpose of the study, who (what entity) prepared the study, and the non-Federal sponsor(s) of the project. Provide a brief description of the project area and an area/project map.

Demonstration Project Proposal

Describe the demonstration project proposal and include the following information:

- What is being demonstrated
- Why the demonstration project is necessary
- What specific objectives will be accomplished
- Why this is the best way to accomplish the objectives
- What is the basis for Federal participation

Project Operation

- Who will administer and manage the project
- The operation of the project
- How long the project will be operated
- What will be done with the project at the end of the demonstration period
- The plan for decommissioning the project, if applicable

Monitoring Program

Provide a monitoring plan for the project, including who will perform the monitoring and analysis and how will it be determined if the project is successful or completed.

Designs and Estimates

Provide engineering designs and cost estimates for project facilities at a level of detail where 80 percent of the costs are from specifically identified items and unlisted items are no more than 20 percent of the cost estimate.

Provide the operation, maintenance, replacement and monitoring costs.

Environmental Analysis

Provide the environmental information on the project which Reclamation will need in order to comply with applicable environmental requirements. This includes information on the existing environment, including social and cultural resources, endangered species, an assessment of the environmental impacts, identification of applicable Federal and State requirements, and mitigation measures where appropriate. It is suggested that the sponsor work closely with Reclamation in preparing this information.

Legal and Institutional Requirements and Water Rights

Discuss the public health and water quality issues or benefits associated with the project and how the project would comply with Federal, State, and local requirements, i.e., laws, regulations, permits, etc.

Discuss any water right issues, including effects on downstream rights, and how they will be resolved.

Discuss any unresolved issue(s) associated with the project, how the issue(s) would be resolved, and how the project would be affected if the issue(s) is not resolved.

Identify any legal or institutional constraints, not discussed above, that would affect the ability of the sponsor to implement the project.

Financial Capability of the Sponsor

Present the sponsor's schedule for project implementation and its plan for funding the project's construction and operation, maintenance, and replacement costs, including the non-Federal and other Federal sources of funding and their intended use.

Document the sponsor's financial capability to fund the non-Federal share of the project costs, including O&M costs, as outlined in these guidelines.

Appendix A

**Public Law 102-575, Title XVI, as Amended
Reclamation Wastewater and
Groundwater Study and Facilities Act**

Public Law 102-575, Title XVI, as Amended

Reclamation Wastewater and Groundwater Study and Facilities Act

SEC. 1601. SHORT TITLE.

This title may be referred to as the "Reclamation Wastewater and Groundwater Study and Facilities Act." (Note: 43 U.S.C. 390h through 390h-15)

SEC. 1602. GENERAL AUTHORITY.

(a) The Secretary of the Interior (hereafter "Secretary"), acting pursuant to the Reclamation Act of 1902 (Act of June 17, 1902, 32 Stat. 388) and Acts amendatory thereof and supplementary thereto (hereafter "Federal reclamation laws"), is directed to undertake a program to investigate and identify opportunities for reclamation and reuse of municipal, industrial, domestic, and agricultural wastewater, and naturally impaired ground and surface waters, for the design and construction of demonstration and permanent facilities to reclaim and reuse wastewater, and to conduct research, including desalting, for the reclamation of wastewater and naturally impaired ground and surface waters.

(b) Such program shall be limited to the States and areas referred to in section 1 of the Reclamation Act of 1902 (Act of June 17, 1902, 32 Stat. 388) (43 U.S.C. 391) as amended.

(c) The Secretary is authorized to enter into such agreements and promulgate such regulations as may be necessary to carry out the purposes and provisions of this title.

(d) The Secretary shall not investigate, promote or implement, pursuant to this title, any project intended to reclaim and reuse agricultural wastewater generated in the service area of the San Luis Unit of the Central Valley Project, California, except those measures recommended for action by the San Joaquin Valley Drainage Program in the report entitled A Management Plan for Agricultural Subsurface Drainage and Related Problems on the Westside San Joaquin Valley (September 1990).

SEC. 1603. APPRAISAL INVESTIGATIONS.

(a) The Secretary shall undertake appraisal investigations to identify opportunities for water reclamation and reuse. Each such investigation shall take into account environmental considerations as provided by the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) and regulations issued to implement the provisions thereof, and shall include recommendations as to the preparation of a feasibility study of the potential reclamation and reuse measures.

(b) Appraisal investigations undertaken by the Secretary or the non-Federal project sponsor pursuant to this title shall consider, among other things -

- (1) all potential uses of reclaimed water, including, but not limited to, environmental restoration, fish and wildlife, groundwater recharge, municipal, domestic, industrial, agricultural, power generation, and recreation;
 - (2) the current status of water reclamation technology and opportunities for development of improved technologies;
 - (3) measures to stimulate demand for and eliminate obstacles to use of reclaimed water, including pricing;
 - (4) measures to coordinate and streamline local, State and Federal permitting procedures required for the implementation of reclamation projects; and
 - (5) measures to identify basic research needs required to expand the uses of reclaimed water in a safe and environmentally sound manner.
- (c) The Secretary shall consult and cooperate with appropriate State, regional, and local authorities during the conduct of each appraisal investigation conducted pursuant to this title.
- (d) Costs of such appraisal investigations shall be nonreimbursable.

SEC. 1604. FEASIBILITY STUDIES.

- (a) The Secretary is authorized to participate with appropriate Federal, State, regional, and local authorities in studies to determine the feasibility of water reclamation and reuse projects recommended for such study pursuant to section 1603 of this title. The Federal share of the costs of such feasibility studies shall not exceed 50 per centum of the total, except that the Secretary may increase the Federal share of the costs of such feasibility study if the Secretary determines, based upon a demonstration of financial hardship on the part of the non-Federal participant, that the non-Federal participant is unable to contribute at least 50 per centum of the costs of such study. The Secretary may accept as part of the non-Federal cost share the contribution of such in-kind services by the non-Federal participant that the Secretary determines will contribute substantially toward the conduct and completion of the study.
- (b) The Federal share of feasibility studies, including those described in sections 1606 and 1608 through 1610 of this title, shall be considered as project costs and shall be reimbursed in accordance with the Federal reclamation laws, if the project studied is implemented.
- (c) In addition to the requirements of other Federal laws, feasibility studies conducted by the Secretary or the non-Federal project sponsor under this title shall consider, among other things -
- (1) near- and long-term water demand and supplies in the study area;

- (2) all potential uses for reclaimed water;
- (3) at least two alternative measures or technologies available for water reclamation, distribution, and reuse for the project under consideration;
- (4) public health and environmental quality issues associated with use of reclaimed water;
- (5) whether development of the water reclamation and reuse measures under study would -
 - (A) reduce, postpone, or eliminate development of new or expanded water supplies,
 - (B) reduce or eliminate the use of existing diversions from natural watercourses or withdrawals from aquifers, or
 - (C) reduce the demand on existing Federal water supply facilities;
- (6) the market or dedicated use for reclaimed water in the project's service area; and
- (7) the financial capability of the non-Federal project sponsor to fund its proportionate share of the project's construction costs on an annual basis.

SEC. 1605. RESEARCH AND DEMONSTRATION PROJECTS.

