

Action Item 8—Final Recommendations

Alternative Scenarios for Future Infrastructure Management

Executive Sponsor

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Team Members

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Key Organizational Function Interfaces

Technical Service Center, Regional and Area Offices (Design, Construction and Operation and Maintenance functions)

Action Item Statement from the Managing for Excellence Action

Consider the scenarios discussed in Chapter Five of the NRC Report and what refinements, if any, to Reclamation's organizational structure may be useful in meeting future challenges under each of these scenarios.

Scope Statement from the Managing for Excellence Project Management Plan

Produce a document that: (1) analyzes the three scenarios in Chapter 5; (2) suggests and analyzes additional/amended scenarios, if appropriate; and (3) recommends a process to include the findings of other M4E teams, as appropriate, and a process to refine Reclamation's organizational structure to address changing customer needs within legal and public policy frameworks.

Approach and Methodology

Team 8 defined and clarified the scenarios; described how the scenarios differ from current practice; identified advantages and disadvantages to proposed scenarios; identified obstacles to, and opportunities for, implementing the scenarios; and included case studies and hypothetical examples of outsourcing of O&M and design work.

As the Team developed the analysis, it coordinated with other teams, including Teams 10 (Evaluate workload in terms of commercial, commercial core and inherently governmental), 26 and 27 (Transfer and outsource opportunities for O&M), and where appropriate incorporated information from the other teams into the analysis. Therefore, the Team is not recommending a process for further inclusion of findings from other teams.

The analysis of NRC's scenarios, as discussed above, does not lend itself to recommendations for organizational refinements at this time. The document analyzes the advantages and disadvantages of the various scenarios, and it is clear that there is not one scenario that would address the needs of all. Reclamation currently conducts business as envisioned under some of the scenarios (in particular transfer of O&M under Scenario 2A), and will continue to do so in accordance with Reclamation law, policy and contract provisions. As partners, stakeholders and Reclamation consider the best approach for each project, appropriate organizational refinements may also need to be considered. Therefore, the Team is not recommending a process for refining Reclamation's organizational structure.

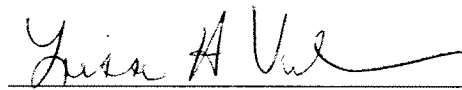
Deliverables

Report analyzing the scenarios as described above.

Recommendations

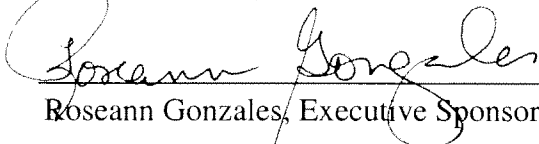
The Director, Office of Program and Policy Services, should provide the Team 8 report to the Reclamation Leadership Team for their use as a resource to anticipate future trends and prepare for any future change as appropriate.

Submitted by



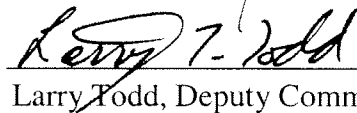
Lisa A. Vehmas, Team Leader

4/17/07
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4/20/2007
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Managing for Excellence – Action Item 8

Consider Alternative Scenarios for Future Infrastructure Management and Suggest Refinements to Reclamation’s Organizational Structure

Introduction

In its report “[Managing Construction and Infrastructure in the 21st Century Bureau of Reclamation](#)” (Report), the National Research Council (NRC) offered Reclamation three scenarios to provoke thought about ways it may approach construction and maintenance of facilities in the future (see Chapter 5, “Alternative Scenarios for Future Infrastructure Management”). Each scenario describes certain changes Reclamation might make in its practices and structure, as it continues to pursue its basic mission of delivering water and power in the twenty-first century. The NRC recommended that Reclamation “consider the suggested future scenarios as a basis for analyzing longer-term trends and change.”¹

Assignment Parameters

[Team 8](#) was tasked with considering the NRC scenarios (and any others that emerged in the process), and what refinements, if any, to Reclamation’s organizational structure may be useful in meeting future challenges under each of the scenarios.

The NRC expressly intended the scenarios to stimulate discussion about Reclamation’s organization for the future, based on trends in government generally and in Reclamation specifically. The NRC did not intend that Reclamation limit its thinking to the scenarios, or treat them as mutually exclusive. The Report states that Scenario 1 could occur concurrently with either of the other scenarios, and that Scenarios 2 and 3 could occur concurrently in separate projects, but not within a single project. The Team considered the scenarios individually and together, and considered other potential scenarios.

This document is intended to provide analysis for use by the agency and stakeholders to anticipate future trends and prepare for any future change as appropriate. It does not make any recommendations. Interests and needs vary among Reclamation’s project partners and other stakeholders, the public, and the agency itself, and no single scenario is appropriate for meeting all needs. This

¹ See Report at 14.

document provides an analysis of a “menu of options” for Reclamation and its stakeholders, the advantages and disadvantages of the options, and any obstacles to, or opportunities for, implementation.

Refinements to Organizational Structure

The NRC Report briefly addresses Reclamation’s organizational structure in Chapter 5, describing its current line organization as “simple, efficient, and responsive.” The Report considers the current organization “a given in all of the scenarios,” though “the size of the central service organization relative to that of the line organization service units is likely to change along with their roles.” The Report goes on to state that, “[t]hrough the basic organization remains intact, the number of personnel at each level and the knowledge, skills, and abilities to complete the assigned tasks vary dramatically from scenario to scenario.”

The analysis of the NRC’s scenarios, as discussed above, does not lend itself to recommendations for organizational refinements at this time. This document analyzes the advantages and disadvantages of the scenarios, and it is clear that there is not one scenario that would address the needs of all. Reclamation currently conducts business as envisioned under some of the scenarios (in particular the transfer of operation and maintenance (O&M²) under Scenario 2A), and will continue to do so. As partners, stakeholders and Reclamation consider the best approach for each project, appropriate organizational refinements may also need to be considered. The team does have the following general observations based on the analysis of the NRC scenarios:

- Reclamation would need to carefully determine how best to maintain essential competencies and an appropriate ability to respond to both routine and unexpected events.
- Extended and extensive use of contract technical services should be periodically reviewed to assess any effects on essential competencies within the organization.
- Where project O&M is contracted to the same entity on a successive basis, Reclamation should assess the extent, if any, to which competition may have been reduced because of the experiences gained from successive contracts.³

² The abbreviations “O&M” (operation and maintenance) and “OM&R” (operation, maintenance, and replacement) are used interchangeably in this document and its appendices.

³ Benchmarking of O&M between Reclamation, non-federal entities and other federal entities should be explored as a method of continuous improvement for all entities that are operating and maintaining these projects, which provide important public benefits. Team 31 is working toward benchmarking “O&M of water storage and distribution facilities in a manner modeled after current practices with power facilities, starting with pilot program.”

The Scenarios

The following are descriptions of the scenarios and discussions considering their potential advantages and disadvantages, obstacles to, and opportunities for, implementing them, and other information as appropriate.

This document uses “outsourcing” as a comprehensive term for the accomplishment of business tasks through an outside entity, and refers to both transferring responsibilities to project partners and contracting out work to third-party vendors. Because the Team understands the Report’s scenarios to refer to both transfers of responsibilities to project partners and the contracting out of work either to project partners or to third parties, this document uses the broader meaning. Please note that the Team defines “outsourcing” this way for purposes of this document only.

This document uses the phrase “contracting out” to refer to vendor/customer-type contracts entered to obtain goods or services (primarily services herein). The Team uses this term simply to differentiate this type of contracting from transfers—a distinction discussed further under Scenario 2 below—and from the broader category of outsourcing.

Scenario 1 – Centrally Located Project Management Organization

Scenario 1: Description

Under NRC’s Scenario 1, construction projects (other than minor ones⁴) would be designed and managed by a centrally located construction project management organization, while Regional Offices would retain project ownership. As a basis, the NRC assumes that the number of major projects will continue to diminish over time, to an extent that will make maintaining design and construction management competencies at Regional offices impractical.⁵ This scenario also assumes that outsourcing of design services will expand to the extent that it is the standard. Construction management responsibilities would be retained, at least

⁴The Report states that “[m]inor projects are defined as the commissioner may direct according to cost (e.g., less than \$5 million) and/or complexity and risk.” Though no distinct cost thresholds are identified, it is the level of complexity and the associated risk that is presently used to determine which projects are designed at the area, region, and TSC. Because design, construction, and O&M projects vary so widely in scope and complexity, there are likely to be exceptions to any firm definition of “minor project” for determining what projects can be undertaken by the area or regional offices under Scenario 1. One example is the rewind of a major hydroelectric generating unit. Although the rewinds are unlikely to be minor, the existing practice, under which the rewind itself is contracted out but Reclamation personnel disassemble and reassemble the unit, has been recognized as an efficient practice.

⁵ Please see the final report on Action Item 9, “Evaluation of Historical and Near-Term Workload,” posted on Reclamation’s Managing for Excellence website for a discussion of workload. (http://www.usbr.gov/excell-ence/results/final_products.html)

for the most part, by Reclamation. Field organizations would remain, along with the existing line authority from the Commissioner to the Regional Director to Area Offices, with the latter facilitating local stakeholder interaction and administering water and power contracts.

The primary elements of Scenario 1 are:

- Central design organization
- Regions function as “owner” and assist in planning effort
- Shifts to central control and oversight
- Outsourcing of design function increases, becoming predominant
- Central organization provides project management

Implementation of Scenario 1 could impact Reclamation’s risk management activities, as the shift to contracting the design function could substantially reduce the availability of technical staff currently used to assess and evaluate risk. This issue is discussed further below.

Current Practices: Design Capabilities, Responsibilities and Organizational Structure

Technical Service Center

For the last several decades, Reclamation has maintained a research and design capability at the Technical Service Center (TSC),⁶ located in Denver, Colorado. With world-class expertise in a wide variety of infrastructure design, operations and maintenance, and resource management areas, the TSC has produced designs for the most complex construction and repair projects in Reclamation’s history. The TSC presently comprises five Divisions:

- Civil Engineering Services
- Environmental Services
- Geotechnical Services
- Infrastructure Services
- Water Resources Services

There currently are about 570 employees assigned to the TSC, including about 314 engineers, about 108 scientists, about 108 technical support staff, and about 40 administrative professionals. Annual revenues on a fee-for-service basis (costs charged and revenues expended by the TSC) total approximately \$80 million.

⁶The TSC was formally established during a reorganization in 1994. For several years prior to that time, the TSC was organized within two broad functions—referred to as the Assistant Commissioner Engineering and Research and Assistant Commissioner Resource Management—but its technical disciplines and functions were similar to today’s.

Regional and Area Offices

Regional Offices also maintain design capabilities, though the design workload and staffing, as well as the organizational structure and degree of centralization, vary significantly among the regions. Some area offices maintain a design capability as well (most notably in the Upper Colorado Region, where the design function is mostly decentralized to the area and Construction offices, although a process is underway to gradually consolidate the design function in the Regional Office).

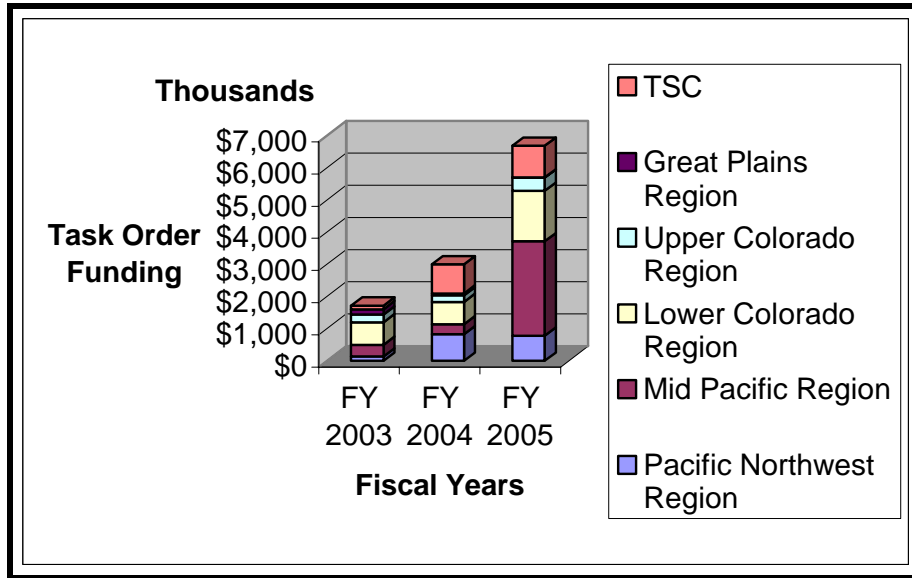
Design support functions, including project planning, design and construction budget development, and design data gathering, are provided in most instances by area offices, with some assistance by regional staff. This arrangement prevails whether the design is ultimately produced by area offices, regional offices, or the TSC. For more detail regarding design-related capabilities at regional and area offices, see Appendix 1.

Contracted Services

For a number of years, Reclamation has contracted for the preparation of selected designs, or for distinct features of larger designs, to qualified architectural and engineering (A&E) design contractors. The customary procurement mechanism is the Indefinite Quantity Indefinite Delivery (IDIQ) contract, under which Reclamation and the A&E service provider execute a contract describing services to be provided within a specified time frame. At the time of execution, there is no assurance that the services will be required (hence the term “indefinite”). If and when design services are required, a task order is issued to the contractor, listing the deliverables, anticipated time frames, and other pertinent information.

Generally, IDIQ design service task orders are issued for specific, specialized designs in technical areas for which Reclamation does not maintain broad expertise, or for projects for which Reclamation does not have the design capacity during the time period the design is needed. All regional offices and the TSC have used IDIQ contracts in recent years. Annual funding amounts have varied significantly among the regions on an annual basis, but the overall trend in Reclamation-wide funding for IDIQ contracts is dramatically upward during fiscal years 2003 through 2005, the most recent years for which information is available. The data are presented in graphic form below.⁷

⁷ The data for IDIQ contract task order funding to A&E's represents a subset of contracted out work. Data used in this report are cited from Appendix C of the Managing For Excellence Team 9 Report entitled *Evaluation of Historical and Near-Term Workload*, posted as final on the Managing for Excellence web site on October 26, 2006.



Graphic 1.—IDIQ Contract Task Order Funding to A&E Firms.

Current Practices: Construction Management Capabilities, Responsibilities and Organizational Structure

Definition and Delegation

Construction management functions have been performed by Reclamation staff on virtually all significant projects since the inception of the agency, though in recent years some of those services have been contracted.⁸ Within Reclamation, construction management is generally regarded to include construction contract administration, construction inspection, construction geology, materials engineering and testing, and construction surveying. Because the majority of construction management activities must occur at or near the actual construction site, it has been largely decentralized in terms of both function and organizational structure. Decentralization (from the Denver Office to the Regions and, to a degree, to area offices) began in the late 1970's but culminated during the 1990's, paralleling the advent of the area office organizational structure. A policy was approved and implemented in 2000, assigning responsibility for design and construction functions to regional directors. The policy provided that regional directors could sub-delegate those responsibilities to area managers, division chiefs, or other responsible officials as appropriate.

⁸ The Salinity Program within the Upper Colorado Region is one noteworthy example. Under that Program, open canals are converted to pressurized pipelines by private consultants and contractors performing design-build services through cooperative agreements in accordance with Federal legislation enacted in 1995.

Current Structure

Construction management capability exists primarily at Regional Offices and the TSC, except in the Upper Colorado Region, where construction management services are decentralized. For more detail regarding design-related capabilities at regional and area offices, see Appendix 1.

In 2004, then Commissioner John Keys III assigned a team of senior managers with construction experience to project Reclamation's construction management needs during the ensuing 25 years and make recommendations on how to best meet them. The team produced a draft report entitled *Construction Management in the Bureau of Reclamation (The Next 25 Years)* examining several aspects of construction management, including trends within Reclamation and construction management programs in other agencies.

Three options were evaluated for future construction management:

1. Out-sourcing – Contracting out construction management capability functions that are not inherently governmental, as defined in FAR 7.503 (c).
2. Full Construction Management Capability – Maintaining full construction management capability to accomplish the workload.
3. Core Construction Management Capability – Maintaining essential core capability for critical and complex features, which consists of both new construction and modifications to existing features, while contracting out the remainder of Reclamation's construction management needs.

The Managing for Excellence team for Action Item 12, Right-Sizing, is considering this draft report, as well as other information.

Scenario 1: Implementation Considerations

Because an essential element of Scenario 1 is the centralization of design and construction management functions under the auspices of project management, key to the analysis is an accepted definition of centralization in this context. The Report makes several references to the term, and indicates that design and construction management would be “concentrated in a centrally located unit and largely stripped from the organization” and that personnel would be based at a central location and deployed as needed to field locations to execute construction tasks.

Design

Over the course of recent years, Reclamation has shifted its design function and structure toward that described in Scenario 1, though not yet to the degree the authors envisioned. As described earlier, designs of greater complexity and risk are tasked to a central design organization, the TSC, or in some cases to qualified A&E firms. An overarching project management function, of greater breadth and encompassing more than the design and construction management facets of a

project, has not been universally implemented within Reclamation. (Please see Managing for Excellence products for Action Items 20-23 on project management.)

