



OFFICE OF  
**INSPECTOR GENERAL**  
U.S. DEPARTMENT OF THE INTERIOR

**BUREAU OF LAND MANAGEMENT,  
NATIONAL PARK SERVICE, AND  
OFFICE OF SURFACE MINING  
RECLAMATION AND ENFORCEMENT'S  
SAFETY OF DAMS:  
EMERGENCY PREPAREDNESS**



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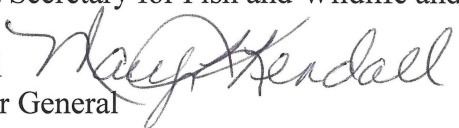
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Memorandum

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Subject: Final Evaluation Report – Bureau of Land Management, National Park Service,  
and Office of Surface Mining Reclamation and Enforcement's Safety of Dams:  
Emergency Preparedness  
Report No. WR-EV-MOA-0015-2011

This memorandum transmits the results of our evaluation of the Bureau of Land Management's (BLM), National Park Service's (NPS), and Office of Surface Mining Reclamation and Enforcement's (OSM) emergency preparedness at their high hazard dams.

High hazard dams under the purview of BLM, NPS, and OSM either have no requirement for emergency action plans (EAP) or have EAPs that have been inadequately exercised or reviewed or that have not been formalized. In addition, we found an absence of a uniform approach to monitoring high hazard dams not owned by BLM or NPS but located on BLM and NPS lands. We include 11 recommendations in our report that, if implemented, will help to improve emergency action planning at the three bureaus.

Based on the U.S. Department of the Interior's November 9, 2012 response to the draft report, we consider all 11 recommendations to be resolved but not implemented. We will refer these recommendations to the Office of Policy, Management and Budget to track implementation.

The legislation, as amended, creating the Office of Inspector General requires that we report to Congress semiannually on all audit report issues, actions taken to implement our recommendations, and recommendations that have not been implemented.

A response to this report is not required. If you have any questions regarding this memorandum or the subject report, please do not hesitate to contact me at 202-208-5745.

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## Results in Brief

The Bureau of Land Management (BLM), National Park Service (NPS), and Office of Surface Mining Reclamation and Enforcement (OSM) manage or regulate 838 dams throughout the United States. The bureaus classify 29 of these dams as high hazard, which means failure of the dams could result in loss of life. BLM and NPS lands also have 324 privately owned dams, of which 133 are high hazard dams. OSM does not know how many high hazard dams are in the non-Federal Program. A Bureau of Reclamation official informed us that an average of four dam safety incidents<sup>1</sup> occur annually at the 584 dams the U.S. Department of the Interior (DOI) classifies as high hazard or significant hazard (dams whose failure would not cause a loss of life but could result in significant economic loss). At a minimum, DOI's "Departmental Manual" requires that a bureau's dam safety program include an emergency action plan (EAP) for all of its high and significant hazard dams. We examined the extent to which OSM, BLM, and NPS meet this requirement.

Even though DOI's "Departmental Manual" requires EAPs to be in place, OSM, BLM, and NPS either do not require high hazard dams under their purview to have EAPs or, for those dams that have EAPs, the bureaus do not ensure that the EAPs have been adequately exercised<sup>2</sup> or reviewed or that they have been formalized. Specifically, OSM does not require mining operators to have an EAP in place. OSM also has not updated its regulations to ensure that mining operators comply with Federal guidance,<sup>3</sup> including the requirement to have an EAP in place. In addition, BLM is not adequately documenting annual EAP reviews and has one EAP that was not prepared or exercised in accordance with Federal Emergency Management Agency and Bureau guidelines. Further, NPS does not have formal EAPs in place and is currently using interim EAPs. We also noted that none of the three bureaus had written policies requiring that after-action reports be prepared following EAP exercises and that any recommended corrective actions in these reports be tracked for implementation.

During our review, we also found an absence of a uniform approach to monitoring privately owned, high hazard dams located on BLM and NPS lands, as well as high hazard non-Federal dams over which OSM has no direct regulatory jurisdiction. BLM, NPS, and OSM do not have a requirement to directly regulate such dams. We believe, however, that it is important for us to both alert DOI to the existence of these dams and to provide information on how DOI can better monitor and enforce health and safety concerns.