- (a) The Secretary is authorized to conduct research and to construct, operate, and maintain cooperative demonstration projects for the development and demonstration of appropriate treatment technologies for the reclamation of municipal, industrial, domestic, and agricultural wastewater, and naturally impaired ground and surface waters. The Federal share of the costs of demonstration projects shall not exceed 50 per centum of the total cost including operation and maintenance. Rights to inventions developed pursuant to this section shall be governed by the provisions of the Stevenson-Wydler Technology Innovation Act of 1980 (Public Law 96-480) (15 U.S.C. 3701 et seq.) as amended by the Technology Transfer Act of 1986 (Public Law 99-502).
- (b)(1) The Secretary, in cooperation with the city of Long Beach, the Central Basin Municipal Water District, and the Metropolitan Water District of Southern California may participate in the design, planning, and construction of the Long Beach Desalination Research and Development Project in Los Angeles County, California.
- (2) The Federal share of the cost of the project described in paragraph (1) shall not exceed 50 percent of the total.
- (3) The Secretary shall not provide funds for the operation or maintenance of the project described in paragraph (1).

- (c)(1) The Secretary, in cooperation with the Southern Nevada Water Authority, may participate in the design, planning, and construction of the Las Vegas Area Shallow Aquifer Desalination Research and Development Project in Clark County, Nevada.
- (2) The Federal share of the cost of the project described in paragraph (1) shall not exceed 50 percent of the total.
- (3) The Secretary shall not provide funds for the operation or maintenance of the project described in paragraph (1).
- (d) A Federal contribution in excess of 25 percent for a project under this section may not be made until after the Secretary determines that the project is not feasible without such Federal contribution.

SEC. 1606. SOUTHERN CALIFORNIA COMPREHENSIVE WATER RECLAMATION AND REUSE STUDY.

- (a) The Secretary is authorized to conduct a study to assess the feasibility of a comprehensive water reclamation and reuse system for Southern California. For the purpose of this title, the term "Southern California" means those portions of the counties of Imperial, Los Angeles, Orange, San Bernadino, Riverside, San Diego, and Ventura within the south coast and Colorado River hydrologic regions as defined by the California Department of Water Resources.
- (b) The Secretary shall conduct the study authorized by this section in cooperation with the State of California and appropriate local and regional entities. The Federal share of the costs associated with this study shall not exceed 50 per centum of the total.
- (c) The Secretary shall submit the report authorized by this section to the Committee on Energy and Natural Resources of the Senate and the Committee on Interior and Insular Affairs of the House of Representatives not later than six years after appropriation of funds authorized by this title.

SEC. 1607. SAN JOSE AREA WATER RECLAMATION AND REUSE PROGRAM.

- (a) The Secretary, in cooperation with the city of San Jose, California, and the Santa Clara Valley Water District, and local water suppliers, shall participate in the planning, design and construction of demonstration and permanent facilities to reclaim and reuse water in the San Jose metropolitan service area.
- (b) The Federal share of the costs of the facilities authorized by subsection (a) of this section shall not exceed 25 per centum of the total. The Secretary shall not provide funds for the operation or maintenance of the project.

SEC. 1608. PHOENIX METROPOLITAN WATER RECLAMATION STUDY AND PROGRAM.

(a) The Secretary, in cooperation with the city of Phoenix, Arizona, shall conduct a feasibility study of the potential for development of facilities to utilize fully wastewater from the regional wastewater treatment plant for direct municipal, industrial, agricultural, and environmental purposes, groundwater recharge and direct potable reuse in the Phoenix metropolitan area, and in cooperation with the city of Phoenix design and construct facilities for environmental purposes, ground water recharge and direct potable reuse.

(b) The Federal share of the costs of the study authorized by this section shall not exceed 50 per centum of the total. The Federal share of the costs associated with the project described in subsection (a) of this section shall not exceed 25 per centum of the total. The Secretary shall not provide funds for operation or maintenance of the project.

(c) The Secretary shall submit the report authorized by this section to the Committee on Energy and Natural Resources of the Senate and the Committee on Interior and Insular Affairs of the House of Representatives not later than two years after appropriation of funds authorized by this title.

SEC. 1609. TUCSON AREA WATER RECLAMATION STUDY.

(a) The Secretary, in cooperation with the State of Arizona and appropriate local and regional entities, shall conduct a feasibility study of comprehensive water reclamation and reuse system for Southern Arizona. For the purpose of this section, the term "Southern Arizona" means those portions of the counties of Pima, Santa Cruz, and Pinal within the Tucson Active Management Hydrologic Area as defined by the Arizona Department of Water Resources.

(b) The Federal share of the costs of the study authorized by this section shall not exceed 50 per centum of the total.

(c) The Secretary shall submit the report authorized by this section to the Committee on Energy and Natural Resources of the Senate and the Committee on Interior and Insular Affairs of the House of Representatives not later than four years after appropriation of funds authorized by this title.

SEC. 1610. LAKE CHERAW WATER RECLAMATION AND REUSE STUDY.

- (a) The Secretary is authorized, in cooperation with the State of Colorado and appropriate local and regional entities, to conduct a study to assess and develop means of reclaiming the waters of Lake Cheraw, Colorado, or otherwise ameliorating, controlling and mitigating potential negative impacts of pollution in the waters of Lake Cheraw on groundwater resources or the waters of the Arkansas River.
- (b) The Federal share of the costs of the study authorized by this section shall not exceed 50 per centum of the total.
- (c) The Secretary shall submit the report authorized by this section to the Committee on Energy and Natural Resources of the Senate and the Committee on Interior and Insular Affairs of the House of Representatives not later than two years after appropriation of funds authorized by this title.

SEC. 1611. SAN FRANCISCO AREA WATER RECLAMATION STUDY.

- (a) The Secretary, in cooperation with the city and county of San Francisco, shall conduct a feasibility study of the potential for development of demonstration and permanent facilities to reclaim water in the San Francisco area for the purposes of export and reuse elsewhere in California.
- (b) The Federal share of the costs of the study authorized by this section shall not exceed 50 per centum of the total.
- (c) The Secretary shall submit the report authorized by this section to the Committee on Energy and Natural Resources of the Senate and the Committee on Interior and Insular Affairs of the House of Representatives not later than five years after appropriation of funds authorized by this title.

SEC. 1612. SAN DIEGO AREA WATER RECLAMATION PROGRAM.

- (a) The Secretary, in cooperation with the city of San Diego, California, or its successor agency in the management of the San Diego Area Wastewater Management District, shall participate in the planning, design and construction of demonstration and permanent facilities to reclaim and reuse water in the San Diego metropolitan service area.
- (b) The Federal share of the costs of the facilities authorized by subsection (a) of this section shall not exceed 25 per centum of the total. The Secretary shall not provide funds for the operation or maintenance of the project.

SEC. 1613. LOS ANGELES AREA WATER RECLAMATION AND REUSE PROJECT.

(a) The Secretary is authorized to participate with the city and county of Los Angeles, State of California, West Basin Municipal Water District, and other appropriate authorities, in the design, planning, and construction of water reclamation and reuse projects to treat approximately one hundred and twenty thousand acre-feet per year of effluent from the city and county of Los Angeles, in order to provide new water supplies for industrial, environmental, and other beneficial purposes, to reduce the demand for imported water, and to reduce sewage effluent discharged into Santa Monica Bay.