If the shift toward even greater centralization of design is to occur, several factors should be considered.

Advantages may include:

- More efficient access to broad design expertise and peer review processes;
- Greater ease in developing, adopting, and implementing design standards;
- Greater opportunities to optimize workloads and assign appropriate expertise, made possible by a larger pool of expertise;
- Increased efficiencies in centralized design support services, such as drafting, specification writing, publication, etc.;
- More comprehensive mechanisms to monitor the design process and cost estimating as components of the overall project development, resulting in enhanced project coordination and enhanced cost control measures.

Disadvantages may include:

- Less effective liaison with area office customer base;
- Less adaptable to site-specific and/or area-specific design needs;
- Potentially higher costs;⁹
- Inefficiencies caused by greater distances between the designer and the work site;
- Loss of area and regional technical competencies, which would compromise O&M expertise as well.
- Limit ability for quick response to immediate dam safety issues.

A shift toward increased use of contracting firms to produce designs has already occurred, as evidenced by Graphic 1. Scenario 1 envisions a further shift, increasing the practice to the point that it becomes the predominant means of producing designs.

Advantages may include:

⁹ Managing for Excellence Action Item 11 is analyzing “the unit to unit costs of in-house performance of the commercial workload versus outsourcing” for engineering and design services.

- Greater ability to staff at the appropriate level within Reclamation, because the burden of staffing for any rapid changes in needed capabilities would be born by the contractors;
- Contracting is presumed by some entities to be less costly on a per-design basis.

Disadvantages may include:

- Reclamation, as the facility owner—and therefore legally liable for any performance failures—may have greater difficulty assuring that uniform design standards are met
- Reclamation would lose core design capability, and would lose O&M expertise as a result.
- Comparative cost analyses do not often clearly indicate that a cost savings could be realized in all cases by contracting for the work
- Limited ability for quick response to immediate dam safety issues.

Construction Management

Under Scenario 1, Reclamation’s construction management capability would be centralized and staff dispatched to construction projects as workload demands. At the same time, the majority of construction management activity would be disbursed, because it is appurtenant to the construction activity itself.

Under Scenario 1, the centralized construction management function may be co-located with the design function as part of centralized project management, and the TSC is therefore the presumed physical location. All construction management staff could be reassigned to the central location, and dispatched to construction project sites as necessary. As described earlier, this is directly counter to the trend in recent years of downsizing the TSC construction management staff and shifting the capability predominantly to regional construction offices.

Alternatively, centralized construction management oversight could retain the existing construction office geographical location and, to a large degree, its internal structure. Project construction engineers, typically the lead designation for each construction office, could report to the central oversight entity, but remain duty-stationed at their present locations.

Advantages under either option may include:

- Enhanced ability to develop and impose uniform construction management standards

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- Greater opportunity to optimize workloads, made possible by a large centrally-managed staff
- Greater opportunity to effectively utilize staff from all offices (and vendors) irrespective of their physical location.

Disadvantages may include:

For geographically centralized alternative –

- Greater costs for travel, per diem, etc. when dispatching personnel to remote field sites from a central location

For both geographically centralized alternative and centralized reporting but geographically disbursed alternative –

- Less effective liaison between the construction management function and the area office customer base
- Loss of continuity in working relationships (in some cases) as the present coordination between regional construction management offices and area offices may be compromised
- Coordination of budget responsibility between the regional office and central organization.

Risk Management

The function of risk management is inherent in the design and construction processes for an owner of substantial infrastructure. One of the basic objectives when considering alternative design and materials options and construction methods is to reduce risk to an acceptable level, while maintaining the project's economic viability. Due to the potential consequences of a structural failure, Reclamation must assess standard procedures and methods commonly used in other forms of infrastructure to determine whether they provide an adequate measure of protection to the public. Standard design methods include the application of appropriate margins of safety to allow for uncertainties regarding design, construction, and materials to help reduce risk. Specific construction methods and techniques for testing materials are also commonly used to evaluate and contain risk during the construction phase. However, these standard approaches may not be sufficient when potential consequences are extremely high or conditions are different from those to which standards apply. Increasing the contracting of design processes creates a residual risk management function that must be maintained to assure the safety of the public. This residual "regulatory" function would be somewhat along the lines of the Federal Energy Regulatory Commission (FERC) dam safety program.

Risk management occurs throughout a project, and helps assure that proper design and analysis processes are followed; that designs are peer reviewed at appropriate phases; that material testing is properly completed; that low-risk construction methods are used; and that dangerous situations are recognized and addressed.

Establishing a structure for more contracted design and more centralized construction management may alter the present risk management responsibility, and this should be given careful consideration in evaluating Scenario 1.

Scenario 2 – Outsourced Operations and Maintenance

Scenario 2: Description

NRC’s Scenario 2 envisions increased outsourcing of nongovernmental functions to the point where Reclamation accomplishes all of its field O&M tasks by contract, except those determined to be “inherently the government’s responsibility.” The O&M of major hydroelectric plants and dams that pose the most significant risks is likely to continue to be a Reclamation function, though with increasing support services by contractors. Scenario 2 does not preclude outsourcing of these projects, though the NRC finds it likely that Reclamation will retain responsibility for the function. As the Scenario indicates, Reclamation can retain the O&M function at a project while outsourcing parts of the O&M work.

Under Scenario 2, Reclamation would outsource O&M—in part or in whole, depending on circumstances—by transferring it to project partners or by contracting it out either to project partners or to third-parties.¹⁰ Because the two types of outsourcing are distinct, Team 8 has separated Scenario 2 into Scenarios 2A (transfers) and 2B (contracting out).

Transfers under 2A would occur pursuant to relevant provisions of Reclamation law and existing contracts, maintaining Reclamation’s existing partnerships. Reclamation conveys some measure of its stewardship responsibility to its partners through transfers, which is not the case when it contracts out its O&M.¹¹ Based on Reclamation’s legal authority to transfer O&M, and its historical practice of doing so (discussed further below), the preferred method of outsourcing O&M has historically been through transfers, and this discussion assumes that transfer would remain the preferred method under Scenario 2. However, due to obstacles to transferring O&M that are discussed below, Team 8 also assumes that, for the foreseeable future, Reclamation will retain significant responsibilities for the O&M that otherwise could be transferred under Scenario 2.

Where O&M is not transferred, it could be instead contracted out.¹² This is discussed in more detail in Scenario 2B.

¹⁰ As stated on page 3, the term “contracting out” refers to obtaining goods or services through vendor/customer-type contracts. Similarly, for the purposes of Scenario 2B, the term refers to outsourcing O&M to water and power users or commercial service providers in a manner other than by transferring pursuant to Reclamation law.

¹¹ See *Managing for Excellence: An Action Plan for the 21st Century Bureau of Reclamation*, Feb. 2006, at 9.

¹² In some circumstances, contracting out to a project partner of parts of O&M of reserved works could be a first step toward traditional O&M transfer.

In addition to water and power facilities, Reclamation has numerous recreation facilities that serve the public. Reclamation lacks general authority pertinent to recreation and has established a long, successful history of transferring O&M at recreation areas. There are 310 recreation sites or areas at Reclamation projects that annually attract more than 90 million visitor days of public use. A total of 260 are managed directly by a non-Reclamation entity (e.g. a State Recreation Department, National Park Service, etc.). While Reclamation is keenly aware of the valuable public service provided by these entities, it is also aware that some recreation areas have the potential to be returned to Reclamation for O&M if the current operating entity is not financially able to continue. If an area is turned back, Reclamation usually has very limited ability from the standpoints of finances, staff, or authority to assume its operations.

NRC's organizational characteristics for Scenario 2:

- Reclamation retains a line regional and area office structure to execute and administer contracts, to interact with stakeholders and water and power contract partners, and to discharge governmental responsibilities of ownership.
- Reclamation staff will learn to be smart buyers, and procurement, contract oversight and administration specialists will be trained.
- More emphasis will be placed on developing standards and guidelines necessary to facilitating contract scoping and identifying mandatory procedures.

Scenario 2A: Implementation Considerations

The primary purpose of transferring O&M responsibilities is to improve both cost and operational efficiencies through local control.¹³ Reclamation law has long encouraged the transfer of project O&M to its project partners. The Reclamation Act of 1902 directed the Secretary of the Interior to transfer the operation and management of irrigation works when payments for the major portion of the lands irrigated had been made.¹⁴ The Reclamation Extension Act of 1914,¹⁵ which is currently the authority relied upon most for effecting O&M transfers, gives the Secretary discretion to grant project partners' requests for the transfer of "the care, operation, and maintenance of all or any part of the project works."

At present, Reclamation has transferred the O&M of approximately 63 percent of its water-related facilities. Transfer has often occurred soon after construction, especially where the transferee is the major or sole recipient of project benefits.

¹³ Memorandum dated June 25, 2001 that transmitted the guidance for negotiating and executing contracts for the transfer of operation, maintenance and replacement of project facilities

¹⁴ Section 6, 32 Stat. 289, 43 U.S.C. 491, 498

¹⁵ 38 Stat. 687; 43 U.S. 492, 499

Provisions for O&M transfer have either been provided in the repayment contract or a separate O&M transfer contract has been developed.

For these transferred works, Reclamation:

- retains title to project lands and facilities;
- performs facility O&M reviews (these are called Review of O&M or RO&M and recommendations for action are categorized by level of importance)¹⁶;
- is responsible for paying the non-reimbursable portion of O&M costs (these costs are typically determined during project formulation and are described in the repayment contract or O&M agreement);
- may bill the operating entity for Reclamation's share of reimbursable costs related to project oversight and reviews;
- may retain a more direct role in certain project functions such as water deliveries, water rights compliance, and flood control operations (jointly with the Corps of Engineers).

Reclamation staff performing the above described oversight of transferred works may be in an area office (which generally has primary responsibility), regional office or one of the offices located in Denver. See Appendix 2 for a case study of O&M transfer for the Dolores Project (Colorado).

Reclamation Staffing (post-Transfer)

During the Managing for Excellence public meetings, questions have been raised regarding whether or not Reclamation staffing levels should be significantly reduced after the transfer of project O&M and how much Reclamation staff is required to perform project oversight. Several factors must be considered in answering these questions:

¹⁶ It should be noted that some of the regular facility reviews may be associated with reviews of dam safety functions and thus paid for by Reclamation through the Dam Safety program (e.g. Comprehensive Facility Reviews (CFRs) and Periodic Facility Reviews (PFRs)).

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- If Reclamation has been operating the project for some period of time and O&M is transferred, then staff would be reduced after the transfer (note that in many cases, much of the previous Reclamation staff may be sought and hired by the new operating entity, which is natural given the knowledge and project specific skills of the existing Reclamation staff).
- Staff required to perform project oversight may or may not already exist at the responsible office (usually an area office). Project oversight requirements vary with the complexity of the individual project. For example, a repayment/water service contract specialist in an area office may be able to appropriately administer several projects that have minimal contracting issues. However, a single project that has many complex contracting issues (e.g. the Central Valley Project in California) may require several staff members in the area and regional offices to adequately address all of the contracting needs of the project.
- Some staff perform work on more than one project or their work includes function not related to the transferred facilities (as well as work that is). In these cases, the staff would not be reduced after transfer.

In summary, once O&M has been transferred from Reclamation to a local entity, Reclamation's staff is reduced; however, staff necessary for project oversight is highly dependent on the complexity of the project.

The remaining projects and facilities that have not been transferred to a local entity are referred to as "reserved works." These may be:

- National critical infrastructure projects (e.g. Grand Coulee Dam, Hoover Dam, Shasta Dam, etc.) which are generally considered to be a governmental responsibility to operate and maintain;
- Subject to interstate compacts or have numerous project purposes and/or beneficiaries (in either case, there may not be a consensus among the entities involved in the project as to which non-federal entity, or combination of entities, should pursue an agreement with Reclamation to assume O&M of the project);
- Project where the authorization precludes transfer;
- Projects for which project partners lack the technical and/or financial capability to perform the project O&M.

Advantages to Transfer:

- There are a number of benefits that support Reclamation's policy of transferring O&M, including:

- Reclamation’s funding requirements are lower because non-federal funds are directly applied to project operations;
- Reclamation’s staffing requirements are also lower because non-federal staff perform the work;
- local entities that are able to perform O&M may also be able to more easily integrate the operations of the federal project with ancillary district features; and
- partners can have more input in controlling costs of O&M.

Disadvantages to transfer may include:

- Problems that may develop after transfer, including inadequately performed maintenance that leads to deterioration of project facilities. If such conditions are identified during facility condition reviews and are not corrected over time, Reclamation may be required to resume some or all project O&M to correct the situation and return the project to acceptable operating status. It should be noted that resumption of O&M by Reclamation is rare.

Obstacles:

- The categories of projects listed above as reserved works also can be a list of “obstacles” to additional transfer, i.e. projects are national critical infrastructure, are subject to interstate compacts, or have numerous project purposes or beneficiaries.
- There is the potential that indirect costs will increase as a result of the transfer. Certain fixed costs would be distributed among fewer entities responsible for O&M costs.

Potential Opportunities for Additional Transfers

For the national critical infrastructure projects, Reclamation will likely continue to perform project O&M. For the remaining projects, Reclamation will fully consider proposals and may seek entities to assume operation and maintenance. However, other conditions that have historically impeded transfer of O&M may persist, in which case Reclamation will continue project O&M.

Reclamation might address the obstacle of lack of capability of project partners to accept the O&M by offering to train district personnel to develop the capacity required.

The team has discussed possible financial incentives to encourage O&M transfer. However, upon cursory review, no existing authority was identified that would allow Reclamation to pay a larger share of project O&M costs than is authorized for each specific project and has been documented in the project repayment or water service contracts. Therefore, for the purposes of this scenario, the team

assumes that additional O&M transfers must be accomplished within the parameters of project authorizations and contracts as has been done in the past. See Scenario 3 for discussion of different funding arrangements.

A concept proposed in federal legislation that encourages title transfer may be applicable to O&M transfer for projects of an interstate nature or multiple purposes/beneficiaries. On August 3, 2006, Senators Domenici and Bingaman introduced S. 3832, legislation that directs the Secretary of the Interior to promulgate criteria for the transfer of title to Reclamation facilities. The criteria must require, for a project with multiple beneficiaries, an agreement among such beneficiaries.

To encourage transfers of complex projects, Reclamation could facilitate negotiations among multiple beneficiaries or “parties in interest” (states, for example) to reach an agreement among the parties for the O&M transfer.

However, as described in the analysis above, Reclamation has and will continue to seek opportunities to transfer O&M. Such an effort is currently underway on the Colorado-Big Thompson Project.

Scenario 2B: Description

For the O&M of reserved works, Scenario 2B envisions a second option, which is to instead contract the work out under vendor/customer-type contracts, where Reclamation is the customer. This would presumably be done through public-private competitions, in which Reclamation, private firms, and project partners could all compete.

Current Practices

Reclamation has contracted out parts of a project’s O&M to third parties, particularly where specialized competencies are needed. It has not subjected O&M to A-76 competitions. Transfers pursuant to Reclamation law have been the norm. Scenario 2B, which envisions the outsourcing of O&M through the competitive process, provides an alternative for those works where Reclamation retains O&M (reserved works).

Competitive sourcing through public-private competition is a government-wide initiative, as directed by the President’s Management Agenda (PMA). As OMB states in the preamble to its 2003 revision of Circular A-76, “[t]he Administration’s general policy is to rely on competition to select the providers of commercial activities.” The PMA is the Administration’s strategy for pursuing this policy, by calling upon agencies to “use competition as a viable management practice to determine the best and most cost-effective provider of commercial activities” they perform.¹⁷ Agencies have responded by implementing plans to meet PMA goals. The Executive Branch Management Scorecard tracks how well the agencies are executing the management initiatives, using a simple “stoplight”

¹⁷ See http://www.whitehouse.gov/omb/procurement/comp_sourc_addendum.pdf

scoring system, where green basically indicates that implementation is proceeding successfully.¹⁸ Reclamation has developed a “Green Plan” for meeting its relevant goals.¹⁹ Competitive sourcing of the O&M function would presumably become part of Reclamation’s PMA initiative.

“Public-private competition” is a process that utilizes competition to determine who should perform certain work, and in which the government itself is among the competitors.²⁰ Since the government may win, it does not necessarily lead to contracting out. Indeed, the government has historically won 50% to 60% of its competitions, and won 83% from 2003 through 2005, according to the OMB.²¹ Public-private competition is further discussed in Appendix 3.

Implementation Considerations

According to public and private entities’ evaluations, contracting out can work very well for government agencies, if it is done correctly. By most accounts, outsourcing as part of a broader strategic plan tends to improve some areas of performance, some broad function, or the organization as a whole. Sources generally agree that outsourcing to improve performance and broaden access to skill pools has a much higher success ratio than doing so solely to cut costs. The same sources also warn that contracting out government services should not be done for its own sake; that is, government should not outsource for the sake of outsourcing. The available literature suggests that, if Reclamation elects to outsource on an appreciably larger scale, or in a new area, it should do so because it complements a larger plan for improving the agency, or some function of the agency. (Appendix 3 discusses the relevant issues in more detail and provides sources for more information.)