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<sup>1</sup> A dam safety incident is an unusual event that can put a dam at an increased risk of failure. There are many types of dam safety incidents, including excessive seepage, floods, and material instability such as cracks and slides.

<sup>2</sup> An EAP exercise evaluates the emergency response capabilities of those personnel that would be involved in the emergency operations at the dams.

<sup>3</sup> Federal Emergency Management Agency, "Federal Guidelines for Dam Safety," April 2004.

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# Introduction

## Objective

Our objective was to determine if emergency action plans (EAP) are in place, reviewed, updated, and exercised appropriately for the high hazard dams of the Bureau of Land Management (BLM), National Park Service (NPS), and Office of Surface Mining (OSM). See Appendix 1 for the scope, methodology, and original objective of the evaluation.

## Background

The U.S. Department of the Interior (DOI) protects and manages 500 million acres, or about 20 percent, of the Nation's land. This responsibility includes managing and ensuring dam safety for the more than 2,600 dams owned by DOI. To this effect, DOI's "Departmental Manual" requires that EAPs be prepared for all high and significant hazard dams. A high hazard dam could result in the loss of one or more lives in the event of failure. A significant hazard dam has no potential for loss of life but has a potential for significant economic loss in the event of failure.

## Emergency Action Plans

EAPs are formal, living documents. They identify potential emergency conditions at a dam and specify actions for dam operating personnel to follow during emergencies or unusual occurrences. The purpose of an EAP is to minimize the loss of life and property damage and provide proper notification to downstream authorities.

## USBR Evaluation Report

We issued an evaluation report on the Bureau of Reclamation's (USBR's) dams in February 2012.<sup>4</sup> In our evaluation, we identified National critical infrastructure dams that ranged in storage capacity from 1 million to nearly 29 million acre-feet, with major loss of life and property if there was a dam failure. The storage capacities of BLM, NPS, and OSM high hazard dams are smaller than those of the USBR dams we reviewed in our recent evaluation. These dams, however, still pose potential for loss of life. The high hazard dam inventories for BLM, NPS, and OSM disclosed the following:

- The largest BLM dam has a capacity of 1,739 acre-feet, with four residences, one building, and two roads at risk if this dam should fail.
- The largest NPS dam has a capacity of 700 acre-feet, with a parkway, a picnic area, and other park structures at risk if this dam should fail.
- The largest dam regulated under the OSM Federal program has a capacity of 25,260 acre-feet and a potential loss of life if the dam should fail.

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<sup>4</sup> USBR, "Bureau of Reclamation's Safety of Dams: Emergency Preparedness," Report No. WR-EV-BOR-0007-2011, February 2012.

According to a USBR hazard potential classification report, 309 fatalities resulted from all dam failures in the United States since 1960. About 270—87 percent—of these lives were lost because of the failure of dams storing less than 1,000 acre-feet and measuring less than 50 feet in height. Of the 270 fatalities, 125 lives were lost due to one event: a 1972 coal mine dam failure in West Virginia. This impoundment failure was a major factor in the enactment of the Surface Mining and Control Reclamation Act (SMCRA), which established OSM in 1977.

### **High Hazard Dams on OSM, BLM, and NPS Land**

OSM regulates 69 dams, of which 10 are high hazard, in nonprimacy States. Non-primacy status indicates that the State did not choose to exercise its primacy or may not be able to carry out a satisfactory regulatory program. In non-primacy States, OSM directly regulates the safety of dams. OSM also has an unknown number of high hazard dams under primacy States. Primacy States have an OSM-approved regulatory program and have direct regulatory responsibility over mining operations subject to OSM oversight.

Of BLM's 671 dams, 8 are high hazard. In addition, approximately 300 privately owned dams exist on BLM lands. Of these dams, 125 are high hazard dams and permitted through legal agreements between the dam owners and BLM.