(b) The Secretary's share of costs associated with the project described in subsection (a) of this section shall not exceed 25 per centum of the total. The Secretary shall not provide funds for operation or maintenance of the project.

SEC. 1614. SAN GABRIEL BASIN DEMONSTRATION PROJECT.

(a) The Secretary, in cooperation with the Metropolitan Water District of Southern California and the Main San Gabriel Water Quality Authority or a successor public agency, is authorized to participate in the design, planning and construction of a conjunctive-use facility designed to improve the water quality in the San Gabriel groundwater basin and allow the utilization of the basin as a water storage facility; *Provided*, That this authority shall not be construed to limit the authority of the United States under any other Federal statute to pursue remedial actions or recovery of costs for work performed pursuant to this subsection.

(b) The Secretary's share of costs associated with the project described in subsection (a) of this section shall not exceed 25 per centum of the total. The Secretary shall not provide funds for the operation or maintenance of the project.

SEC. 1615. NORTH SAN DIEGO COUNTY AREA WATER RECYCLING PROJECT.

(a) AUTHORIZATION - The Secretary, in cooperation with the appropriate State and local authorities, is authorized to participate in the design, planning, and construction of the North San Diego County Area Water Recycling Project, consisting of projects to reclaim and reuse water within service areas of the San Elijo Joint Powers Authority, the Leucadia County Water District, the City of Carlsbad, and the Olivenhain Municipal Water District, California.

(b) COST SHARE - The Federal share of the cost of a project described in subsection (a) shall not exceed 25 percent of the total cost.

(c) LIMITATION - The Secretary shall not provide funds for the operation or maintenance of a project described in subsection (a).

SEC. 1616. CALLEGUAS MUNICIPAL WATER DISTRICT RECYCLING PROJECT.

(a) AUTHORIZATION - The Secretary, in cooperation with the appropriate State and local authorities, is authorized to participate in the design, planning, and construction of the Calleguas Municipal Water District Recycling Project to reclaim and reuse water in the service area of the Calleguas Municipal Water District in Ventura County, California.

(b) COST SHARE - The Federal share of the cost of a project described in subsection (a) shall not exceed 25 percent of the total cost.

(c) LIMITATION - The Secretary shall not provide funds for the operation or maintenance of a project described in subsection (a).

SEC. 1617. CENTRAL VALLEY WATER RECYCLING PROJECT.

(a) AUTHORIZATION - The Secretary, in cooperation with the appropriate State and local authorities, is authorized to participate in the design, planning, and construction of the Central Valley Water Recycling Project to reclaim and reuse water in the service areas of the Central Valley Reclamation Facility and the Salt Lake County Water Conservancy District in Utah.

(b) COST SHARE - The Federal share of the cost of a project described in subsection (a) shall not exceed 25 percent of the total cost.

(c) LIMITATION - The Secretary shall not provide funds for the operation or maintenance of a project described in subsection (a).

SEC. 1618. ST. GEORGE AREA WATER RECYCLING PROJECT.

(a) AUTHORIZATION - The Secretary, in cooperation with the appropriate State and local authorities, is authorized to participate in the design, planning, and construction of the St. George Area Water Recycling Project to reclaim and reuse water in the service area of the Washington County Water Conservancy District in Utah.

(b) COST SHARE - The Federal share of the cost of a project described in subsection (a) shall not exceed 25 percent of the total cost.

(c) LIMITATION - The Secretary shall not provide funds for the operation or maintenance of a project described in subsection (a).

SEC. 1619. WATSONVILLE AREA WATER RECYCLING PROJECT.

(a) AUTHORIZATION - The Secretary, in cooperation with the City of Watsonville, California, is authorized to participate in the design, planning, and construction of the Watsonville Area Water Recycling Project to reclaim and reuse water in the Pajaro Valley in Santa Cruz County, California.

(b) COST SHARE - The Federal share of the cost of a project described in subsection (a) shall not exceed 25 percent of the total cost.

(c) LIMITATION - The Secretary shall not provide funds for the operation or maintenance of a project described in subsection (a).

SEC. 1620. SOUTHERN NEVADA WATER RECYCLING PROJECT.

(a) AUTHORIZATION - The Secretary, in cooperation with the appropriate State and local authorities, is authorized to participate in the design, planning, and construction of the Southern Nevada Water Recycling Project to reclaim and reuse water in the service area of the Southern Nevada Water Authority in Clark County, Nevada.

(b) COST SHARE - The Federal share of the cost of a project described in subsection (a) shall not exceed 25 percent of the total cost.

(c) LIMITATION - The Secretary shall not provide funds for the operation or maintenance of a project described in subsection (a).

SEC. 1621. ALBUQUERQUE METROPOLITAN AREA WATER RECLAMATION AND REUSE STUDY.

(a) AUTHORIZATION - The Secretary, in cooperation with the city of Albuquerque, New Mexico, is authorized to participate in the Albuquerque Metropolitan Area Water Reclamation and Reuse Study to reclaim and reuse industrial and municipal wastewater and reclaim and use naturally impaired ground water in the Albuquerque metropolitan area.

(b) COST SHARE - The Federal share of the cost of a project described in subsection (a) shall not exceed 25 percent of the total cost.

(c) LIMITATION - The Secretary shall not provide funds for the operation or maintenance of a project described in subsection (a).

SEC. 1622. EL PASO WATER RECLAMATION AND REUSE PROJECT.

- (a) AUTHORIZATION - The Secretary, in cooperation with the appropriate State and local authorities, is authorized to participate in the design, planning, and construction of the El Paso Water Reclamation and Reuse Project to reclaim and reuse wastewater in the service area of the El Paso Water Utilities Public Service Board, El Paso, Texas.
- (b) COST SHARE - The Federal share of the cost of a project described in subsection (a) shall not exceed 25 percent of the total cost.
- (c) LIMITATION - The Secretary shall not provide funds for the operation or maintenance of a project described in subsection (a).

SEC. 1623. RECLAIMED WATER IN PASADENA.

- (a) AUTHORIZATION - The Secretary, in cooperation with the appropriate State and local authorities, is authorized to participate in the design, planning, and construction of the City of Pasadena, California, reclaimed water project to obtain, store, and use reclaimed water in Pasadena and its service area, as well as neighboring communities.
- (b) COST SHARE - The Federal share of the cost of a project described in subsection (a) shall not exceed 25 percent of the total cost.
- (c) LIMITATION - The Secretary shall not provide funds for the operation or maintenance of a project described in subsection (a).

SEC. 1624. PHASE 1 OF THE ORANGE COUNTY REGIONAL WATER RECLAMATION PROJECT.

- (a) AUTHORIZATION - The Secretary, in cooperation with the appropriate State and local authorities, is authorized to participate in the design, planning, and construction of phase 1 of the Orange County Regional Water Reclamation Project, to reclaim and reuse water within the service area of the Orange County Water District in California.
- (b) COST SHARE - The Federal share of the cost of a project described in subsection (a) shall not exceed 25 percent of the total cost.
- (c) LIMITATION - The Secretary shall not provide funds for the operation or maintenance of a project described in subsection (a).