¹⁸ See <http://www.whitehouse.gov/results/agenda/scorecard.html>

¹⁹ See Operating Plan Fiscal Year 2006, Bureau of Reclamation
<http://www.usbr.gov/gpra/FY%202006%20-Plan.pdf>

²⁰ The government competes for work through entities called “most efficient organizations” (MEOs). An MEO is an “in-house organization that would most efficiently perform a commercial activity after a managed competition under A-76. It may include a mix of federal employees and contract support and is used as the basis for measuring all government costs (direct and indirect) and performance against competitive contractor or interservice support agreement (ISSA) offers. To determine the MEO, the in-house activity may reinvent, reorganize and restructure itself, including making capital investments, in order to arrive at the agency’s most efficient method of performing the commercial activity.” GAO/GGD-97-121, *Terms Related to Privatization Activities and Processes* (July 1997), available at <http://www.gao.gov/special.pubs/gg97121.htm#PAGE18>.

²¹ OMB Report on Competitive Sourcing Results for Fiscal Year 2005 at p. 12, available at http://www.whitehouse.gov/omb/procurement/comp_src/cs_annual_report_fy2005_results.pdf.

Advantages of contracting out may include:

- More focus on core functions and mission-critical activities
- Broadened access to skill pools
- May encourage innovation and technical advancement
- Reduced government involvement/increased non-federal control
- May enhance performance and lower costs
- Should continue to align Reclamation with the ongoing trend toward contracting out in the federal government and help it meet its goals under the PMA
- Improved ability to staff at the appropriate level within Reclamation, because the burden to staff any rapid changes in needed capabilities would be born by the contractors

Disadvantages of contracting out may include:

- Likely to lead to progressive loss of institutional expertise and difficulty maintaining core capabilities, including those needed to function adequately as “smart buyer”(despite the express intention to maintain core competencies and capabilities, it has been observed that government employees who do little or none of certain technical work will become unable to “stand toe-to-toe” with private vendors in the given business)
- Loss of institutional character or common ethic (motivations not tied to agency mission, public service ethic)
- Commercialization of public property (company logos, increased concessions, etc.)
- Where project-specific knowledge resides with contractor, risks losing institutional knowledge when contracts end, or when contractor’s personnel leaves or moves within the firm
- May erode internal culture and motivation
- Where it requires contracting with multiple specialized vendors, it may lead to disjuncture and accountability problems
- Reclamation, as the facility owner and therefore legally liable for performance, may have greater difficulty assuring that uniform design standards are met
- Not clear that cost savings could be realized in all cases by contracting for the work
- Less direct contact with project partners

Obstacles:

- Lack of quality and cost information against which to measure progress. This will make it difficult to measure improvements through an outsourcing program.
- Potential for concerns from project partners, who, though perhaps unable or unwilling to take transfer of the responsibilities, prefer that Reclamation retain O&M rather than having it contracted out to third parties.
- Costs may initially increase. Note: This may become an obstacle if it is not understood from the outset. Initiating new programs needed to make significant institutional changes normally requires an initial outlay on top of regular operating costs. Also, programs may take time to achieve predicted efficiencies and new program costs may outstrip anticipated savings. If an initial jump in costs catches stakeholders, the public, and the government by surprise, it has the potential to cause a perception of failure.

Direct Contracting or “Sole Sourcing”

As noted above, Reclamation might also contract O&M functions directly to project partners who are not able or not willing to take on the stewardship responsibility normally conveyed through transfers, but who are nonetheless able to perform certain O&M functions. It should be noted that Circular A-76, as revised in 2003, may not permit direct, non-competitive sourcing (see discussion in Appendix 3, p. 3). It is worth discussion here, however, with the understanding that implementing it may require an exception from or revision to the current A-76.

Direct contracting of the O&M of some reserved works to a project partner might be used as an interim step while Reclamation and the project partners continue to work toward O&M transfer.

Advantages may include:

- Helps partners to develop the competencies and resources needed for transfer.
- Allows Reclamation to offer contracts directly to project partners, without risk of losing them to outside firms; avoids competitive sourcing costs
- Avoids competitive funding limits imposed on Interior by Congress

Potential disadvantages include:

- Does not contribute to meeting PMA competitive sourcing goals
- Does not generate potential benefits of competition, and project partner may not be the best service provider
- Other potential service providers will not have the opportunity to compete

Scenario 3 – Federal Funding and Local Execution

Description

The NRC's Scenario 3 would further reduce Reclamation's direct involvement in the management of assets below levels envisioned under Scenarios 1 and 2. Reclamation would administer its O&M program by distributing federal funds to the irrigation and power users in response to project needs. The users are held responsible for performing project O&M in conformity with Reclamation standards and guidelines designed to foster maximum flexibility within the bounds of essential public health and safety interests.

Under this scenario, Reclamation would retain responsibility for essential governmental policy and oversight—a smaller class of functions than it would retain under Scenario 2. Reclamation would become more of a “pass-through” agency for federal funding, performing little or no O&M. The emphasis would be on Reclamation exercising an oversight function to assure that its standards and guidelines are respected by water and power users.

Organizational characteristics:

- Reclamation personnel skills would change from direct involvement in task execution to administration of a federal funds program in support of what had traditionally been Reclamation responsibilities.
- Reclamation's responsibilities would include needs validation, priority determination, defense of appropriations requests, and program oversight to assure faithful application of resources.

The NRC's Report recognizes that additional transfers of O&M could prove difficult. It suggests that assuming O&M responsibilities requires resources as well as initiative.²²

Current Practice

Transfer of Facilities/Functions

As discussed under Scenario 2, Reclamation has transferred the O&M of about 63 percent of its water-related facilities. However, it has not transferred all but essential governmental policy and oversight, as envisioned under Scenario 3. Existing O&M transfers most similar to Scenario 3 are those that transfer the O&M of most or all of the project facilities and the associated nongovernmental functions. Transfers tend to occur at projects with a single purpose or single beneficiary, that are not involved with issues such as interstate water compacts, Indian water rights settlements, preference power (marketing of power that is in excess of project needs) and endangered species issues. Generally, when Reclamation transfers O&M, it retains technical and policy oversight and ultimate decision-making authority for governmental functions, such as facility O&M reviews, and environmental compliance and land use approvals. For an example of an existing transfer, see the discussion of the Ainsworth Project below.

O&M Funding

Funding of O&M costs is based on Reclamation law and cost allocations. Existing law requires payment by water users of O&M charges based on the total cost of O&M.²³ Currently, based on the cost allocation, the users pay the reimbursable costs (irrigation, power, municipal and industrial) and Reclamation pays for the non-reimbursable costs (flood control, recreation, and fish and wildlife).

Implementation Considerations

Scenario 3 provides an opportunity to examine a much different, and much reduced, role for Reclamation in the O&M of project facilities. In addition to analyzing the advantages and disadvantages of Scenario 3, the following discusses two ways to potentially encourage additional O&M transfers.

Transfer of functions – Retain Essential Governmental Policy and Oversight

The Report states that under Scenario 3, Reclamation “retains responsibility for essential governmental policy and oversight, necessitating close and continuing

²² “The committee discussed the possible benefits of additional transfer of O&M responsibilities to users, with proper oversight by Reclamation. In most of these cases, however, it would be difficult to do so, partly because there is no way for Reclamation to help build an O&M capacity within the user organizations. Such capacity depends on resources and initiative: Organizations that have the will and resources have generally built the capacity and those that do not continue to rely on Reclamation. However, this does not preclude outsourcing O&M activities.” Report at 25.

²³ See the Reclamation Extension Act of 1914 (38 Stat. 687; 43 U.S.C. 492, 499), and the Omnibus Adjustment Act of 1926 (44 Stat. 649, Act of July 11, 1956, 70 Stat 524; 43 U.S.C. 423(e)).

communication and interaction between the recipients of funds and Reclamation officials. The emphasis is on Reclamation exercising an oversight function to assure that its standards and guidelines are respected by water and power users.”²⁴

The use of “essential governmental policy and oversight” to describe what Reclamation retains under Scenario 3 is different from the description of what Reclamation retains in Scenario 2. In Scenario 2, the Report states that outsourcing of essentially nongovernmental functions increases to the point where Reclamation accomplishes all of its field O&M tasks by contract, “except those determined to be inherently the government’s responsibility. The O&M for major hydroelectric plants and dams that pose the most significant risks is likely to continue to be a Reclamation function.”

For purposes of this scenario only, “essential governmental policy” is interpreted to mean “inherently governmental” functions. Reclamation also retains oversight. Reclamation transfers to its partners all other functions, including those deemed to be “core commercial” functions.²⁵

Examples of Transfers

An example of an existing project where almost all OM&R has been transferred is the Ainsworth Unit, Sandhills Division, Pick-Sloan Missouri Basin Program (Nebraska). The unit is authorized for irrigation, fish and wildlife, and recreation. There is one repayment entity. Pursuant to the existing water service contract, the District has been transferred and is responsible for the OM&R of all project facilities, except reservoir lands and associated recreation, fish and wildlife facilities. The O&M is to be performed in accordance with Standing Operating Procedures and sound engineering practices, and must comply with all applicable Federal, State, and local laws, regulations, and Reclamation policies. Appendix 2 includes a case study of the Ainsworth transfer.

Transfers as extensive as those envisioned under Scenario 3 have not taken place, and the most extensive types of transfers, such as the Ainsworth transfer, have not taken place on complex projects.

In general, all functions other than what is determined to be inherently governmental, such as certain signatory authority and oversight potentially could be transferred under Scenario 3. Because Reclamation has not transferred OM&R to the extent suggested by Scenario 3, Appendix 2 also includes the hypothetical “Acme Project” case study. The hypothetical depicts a project with several beneficiaries and purposes. The “Acme Project” is authorized for irrigation, flood

²⁴ See Report at 92.

²⁵ See OMB’s *Report on Competitive Sourcing Results for Fiscal Year 2005*, at p. 13, characterizing some types of functions as “core commercial,” and citing its own guidance in OMB Memorandum M-05-12, *2005 Inventories of Commercial and Inherently Governmental Activities* (May 23, 2005) as recognizing these functions.

control, municipal and industrial, project power, fish and wildlife and recreational purposes. The project beneficiaries are the Acme Irrigation District (District) and the City of Urban (City).

In the hypothetical, Reclamation enters into a contract with the District to transfer O&M to the District for all project facilities. The District enters into a sub-agreement with the City for O&M of the M&I facilities and for payment of the City's share of the O&M costs. The District also enters into an agreement with the state department of fish, wildlife and parks.²⁶

The hypothetical assumes that the District is able to reach agreement with the City and the state on the sub-agreements. Whether this would occur depends on a number of issues, including past relationships and whether interests coincide or are in conflict.

For a scenario 3-type transfer, functions related to essential governmental policy that would remain with Reclamation would need to be designated, along with transferred functions for which Reclamation would retain final approval authority.

Reclamation law requires that title to Reclamation facilities remain in the United States unless otherwise provided by Congress.²⁷ As an incident of ownership, Reclamation has the responsibility to protect the public interest and investment in facilities that deliver water and generate power. There are public health and safety, reliability, and liability issues associated with operating and maintaining project works. In addition, many Reclamation projects serve regional and national interests and involve multiple states and beneficiaries. Until Congress authorizes transfer of title, Reclamation retains certain responsibilities related to these interests. Associated with these responsibilities is maintaining the core competencies needed to fulfill the responsibilities.²⁸

Scenario 3 suggests transfer of all but essential governmental policy, but also states that "the emphasis is on Reclamation exercising an oversight function to assure its standards and guidelines are respected by the water users." There is a challenge, under a Scenario 3-type of transfer, to find the proper balance between empowering partners by transferring greater responsibility for the O&M and ensuring that Reclamation does not relinquish its responsibilities to the public as the project owner.

²⁶ Reclamation would concur with the sub-agreements. See the hypothetical in Appendix 2.

²⁷ See, for example, section 6 of the Reclamation Act of 1902.

²⁸ The NRC recognized the need for Reclamation to maintain its core competencies. See, for example, pages 3, 6 and 99.

Advantages of a Scenario 3-type transfer may include:

- Gives partners primary responsibility for O&M of the project. Partners have maximum flexibility to tailor O&M to their needs and financial capability while still meeting essential governmental policy goals.
- May be more cost efficient, although data is lacking on cost comparisons.

Disadvantages of a Scenario 3-type transfer may include:

- With transfer of core commercial functions, Reclamation may be unable to maintain its core competencies.
- Lack of core competencies may result in inadequate oversight.
- Without adequate oversight, potential exists for essential governmental policy goals to not be met.
 - o Potential for degradation of facilities.
 - o Potential for public health and safety issues.
 - o More oversight likely to be needed for projects with multiple purposes/beneficiaries, with associated costs.

Obstacles:

- As the Report recognized, the resources and sophistication of project partners vary.²⁹ Depending on options for funding assistance, some project partners may not be able to assume this level of responsibility.
- Depending on funding for incentives, some project partners may not desire a higher level of responsibilities.
- All project beneficiaries may not agree to transfer to one entity.
- Project authorizations may preclude O&M transfer, or transfer of certain O&M functions, entirely or to a single entity.

Opportunities:

- Reclamation could offer to facilitate a transfer agreement among all beneficiaries.

²⁹ Report, at 32. There has been recognition of this limitation in the context of title transfer by the NRC and others (see p. 24 of the NRC, and National Water Resources Association testimony on September 21, 2006, before the U.S. Senate Energy and Natural Resources Committee, generally supporting S.3832, a bill to direct the Secretary of the Interior to establish criteria to transfer title to reclamation facilities, and for other purposes.) This limitation arguably can be extended to O&M transfer also.

Federal Funding Options

Scenario 3 does not specify the extent to which it envisions the federal government providing funding to nonfederal entities to perform transferred O&M. One interpretation is that Reclamation pays for the nonreimbursable costs, with the project partners paying the remaining costs. Another interpretation is that Reclamation obtains authority and funding to provide project partners with assistance and incentives.

The first interpretation reflects current law, cost allocations and practice. The major change the scenario suggests is not financial.

Advantages may include:

- No enactment of new funding authority would be required.
- No enactment of additional appropriations required.
- No increase in cost to federal taxpayer.
- No change in O&M cost allocation
- Transferring responsibility to project partners without increasing funding should save federal taxpayer money.
- No issue of whether to provide funding to partners currently performing O&M.

Disadvantages may include:

- No financial incentive to partners to encourage additional O&M transfers.
- No additional funding for the performing entity to correspond with potentially increased responsibilities.
- No increase in federal funding to partners to assist in paying for increasing O&M infrastructure costs.

As stated above, a second interpretation of Scenario 3 envisions a program through which the federal government funds more of the O&M performed by Districts or other entities. It is not clear whether it was intended that Reclamation would require repayment of this funding according to existing contracts and/or repayment laws and policies. If the intent of the scenario was to provide financial incentives for O&M transfer, this would entail obtaining new funding authority and appropriations.

Reclamation is authorized by law to provide varying levels of federal funding under a number of programs, such as the Reclamation and Reuse Program (Title XVI of P.L. 102-575) and Water 2025. While these programs are not designed to encourage O&M transfer, they provide examples of ways Congress provides

financial incentives to accomplish public policy goals. It is worth noting, however, that while these programs provide certain levels of federal funding for various projects and programs, each requires the recipient to pay all of O&M costs.

Advantages may include:

- Provides an incentive to Districts that currently may be reluctant to perform O&M.
- Provides a means to develop capability to perform O&M.
- For Reclamation partners, this arrangement (included reduced Reclamation role in oversight) would grant most of the incidents of ownership without the liability normally associated with ownership.

Disadvantages may include:

- Requires new authority and appropriations to provide the funding.
- Increases costs to the federal taxpayer.
- Creates a disincentive to title transfer. The funding (coupled with extent of O&M transfer envisioned) gives project partners responsibility over project operations without burdening them with the full measure of liability associated with ownership.
- For Reclamation, this arrangement (included reduced Reclamation role in oversight) would minimize oversight but still leave ownership responsibilities, including liability, with the federal government.

Obstacles:

Authority. Current Reclamation law requires an entity performing O&M to pay appropriate O&M costs. In addition, Reclamation's authority to provide grants is narrowly prescribed. New legislation would be required to address these limitations and authorize a new funding arrangement.

Existing Transfers: If new benefits were offered with new transfers, it is likely that project partners already performing O&M would argue for the same benefits. Refusing to extend equivalent benefits may be seen as unfair (Reclamation received a similar comment at the public meeting November 13 and 14, 2006 in Sacramento). Alternatively, offering funding to all transferees, old and new, could create significant new costs, potentially negating savings to the federal government/taxpayer.

Appendix 1 – Design & Construction at Regional and Area Offices

Part 1: Current Design Capabilities, Responsibilities and Organizational Structure at Regional and Area Offices

Regional Offices maintain design capabilities, though the design workload and staffing, as well as the organizational structure and degree of centralization, vary significantly among the regions. Some area offices maintain a design capability as well (most notably in the Upper Colorado Region, where the design function is mostly decentralized to the area offices).