NPS has 98 dams, of which 11 are high hazard. In addition to these 98 dams, there are 24 non-NPS owned dams whose failure could pose varying levels of health and safety risks to National parks. Of these 24 structures located on NPS lands, 8 are high hazard. NPS has begun to review each of the non-NPS-owned dams located on NPS lands to determine how these dams came to exist on NPS land and if there are any legal agreements in place between the dam owners and NPS. Further, we were informed that there are an unknown number of non-NPS owned dams located upstream of National parks, but outside the parks' boundaries, that pose a threat to park resources.<sup>5</sup>

### **Criteria**

The Federal Emergency Management Agency's "Federal Guidelines for Dam Safety" (FGDS) and Part 753 of DOI's "Departmental Manual" (DM) require that bureau dam safety programs prepare, review, and update EAPs for high hazard dams. DM Part 753 specifies that EAP reviews and updates be performed at least annually. The annual review and update should make any changes to notification of personnel, procedures, and telephone numbers. In addition, DM Part 753 requires that EAPs be tested every 5 years to ensure that the plans will function satisfactorily in the event of an actual emergency.

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<sup>5</sup> The Government Accountability Office (GAO) has issued two reports on the adverse effects of external threats to park resources—"National Park Service: Activities Outside Park Borders Have Caused Damage to Resources and Will Likely Cause More" (GAO/RCED-94-59, January 1994) and "Parks and Recreation: Limited Progress Made in Documenting and Mitigating Threats to the Parks" (GAO/RCED-87-36, February 1987). GAO reported that NPS has no complete inventory of existing external threats or the actions being taken to mitigate them.

BLM and NPS incorporated the FGDS and DM Part 753 emergency action planning requirements into “BLM Manual 9177” and Director’s Order #40, respectively. OSM’s Technical Services and Research directive, TSR-15, generally meets the requirement for the preparation of an EAP at a non-primacy State for dams with disclosed potential hazards.

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## Findings

We found that OSM, BLM, and NPS either have no requirement for EAPs to be in place for all high hazard dams under their purview, or have not adequately reviewed, exercised, or formalized the EAPs that are in place. We also found that all three bureaus do not have a written policy requiring that after-action reports be prepared following EAP exercises and that any recommended corrective actions in these reports be tracked for implementation. In addition, BLM and NPS do not have a standard approach to monitoring privately owned, high hazard dams located on their lands.

### OSM Not Requiring EAPs

OSM has not updated its regulations to ensure that mining operators in the non-primacy and primacy States are complying with the FGDS, including the requirement to have an EAP in place. The FGDS and DOI's DM Part 753 apply to OSM's dam safety program in the non-primacy States. In contrast, these authorities do not apply to dams in the primacy States, over which OSM has no direct regulatory authority. While OSM is not required to impose the FGDS upon mining operators in the primacy States, OSM does have the authority under SMCRA to adopt regulations establishing minimum environmental "performance standards" applicable to the primacy States. If OSM adopted performance standards, such standards could incorporate the requirements of the FGDS, including the preparation of an EAP.

Because emergency management programs are not included in OSM's SMCRA regulations, OSM's Assistant Director for Program Support contends that OSM has no requirement for EAPs to be in place, reviewed, updated, and exercised. A USBR April 2010 Independent Oversight Review (IOR) report<sup>6</sup> stated that OSM's directive TSR-15, dated August 14, 1996, clearly establishes a safety program for dams under the Federal Program.<sup>7</sup> The TSR-15 meets several essential requirements for a dam safety program consistent with the FGDS, including inventorying dams and preparing EAPs. The April 2010 IOR report noted, however, that the TSR-15 appears to limit the requirement of preparing an EAP to dams with disclosed potential hazards. The IOR team "strongly believes that waiting to develop an EAP until a hazardous condition develops is contradictory to a fundamental [tenet] of the FGDS. Namely, that all dams with potential loss of life consequences have an EAP in place regardless of their current condition assessment." Lastly, the April 2010 IOR report concluded that the TSR-15 did not appear to have been widely distributed and many OSM staff and managers were not familiar with it.