SEC. 1625. CITY OF WEST JORDAN WATER REUSE PROJECT.

(a) AUTHORIZATION - The Secretary, in cooperation with the City of West Jordan, Utah, is authorized to participate in the design, planning, and construction of the City of West Jordan Water Reuse Project to recycle and reuse water in its service area from the South Valley Water Reclamation Facility Discharge Waters in Utah.

(b) COST SHARE - The Federal share of the cost of a project described in subsection (a) shall not exceed 25 percent of the total cost.

(c) LIMITATION - The Secretary shall not provide funds for the operation or maintenance of a project described in subsection (a).

SEC. 1626. HI-DESERT WATER DISTRICT IN YUCCA VALLEY, CALIFORNIA, WASTEWATER COLLECTION AND REUSE FACILITY.

(a) AUTHORIZATION - The Secretary, in cooperation with the appropriate State and local authorities, is authorized to participate in the design, planning, and construction of the Hi-Desert Water District in Yucca Valley, California wastewater collection and reuse facility.

(b) COST SHARE - The Federal share of the cost of a project described in subsection (a) shall not exceed 25 percent of the total cost.

(c) LIMITATION - The Secretary shall not provide funds for the operation or maintenance of a project described in subsection (a).

SEC. 1627. MISSION BASIN BRACKISH GROUNDWATER DESALTING DEMONSTRATION PROJECT.

(a) AUTHORIZATION - The Secretary, in cooperation with the City of Oceanside, is authorized to participate in the design, planning, and construction of a 3,000,000 gallon per day expansion of the Mission Basin Brackish Groundwater Desalting Demonstration Project in Oceanside, California.

(b) COST SHARE - The Federal share of the cost of a project described in subsection (a) shall not exceed 25 percent of the total cost.

(c) LIMITATION - The Secretary shall not provide funds for the operation or maintenance of a project described in subsection (a).

SEC. 1628. TREATMENT OF EFFLUENT FROM THE SANITATION DISTRICTS OF LOS ANGELES COUNTY THROUGH THE CITY OF LONG BEACH.

(a) AUTHORIZATION - The Secretary, in cooperation with the Water Replenishment District of Southern California, the Orange County Water District in the State of California, and other appropriate authorities, is authorized to participate in the design, planning, and construction of water reclamation and reuse projects to treat approximately 10,000 acre-feet per year of effluent from the sanitation districts of Los Angeles County through the city of Long Beach.

(b) COST SHARE - The Federal share of the cost of a project described in subsection (a) shall not exceed 25 percent of the total cost.

(c) LIMITATION - The Secretary shall not provide funds for the operation or maintenance of a project described in subsection (a).

SEC. 1629. SAN JOAQUIN AREA WATER RECYCLING AND REUSE PROJECT.

(a) AUTHORIZATION - The Secretary, in cooperation with the appropriate State and local authorities, is authorized to participate in the design, planning, and construction of the San Joaquin Area Water Recycling and Reuse Project, in cooperation with the City of Tracy, and consisting of participating projects which will reclaim and reuse water within the County of San Joaquin in California.

(b) COST SHARE - The Federal share of the cost of a project described in subsection (a) shall not exceed 25 percent of the total cost.

(c) LIMITATION - The Secretary shall not provide funds for the operation or maintenance of a project described in subsection (a).

SEC. 1630. TOOELE WASTEWATER TREATMENT AND REUSE PROJECT.

(a) AUTHORIZATION - The Secretary, in cooperation with Tooele City, Utah, is authorized to participate in the design, planning, and construction of the Tooele Wastewater Treatment and Reuse Project.

(b) COST SHARE - The Federal share of the cost of a project described in subsection (a) shall not exceed 25 percent of the total cost.

(c) LIMITATION - The Secretary shall not provide funds for the operation or maintenance of a project described in subsection (a).

SEC. 1631. AUTHORIZATION OF APPROPRIATIONS.

(a) There are authorized to be appropriated such sums as may be necessary to carry out the purposes and provisions of sections 1601 through 1630 of this title.

(b)(1) Funds may not be appropriated for the construction of any project authorized by this title until after--

(A) an appraisal investigation and a feasibility study that complies with the provisions of sections 1603(b) or 1604(c), as the case may be, have been completed by the Secretary or the non-Federal project sponsor;

(B) the Secretary has determined that the non-Federal project sponsor is financially capable of funding the non-Federal share of the project's costs;

and

(C) the Secretary has approved a cost-sharing agreement with the non-Federal project sponsor which commits the non-Federal project sponsor to funding its proportionate share of the project's construction costs on an annual basis.

(2) The requirements of paragraph (1) shall not apply to those projects authorized by this title for which funds were appropriated prior to January 1, 1996.

(c) The Secretary shall notify the Committees on Resources and Appropriations of the House of Representatives and the Committees on Energy and Natural Resources and Appropriations of the Senate within 30 days after the signing of a cost-sharing agreement pursuant to subsection (b) that such an agreement has been signed and that the Secretary has determined that the non-Federal project sponsor is financially capable of funding the project's non-Federal share of the project's costs.

(d)(1) Notwithstanding any other provision of this title and except as provided by paragraph (2), the Federal share of the costs of each of the individual projects authorized by this title shall not exceed \$20,000,000 (October 1996 prices).

(2) In the case of any project authorized by this title for which construction funds were appropriated before January 1, 1996, the Federal share of the cost of such project may not exceed the amount specified as the 'total Federal obligation' for that project in the budget justification made by the Bureau of Reclamation for fiscal year 1997, as contained in part 3 of the report of the hearing held on March 27, 1996, before the Subcommittee on Energy and Water Development of the Committee on Appropriations of the House of Representatives.

SEC. 1632. GROUNDWATER STUDY.

(a) In furtherance of the High Plains Groundwater Demonstration Program Act of 1983 (98 Stat. 1675) (43 U.S.C. 390g et seq.), the Secretary of the Interior, acting through the Bureau of Reclamation and the Geological Survey, shall conduct an investigation and analysis of the impacts of existing Bureau of Reclamation projects on the quality and quantity of groundwater resources. Based on such investigation and analysis, the Secretary shall prepare a reclamation groundwater management and technical assistance report which shall include -

- (1) a description of the findings of the investigation and analysis, including the methodology employed;
- (2) a description of methods for optimizing Bureau of Reclamation project operations to ameliorate adverse impacts on groundwater;

and

(3) the Secretary's recommendations, along with the recommendations of the Governors of the affected States, concerning the establishment of a groundwater management and technical assistance program in the Department of the Interior in order to assist Federal and non-Federal entity development and implementation of groundwater management plans and activities.

(b) In conducting the investigation and analysis, and in preparation of the report referred to in this section, the Secretary shall consult with the Governors of the affected States.

(c) The report shall be submitted to the Committees on Appropriations and Interior and Insular Affairs of the House of Representatives and the Committees on Appropriations and Energy and Natural Resources of the Senate within three years of the appropriation of funds authorized by section 1633 of this title.

SEC. 1633. AUTHORIZATION OF APPROPRIATIONS.

There is authorized to be appropriated for fiscal years beginning after September 30, 1992, \$4,000,000 to carry out the study authorized by section 1632 of this title.