Design support functions, including project planning, design and construction budget development, and design data gathering, are provided in most instances by area offices, with some assistance by regional staff. This arrangement prevails whether the design is ultimately produced by area offices, regional offices, or the TSC.

Regional Design Support

Mid-Pacific Region

Regional Office Design Staff: 15 total; 13 design professionals; 2 technical support staff. Surveying, mapping, and drafting support are provided by a separate branch.

Function: Develops designs and specifications for projects within the Region, primarily within the RAX program and including structural, geotechnical, civil/hydraulics, mechanical, and electrical designs. Provides CADD and GIS support for design and related purposes. Reviews designs provided by area offices. Designs of higher complexity are forwarded to the TSC or are performed under contract by architectural and engineering (A&E) service providers.

Trends: The design workload has been increasing moderately in recent years, a trend that is anticipated to continue into the foreseeable future.

Area Office Capability: The Klamath Basin Area Office, Central California Area Office, and South Central California Area Office retain capability for relatively low-complexity O&M-type designs.

Great Plains Region

Regional Office Design Staff: 21 total; 8 design professionals; 13 technical and administrative support staff

Function: Develops designs and specifications for projects within the Region, focusing primarily on civil works but including some mechanical features as well. Provides CADD and GIS support for design and related purposes. Reviews designs provided by area offices. Designs of higher complexity are forwarded to the TSC or are performed under contract by A&E service providers.

Trends: The design workload has been relatively stable and is projected to remain so in the ensuing years. During fiscal years 2004 through 2006, an average of 14 design and specification packages were prepared annually.

Area Office Capability: The Dakotas Area Office, Wyoming Area Office, and Montana Area Office retain capability for relatively low-complexity O&M-type designs, primarily associated with civil works.

Upper Colorado Region

Design and construction functions within the UC Region are the most decentralized, with the majority of design and specification packages produced in the area offices and reviewed by Regional staff. Relatively minor designs and specification packages are put together in the Area Offices, for major works the TSC is utilized. Several features were designed using the A&E community at the Animas-La Plata Project.

Regional Office Design Staff: 7 total; 6 design professionals; 1 technical and administrative support staff.

Area Office Design Staff: 28 total; 22 design professional; 6 technical and administrative support staff."

Function: Develops designs and specifications for projects within the Region, focusing primarily on O&M-type designs, fish screens and ladders, recreation facilities, and engineering-related activities, e.g. dam safety and bridge inspection, AutoCAD and GIS support. Designs of greater complexity are forwarded to the TSC or are performed under contract by A&E service providers.

Trends: The design workload has been trending downward in recent years. An average of 30 to 40 design and specification packages are prepared annually.

Lower Colorado Region

Design and Construction functions within the LC Region are decentralized, with design and specification packages produced in the area offices and the Regional Engineering Services Office (ESO). Depending on the nature of the work, ESO may or may not review an area office's design and specification packages.

Region-wide Design Staff: 25 total: 13 design professionals, 12 technical and administrative support staff.

ESO: 10 total: 5 design professionals, 5 technical and administrative support staff.

Phoenix Area Office (PXAO): 8 total: 5 design professionals, 3 technical and administrative support staff.

Yuma Area Office (YAO): 7 total: 3 design professionals, 4 technical and administrative support staff.

Function: Develops designs and specifications for projects within the Region and other agencies, focusing on civil works, hydro generator rehabilitation which includes the surrounding structures, YAO has riprap contracts, modular systems, and examination of existing structures and limited Safety of Dams work. Provides CADD and surveying support for design and related purposes. ESO periodically reviews designs provided by area offices. Designs outside of the area of expertise of the Region or beyond staffing capacity are forwarded to the TSC or are appropriately contracted via IDIQ design services. YAO provides site engineering support to the YAO maintenance activities. PAO focuses on civil works with any Electrical and Mechanical work going to Region or TSC.

Trends: The design workload has been relatively stable and is projected to remain so in the ensuing years. LC Region is decentralized in that the Area Offices decide if they will go to the Region, TSC or contract out the work. An average of 20 to 30 design and specification packages is prepared annually.

Pacific Northwest Region

Regional Office Design Staff: 23 total; 14 design professionals; 9 technical and administrative support staff

Function: Prepares preliminary design reports and develops designs and specifications for projects within the Region, focusing primarily on O&M projects, fish ladders and fish screens and habitat improvement projects for endangered species. Projects consist primarily of civil works but

include some mechanical and electrical features as well. Reviews designs prepared by area offices. Designs of higher complexity are forwarded to the TSC or are performed under contract by A&E service providers.

Trends: The design workload has been relatively stable in recent years but is anticipated to decline in the future. During fiscal years 2004 through 2006, an average of 13 planning reports and 23 design and specification packages were prepared annually.

Area Office Capability: The Grand Coulee Power Office retains capability for relatively low-complexity O&M type designs, and the Pacific Northwest Construction Office has capability for some small project designs primarily associated with civil works.

Part 2: Current Construction Management Capabilities, Responsibilities and Organizational Structure at Regional and Area Offices

Construction management responsibility is presently assigned to Regional Offices and the TSC, except in the Upper Colorado Region, where construction management services are decentralized due to the high volume of construction activity and the large areas involved.

Regional Construction Management

TSC

Construction Management Group, Civil Engineering Services Division, Denver, CO

Construction Management Staff: 11 total, including a construction liaison, construction engineers, field engineers, construction inspectors, contract administrators, administrative support staff, etc. This office provides expertise to Reclamation projects and, on occasion, to other agencies.

Capabilities: Contracting Officers Technical Representatives (COTR), project management, design data gathering, contract administration, inspection.

Contracted Services: Inspection (primarily by recent retirees)

Trends: The workload and staffing have trended significantly downward in recent years, and no vacated positions have been refilled for some time.

Mid Pacific Region

Mid Pacific Construction Office, Willows, California

Construction Management Staff: 48 total, including construction engineers, inspectors, office engineering, materials technicians, administrative support staff, etc.

Capabilities: COTR, project management, design data gathering, contract administration, inspection, and materials testing.

Contracted Services: Materials testing, limited contract administration, inspection, constructability assessments

Trends: The workload and project complexity has increased in recent years, a trend that is anticipated to continue.

Great Plains Region

Construction Services, Great Plains Regional Office, Billings, MT
Construction Services Field Office, Loveland CO

Construction Management Staff: 16 total, including construction engineers, inspectors, office engineers, materials technicians, administrative support staff, etc.

Capabilities: COTR, project management, design data gathering, contract administration, inspection, and materials testing.

Contracted Services: Very limited at present, but options include contracting materials testing as present staff members retire

Trends: Steady in recent years, a trend that is anticipated to continue in the foreseeable future.

Upper Colorado Region

Western Colorado Area Office, Grand Junction, CO
Albuquerque Area Office, Albuquerque, NM
Provo Area Office, Provo, Utah
Farmington Construction Office, Farmington, NM
Animas-La Plata Construction Office, Durango, CO

Construction Management Staff: 129 total, including construction engineers, inspectors, office engineering, materials technicians, administrative support staff, etc.

Capabilities: COTR, project management, design data gathering, contract administration, inspection, and materials testing.

Contracted Services: Several contract administration, inspection (primarily by recent retirees) and materials laboratory personnel were utilized under contract for the Animas-La Plata Project.

Trends: Anticipated to trend downward as the Animas-La Plata project is completed in 2012. Consolidation is beginning in January of 2007 with combining of 2 offices in the Four Corners area.

Lower Colorado Region- awaiting information

Region-wide Construction Management Staff: 38 Total including construction liaisons, field engineer, contract administrators, inspectors, office engineers, administrative staff, etc. These offices provide expertise to Reclamation projects and other agencies.

ESO: 19 Total including construction liaisons, field engineer, contract administrators, inspectors, office engineers, administrative staff.

PXAO: 13 Total including construction liaisons (3), geologists (2), survey technicians (3), contract administrators (1), construction inspectors (3), contract administration technicians (1).

YAO: 6 Total including supervisory civil engineer (1), construction representatives (2), surveyors (2) and materials engineering technician (1).

Capabilities: COR, project management, design data, contract administration, surveying, inspection, materials testing, geology, soils and concrete laboratory support.

Contracted Services: Some inspection, contract administration, electrical engineer and civil engineering are contracted (all by recent retirees). PAO will periodically contract out to A&E firms.

Trends: The workload is relatively constant and is anticipated to continue. The staffing has trended downward in recent years and is anticipated to continue in the future. Vacated positions are refilled as warranted. PAO construction work is stable and may increase in the future.

Pacific Northwest Region

Pacific Northwest Construction Office, Yakima, WA

Construction Management Staff: 38 total, including construction engineers, inspectors, office engineering, materials technicians, administrative support staff, etc.

Capabilities: Civil engineering design, COTR, design data gathering, contract administration, inspection.

Contracted Services: Materials testing, limited inspection.

Trends: Anticipated to trend downward.

Appendix 2 – Case Studies & Hypotheticals

Scenario 1: Coachella Canal Lining Project

Note: Because Reclamation is not organized as Scenario 1 envisions, there are no analogous cases on which to base case studies. That said, the Coachella Canal Project does provide some relevant lessons learned.

Background

The Coachella Canal Lining Project (Project) is focused on remedying seepage losses from the Coachella Canal (Canal). It was authorized in 1988 by Title II of Public Law 100-675 (Act). The Act authorized construction of new canal or lining of the existing Canal, and authorized the Secretary to enter into agreements for the construction or funding of some or all of the authorized works. The Project includes construction of 25 new siphons and replacement of 34.5 miles of existing earthen reaches (and one lined reach between) with a redesigned parallel lined canal, which will save an estimated 26,000 acre-feet per year.

The Secretary was not authorized to spend federal funds for the works, but was authorized to receive funds in advance to carry out the Federal responsibilities set forth in the Act. The California Department of Water Resources (DWR) and Metropolitan Water District (MWD) entered into the funding agreements for the Project. MWD has since assigned design and construction responsibilities to the Coachella Valley Water District (CVWD) and all of its other responsibilities to the San Diego County Water Authority (SDCWA).

Construction Agreement

The Construction Agreement sets terms for Project design and construction and for transfer of its facilities to operation and maintenance (O&M) status. It sets forth the responsibilities of the parties; establishes a Committee to provide a forum for discussing, among other things, project activities, budget, scheduling, and recommendations to Reclamation; and provides the framework for advancing funds for Reclamation's work. The following lists some of the parties' major responsibilities.

CVWD is responsible for:

- Design and construction;
- Meeting Reclamation's design and construction standards;
- Establishing and maintaining a design and construction schedule;
- Developing a Project Cost Estimate;
- Awarding contract(s) for construction;

Alternative Scenarios for Future Infrastructure Management

- Adhering to the Construction Management Plan for all construction activities, including construction surveying, materials laboratory services, construction inspection, safety, contract administration, reporting, and overall quality assurance;
- Documenting and notifying Reclamation of changes from the approved design;
- Continuing its operation, maintenance, repair, and replacement functions for the Canal;
- Providing Reclamation written notification of Project completion;
- Conducting Project activities within the agreed terms.

Reclamation is responsible for:

- Carrying out its duties under the Construction Agreement;
- Applying for required permits and providing copies to CVWD and SDCWA;
- Coordinating with Federal agencies as needed;
- Conducting reviews and inspections, related to the environmental commitment plan;
- Assisting CVWD in acquiring needed access, rights-of-way, and lands;
- Providing technical expertise to the Committee;
- Assuring that design and construction meet or exceed Reclamation quality standards;
- Assuring compliance with Reclamation Safety and Health Standards;
- Reviewing and approving design, specifications, change orders, and recommendations from CVWD or the Committee;
- Providing regular review and oversight of construction activities for quality assurance through review and approval of CVWD's management plans for construction contracts;
- Providing review and approval of requested specification changes and markup drawings;
- Providing concurrence to the Committee on completion of each Discrete Work Element;
- Performing reviews and consultation for cultural activities during the construction phase;
- Initiating Transfer Inspection after notice of Project Completion provided by CVWD.

SDCWA is responsible for :

- Participating in Committee activities and using its technical and administrative resources to assist CVWD in implementing the project;
- Preparing and submitting an estimate of its costs for its Discrete Work Elements;
- Preparing monthly itemized bills of Eligible Project Costs it incurs and submitting them to the Committee for approval;
- Submitting invoices for costs incurred and approved by the Committee to DWR.

Process and Performance***Committee***

The Committee (of which Reclamation is not a Voting Member) provides oversight and direction to CVWD for meeting its design and construction administration responsibilities. It worked closely with responsible agencies in the planning, scheduling and administration of environmental compliance activities. It was also instrumental in selecting various consulting services to help CVWD meet technical needs for the Project.

Environmental Compliance

Reclamation is the lead Agency for purposes of NEPA compliance and CVWD is the lead State Agency for the California Environmental Quality Act process. Reclamation selected the Conventional Lining Alternative as the agency Preferred Alternative for lining the Coachella Canal and issued the Record of Decision.

Design

The CVWD, with the Committee's assistance, selected a consultant to design the new canal. The Designer's initial designs followed the Preferred Alternative in the EIS, but altered the design, in the final phase of the process, to replace all siphon and check structures, due to their existing condition. The Designer prepared an administrative record of all design decisions made during the process and submitted it to the Committee.

It was Reclamation's role to provide technical reviews during the design process and to provide additional information on its facilities to the Designer, CVWD, or the Committee. Upon completion of the design and its approval by the Committee, Reclamation was responsible for review and approval of the CVWD specifications before solicitations for bidders were made. Reclamation's Technical Service Center (TSC) was its Designer of Record and helped the Project Manager (PM) to meet the agency's responsibilities.

The Design Engineer presented draft specifications to the Committee, which made recommendations to Reclamation at each phase of the design. Each review period required substantial technical resources for performing reviews and

providing written comments to the Committee. When the specifications function was awarded to a contractor, the design engineer's role became that of support for the construction management consultant.

Construction

The Committee assisted CVWD in selecting a construction management consultant . After review and interviews with prospective consultants, they awarded the construction management contract to the firm that performed the Project designs, making the same engineer responsible for both.

Project Funding

The Funding Agreement between DWR and MWD (later assigned to SDCWA) provided \$74,000,000 in Project funding. Because federal funds cannot be used for Project implementation, Reclamation's costs are paid out of the State's funding. Reclamation submits annual estimates of its requirements and receives periodic advance funding from CVWD. It submits monthly reports to CVWD detailing its expenditures, including the costs in the invoices it submits to DWR. SDCWA funds Project costs beyond those that the State funds are sufficient to pay. The current projected Project Cost is \$83,650,000, exceeding the State's funding level. Construction claims are pending and the Project Cost is expected rise.

Lessons Learned

Administration

- Reclamation representatives must be competent in their roles, and understand the agency's liabilities and responsibilities.
- Reclamation must be active in development of agreements in which it participates, with personnel that understands the agreements and the agency's roles and responsibilities.
- Reclamation must establish a lead person to represent it in all Project activities (PM).
- Reclamation must provide technical support to the PM for environmental requirements, right-of-way issues, contract agreements, designs, construction, and O&M.
- An Administrative Record process should be established for documenting all activities.
- Reclamation must be responsive to the requests of other parties (e.g., for guidance, policy, interpretations, clarification of its position relating to the Project, etc.).

Design

- Reclamation must be active in Project design at all stages (Concept (30%), Draft (60%), Final (90%), and Completed Specifications), and have senior technical support available to review designs for compliance with Reclamation's standards and guidelines.
- Reclamation must be able to defend and support its guidelines and standards.
- Cost savings motivate design consultants, and Reclamation must perform detailed reviews to confirm that designs meet its standards.
- Reclamation should avoid using the same firm to cover design and construction management.
- Materials included in designs should be proven technology.

Construction

- The roles and responsibilities of Reclamation's Construction Representative should be well defined and communicated to the responsible Agencies.
- Reclamation should assume the role of Quality Assurance, but not Quality Control.
- Reclamation's Quality Assurance Program should be clearly defined.
- The Construction Safety Program's compliance with Reclamation's construction Safety Standards and the enforcement of the Safety Program must be continually monitored during construction to protect Reclamation against liabilities, as owner.
- The responsible Agency's Construction Management (CM) Plan must be in place and Reclamation's role and responsibilities understood by all participants.
- Submittals made by the construction contractor and approved by CM for materials to be incorporated into the works should be available to Reclamation.
- Reclamation must have means to review and provide concerns/stipulations to CM when construction activities are not providing desired results.
- Documentation of Reclamation's construction inspection/reviews must be in detail, must be provided to Reclamation's PM, and must become a matter of record.
- Reclamation must be involved with CM in the final review of constructed features as work progresses, and it must provide written comments on completed work.

