



# United States Department of the Interior

BUREAU OF RECLAMATION  
Washington, DC 20240



IN REPLY REFER TO:

86-61000  
PRJ-1.10

## MEMORANDUM

To: Acting Deputy Commissioner – Operations

From: Robert W. Johnson  
Commissioner

Subject: Decision Related to *Managing for Excellence* Team 31 – Final Recommendations

I hereby approve all recommendations and direct you to implement the last four recommendations found in the attached *Managing for Excellence* – Action Item 31- Final Recommendations. The first three recommendations require no action to be taken by the Bureau of Reclamation.

Attachments – 2

cc: 91-00000 (Collier), 91-00010, 91-10000, 910120, 92-00000 (Serote, Brown),  
94-00000 (Todd, Oates), 94-30000 (Wolf, Smith), 94-46000, 96-00000 (Quint, Brown),  
96-420000 (Hess)  
84-20000 (Beckman, Moon), 84-21000 (Feuerstein, Wendling), 84-27000 (Harrison, Mattingly),  
84-50000 (Gonzales, Reese), 84-40000 (Achterberg, Nevin), 86-60000 (Gabaldon, Medina)  
86-68000 (Pimley, Weitkamp)  
PN-1000 (McDonald, Kaley), MP-100 (Davis, Schlueter), LC-1000 (Gray, Ruiz),  
UC-100 (Gold, Daley), GP-1000 (Ryan, Blankenship)  
(w/att to each)



## **Action Item 31—Final Recommendations**

# **Benchmarking Operation and Maintenance (O&M) of Water Storage Facilities**

### ***Executive Sponsor***

Robert J. Quint

### ***Team Members***

Michael Roluti, Darrel Krause, Erin Gleason, Rich Kristof, Victoria Hoffman, Scott Boelman

### ***Key Organizational Function Interfaces***

Regional and Area Offices - Operation and Maintenance (O&M) functions

## **Action Item Statement from the Managing for Excellence Action**

Benchmark O&M of water storage and distribution facilities in a manner modeled after current practices with power facilities, starting with pilot program.

## **Scope Statement from the Managing for Excellence Project Management Plan**

As a means to seek further efficiency gains in the operation of Reclamation's infrastructure, the team responsible for Action Item 31 will conduct appropriate benchmarking activities on the operation and maintenance of Reclamation's reserved works water storage facilities with federal and non-federal entities operating similar facilities. This will be accomplished in a manner modeled after current practices at Reclamation power facilities, beginning with a pilot program.

## **Approach and Methodology**

Team 31 conducted a literature search for other water O&M benchmarking studies, but found none to exist. The Team also researched how power benchmarking has been conducted for comparisons and standards that could be used or modeled after and found many challenges in attempting to conduct water O&M benchmarking. After narrowing the scope of the proposed benchmarking effort, the Team systematically determined an appropriate pilot program and related facilities to include. Accepted benchmarking methodology and practices were employed by the Team on these pilot program facilities, which included data collection, validation, and analysis. The results of the pilot program were subsequently used in arriving at the Team's conclusions and recommendations.

## **Deliverables**

A report entitled, "Benchmarking Operation and Maintenance (O&M) of Water Storage Facilities" which describes the scope and results of a pilot water O&M benchmarking program.

## Findings

- The benchmarking of hydropower facilities is relatively simplistic and straightforward as compared to benchmarking of water storage and distribution facilities.
- The pilot program resulted in the identification of four prime benchmarks.
- Even though cost-related benchmarks were developed, true, disciplined O&M benchmarking of water facilities may not be feasible because no performance or reliability based benchmarks were identified.
- Reclamation will not realize a significant benefit by benchmarking water conveyance and distribution facilities.
- There is no industry-wide accounting system for obtaining consistent and comparable cost data associated with the O&M of water storage and distribution facilities.
- Some of the tools used in the pilot program are specific to embankment storage dams and would require adaptation for use with other facility types.
- Due to the inability to conduct a gap analysis that would result in complete and accurate results, best practices and performers could not be identified. As a result, other possible ways to achieve improved best practices were explored.

## Recommendations

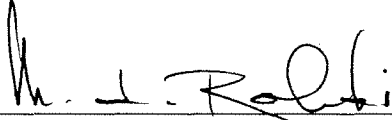
Based on the findings and results of the benchmarking study and pilot program conducted, and for the reasons cited in the report, Reclamation should not pursue:

- Internal O&M benchmarking among its reserved works storage dams.
- Water O&M benchmarking with entities outside of Reclamation.
- O&M benchmarking of water conveyance and distribution facilities.

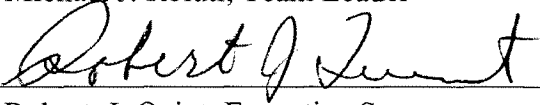
In lieu of true, disciplined benchmarking and as determined appropriate through discussions by the Facilities O&M Team, Reclamation should pursue and implement the following to achieve improved best practices:

- Redefining and expanding its standardized cost accounting system at its reserved works dams so that detailed, consistent, and comparable cost data for various types of O&M activities can be obtained and tracked.
- Developing a means to measure the relative level of effectiveness (quality of O&M) of specific O&M activities to enable activity-based cost comparisons among its reserved works dams, identification of best practices, and long-term tracking of O&M program efficiency.
- Routinely collecting, publishing, and distributing O&M cost data pertinent to its reserved works storage dams through Reclamation's Water O&M Bulletin or via posting on an appropriate Internet website for customer access,
- Incorporating the sharing of best practices regarding the O&M of storage dams within existing Reclamation forums (such as the Facility Review Workshop, Water Management Workshop, facility reviews, and the Water O&M Bulletin) and/or within new forums/workshops.

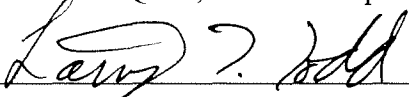
**Submitted by**

  
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 Michael J. Roluti, Team Leader

9/19/07  
 Date

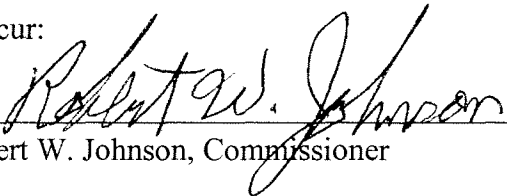
  
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 Robert J. Quint, Executive Sponsor

11/30/07  
 Date

  
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 Larry L. Todd, Deputy Commissioner, PAB

11/29/07  
 Date

Concur:

  
 \_\_\_\_\_  
 Robert W. Johnson, Commissioner

12/19/07  
 Date