SEC. 1634. WILLOW LAKE NATURAL TREATMENT SYSTEM PROJECT.

(a) AUTHORIZATION - The Secretary, in cooperation with the city of Salem, Oregon, is authorized to participate in the design, planning, and construction of the Willow Lake Natural Treatment System Project to reclaim and reuse wastewater within and without the service area of the city of Salem.

(b) **COST SHARE** - The Federal share of the cost of the project authorized by this section shall not exceed 25 percent of the total cost of the project.

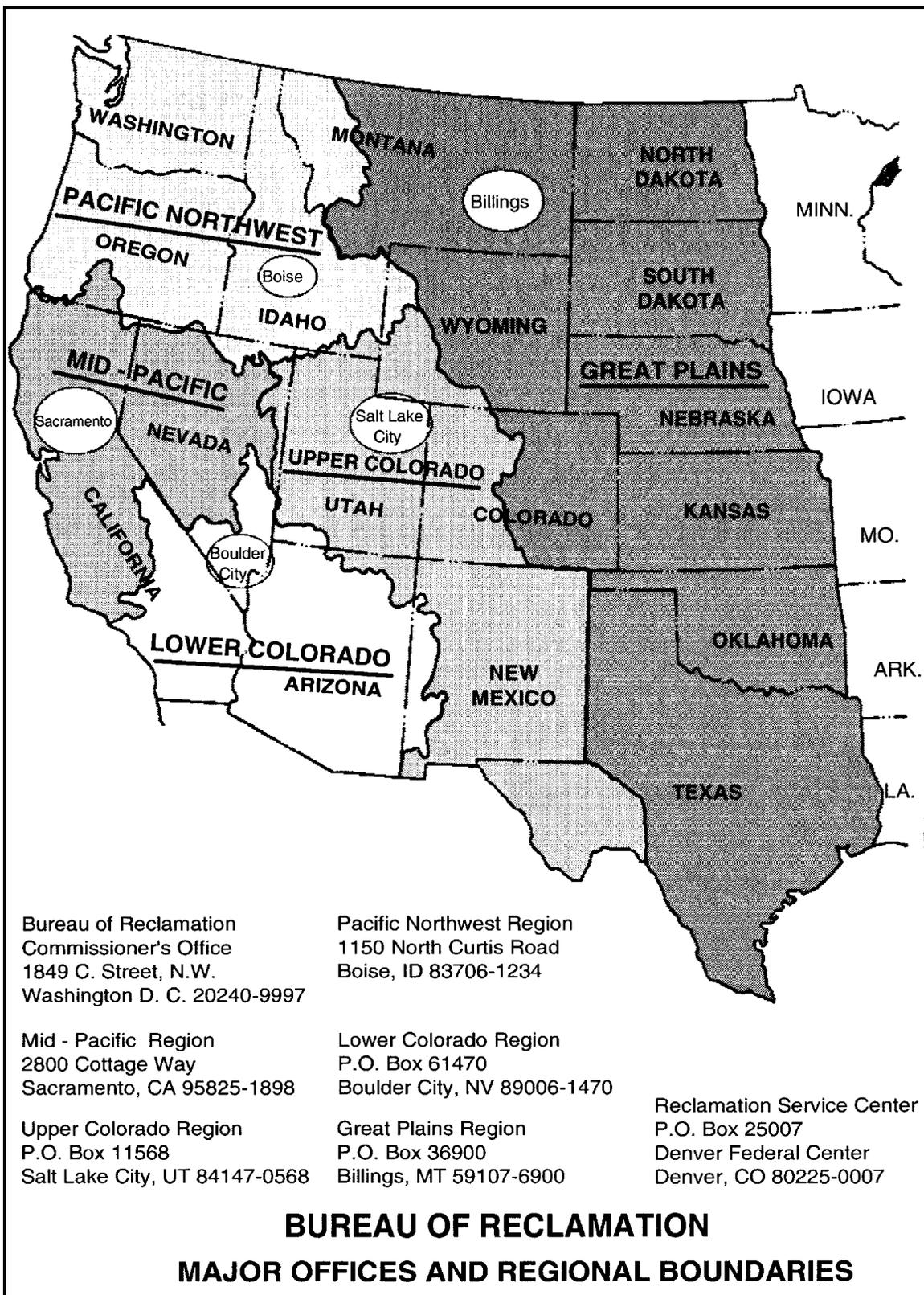
(c) **LIMITATION** - The Secretary shall not provide funds for the operation and maintenance of the project authorized by this section.

Appendix B

Bureau of Reclamation Water Recycling Coordinators

Bureau of Reclamation Water Recycling Coordinators

Office	City/State	Coordinator	Telephone
Commissioner's Office	Washington, DC	Richard A. Martin	(202) 208-4157
Commissioner's Office	Denver, CO	H. Douglas Yoder	(303) 445-2791
Pacific Northwest Region	Boise, ID	Monte McClendon	(208) 378-5036
Mid-Pacific Region	Sacramento, CA	David Lewis	(916) 978-5071
Lower Colorado Region	Boulder City, NV	Kris Mills	(702) 293-8620
Upper Colorado Region	Salt Lake City, UT	Richard Lasson	(801) 524-3685
Great Plains Region	Billings, MT	Kent Heidt	(406) 247-7730



Bureau of Reclamation
 Commissioner's Office
 1849 C. Street, N.W.
 Washington D. C. 20240-9997

Pacific Northwest Region
 1150 North Curtis Road
 Boise, ID 83706-1234

Mid - Pacific Region
 2800 Cottage Way
 Sacramento, CA 95825-1898

Lower Colorado Region
 P.O. Box 61470
 Boulder City, NV 89006-1470

Upper Colorado Region
 P.O. Box 11568
 Salt Lake City, UT 84147-0568

Great Plains Region
 P.O. Box 36900
 Billings, MT 59107-6900

Reclamation Service Center
 P.O. Box 25007
 Denver Federal Center
 Denver, CO 80225-0007

**BUREAU OF RECLAMATION
 MAJOR OFFICES AND REGIONAL BOUNDARIES**

Appendix C

Title XVI Authorized Projects

Title XVI Authorized Projects

PROJECT	REGION - OFFICE
CONSTRUCTION PROJECTS	
Original Authorization (P.L. 102-575)	
*San Diego Area Water Reclamation Program - Section 1612	LC - Southern California
*Los Angeles Area Water Reclamation and Reuse Project - Section 1613	LC - Southern California
*San Gabriel Basin Demonstration Project - Section 1614	LC - Southern California
Phoenix Metropolitan Water Reclamation Program - Section 1608	LC - Phoenix
*San Jose Area Water Reclamation and Reuse Program - Section 1607	MP - Sacramento
Amendment (P.L. 104-266)	
North San Diego County Area Water Recycling Project - Section 1615	LC - Southern California
Calleguas Municipal Water District Recycling Project - Section 1616	LC - Southern California
Reclaimed Water in Pasadena - Section 1623	LC - Southern California
Orange County Regional Water Reclamation Project, Phase I - Section 1624	LC - Southern California
Hi-Desert Water District in Yucca Valley, California Wastewater Collection and Reuse Facility - Section 1626	LC - Southern California
Mission Basin Brackish Groundwater Desalting Demonstration Project - Section 1627	LC - Southern California
Effluent Treatment, Long Beach/Los Angeles - Section 1628	LC - Southern California
St. George Area Water Recycling Project - Section 1618	LC - Boulder City
Southern Nevada Water Recycling Project - Section 1620	LC - Boulder City
Watsonville Area Water Recycling Project - Section 1619	MP - South-Central California
San Joaquin Area Water Recycling and Reuse Project - Section 1629	MP - South-Central California
Central Valley Water Recycling Project - Section 1617	UC - Provo
City of West Jordan Water Reuse Project - Section 1625	UC - Provo
Tooele Wastewater Treatment and Reuse Project - Section 1630	UC - Provo