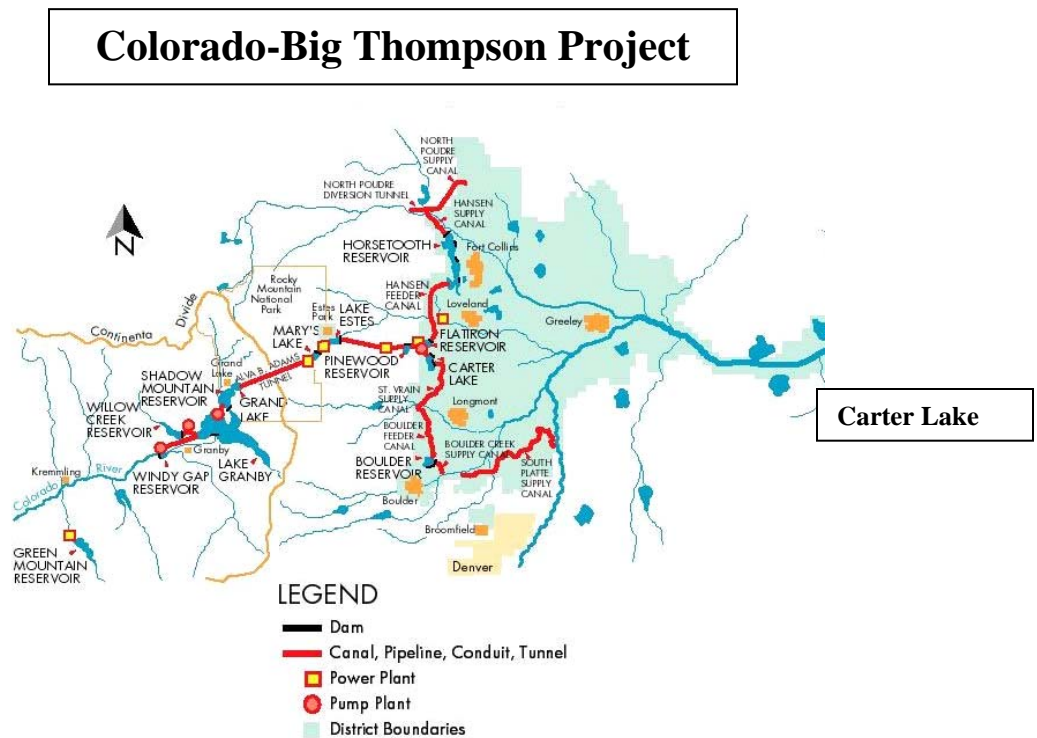
Alternative Scenarios for Future Infrastructure Management

- Reviews of completed work should not be left until the end of construction activities. Reclamation should periodically conduct reviews of the construction activities and work.
- Senior staff should be used to review contractor and consultant compliance with Project specifications and to participate in the contractor's safety and coordination meetings.
- Reclamation should take an active role in inspection and be involved with the construction management on daily or weekly basis.
- Responsible agencies do not get involved with details of construction; they normally hire technical support and do not retain in-house expertise.

Carter Lake

Background

The Colorado-Big Thompson (C-BT) Project is commonly described as one of the most complex design and construction undertakings in Reclamation's history. Comprising over 100 distinct features, the C-BT collects and stores water from the uppermost tributaries of the Colorado River on the western slope of the Rocky Mountains. Water is then diverted through a series of tunnels, power plants, and reservoirs, for delivery to irrigation, municipal, industrial, and other users on Colorado's eastern front range.



Carter Lake, located approximately five miles southwest of Loveland, Colorado, is the southern terminal storage facility of the C-BT. With a capacity of approximately 112,000 acre-feet, Carter Lake also provides upslope storage for the single pumped storage/ generation feature of the C-BT.

The principal water supply repayment entity, and Reclamation's partner in the management, administration, operation and maintenance of the C-BT, is the Northern Colorado Water Conservancy District. Many single-purpose C-BT features (primarily water distribution canals) have been operated and maintained by the District since construction was completed in 1957. Since 1986, the Carter Lake dams (denoted as Nos. 1, 2 and 3) and several other multi-purpose C-BT facilities have been operated and maintained by the District under contract with Reclamation.

Issue

Carter Lake Dam No. 1, the southernmost structure of the three, is equipped with an outlet works discharging to the St. Vrain Supply Canal for delivery to users at the southern regions of the District service area. Because water delivery demands at the time of design and construction were primarily by agricultural users, the existing outlet works was equipped with twin 3-foot square slide-type regulating gates, designed to release large, seasonal flows. Initially, the outlet was operated from April 1 to November 1 of each year to meet agricultural water demands. In the ensuing years, urbanization within the delivery area has required that releases from the outlet works be made year-round and at lower average flow rates. As is a common occurrence when large slide gates are used for low discharge rates, the gate leaf and frame areas are suffering cavitation damage.¹ Further, because municipal demands continue on a year-round basis, it is more difficult to remove the outlet works from service to perform preventative maintenance and accomplish repairs.

Reclamation has made several formal recommendations to address the cavitation damage problem during routine operation and maintenance reviews. The 1999 Periodic Facility Review Examination Report discusses the present operation of the regulating gate, and lists several Category 2 recommendations.² They include:

99-2-B Repair the cavitation damage to the bottom seal bar and bottom seal seat of the outlet works regulating gate.

¹ A physical phenomenon during which water molecules convert to low pressure water vapor when (in this case) rapidly flowing past an obstruction, and upon reaching an area of higher pressure the molecules again collapse to a liquid state, often with tremendous, damaging force.

² Reclamation presently defines Category 2 Recommendations as: "Recommendations covering a wide range of important matters where action is needed to prevent or reduce further damage or preclude possible operational failure of the facility. Such recommendations are intended to be acted upon as soon as practicable following receipt of the corresponding examination report by the operating office or entity."

99-2-D Repair the damaged areas of the outlet works gate cast iron and cast steel body and leaf by using an epoxy filler material as manufactured by Devcon or Belzona.

99-2-E Those areas of the outlet works gate leaf body and liner showing coating loss should be cleaned and recoated.

99-2-H Northern Colorado Water Conservancy District and Reclamation should jointly develop a method of allowing low flow releases which will minimize cavitation damage and minimize unnecessary releases of water

Earlier Investigations

In the late 1990's, the District had already begun to consider a completely new outlet at Carter Lake Dam No. 1, designed for lower release rates and to provide complete outlet redundancy. In 1999, the District contracted with consultant GEI Incorporated to conduct a feasibility study. The GEI report concluded that an outlet could be economically constructed, and that hydropower generation was a feasible means to recover a portion of the capital investment. The GEI report estimated the total project cost, including design, contract administration, construction, construction management, etc., would range from \$2 to \$5.8 million, with the higher figure including a hydroelectric power plant. To reduce costs, the District initially sought to include hydroelectric power generation, with the associated multi-purpose funding arrangement, because without hydroelectric power, the additional outlet would be a single-purpose feature.³

District Proposal – Reclamation's Initial and Revised Position

The District formally notified Reclamation of the desire to construct an additional outlet by letter dated January 29, 2002. Reclamation originally maintained that Reclamation must design and construct such a modification, in accordance with Regional policies, because it would constitute a major alteration and could dramatically impact the structural integrity of the dam. Under an initial Memorandum of Understanding (MOU) with the District, executed on June 28, 2002, Reclamation developed cost estimates for the design. Believing Reclamation's initial design cost estimates to be inordinately high, the District unsuccessfully sought federal funding for the project. The District then contracted with another consultant, URS Incorporated, to develop a revised cost estimate for the design, characterized at that time as a partnership between the District, URS, and Reclamation. The District presented the URS estimate to Reclamation in early 2005.

³ Further development of hydroelectric power generation at C-BT facilities is reserved in the Federal interest, in accordance with authorizing legislation and a subsequent determination by the Federal Energy Regulatory Commission. After the District proposed the new outlet, Reclamation consulted with the Western States Power Corporation (representing the power customers) to examine the feasibility of adding a power plant to the proposed new outlet. It was deemed too costly under present economic considerations. The only remaining benefit is water supply, for which costs are 100% reimbursable.

After reaffirming its in-house design and construction policy for major modifications, Reclamation submitted a detailed design cost estimate to the District, which was then forwarded to URS for a detailed side-by-side comparison. The cost estimates were the focus of a discussion between the District, URS, and Reclamation, conducted in April of 2005.

Following several subsequent discussions, Reclamation and the District agreed to bifurcate the design of the outlet, with Reclamation responsible for the tunnel portion (deemed the most critical aspect of the design in terms of potential impact to the integrity of the dam) and the District's consultant designing the remaining components, with Reclamation review. In December of 2005, Reclamation and the District entered into a MOU memorializing this arrangement. A subsequent agreement will be developed for Reclamation's support during construction.

Cost Estimate History

The GEI Incorporated cost estimate was generally regarded during subsequent discussions as being very preliminary. For example, the GEI estimate did not include an upstream control structure, instead allowing that the new outlet conduit would remain pressurized through the embankment and/or abutment. It was only after Reclamation began developing its initial cost estimates, followed by similar versions from URS, that specific design features were identified in more detail.

Appendices 1, 2, and 3 are a synopsis of the design cost estimate development. It is important to note that these estimates include activities through the procurement phase only, and do not include contract administration or construction management costs.

- Attachment 1 is the revised cost estimate presented to the District in advance of the April 2005 meeting. This estimate assumes the Reclamation would serve in a lead capacity for the entire design, with URS providing review of certain design elements. The total estimated cost is \$1,480,015.
- Attachment 2 is the initial cost estimate for the bifurcated design, with Reclamation responsible for the tunnel design and URS responsible for other design elements. The total estimated cost is \$1,382,888.
- Attachment 3 includes the latest revisions to the bifurcated design cost estimate, as reflected in the most recent MOU. The total estimated cost is \$1,377,154. As indicated in note 10, the actual cost may be somewhat higher as a result of the District's decision to include the full tower design.

Reclamation's present estimated cost for its portion of the work through the procurement phase is approximately \$663,000 while the URS estimate totals \$714,895. The present total estimate of \$1,377,154 under a bifurcated design is approximately 7% less than Reclamation's revised cost estimate of \$1,480,015 for a Reclamation-led design.

Construction Contract and Authority

The District also proposed to solicit bids for the outlet works construction and administer the contract. Reclamation was initially uncertain of the authority for such an arrangement, as the new feature would be constructed on Reclamation-owned land, and in fact the outlet would be owned by Reclamation following construction. In January of 2006, the Office of the Solicitor issued a formal opinion affirming that the District has the authority to contract with a third party for construction of the new outlet, because it is considered an operations, maintenance and replacement activity.⁴ The District will issue the solicitation and award and administer the construction contract. Reclamation will participate in the contractor selection process, in approving contractor submittals and in inspecting the ongoing construction. The District will advertise for and award the construction contract(s), with Reclamation input, and the District/Consultant will have primary Construction Management responsibility, with oversight by Reclamation—particularly in the critical tunnel section.

Next Steps

Contract award is scheduled for early 2007, with construction to begin later that year. Details of Reclamation's involvement during construction will be documented in an MOU to be developed later. Reclamation and the District have yet to develop a process for resolving any areas of disagreement that may arise as the project progresses.

Lessons Learned

Though during the initial stages of the process significant differences emerged between Reclamation and the District with regard to the preferred approach, design standards, and other aspects of the project, it is generally accepted that there were, ultimately, a number of positive outcomes. Reclamation and the District have enjoyed a long and successful partnership in operating and managing the C-BT, marked by the ability to effectively resolve complex technical, managerial, legal, and related challenges. Though much work remains on the Carter Lake Outlet project, the agreement attained thus far should assure that the completed outlet will meet all Reclamation's prevailing design and performance standards at a cost that is acceptable to the District. The process may also serve as a template in the subsequent pursuit of similar undertakings within the C-BT, as well as other Reclamation projects.

In terms of precedent, there are at least two key factors that may prominently distinguish this project from other similar proposals. They include:

⁴ A key consideration in this finding was that the new outlet works could not expand the existing project purposes or benefits, because the release rate would still be limited by the downstream canal's conveyance capacity, and the storage capacity of the reservoir would be unaffected.

- **Funding** – The fact that the additional outlet would be deemed a single-purpose water conveyance feature made its cost fully reimbursable by the District. This determination was a major consideration in Reclamation’s ultimate decision to bifurcate the design and construction management process, and allow the District to pursue a portion of the work. It is rather unique in Reclamation’s history that a partner would propose a single-purpose modification of this significance and cost, and have the financial means to design and construct such a modification.
- **Contracting Authority** – If the additional outlet had been determined a construction project, rather than a means to address an O&M issue, the Federal Acquisition Regulations would very likely have prohibited a non-Federal entity from contracting for the installation. There were two primary considerations in this regard: the limiting capacity of the St. Vrain supply canal, and Reclamation having identified several deficiencies as to the operation and the condition of the existing outlet works.

Alternative Scenarios for Future Infrastructure Management

Attachment 1 Carter Lake Outlet – Revised ⁵ Design Cost Estimate – Reclamation Lead				June 2005
	Design	Procurement	CM	
	TSC	GP	GP	
Project Feature	ESTIMATED COSTS			
	TSC	GP	URS	SUBTOTAL
Intake Structure	\$186,044	\$0	\$0	\$186,044
Intake Tower (Str. Analysis Only)	\$36,796	\$0	\$0	\$36,796
Tunnel	\$183,820	\$0	\$0	\$183,820
Discharge Portal	\$23,740	\$0	\$0	\$23,740
Outlet Pipe	\$67,416	\$0	\$0	\$67,416
Canal Transition	\$75,280	\$0	\$0	\$75,280
Control Building	\$57,608	\$0	\$0	\$57,608
Project-Wide	\$40,568	\$0	\$0	\$40,568
Specifications & Cost Estimates	\$213,968	\$42,872	\$0	\$256,840
Documentation	\$70,108	\$0	\$0	\$70,108
Design Data	\$130,960	\$0	\$0	\$130,960
Project Management	\$94,720	\$83,286	\$0	\$178,006
Acquisition	\$42,400	\$39,750	\$0	\$82,150
NEPA Compliance	\$0	\$17,679	\$0	\$17,679
Reviews	\$0	\$0	\$73,000 ⁶	\$73,000
Contract Administration				
Construction Management				
SUBTOTAL	\$1,223,428	\$183,587	\$73,000	\$1,480,015

⁵ As revised and presented to the District in April, 2005.

⁶TSC estimate of URS review cost.

Attachment 2 Carter Lake Outlet – Initial Design Cost Estimate - Bifurcated				June 2005
	Design	Procurement	CM	
	TSC/URS	NORTHERN	URS	
Project Feature	ESTIMATED COSTS			
	TSC	GP	URS	SUBTOTAL
Intake Structure	\$0	\$0	\$64,636	\$64,636
Intake Tower (Str. Analysis Only)	\$0	\$0	\$46,290	\$46,290
Tunnel	\$183,820	\$0	\$0	\$183,820
Discharge Portal	\$0	\$0	\$15,678	\$15,678
Outlet Pipe	\$0	\$0	\$63,351	\$63,351
Canal Transition	\$0	\$0	\$22,756	\$22,756
Control Building	\$0	\$0	\$121,598	\$121,598
Project-Wide	\$18,904	\$0	\$49,591	\$68,495
Specifications & Cost Estimates	\$59,840	\$42,872	\$101,105	\$203,817
Documentation ⁷	\$37,140	\$0	\$44,600	\$81,740
Design Data	\$104,560	\$0	\$23,059	\$127,619
Project Management	\$26,880	\$83,286	\$70,991	\$181,157
Acquisition ⁸	\$11,024	\$10,400	\$74,640	\$96,064
NEPA Compliance	\$0	\$17,679	\$0	\$17,679
Reviews ⁹	\$50,626	\$20,962	\$16,600	\$88,188
Contract Administration				
Construction Management				
SUBTOTAL	\$492,794	\$175,199	\$714,895	\$1,382,888

⁷ Assumes TSC produces Geotech Baseline Rpt.

⁸ Assumes \$10k for GP participation on TPEC.

⁹ May duplicate GP's work in "Spec's & Cost Est Line" (TSC estimate of URS review of tunnel design).

Alternative Scenarios for Future Infrastructure Management

Attachment 3 Carter Lake Outlet – Final Design Cost Estimate (per Reclamation MOU) – URS Costs Based on April 2005 Estimates Dec 2005				
	Design	Procurement	CM	
	TSC/URS	NORTHERN	URS	
Project Feature	ESTIMATED COSTS			
	TSC	GP	URS	SUBTOTAL
Intake Structure	\$0	\$0	\$64,636	\$64,636
Intake Tower (Str. Analysis Only) ¹⁰	\$0	\$0	\$46,290	\$46,290
Tunnel	\$202,104	\$0	\$0	\$202,104
Discharge Portal	\$0	\$0	\$15,678	\$15,678
Outlet Pipe	\$0	\$0	\$63,351	\$63,351
Canal Transition	\$0	\$0	\$22,756	\$22,756
Control Building	\$0	\$0	\$121,598	\$121,598
Project-Wide	\$19,352	\$0	\$49,591	\$68,495
Specifications & Cost Estimates	\$72,848	\$17,638	\$101,105	\$191,588
Documentation ¹¹	\$36,840	\$0	\$44,600	\$81,440
Design Data	\$111,811	\$0	\$23,059	\$127,619
Project Management	\$45,784	\$55,925	\$70,991	\$181,157
Acquisition ¹²	\$13,824	\$12,461	\$74,640	\$96,064
NEPA Compliance	\$0	\$21,477	\$0	\$17,679
Reviews ¹³	\$34,560	\$17,635	\$16,600	\$88,188
Contract Administration				
Construction Management				
SUBTOTAL	\$537,123	\$125,136	\$714,895	\$1,377,154

¹⁰ The District decided to add the final design of the full tower to this contract after these estimates were completed. Therefore, the cost for this line item is higher than shown – but is not presently known by Reclamation.