Title XVI Authorized Projects (continued)

PROJECT	REGION - OFFICE
Amendment (P.L. 104-266) (continued)	
*El Paso Water Reclamation and Reuse Project - Section 1622	UC - Albuquerque
Albuquerque Metropolitan Area Water Reclamation and Reuse Study - Section 1621	UC - Albuquerque
Amendment (P.L. 105-321)	
Willow Lake Natural Treatment System Project - Section 1634	PN - Portland
DEMONSTRATION AND RESEARCH AND DEVELOPMENT PROJECTS	
Amendment (P.L. 104-266)	
Long Beach Desalination Research and Development Project - Section 1605 (b)	LC - Southern California
Las Vegas Area Shallow Aquifer Desalination Research and Development Project - Section 1605 (c)	LC - Boulder City
FEASIBILITY STUDIES	
Original Authorization (P.L. 102-575)	
Southern California Comprehensive Water Reclamation and Reuse Study - Section 1606	LC - Southern California
Tucson Area Water Reclamation Study - Section 1609	LC - Phoenix
San Francisco Area Water Reclamation Study - Section 1611	MP - Sacramento

* These projects received Federal funding prior to January 1, 1996, and pursuant to P.L. 104-266, are not subject to the requirements of these guidelines.

Appendix D

**Memorandum Titled "Criteria and Procedures for
Reviewing Cost-Share Agreements on
Reclamation Projects"**



United States Department of the Interior

BUREAU OF RECLAMATION
Commissioner's Office
PO Box 25007
Denver Federal Center
Denver, Colorado 80225-0007

IN REPLY REFER TO:

D-5200
WTR-4.10

AUG 25 1997

MEMORANDUM

To: Director, Policy and External Affairs
Attention: W-1500
Director, Operations
Attention: W-6000
Regional Director, PN, MP, LC, UC, GP
Attention: PN-1000, MP-100, LC-1000, UC-100, GP-1000
Director, Reclamation Service Center
Attention: D-1000
Director, Administrative Center
Attention: D-2000
Director, Human Resources Office
Attention: D-4000
Director, Management Services Office
Attention: D-7000
Director, Technical Service Center
Attention: D-8000

From: J. Austin Burke 
Director, Program Analysis Office

Subject: Criteria and Procedures for Reviewing Cost-Share Agreements on Reclamation Projects

The recently completed audit report by the Office of Inspector General on "Water Reuse Program Grants" included two recommendations. These were (1) implement the 1994 "Procedures for Reviewing Cost-Share Agreements and (2) follow up on the single audit act process by:

- Obtaining copies of single audit reports from project grantees and following up on any identified reportable conditions or material weaknesses.
- Requesting copies of management letters and information on deficiencies communicated orally to the grantees.
- Obtaining information on corrective actions planned or taken.

We have revised the procedures included in the December 6, 1994, memorandum on the above subject to clarify the single audit requirement for grants and cost-share agreements. Changes were also made to reflect recent revisions to Office of Management and Budget (OMB) Circular A-133, which now covers all non-Federal grantees, and the rescission of Circular A-128.

To meet recommendation 1 of the audit, we are reemphasizing the applicability of these procedures to grants and cost-share agreements, including grants made under the water reuse program. To meet recommendation 2, we would note that the revised procedures accommodate the three items mentioned in the recommendation. The "Reclamation Financial Assistance Handbook, Grants and Cooperative Agreements" is also being revised to reflect these procedures.

The criteria for cost sharing and grants also is attached to this memorandum, although they were not revised from the version included with the December 1994 memorandum.

If you have any questions on these criteria and procedures, you may call Larry Schluntz of my staff at 303-236-1061, extension 287, or Pat Zelazny of Acquisitions and Assistance Management Services, D-7800, at 303-236-3750, extension 331.

Attachments

**MAJOR STEPS FOR REVIEWING
GRANTS, COOPERATIVE AND COST-SHARE AGREEMENTS**

Reclamation enters into numerous arrangements with external organizations to accomplish a variety of activities related to the conduct of the Reclamation program. Among these activities are general investigations and planning activities for new projects, water management studies, construction of various project features, drought program activities, recreation features under Title 28 of Public Law 102-575, water reuse studies and construction activities under the authority of title 16 of Public Law 102-575, and operation and maintenance of projects. The arrangements may be with State and local governments, universities, irrigation districts, municipalities, and numerous other organizations. The procedures for establishing agreements and grants are set in legislation, the Reclamation Manual, Reclamation's Financial Assistance Handbook, and various other documents, including a number of Office of Management and Budget (OMB) circulars.

For agreements not exceeding \$300,000, administrators should ensure that costs are allowable in accordance with applicable OMB Circulars, and are allocable to the agreement. This could be accomplished on an on-going basis, or, at a minimum, prior to closeout.

For agreements exceeding \$300,000, periodic (at least annual) reviews of agreements are required to ensure compliance with various regulations. A final review of costs and accomplishments should also be made after completion of the work specified in the agreement. The procedure should include the following:

1. Reviews should be conducted by personnel determined appropriate by the region/area office, i.e., personnel responsible for the award and administration of the agreements, cost/price analysts, technical representatives, etc.
2. Reviews should be properly documented, and should be signed and dated by participating personnel. Documentation may be as simple as a Memorandum to the File, as long as it documents any findings and how they are resolved.
3. The review should verify that single audits have been made in accordance with OMB Circular A-133, and a copy of the audit received if there are any findings relative to Reclamation. A management decision, as defined in the Circular, must be issued within 6 months after receipt of the audit report regarding any finding, and follow-up with the recipient made to ensure that it takes appropriate and timely corrective action. The Circular now requires that recipients be responsible for follow-up on audit findings, which includes preparing a summary schedule of any prior audit findings and taking the necessary steps to resolve current year findings based on a corrective action plan.
4. Amounts paid under agreements should be reviewed to ensure costs are allocable to the agreement, and allowable as prescribed by OMB Circular A-21 "Cost Principles for Educational Institutions," OMB Circular A-87 "Cost Principles for State and Local Governments," or OMB Circular A-122 "Cost Principles for Non-Profit Organizations." If the authorizing legislation for

the agreement prohibits certain costs, ensure that payment has not been made for those costs, i.e., operation and maintenance costs for water reuse agreements under Title XVI of Public Law 102-575. Percentages or amounts specified or agreed upon for cost sharing should be verified to ensure compliance. If costs are reviewed each time a billing is received, that fact should be included in the documentation of the review.