¹¹ Assumes TSC produces Geotech Baseline Rpt.

¹² Assumes \$10k for GP participation on TPEC.

¹³ May duplicate GP's work in "Spec's & Cost Est Line" (TSC estimate of URS review of tunnel design).

SCENARIO 2: Dolores Project

Project Background

The Dolores Project (Project), located in the Dolores and San Juan River Basins in southwestern Colorado, was authorized by the Colorado River Basin Project Act of September 30, 1968 (Public Law 90-537), as a participating project under the Colorado River Storage Project Act of April 11, 1956 (Public Law 84-485). The authorization was based on the feasibility report of the Secretary of the Interior sent to Congress on March 17, 1966 and printed as House Document 412, 89th Congress, 2nd Session.

The authorized project purposes include: Irrigation, M&I, Fish and Wildlife, Power Generation, and Recreation. It also provides salinity control, and supports area economic development.

Storage of Dolores River flows for all project purposes is provided by McPhee Dam and Great Cut Dike. McPhee Reservoir has a capacity of 381,000 acre-feet and is the second largest reservoir in Colorado. Irrigation water is provided on a full service basis to approximately 35,600 acres and supplemental project irrigation water is provided to 26,300 acres within the San Juan River drainage. All water of the Dolores River is trans-basin diverted with the exception of the project water allocated for fish and wildlife enhancement (29,300 acre-feet annually). The Project provides M&I water for the City of Cortez, Dove Creek, Towaoc, and surrounding area.

Contract

Repayment contracts with the Dolores Water Conservancy District (District) and the Ute Mountain Ute Tribe (Tribe) contain articles specific to facility transfer. The contracts have articles dealing with responsibility of OM&R for project facilities and upon written notice the OM&R responsibility is transferred to the District or Tribe.

The District's repayment contract was executed on September 23, 1977 and pursuant to the contract provisions as stated in Article 12, titled "OM&R of Project Works" the OM&R for 1) Dawson Draw Dam and Reservoir, 2) Towaoc Canal, 3) lands and facilities used exclusively for fish, wildlife, and recreation except those at Monument Creek Reservoir, and 4) the portion of the M&I pipeline from Cortez into the Ute Mountain Ute Indian Reservation was transferred to the District.

The Tribe's repayment contract was executed on April 21, 1989 and pursuant to Article 14, titled "OM&R of Indian Facilities," the OM&R for the project works constructed by Reclamation that only benefit the Tribe were transferred to the Tribe. The Project works that were transferred were the Towaoc-Highline Canal Turnouts and Laterals, the Project Drainage Works, and the Operating Headquarters which benefit the Tribe.

The OM&R responsibility for all Project features, except the power plants, has been transferred to either the District or the Tribe.

Project Beneficiaries

Project beneficiaries include the Dolores Water Conservancy District, Ute Mountain Ute Tribe, Montezuma Valley Irrigation Company, Colorado Division of Wildlife, Western Area Power Administration, and towns and cities in both Montezuma and Dolores Counties.

Unique Features or Issues of the Project

The Project has an advanced water delivery system in which all facilities are remotely operated from one central location at the Great Cut Dike via fiber optic cable and SCADA. Water is delivered to the north portion of the project by pumping 90' up into an earth lined canal. The earth lined canal is 40 miles long with seven pumping plants located along it. The seven pumping plants pressurize water in 102 miles of pipe laterals. Water delivered to the south portion requires no pumping and is diverted from the reservoir through a tunnel and power plant into an earth lined canal which is 40 miles long. This canal supplies both M&I and irrigation water.

Reclamation provides an on-site liaison employee stationed at the Project that works side-by-side with all Project beneficiaries. This liaison conducts OM&R oversight and handles issues relating to the Project. As a result of this, Project beneficiaries are provided a consistent known point of contact and receive immediate attention on a local level to problems that may arise. This has fostered good working relationships with the general public as well as local operating beneficiaries. In fact, project beneficiaries believe that Reclamation should use the Dolores Project as the model for other projects.

The liaison is informed daily on problems/issues and has direct input into facility repairs or resolution of problems and scheduling. This has worked very well for Reclamation both from a cost standpoint as well as the quality of the maintenance performed.

The liaison position is funded from federal appropriations and performs reservoir operations, contract administration, project/facility inspections, wetland mitigation management, SOD duties and land management activities.

OM&R Costs

The O&M allocations vary at the Dolores Project depending on the feature and the beneficiaries. As an example, the allocation for McPhee Dam and Reservoir is:

Irrigation - 66.01%
M&I - 5.49%
Power - 0.54%
F&W - 27.96%

The District is responsible for the O&M at McPhee Dam and Reservoir. Reclamation reimburses it for the share allocated to F&W. The irrigation allocation of 66.01% is further allocated between the District (49.36%) and the Tribe (16.65%).

Section 6d of the Colorado Ute Indian Water Rights Settlement Act of November 3, 1988 (Public Law 100-585, 102 Stat. 2973) states: “The Secretary may further defer all or a part of the tribal construction cost obligations and **bear all or a part of the tribal OM&R obligations** described in this section in the event a **Tribe demonstrates that it is unable to satisfy those obligations in whole or in part from the gross revenues which could be generated from a water use contract for the use of its water either from the Dolores or the Animas-La Plata Projects or from the Tribe’s own use of such water.**”

Pursuant to this Act, the Tribe has requested that the United States bear the project OM&R costs allocated to their irrigation water. Therefore, Reclamation has been paying the Tribe’s allocated share of their OM&R for irrigation. The Tribe is also allocated a share of the M&I allocation, which it pays.

The allocation for the Towaoc Canal is split between salinity control and irrigation. The allocation for this canal is 23.12% allocated to salinity control (a nonreimbursable expense) and the other 76.88% allocated to irrigation. The Tribe is allocated 17.87% of the irrigation allocation which Reclamation has been paying.

Obstacles, Issues, or Lessons Learned from Transfer of OM&R

A major issue for the Project is, and will continue to be, the distribution of water to all project beneficiaries in accordance with many contracts and agreements currently in place. Administration of Project supplies and facilities during the drought periods of 2002 and 2003 with a diversity of users and interests was challenging. By having a local Reclamation representative, results of the shortage sharing were positive. This can be attributed to the fact that Reclamation and Project beneficiaries worked together as a community and had vested interests.

Scenario 3: Ainsworth

Project Background

The Pick-Sloan Missouri River Basin Program (P-SMBP) was authorized under the Flood Control Act of December, 22, 1944, (Flood Control Act). On August 21, 1954, in accordance with Public Law 612, 83d Congress, 2d session (68 Stat. 757), the Ainsworth Unit (Unit) was integrated into the P-SMBP.

P-SMBP was authorized to provide benefits for irrigation, flood control, municipal and industrial, fish and wildlife, and recreational purposes. The Unit was authorized to provide benefits for irrigation, fish and wildlife and recreational purposes. The Unit was found feasible by the Secretarial finding of feasibility dated November 21, 1955. The Act of May 18, 1956 approved the Unit feasibility report.

Project facilities include Merritt Dam and Reservoir, the Ainsworth Canal (Canal), a system of laterals, and surface and subsurface drains. Construction of Merritt Dam and Reservoir began in August 1961, and storage of water commenced in February 1964. Construction of the dam was completed in May 1964, and the dam and reservoir went from construction to operation and maintenance (O&M) status on March 10, 1965. Construction of the irrigation distribution system began in April 1962, was completed in June 1966, and was transferred to O&M status on September 1, 1966. On April 1, 1967 the O&M of both the water supply and distribution works was transferred to the Ainsworth Irrigation District.

Contract

The District and Reclamation entered into a contract on September 12, 1956 (1956 contract) for the furnishing of a Project water supply and for the construction, O&M and repayment of the District's distribution and drainage facilities. This contract was entered into prior to the development period therefore; Reclamation was responsible for the O&M. When the development period commenced, Reclamation could transfer the O&M to the District.

On March 31, 1967 upon commencement of the development period, the District and Reclamation entered into an amendatory contract (1967 contract) which superseded and replaced the 1956 contract. This amendatory contract transferred the O&M to the District for the water supply and distribution works. It also provided for the furnishing of a Project water supply and for the repayment of the distribution and drainage facilities.

The 1967 contract expires on December 31, 2006. Reclamation and the District currently negotiated a new contract which is out for a 60-day public review. Under the new proposed contract, the District will continue to O&M the Water

Supply and Distribution Works at no charge to the United States. The renewed contract addresses the transfer of O&M through contract articles similar to the 1967 contract.

Project Beneficiaries

The District is the only project beneficiary that repays a portion of the capital costs. Other benefits include recreation and fish and wildlife, which are nonreimbursable.

Unique Features of Project

The District is responsible for all of the O&M of Merritt Dam and Reservoir and the extensive water supply and distribution facilities. This water supply includes a 52.9 mile concrete-lined canal which minimizes seepage losses.

District's Responsibility's After O&M Transfer

1. The District is responsible to O&M all project facilities in accordance with the Standard Operating Procedures and sound engineering practices.
2. The District is responsible to comply with all applicable Federal, State, and local laws and regulations and Reclamation policies and instruction existing, or hereafter enacted or promulgated including but not limited to Environmental and cultural resource laws and regulations concerning Federal Project lands, Project waters or Project works.
3. The District must attend Reclamation's Dam Operator classroom training and on-site Dam Operator training.
4. The District must participate in annual site inspections, periodic facility reviews, and comprehensive facility reviews. They must prepare a schedule for timely completion of recommendations contained in inspections reports.
5. The District must participate in Emergency Action Plan Exercises.

Reclamation's Responsibility's After O&M Transfer

1. Reclamation provides the District technical and policy oversight and makes decisions relating to our facilities.
2. Reclamation is responsible to ensure that the O&M of the facilities is performed in an efficient and safe manner and all laws, policies, and regulations are followed.

3. Reclamation is responsible to perform annual site inspections, periodic facility reviews, comprehensive facility reviews, special examinations, and associated facility reviews and ensure the recommendations contained in the inspection reports are completed accurately by the District. Reclamation also provides technical assistance to the District to help the District understand the recommendations and address any concerns suggested as a result of the inspections/examinations.
4. Reclamation retains the oversight of the land resources at Merritt Reservoir including: recreation management, cultural resource management, emergency management, public safety, integrated pest management, and revisions and updates to the Standing Operating Procedures. Reclamation staff works with the Nebraska Game and Parks Commission (the managing partner for Merritt Reservoir) providing technical assistance for noxious weed control issues, review of design specifications for recreation enhancements, update/revisions to the Resource Management Plan, annual concession area review (done in participation with State), and universal accessibility recreation evaluation.
5. Reclamation monitors and maintains the two hydromet sites on the Ainsworth Canal which allows for the monitoring of the canal inflow and discharge. Reclamation prepares a monthly water report which shows the inflow, releases, evaporation etc. Reclamation also keeps and maintains historical records of Merritt Reservoir.
6. Reclamation annually prepares an annual operating plan (AOP) which provides information on the irrigation season and the reservoir water records.

O&M Costs and Funding

The District pays 100% of the O&M costs for both the water supply and distribution facilities. The District's 5-year average annual O&M is \$709,883. The District assesses its individual users annually to fund the costs of the O&M, debt service, and the emergency reserve fund. If the O&M costs are exceedingly high, the District can go through the process to float a bond to cover the costs. For example, the District may have a large O&M cost incurred to repair the road along the 52-mile canal. This cost would be larger than the District's current reserve fund and would significantly increase individual assessments if the total costs needed to be paid in one year. The District in this case, may decide to float a bond to cover the costs of the road repair.

Reclamation's 5-year average annual O&M is \$21,279. Of this amount the District is responsible to pay Reclamation for the costs associated with water management, monitoring and maintenance of the hydromet sites and preparation of the annual operating plan. The 5-year average annual O&M for these activities

is \$6,534. The other \$14,745 is for the costs associated with the inspections including the annual site inspection, periodic facility review, comprehensive facility review, normally inaccessible features, special examinations, and associated facility reviews.

In addition to the annual O&M costs Reclamation also incurs costs which are non-reimbursable associated with land resource management. The 5-year average costs for these activities is \$53,138.

Obstacles, Issues, or Lessons Learned from Transfer of O&M

The transfer of the O&M works well in most aspects. The District does an excellent job performing the necessary O&M and doesn't defer O&M on the system. The District works closely with both the Nebraska Kansas Area Office and the District's individual irrigators. The District annually sends in an O&M work plan to Reclamation and discusses upcoming O&M projects at the District board meetings. The District promotes water conservation and has implemented an effective water conservation program.

Project Background

The hypothetical Acme Project (Project) was authorized in 1941 to provide benefits for irrigation, flood control, municipal and industrial (M&I), power, fish and wildlife (F&W), and recreational purposes. The Acme Project is located on the Road Runner River near Urban, Idaho.

Construction of Acme Dam began after authorization in 1941 and was completed May 15, 1945. The power unit began operating December 15, 1945. The Project went from construction to Operation, Maintenance and Replacement (OM&R) status on January 1, 1946.

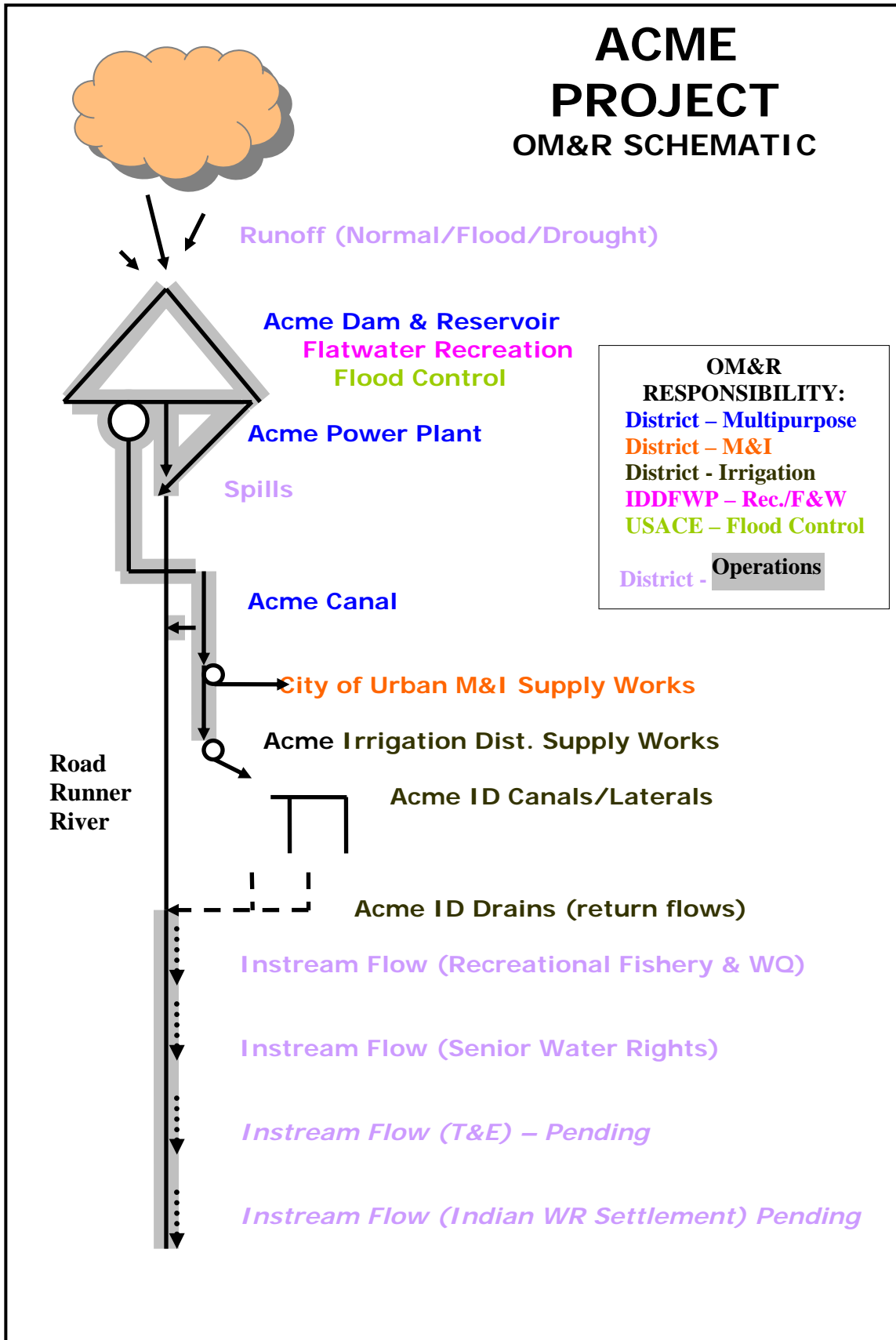
Project facilities include the Acme Dam and Reservoir, Acme Powerplant, the Acme Canal, two pumping plants, a system of laterals, surface and subsurface drains, and other facilities to furnish water supplies.