5. At the completion of these reviews, any problems discovered should be resolved with the recipient within a reasonable time (approximately 6 months). If there are concerns about specific areas or problems, the Office of Inspector General can be requested to review those areas. Any additional audits or reviews requested should be coordinated with the cognizant or oversight agency, as defined in OMB Circular A-133.

CRITERIA FOR COST SHARING AND GRANTS ON RECLAMATION PROJECTS

These criteria will be applicable in nearly all cases where cost-sharing arrangements are being negotiated, i.e., general investigations, construction, drought activities, Title 28 of Public Law 102-575, water reclamation and reuse under Title 16 of Public Law 102-575, and operation and maintenance. Although these criteria were established for cost-sharing arrangements, they are applicable to grants as well, except where criteria for grants are specifically addressed in legislation or in a specific grant contract. A portion of the criteria is synopsisized from OMB Circular A-87 which provides guidance on allowable items for grants. It is suggested A-87 be used as a reference document and supplementary guidance for these criteria. OMB Circulars A-21 and A-133 and the Reclamation Financial Assistance Directive should also be used as reference materials as appropriate since they provide guidance for cost-share arrangements with universities, nonprofit organizations, and commercial organizations, respectively.

The cost-sharing agreement with the non-Federal partner should be negotiated prior to planning or construction and should include the allowable items to be cost shared based on the following criteria. This is a "shopping list" of items which may be included in the agreement based on the needs of the specific case. As a general rule, no costs that would have occurred in the absence of the project can be claimed as cost sharing. While the audit focused on construction activities, there are certain items included in these criteria which are applicable to planning activities.

Cost-Sharing Criteria

1. **Right-of-way (ROW).** - Donations of right-of-way can be accepted if needed by Reclamation for the project. The value shall be determined based on the appraised or fair market value. The cost of appraisals and overhead related to the acquisition may be included. No premiums are allowed unless warranted by project needs. All rights-of-way acquired for the project shall become the property of the Federal Government.
2. **Force account labor.** - The use of force account labor by the entity must be agreed to by Reclamation prior to use. The value shall be the actual cost not to exceed contractor rates in the local area. The labor shall be limited to skills/activities directly related to the project. Managing agencies which utilize their personnel for the construction and/or operation and maintenance of facilities may be included in a cost-share agreement.
3. **Data and data collection.** - Data and data collection activities must be approved and accepted by the Reclamation project manager prior to use. The manager must determine if the data are needed and relevant. The manager must also determine if the data and/or data collection is realistically valued. One measure of value (not the only measure) is what it would cost Reclamation to collect the data or perform the collection effort. As appropriate, the data

or collection must meet but not exceed Reclamation and/or industry specifications, e.g., land classification data. Credit for previously collected data will not be permitted if it is collected as a routine activity of the entity in administering its program. Credit for a data collection program requires the program be initiated specifically to meet the requirements for the activity associated with the cost-share agreement.

4. **Engineering, design, construction management, and geological services.** - Reclamation must provide prior approval for the task. The services must meet but not exceed Reclamation and/or industry standards and, as appropriate, meet Reclamation design specifications. The Reclamation manager must determine if the costs are realistically valued. One measure of the value (not the only value) is what it would cost Reclamation to perform the service in-house. Reclamation or the cost-sharing entity should not use the firm which performed the engineering or prepared the designs for the construction management.

5. **Modeling (any type).** - Reclamation frequently utilizes models developed by other organizations, such as economic models, hydrologic models, and numerous others. These may be numeric or physical models. Any models developed or built cannot exceed what is actually needed for project purposes. The Reclamation manager must determine if the costs are realistically valued. One measure of value (not the only one) is what it would have cost the Federal Government to perform the service in-house. Credit for the cost of adapting old models is permitted, if the model can be adapted to current needs. Credit for the original development costs are not permitted, except some proration of costs, i.e., a fair rental value can be permitted with prior approval from Reclamation. Credit cannot be given if the model was originally developed with Federal funds. In cases where the actual cost is less than the estimated cost of development, the allowable credit is limited to the actual cost.

6. **Legal.** - Legal expenses required directly in the administration of the cost-share or grant program are permissible. Legal services furnished by the chief legal officer of a State, local, or Indian tribal government or associated staff solely for the purpose of discharging the general responsibilities as legal officer are unallowable. Legal expenses incurred in connection with defense against Federal claims or appeals and for the prosecution of claims or appeals against the Federal Government are unallowable.

7. **Water rights services.** - Generally this will not be applicable in cost sharing because the local entities control the rights and include that as a part of obtaining the project.

8. **Financial services (bonds).** - Underwriting fees for bonds and similar expenses associated with raising financial capital or the management thereof are not allowable. Normally in cost-sharing and grant programs this category is not applicable. However, if Reclamation requires an applicant to have bonds available to pay for cost overruns, the underwriting costs will be allowable.

9. **Interest.** - Interest charges associated with borrowed funds to meet the local cost share are not acceptable credit for sharing of costs.

10. **Goods and services.** - Any goods or services which were previously purchased with funds from any Federal source cannot be used as a cost share. This particularly applies to constructed project features. Credit may be given for any existing facility constructed earlier if it is specifically used for the project and was funded by non-Federal sources.

11. **Buildings (see also rental costs).** - Two alternative methods, use fees or depreciation, may be used to compute the allowable share when the Federal Government is using buildings owned or constructed by non-Federal entities. Compensation for the use of buildings may be made through use allowances or depreciation.

A. Use fees. - Use allowances are the means of providing compensation in lieu of depreciation. The computation of use allowances or depreciation shall be based on the acquisition costs of the assets involved. The computation of use allowances or depreciation will exclude the cost of the land. The use allowance for buildings and improvements (including land improvements such as paved parking areas, fences, and sidewalks) shall be computed at an annual rate not exceeding 2 percent of the acquisition cost (derived from OMB Circular A-87). The use allowance method for buildings (the entire building must be treated as a single asset) and the building's components, e.g., plumbing system, heating, and air conditioning) cannot be segregated from the buildings shell.

B. Depreciation. - When the depreciation method is used, the type of construction and nature of use may be taken into consideration. Unless the use dictates otherwise, the straight line method shall be used considering the expected life of each component. Under this method, a building's shell may be segregated from the components and each item depreciated over its useful life or the entire building may be depreciated over a single life. No depreciation or use charge may be allowed on any assets that have been fully depreciated except in unusual circumstances and with prior approval of Reclamation.

The credit for use fees and/or depreciation shall terminate at completion of the cost-share agreement, i.e., if the cost share agreement runs for 2 years then 4 percent credit for the building acquisition cost may be credited as a part of the cost-share agreement. In any event, no credit may be included for buildings the contracting entity acquires as a part of their ongoing operational requirements or the Federal Government constructs as a part of the project. This applies where the Federal Government is using non-Federal buildings. Credit may be given if the construction, modification, or acquisition of a building is directly attributable to the project.

12. **Equipment.** - The cost of equipment and repairs which materially increase the value or useful life of capital assets are unallowable as a direct cost except when specifically approved

by Reclamation. Equipment is defined as an article of nonexpendable, tangible personal property having a useful life of more than 1 year and an acquisition cost of more than \$5,000. The use allowance for equipment (excluding items properly capitalized as building cost) will be computed at an annual rate not exceeding 6-2/3 percent of acquisition cost of usable equipment (derived from OMB Circular A-87). When replacing equipment purchased in whole or in part with Federal funds, the grantee may use the equipment to be replaced as a trade-in or sell the property and use the proceeds to offset the cost of the replacement property, subject to approval of Reclamation. Equipment and other capital expenditures are unallowable as indirect costs. However, depreciation or use allowances are permitted.

Similar to buildings, the use fee and/or depreciation terminates at the end of the cost-share agreement. In any event, no credit may be given for equipment which the entity acquires as a part of its ongoing operational requirements or the Federal Government donates as a part of the project. Managing agencies that provide equipment for the construction and/or operation and maintenance of facilities may be included in cost-share agreements.

13. **Rental costs.** - Rental costs are allowable to the extent they are reasonable relative to the rental costs for comparable property; market conditions in the area; and the type, life expectancy, condition, and value of the property leased. Rental costs under sale and leaseback arrangements are allowable only up to the amount that would be allowed had the entity continued to own the property. Credit for entity-owned equipment on a per-day, hourly, or mileage basis is allowed as long as the charges do not exceed normal use or rental rates. Rental costs under less-than-arms length leases are allowable only up to the amount that would be allowed had the title to the property vested in the governmental unit. Rental costs under leases which create a material equity in the leased property or which are required to be treated as capitalized leases under generally accepted accounting principles are allowable only up to the amount that would be allowed had the entity purchased the property on the date the lease agreement was executed. All rental costs should be reevaluated and approved on a yearly basis.

14. **Administrative costs**

A. **Accounting.** - The cost of establishing and maintaining accounting systems expressly for the purpose of administering the grant or cost share is allowable. Credit is limited to the increase in the cost of the accounting system that can be directly attributed to the cost sharing agreement or grant. The cost of maintaining central accounting records required for overall administration by the entity is not allowable.

B. **Advertising.** - Advertising is allowable for purposes of recruitment of personnel directly related to the grant or cost share, solicitation of bids for the procurement of goods and services required, disposal of scrap or surplus materials acquired in the performance of the grant or cost share, and other purposes specifically provided in the grant or cost-share agreement.

C. Audit service. - The cost of audit services necessary for the administration of the grant or cost share is allowable. In cases where a whole organization is audited, only a pro rata share may be permitted. The method for determining the share should be determined prior to conducting the audit.

D. Bonding. - Costs of premiums on bonds covering employees who handle the grantee agency funds are allowable.

E. Budgeting. - Costs incurred for the preparation and execution of budgets specific to the grant or cost share are allowable. Costs for the services of a central budget office are not allowable since these are costs for the general operation of the entity.

F. Employee morale, health and welfare costs. - The cost of health or first-aid clinics, recreational facilities, employee counseling services, employee information publications, and any related expenses are allowable if directly related to administration of the grant or cost share. Income from any of these activities will be offset against expenses.

G. Exhibits. - Costs of exhibits relating specifically to the grant or cost-share program are allowable.

H. Operation and maintenance costs. - The costs of utilities, insurance, security, janitorial services, elevator service, upkeep of grounds, necessary maintenance, normal repairs and alterations, and the like are allowable to the extent that they (1) keep property (including Federal property, unless otherwise provided for) in an efficient operating condition and (2) do not add to the permanent value of property and are not otherwise included in rental or other charges for space. Costs which add to the permanent value of property or appreciably prolong its intended life shall be treated as capital expenditures.

I. Overhead. - Overhead costs are allowable to the extent they are directly related and attributable to the project. However, overhead costs are frequently indirect costs which benefit more than one cost objective and are not readily assignable to the cost objective specifically benefitted. In this case, these costs may be distributed among the cost objectives if the effort is not disproportionate to the results achieved. Otherwise, these costs cannot be utilized.

J. Payroll preparation. - The costs of preparing payroll and maintaining necessary wage records specifically for the grant or cost share are allowable. Payroll preparation as a part of normal entity operations is not allowable.

K. Personnel administration. - Costs of recruiting, examination, certification, classification, training, establishment of pay standards, and related activities related to the grant or cost share are allowable. Credit for these activities is not allowable if they are a normal part of entity operations.

L. Printing and reproduction. - Costs for printing and reproduction services necessary for grant or cost-share administration are allowable publication costs of reports or other media relating to the grant or cost-share accomplishments or results are allowable when specifically provided for in the agreement. The cost of printing by the Federal Government should be considered in determining if cost sharing is necessarily appropriate.

M. Procurement service. - The cost of procurement service, including solicitation of bids; preparation and award of contracts; and contract administration in providing goods, facilities, and services for the grant or cost share is allowable.

N. Training and education. - The cost of in-service training, customarily provided for employee development, which directly benefits or is necessary for the grant or cost share is allowable. Out-of-service training is allowable only when specifically authorized by Reclamation. This should not be permitted except in highly unusual circumstances.

O. Transportation. - Costs incurred for freight, express, postage, and other transportation costs relating either to goods purchased, delivered, or moved from one location to another are allowable if directly related to the grant or cost share.

P. Travel costs. - Travel costs are allowable for expenses for transportation, lodging, subsistence, and related items incurred by employees who are in travel status on official business incident to the grant or cost-share program. Only the portion of the costs specific to the project are allowable. If the trip is to conduct other business in addition to work associated with the cost-sharing agreement, then only a pro rata share of the trip is allowable.

Although there are several categories of costs shown, not all are anticipated to be applicable for every agreement, and these costs may be lumped together for small contracts and agreements.

15. **Environmental compliance.** - An acceptable approach is for both parties to cost share the preparation of an environmental compliance document. The entity gets credit only for the costs incurred in preparing its portion of the report. Costs associated with investigations and surveys, public involvement, evaluations, and coordination activities, i.e., the entire environmental process, may be included. Additional costs required for State compliance may be included if compliance is part of the grant or cost-share program and the entity would not have otherwise incurred the cost. Cost sharing for preparation of environmental compliance documents and other related matters should be negotiated ahead of time on a case-by-case basis. Application of other guidelines in these criteria for specific items may be necessary. In some instances, such as permanent water transfers or transfers of facilities, it is anticipated the entity will be required to pay the entire cost of environmental compliance. In negotiating the agreement, consideration should be given to which entity can perform the task at the least cost while ensuring the quality of the product.

16. **Mitigation costs.** - These costs are normally joint project costs and subject to cost share or grant based on the project cost allocation. Donation of ROW or tracts of land should be valued at the fair market value. Water rights should be valued at fair market value, if a market value can be determined, or actual expenditure, if applicable. If neither approach can be utilized, the right should be valued in its most likely alternative use.

17. **Studies.** - Grants to do studies or the inclusion of studies in the cost share are permitted if directly related to the project. The Reclamation manager should determine if the studies are realistically valued. One measure of value (not the only measure) would be what it would cost Reclamation to conduct the studies.

These *Guidelines* explain the policies of the Bureau of Reclamation for implementing Title XVI of Public Law 102-575, as amended. As such, these *Guidelines* do not create or vest in any government agency, public or private entity or individual, rights that may be used against the United States Bureau of Reclamation.