Reclamation built, holds title, and currently OM&R's all project facilities including both the multipurpose and single purpose features. All project facilities are considered "Reserved Works".

Repayment Contracts

Reclamation and the Acme Irrigation District (District) entered into a repayment contract on September 12, 1941 for a Project water supply, for repayment of the Project water supply and irrigation distribution works and for project use power construction costs. (A separate contract was entered into for use of power for project purposes.) The repayment contract has no expiration date but had a 40 year repayment term for the construction costs associated with the water supply and distribution works. The District's final construction charge obligation was due and paid in 1981.

ACME HYPOTHETICAL



Reclamation and the City of Urban (City) entered into a repayment contract on October 3, 1941 for a M&I water supply, for repayment of the Project water supply and municipal distribution works and for project use power construction costs. (A separate contract was entered into for use of power for project purposes.) The contract has no expiration date but had a 40 year repayment term for the construction costs associated with the water supply and distribution works. The City’s final construction charge obligation was due and paid in 1981.

OM&R Cost Allocations

The following provides the allocation of the costs of OM&R.

Multipurpose facilities – The allocation for the multipurpose facilities includes the OM&R costs of Acme Dam and Reservoir, the Acme Powerplant and the Acme Canal, including the outlet works structure.

	Allocation	Who Pays
Irrigation	55%	District
M&I	10%	City
Power	10%	District – 5%, City – 5%
Recreation	15%	Reclamation
F&W	5%	Reclamation
Flood Control	5%	Reclamation

Irrigation – The District pays 100% of the OM&R costs for the irrigation distribution facilities. These single purpose facilities include all works beyond the canal turnouts in the Acme Canal including the pumping plant (which uses project power), laterals, and other facilities constructed by the United States and used for the distribution of water to such tracts of irrigable acreages within the District and all drains and drainage works constructed for the drainage of District lands.

M&I – The City pays 100% of the OM&R costs for the single purpose M&I facilities, which include the pumping plant (which uses project power) and the pipeline used for the delivery of M&I water.

Precursors to OM&R Transfer

Given that Reclamation is the owner of the facilities and is accountable to the U.S. Government and its citizens for managing its facilities, projects and programs effectively, complete responsibility cannot be transferred. Therefore prior to transferring the OM&R, Reclamation would:

- Develop guidelines which establish the operating entities responsibilities and our expectations. For example, Reclamation would require the District to obtain our approval prior to replacing an entire lateral. However, we would not require separate approval for each day-to-day OM&R activity. Reclamation must ensure that

minimum safety and reliability requirements are met to ensure operational compatibility of the OM&R with other aspects of the Federal Project.

- Determine if the District has the legal, financial, and engineering competencies to perform the OM&R responsibilities.
- Perform an inventory assessment on the condition of the facilities
- Maintain its role as owner. The obligations and responsibilities of the District will be defined in the O&M transfer contract.. An annual work and operating plan will be required from the District. As work arises that needs to be completed prior to the next work and operating plan, the District is responsible to receive Reclamation's approval prior to the work being done.
- Regularly evaluate the effectiveness of the transfer effort and at a minimum, address cost and schedule parameters and assure standards are met. Regularly have access to any records, reports, water-use data, or other information needed in our assessment.
- Retain a sufficient level of technical and managerial competency in-house to act as informed owners and smart buyers.

Proposed OM&R Transfer

The following is one way transfer of the OM&R of the hypothetical Acme Project could be accomplished. There are many ways to transfer OM&R, and many variables and complications that may affect a transfer. Reclamation would retain responsibility for essential governmental policy and oversight. Determination of which functions are related to essential governmental policy, and which transferred functions Reclamation retains final signatory authority for, would need to be made.

Reclamation and the District entered into a contract to transfer the OM&R of all facilities and features of the project to the District, including both multipurpose and single purpose features. The District is responsible to OM&R the facilities in accordance with Reclamation's standards and guidelines, and applicable local, state and federal law. Generally, the District is responsible for all facets of the project.

The District is required to accumulate and maintain a reserve fund by making annual payments into the fund. The reserve fund requirements are significant because all of the OM&R responsibility, including that of the powerplant, is transferred to them.

The District submits an annual work and operating plan which is approved by Reclamation. The District is responsible to receive approval from Reclamation to perform work that is necessary but not included in the annual work and operating plan.

The District is obligated to work with both Reclamation and the United States Army Corp of Engineers (USACE) when there is a flood risk. When the reservoir is in the flood pool the United States Army Corp of Engineers (USACE) will dictate releases to the District. If the water reaches the surcharge pool Reclamation will take control and dictate releases to the District.

The District is responsible for the day-to-day water supply for irrigation and M&I and for power operations of the project. Reclamation reviews, modifies and/or approves the District's proposed operations prior to the water year, and then at appropriate intervals, ranging from quarterly to daily. The District also prepares actual operating data and water accounting information for Reclamation review and approval.

The District is responsible for certain design work needed to OM&R the facilities.¹⁴ The District may at their discretion sole source this work. However, Reclamation will review and approve the final design.

Technical experts employed by the District, (or at their discretion a Contractor hired by the District) and technical experts from Reclamation will jointly perform facilities reviews (including the associated facility reviews, periodic facility reviews, and comprehensive facility reviews) and annual inspection of the multipurpose works. The District writes the reports and Reclamation reviews the findings and determines the necessary actions to be taken and directs the District to complete the necessary corrective actions. Reclamation ensures that project facilities are being operated in a safe and effective manner.

The District is responsible for OM&R cost accounting functions relating to the nonreimbursable costs, including but not limited to: bill paying and the preparation of the annual financial statements. Reclamation reviews and approves such accounting to ensure that compliance with applicable regulations and the appropriate accounting is being performed.

Reclamation pays the District for the 25% of the multipurpose costs associated with the non-reimbursable facilities (Recreation -15%, F&W – 5%, Flood Control – 5%). The District is solely responsible, at no expense to Reclamation, for the costs associated with the OM&R of the single purpose facilities. The District is responsible for 100 % of the OM&R, and negotiating with the City for payment to the District of the City's share of the OM&R.

Following execution of the OM&R transfer contract between Reclamation and the District, the District entered into the following subcontracts with concurrence by Reclamation:

¹⁴ Please see the discussion of outsourcing design services under Scenario 1 in the main body of this report.

1.) **Subcontract between the District and the City** for payment for 100% of the costs to OM&R the single purposes M&I facilities and for payment of their share of the multipurpose OM&R M&I allocation (10%) and their share of the OM&R multipurpose power allocation (5%). The District provides the City an annual work and operating plan for the single purpose M&I facilities which outlines the work scheduled for the upcoming year for the City's approval. The District is responsible to receive approval from the City to perform work that is necessary but not included in the annual work and operating plan for the single purpose facilities. If the City and the District have a dispute regarding the OM&R, they first must try to work it out themselves. If the dispute can't be internally resolved, Reclamation as the owner will solve the dispute and make the final decision on the work to be performed. The City is responsible to set up an account or provide the District documentation verifying that they have the capability to fund any OM&R costs including any extraordinary or unforeseen OM&R costs.

2.) **Subcontract between the District and the Idaho Department of Fish, Wildlife and Parks (IDFWP)** for the OM&R of reservoir lands, recreation and concessions. The land around the Dam and Reservoir is designated a State Park and therefore IDFWP manages all reservoir lands. The IDFWP is responsible for 100% of the costs. Although the District is not doing the OM&R they are still responsible to provide oversight and consult with the IDFWP on the OM&R. Annually, the District must submit a report to Reclamation on the work that was performed, and the work scheduled to be performed for the upcoming year. The District is responsible to also inform Reclamation on any outstanding issues.

Reclamation's General Role as Owner

- Provide technical and policy oversight and make decisions on matters of essential governmental policy.
- Execute all documents such as agreements, contracts, amendments and memoranda of understandings, for water service, repayment, excess capacity, exchange, fish, instream flows, etc. Reclamation will assure that such documents, and implementation of such documents, are in compliance with project authorization and law.
- Resolve any disputes that arise between the District and the City or the District and IDFWP. Reclamation will have the final decision making authority over any such disputes.
- Retains right to resume OM&R responsibilities for the transferred facilities in the event the District fails to meet commitments.
- Reclamation will have signature authority on all land right or ways, leases and permits.

Appendix 3 – Outsourcing & Competition

Introduction

Through outsourcing, many executive agencies have been increasing their reliance on the private sector for a wide range of professional and support services over the last decade for a variety of reasons, including broad executive management initiatives.⁴⁴ Federal agency outsourcing is normally a result of competitive sourcing, specifically of public-private competitions. “Outsourcing” refers broadly to accomplishing work through a separate entity or “provider” without reference to how the provider is selected to perform the work (i.e., directly or through competition). “Competitive sourcing,” on the other hand, refers to the means of selection: subjecting work to competition among prospective providers. The Federal Executive branch is currently undertaking a wide-ranging competitive sourcing initiative that embraces public-private competitions, in which the Government itself is among the competitors. Since the competing agency may win, the competition may or may not result in outsourcing.

Federal public-private competitions are conducted according to the Office of Management and Budget’s (OMB) Circular A-76,⁴⁵ which establishes “the policies and procedures for identifying commercial activities and determining whether these activities should be provided by a private sector provider through a contract, by government personnel...or by a public reimbursable source (another agency).”⁴⁶ The Circular normally requires an agency to conduct a public-private competition before shifting work from performance by government personnel to performance by a contractor or vice versa. In 2001, the President issued his *President’s Management Agenda* (PMA),⁴⁷ calling on agencies to actively pursue a handful of initiatives, the competitive sourcing initiative (CSI) among them. According to OMB, “[t]he Administration’s general policy is to rely on

⁴⁴ See Structure and Dynamics of the U.S. Federal Professional Services Industrial Base, 1995-2004 (May 2006) (CSIS Report) (p. IX), at http://www.diiig-csis.org/resources/view.asp?RESOURCE_ID=81. CSIS “serves as a strategic planning partner for the government by conducting research and analysis and developing policy initiatives that look into the future and anticipate change” (see CSIS Report, at II).

⁴⁵ OMB assists the President in overseeing the preparation of the federal budget and supervises its administration in Executive Branch agencies. OMB Circulars apply to the executive agencies, which are required to observe the Circulars’ provisions “insofar as the subject matter pertains to [their] affairs.” See Circular A-1. They are available online in numerical order at <http://www.whitehouse.gov/omb/circulars/in-dex.html>.

⁴⁶ Preamble to OMB’s 2003 revision of A-76, published in the Federal Register as “Performance of Commercial Activities” (Thursday, May 29, 2003), at 68 FR 32134, available at http://www.whitehouse.gov/omb/fedreg/rev_a76_052903.pdf.

⁴⁷ Available at <http://www.whitehouse.gov/omb/budget/fy2002/mgmt.pdf>.

competition to select the providers of commercial activities,” and Circular A-76 “seeks to ensure that competition plans—and the President’s broader vision of a market-based government—are successfully implemented.”⁴⁸

Commercial, Core Commercial, and Inherently Governmental Activities

Commercial activities are basically those that the private sector is able to perform and that it is appropriate to perform through the private sector. The Federal Activities Inventory Reform Act of 1998 (FAIR Act)⁴⁹ and Circular A-76 require agencies to prepare annual inventories categorizing their activities as either commercial or inherently governmental. Circular A-76 states that a commercial activity “is a recurring service that could be performed by the private sector and is resourced, performed, and controlled by the agency through performance by government personnel, a contract, or a fee-for-service agreement.” These are normally subject to competition, though OMB guidance has recognized “core commercial” activities, which are commercial activities that are “core to an agency’s operation,” and for which “agencies must maintain a residual capacity.”⁵⁰ Agencies have considerable latitude in determining whether a commercial activity is appropriate for public-private competition, taking various factors into account, such as the unavailability of private sector expertise, preservation of core competencies, or need for confidentiality in support of senior level decision making.⁵¹

Circular A-76 describes “inherently governmental activities” as those that are “so intimately related to the public interest as to mandate performance by government personnel.”⁵² While emphasizing that “[i]nherently governmental activities must be performed by public employees,” the Circular calls for “an exercise of *substantial* discretion in the application of government authority in order for an activity to be considered inherently governmental.” According to the Circular, these activities normally fall into one of two categories: “the exercise of sovereign government authority or the establishment of procedures and processes related to the oversight of monetary transactions or entitlements.” The Circular requires the responsible competitive sourcing official (CSO) to justify, in writing “any designation of government personnel performing inherently governmental activities.”⁵³

⁴⁸ See footnote 3.

⁴⁹ Pub. L. 105-270; 31 U.S.C. § 501 note.

⁵⁰ OMB Report on Competitive Sourcing Results for Fiscal Year 2005 at p. 13, available at http://www.whitehouse.gov/omb/procurement/comp_src/cs_annual_report_fy2005_results.pdf.

⁵¹ *What You Always Wanted to Know About the New OMB Circular A-76, but Were Too Confused to Ask*. (10/2/03), available at http://www.whitehouse.gov/omb/procurement/comp_src/a76_always_wanted_to_know.pdf.

Agencies have reached very different conclusions regarding the extent to which their commercial activities should be made available for competition. *Id.*

⁵² See revised Circular A-76, Attachment A, ¶ A.5.

⁵³ Emphasis added. See Attachment A, ¶ B.1.a.

About Competitions

There are two types of competitions authorized under the revised Circular: standard and streamlined. The key differences between them are size, duration, and cost differential.⁵⁴ Standard competitions are generally conducted for commercial activities that involve more than 65 full-time equivalents (FTEs), can take up to 12 months to complete,⁵⁵ and require the private sector or other non-federal bidder to show incremental savings of the lesser of \$10 million or 10 percent of personnel-related costs, above and beyond the government's bid, in order to win the work. Streamlined competitions may be conducted only for activities that involve 65 or fewer FTEs, must normally be completed within 90 calendar days,⁵⁶ and do not include a dollar/percentage cost-saving threshold.⁵⁷

The extent to which the A-76 process results in outsourcing varies widely among agencies. OMB has set goals for agencies to conduct the studies that distinguish and categorize their activities, and has set goals for actually competing some of their commercial activities, but there are "no budget or personnel reduction goals to be met."⁵⁸ According to the OMB, the government overall has historically won an average of between 50% and 60% of its public-private competitions, and won 83% of its competitions in Fiscal Years 2003 through 2005.⁵⁹

Note on Direct Conversions. Before A-76 was revised, agencies could, under certain circumstances, convert activities from public to private sector performance without public-private competition.⁶⁰ The revised Circular eliminates direct conversions and requires those initiated but not completed by May 29, 2003 to be converted to streamlined or standard competitions.⁶¹

Experiences & Lessons Learned

Outsourcing - Positive

In a 2002 study on outsourcing, the management consulting company Accenture found that, "[t]hrough outsourcing, [public sector organizations] can save money,

⁵⁴ Federal Acquisition Council, *Manager's Guide to Competitive Sourcing*, Second Edition, February 20, 2004, available at <http://www.whitehouse.gov/results/fac-manager-guide2.pdf>.

⁵⁵ A 6-month study extension may be approved by a senior agency official. The average time for standard competitions completed in FY 2005 was 11 months. See footnote 7 (at 13).

⁵⁶ A 45 calendar day extension may be approved by a senior agency official. The average time for streamlined competitions completed in FY 2005 was just under 3 months. See footnote 7.

⁵⁷ However, section 842 of Public Law 109-115 requires some agencies, including Interior, to apply the \$10 million/10 percent conversion differential for activities performed by more than 10 employees, including under streamlined competitions.

⁵⁸ *Competitive Sourcing at USDA* (6/4/02), available at <http://www.ocfo.usda.gov/compsorc/pdf/compqa.-pdf>.

⁵⁹ See footnote 7.

⁶⁰ See footnote 3.

⁶¹ It also requires that the commercial activities competed be periodically re-competed to ensure that the cost and quality of performance remain reasonable.

extend their capabilities and improve the services they provide to citizens and businesses.”⁶² Listed below are some of the benefits attributed to government outsourcing.

- *Cost reduction.* Can reduce costs through use of specialized, single service or product providers. Specialized sources tend to have lower cost structures and benefit from economies of scale associated with providing and focusing on a single service or product.⁶³
- *Access to private sector skill and technology.* Can provide agencies with inexpensive access to technology and skills not available in-house, and to innovative ideas generated in the private sector.⁶⁴
- *Focus on core mission.* Reduces management and performance burdens associated with activities that are not central to an agency’s primary mission, allowing the agency to refocus on its core functions and the associated competencies.⁶⁵
- *Reduce internal resource requirements.* Reduces dependency on internal resources, and can reduce ongoing investment required in internal infrastructure and generate savings by transferring assets to the provider.⁶⁶
- *Enhance reputation.* Can enhance the government’s credibility and image by associating it with respected providers.⁶⁷
- *Enhance public-private business network.* Can enhance market access and business opportunities through the supplier’s network⁶⁸

Outsourcing - Negative

As the Accenture Report cautions, the results of government outsourcing initiatives are “mixed,” some failing “to produce the expected results.”⁶⁹ Following are some of the problems and objections associated with government outsourcing.

⁶² “Outsourcing in Government: Pathways to Value,” available at http://www.accenture.com/Global/Research_and_Insights/By_Industry/Government/OutsourcingValue.htm.

⁶³ See, e.g., 2001 Executive Research Project, Case Study, *Complex Business Management for Competitive Sourcing*, Randall J. McFadden, Dept. of the Air Force (p. 6), available at <http://www.wifcon.com/analmcfad-den1.pdf>.

⁶⁴ McFadden (6).

⁶⁵ McFadden (7).

⁶⁶ The Outsourcing Management Zone, *Outsourcing: Information, Resources and Guidance, What is Outsourcing?*, available at <http://www.theoutsourcerzone.com/why.htm>.

⁶⁷ See footnote 23.

⁶⁸ See footnote 23.

⁶⁹ See footnote 19.

- *Ethical considerations.* Some objections concern the difference in ethical requirements placed on Federal employees and private sector employees.⁷⁰
- *Commitment of private contractors.* Some sources question the commitment of private contractors to protecting the public's interests, cautioning that companies are motivated by profit, not public service.⁷¹
- *Quality.* Outsourcing can “lead to substantial compromises in the intended quality of systems.”⁷²
- *Over-focus on efficiency.* A related objection is that the singular focus on efficiency leads to neglect of other important qualities and fixes on short-term gains at the expense of long-term thinking.⁷³
- *Failure to save costs.* Outsourcing may not save costs. According to the Democratic Policy Committee, “hundreds of millions of dollars for outsourcing reviews are being taken from operational budgets.”⁷⁴
- *Loss of competency.* The Public Lands Foundation article also warns the loss of agency capability to perform the outsourced work, in particular where a contractor’s services become unavailable for whatever reason. If the knowledge and experience needed to perform particular work at particular sites efficiently and effectively has become solely the purview of a contractor, an agency will lack the competency to take over, should the need arise.⁷⁵

⁷⁰ See Public Lands Foundation, Update on Major Public Lands Issues (June 23, 2006), available at <http://www.publicland.org/majorIssues.htm>.

⁷¹ See, e.g., *Federal Computer Week*: “OMB puts federal jobs up for grabs,” by Michael Hardy with Diane Frank, June 2, 2003, available at <http://www.fcw.com/article79804-06-02-03-Print>. Negative reactions to outsourcing at NPS exemplify this objection. These critics object that the private sector is ill-suited to protecting the Park Service lands and facilities for lack of a public-oriented motivation and public-service ethic. They assert that this leads to a commercial character in ostensibly public commodities and that it erodes the federal agency’s internal culture, which is based on public service. See, e.g., National Parks Conservation Association, “Privatization of National Park Service Jobs,” available at http://www.npca.org/media_center/fact_sheets/privatization.html.

⁷² Independent Levee Investigation Team, New Orleans Levee Systems - Hurricane Katrina (July 31, 2006) (ILIT Report, available at http://www.ce.berkeley.edu/~new_orleans/), Appendix F: “Looking Back” (§ F – 11).

⁷³ See ILIT Report, Appendix F: “Looking Back” (§ F – 17), stating that “Down-sizing and out-sourcing are used to further the drives of efficiency. Insensitivity is developed to overloading and its effects on judgement [*sic*] and performance. Redundancy (robustness) is eliminated or reduced in the same drive resulting in elimination of cross checks, assumption that precautions and existing levels of training and experience are sufficient, and dependence on claimed levels of competence.”

⁷⁴ See Democratic Policy Committee, The Truth About Privatization (October 2, 2003), available at http://democrats.senate.gov/dpc/dpc-new.cfm?doc_name=fs-108-1-353.

⁷⁵ See, e.g., ILIT Report, Ch. 13: “Organized for Success” (§ 13 – 10). Defining “outsourcing” as “the hiring of outside, private firms and/or individuals to perform work, including engineering design and construction,” the ILIT Report found that “pressures to

- *Smart-buyer competency.* There is also concern that, with its functional competencies, an agency will lose the competency to perform adequately as a “smart buyer”—to recognize the best bids—and may need therefore to hire consultants to perform this function as well.⁷⁶ The TVA and COE have reported experiencing this result of outsourcing. As the National Research Council concluded, in reference to COE, “[s]hifting analytical tasks to the private sector...has its limits, as core, ‘in-house’ competence is necessary for the Corps to commission, manage, and comprehend the advice of external experts.”⁷⁷
- *Institutional memory.* They also cite concerns over the loss institutional memory and ethos, leading to the loss of internal competency and character. The ILIT Report cites connect the loss of corporate memories to the repetition of errors.⁷⁸
- *Distraction from mission goals.* The ILIT Report states that, among other things, pressures to outsource and downsize to “improve project and organizational efficiency” have tended to “divert attention from engineering quality and flood control reliability” in COE projects.⁷⁹
- *Lack of control.* Studies have described “lack of control” as a “critical disadvantage.”⁸⁰
- *Negative effect on workforce diversity.* According to the Democratic Policy Committee, outsourcing reverses the past progress in diversifying the federal workforce, having a “disproportionately negative impact on female and minority workers.”⁸¹
- *Internal barriers.* The established methods of operation within organizations do not always support the transformation to competitive sourcing and often represent barriers to effective outsourcing.⁸²

outsource” had contributed to the sacrifice of core engineering competencies. The study further states that COE’s “organization has over the past few decades outsourced more work, lost many engineers to private industry, and consequently suffered a diminished capacity to attract top-notch engineers.” ILIT Report, Ch. 12: “Organized for Failure” (§ 12 – 9). A report on the Columbia accident found similarly that “[y]ears of workforce reductions and outsourcing have culled from NASA’s workforce the layers of experience and hands-on systems knowledge that once provided a capacity for safety oversight.” ILIT Report, Appendix F: “Looking Back” (§ F – 18), citing the Columbia Accident Investigation Board (CAIB) Report.

⁷⁶ See footnote 23.

⁷⁷ ILIT Report, Ch. 13: “Organized for Success” (§ 13 – 13).

⁷⁸ ILIT Report, Appendix F: “Looking Back” (§ F – 11).

⁷⁹ ILIT Report, Ch. 12: “Organized for Failure” (§ 12 – 19), citing ValuJet as an example: “The demise of ValuJet...happened because the company outsourced cargo handling to a company it had no control over in terms of quality standards.”

⁸⁰ ILIT Report, Ch. 13: “Organized for Success” (§ 13 – 10).

⁸¹ See footnote 31.

⁸² McFadden (12).

- *Employee morale.* Outsourcing initiatives can cause anxiety and low morale among employees. Low morale, in turn, can lead to
 - Low output, poor performance
 - Retention difficulties
 - Recruitment difficulties
- *Conflicting directives.* Directives to cut costs but maintain quality and to outsource technical work but maintain competency.

Competition - Positive

According to the U.S. Chamber of Commerce, “[p]ublic-private competitions, through the competitive sourcing process, have saved the government billions of dollars and required government agencies to become more efficient.”⁸³ Federal agencies have reported success with competitive sourcing (though, as OMB notes, “no two agencies are alike”). Based on agencies’ accounts, OMB listed the following (in addition to those stated above) as examples of successes under the Federal government’s current competitive sourcing initiative, for Fiscal Years 2003 through 2005:⁸⁴

- Savings and performance improvements generated from process reengineering, workforce realignments, better leveraging of technology, and operational consolidations. Savings also derived as in-house providers renegotiate contracts with their private sector partners to reduce the cost of operational support.
- Annualized expected savings approaching \$1 billion, and expected to grow as more competitions are completed and cost control and performance efficiencies are brought to bear on a larger number of daily tasks.
- An average expected net savings per full time equivalent (FTE) competed over the last 3 years of \$23,000. (Best value tradeoff competitions, where both cost and quality are taken into account in selecting a provider, account for 70% of the total estimated net savings reported over the last 2 fiscal years reported).
- Federal employees faring well in competitions, indicating that they are taking advantage of the competition process to eliminate operational inefficiencies and create superior MEO’s.⁸⁵

⁸³ *Competitive Sourcing*, available at <http://www.uschamber.com/issues/index/govtcontracting/a76.htm>.

⁸⁴ See footnote 7. At 1 – 2.

⁸⁵ The government competes for work through entities called “most efficient organizations” (MEOs). An MEO is an “in-house organization that would most efficiently perform a commercial activity after a managed competition under A-76. It may include a mix of federal employees and contract support and is used as the basis for measuring all government costs (direct and indirect) and performance against competitive contractor or interservice support agreement (ISSA) offers.

According to GAO and others, competitive sourcing maximizes these benefits, and does so regardless of who wins the competitions, meaning with or without actual outsourcing.⁸⁶ According to OMB, “savings from competitions completed between FY 2003-2005 are expected to generate \$5.6 billion, or about \$1 billion in annualized estimated savings,” which “translates to about \$27 for every dollar spent on competition, regardless of who performs the work.”⁸⁷ Sources also assert that, “[c]ompetitive sourcing...allows agencies to refocus on core functions and mission-critical activities [and] helps them address their human capital management,” and that “[c]ompetitive sourcing is a means of tapping new sources of human capital to meet current service needs. Indeed, competitive sourcing is fundamentally about accessing new pools of talent.”⁸⁸

Competition - Negatives

The Professional Services Council (PSC) issued a report in 2006 based on its survey of government officials⁸⁹ who generally supported the concept of the initiative, but who counted the following among their criticisms of the current program in practice:

- *Employee morale.* Employee morale is commonly cited as a negative effect of competitive sourcing studies.
- *Cost of Studies and Competitions.* Some sources say that competition hasn’t proven cost-effective, asserting that it “often end up costing as much or more than government employees.” and that the costs might actually outstrip an agency’s budget for it, potentially forcing a reduction in services.⁹⁰

To determine the MEO, the in-house activity may reinvent, reorganize and restructure itself, including making capital investments, in order to arrive at the agency's most efficient method of performing the commercial activity.” GAO/GGD-97-121, *Terms Related to Privatization Activities and Processes* (July 1997), available at <http://www.gao.gov/special.pubs/gg97121.htm#PAGE18>.

⁸⁶ *Improving the Sourcing decisions of the Government, Final Report* (April 2002), GAO, Commercial Activities Panel, available at <http://www.gao.gov/a76panel/dcap0201.pdf>.

⁸⁷ Press Release 2006-10 (April 20, 2006): Competitive Sourcing Continues to Save Billions for Taxpayers, OMB’s “Best Value” Rules Help Improve Government Operations, available at <http://www.whitehouse.gov/omb/pubpress/2006/2006-10.pdf> (last visited 10/30/06).

⁸⁸ Hearing/Meeting, Thursday, July 24 2003: Oversight on Competitive Sourcing, National Parks Hearing Testimony Submitted by Geoffrey Segal, Director of Privatization & Government Reform Policy, The Reason Foundation, to the Senate Energy and Natural Resources Committee, Subcommittee on National Parks, re: Competitive Sourcing (4).

⁸⁹ The PSC and its member company Grant Thornton have conducted a survey every two years since 2002 “on procurement policy in the federal government,” with the goal of learning “first-hand from senior government officials and practitioners about critical procurement challenges faced by federal acquisition professionals.” Based on its 2006 survey findings, the PSC produced its report *Troubling Trends in Federal Procurement* (PSC Report), which is available online at <http://www.pscouncil.org/pdfs/2006PSCProcurementPolicySurvey.-pdf>.

⁹⁰ National Parks Conservation Association, “Privatization of National Park Service Jobs,” available at http://www.npca.org/media_center/fact_sheets/privatization.html.

- *Difficulty measuring gains.* Some critics assert that the Government's numbers, which show competitive sourcing as a success, are based on faulty or incomplete data. A 2003 article in *Federal Computer Week* noted, for instance, that where 30 percent is commonly cited as the cost savings for the government, opponents object that a "key" study supporting the number examined too small a percentage of the total jobs competed during the test period to make an accurate measure.⁹¹
- *Declining contract values.* According to the May 2006 CSIS Report, "the number of contract actions has outpaced the value of contracts awarded, with average value decreasing from \$385,000 in 1995 to \$270,000 in 2004, and the median dropping from \$63,000 to \$30,000 during the same span. According the CSIS, this decline in contract action values implies "that firms must compete harder just to sustain level revenues."⁹²
- *Static concepts.* Accenture describes "concepts like 'non-core' and 'inherently governmental'" as "static concepts" that emphasize on "doing deals rather than managing relationships," accompanied by "conventional outsourcing practices that...lead to approaches that limit flexibility."⁹³
- *Negative comparison to outsourcing.* Some prefer direct outsourcing to competitive sourcing, or at least to public-private competition, asserting that the competitive process is actually less cost-effective, taking more time and involving a more convoluted process.⁹⁴

Advice and Lessons Learned

According to the Outsourcing Management Zone: "The benefits of outsourcing of course are variable, dependent upon the nature and situation of the organization...every scenario is different.... It is therefore important that ALL the issues are considered before embarking upon the outsourcing course. This assessment should take into account all factors, both local and generic."⁹⁵ The following are commonly cited lessons learned and pieces of advice offered relevant to implementing outsourcing and competitive sourcing initiatives. This list appears here, following discussion of both outsourcing and competitive sourcing, to avoid repetition, since those that apply to the former would normally also apply to the latter, to the extent it resulted in outsourcing.

⁹¹ The "key" study was conducted by the Center for Naval Analyses and "examined only 16 competitions, or 15 percent of the total number of jobs competed between 1988 and 1996." See Footnote 28.

⁹² See footnote 1.

⁹³ See footnote 19.

⁹⁴ See Schooner, Steven L., "Competitive Sourcing Policy: More Sail Than Rudder" . Public Contract Law Journal, Vol. 33, No. 2, p. 263, 2004 Available at SSRN: <http://ssrn.com/abstract=488266>.

⁹⁵ See footnote 23.

- Effective outsourcing requires agencies to recognize the cultural barriers and reduce resistance through education, and to mitigate the impacts on affected individuals by providing multiple career alternatives for their future.⁹⁶
- Outsourcing proponents uniformly warn against aiming initiatives narrowly at cutting costs or implementing them for purely ideological reasons. Rather, outsourcing initiatives should be implemented as part of broader strategic plans to improve at least discernable functions of an organization, if not to transform the organization as a whole.⁹⁷ Accenture found that those who “counted cost reduction as a top outsourcing driver” only met their objectives “largely or fully” about half the time, significantly less than those who “targeted more ‘value-adding objectives,’” such as gaining access to new technology, centralizing and standardizing operations, or even transforming the agency.
- Similarly, the GAO has emphasized “the need for a strategic approach to sourcing decisions, rather than an approach that relies on the use of arbitrary quotas or that is unduly constrained by personnel ceilings.”⁹⁸ The current Circular A-76 is designed to place—or at least allow—more focus on strategic plans and value-adding initiatives over crude cost-saving initiatives.
- Agencies must maintain technical competencies to perform as smart buyers of technical services and goods with a firm understanding of the relevant technical complexities. The ILIT Study states (referring specifically to COE, but making a point of broader relevance) that “[o]utsourcing must be balanced with in-sourcing to encourage development and maintenance of superior technical leadership and capabilities,” and that the agency should conceptualize itself “as a pivotal part of a modular organization developing partnerships with other federal agencies, state and local governments, enterprise interests, and private stake holders.”⁹⁹
- Agencies must not only maintain the core technical competency to distinguish between bids, they must also have business management and acquisitions competency suitable to meet the increases in dealings with private businesses and in procurement contracting.¹⁰⁰ The need to

⁹⁶ McFadden (14).

⁹⁷ [See](#) footnote 19.

⁹⁸ [See](#) footnote 43 (at 6).

⁹⁹ ILIT Report, Ch. 13: “Organized for Success” (§ 13 – 17).

¹⁰⁰ According to the PSC survey, there has been a stark trend in the federal government toward disparity between its acquisitions workforce and its acquisitions workload, leading to inadequacies in acquisitions functions, including that of the smart-buyer. According to the survey, acquisitions should be treated as a core function calling for maintenance of the associated core competencies. [See footnote](#) 46.

pair institutional knowledge to relevant business knowledge includes the need to

- “align mission goals with corporate goals,” and balance operational needs with commercial business realities in program management decision-making, and
- “become fluent in business management philosophy in areas such as financial analysis, cash flow, market influence, schedule control, negotiation, legal obligation, labor management, risk mitigation, and contract terms implication.”¹⁰¹
- Agencies should embrace as much contractual and programmatic flexibility as possible, to deal with constantly and rapidly changing market circumstances, technology, and other variables. Many sources note obstacles to instilling these qualities in the Federal outsourcing framework. Accenture observes that public sector executives “struggle to keep initiatives on course through well intentioned, but time-consuming procurement processes and strong pressure from shifting political agendas, union pressure, changing leadership and uncertain budgetary support.”¹⁰²

¹⁰¹ McFadden (14).

¹⁰² [See](#) footnote 19.