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<sup>6</sup> "U.S. Department of the Interior 2010 Independent Oversight Review Report: Office of Surface Mining Reclamation and Enforcement Dam Safety Program and Dam Security," April 2010.

<sup>7</sup> The Federal Program refers to dams that OSM regulates in the non-primacy States and on Federal land. The non-Federal Program refers to dams that primacy States regulate.

We issued a Notice of Potential Finding and Recommendations dated June 7, 2012, regarding the weaknesses of OSM's TSR-15. OSM's Assistant Director informed us that OSM was "in the process of revising Directive TSR-15 to update terminology, correct errors, and remove obsolete provisions," and OSM's directives system only establishes internal policies and procedures for OSM employees, not to mining operators.

Having an EAP in place is fundamental in emergency action planning. Not having an EAP exposes OSM to liability due to the increased risk of potential loss of life and property damage. Without an EAP, dam operating personnel may not be able to identify a potential emergency condition and respond accordingly. In addition, dam operating personnel may not be able to properly notify downstream authorities or communities about an emergency.

### **Recommendations**

1. OSM establish a timeline and deadline for updating, as appropriate, OSM regulations to include FGDS requirements for the non-primacy and primacy States.
2. OSM enforce and revise, as appropriate, the TSR-15 requirements so that the directive aligns with the actions resulting from OSM's review and update of its regulations conducted under Recommendation 1.

## **BLM Not Adequately Preparing, Exercising, Reviewing, and Updating EAPs**

BLM prepared all but one of its eight EAPs for high hazard dams following Federal and DOI guidelines, and all but three were tested (or exercised) for adequacy and effectiveness of the EAP. Not one of the eight EAPs, however, are adequately reviewed and annually updated. For example, the Little Robber Dam EAP was not prepared in accordance with the FGDS, which BLM has incorporated into the other EAPs. It lacks official signatures and critical elements such as notification flow charts, guidance outlining inspection frequency, and remedial actions for preventing potential dam failure situations.

In addition, EAPs for the Little Robber Dam in Wyoming, the Hult Pond Dam in Oregon, and the Rock Creek Dam in Oregon have not been properly exercised:

- The Little Robber Dam EAP was not exercised at the time of development or before a dam incident that occurred in April 2011.
- The Hult Pond Dam EAP was not exercised at the time of development or before a dam incident that occurred in January 2012; it has had only an orientation seminar exercise, which is generally focused as an EAP familiarization exercise.

- The Rock Creek Dam, classified as high hazard, has also had only an orientation seminar exercise.

BLM Manual 9177 requires an EAP exercise every 3 years that includes a test scenario and telephone or radio contact of all parties potentially affected by the EAP. Exercising an EAP identifies areas within the plan that need correction to ensure that the plan will be effective in case of an emergency.

We found that none of the eight BLM EAPs have been fully reviewed for updates. For example, our review of BLM's "Yearly EAP Updating Documentation" tracking sheet revealed that only the telephone lists included in the EAPs were reviewed and updated but not the rest of the document. "BLM Manual 9177" states that, at a minimum, EAPs are to be checked annually for accuracy and "updated as warranted by changes in downstream land use." Limiting the annual review and update of the EAPs to just the telephone directory precludes an overall review of the EAP to determine, for example, if the emergency procedures or inundation maps need to be updated as a result of significant changes in the use of the land.

### Recommendations

3. BLM ensure that EAPs are exercised within 3 years of development, in accordance with the BLM Manual.
4. BLM correct Little Robber Dam's EAP and ensure that EAPs are prepared in accordance with FGDS.
5. BLM ensure that the entire EAP document is reviewed annually for accuracy and updated accordingly.

## NPS Has Only Interim EAPs in Place

NPS has no formal EAPs in place for its high hazard dams. Instead, NPS currently has interim EAPs in place. Because of the interim nature of these plans, the documents lack inundation maps, which are a required component of an EAP. In addition, an NPS dam safety officer reported in a July 2011 technical paper<sup>8</sup> that most of the interim EAPs do not provide adequate emphasis on the planning for prompt response to mobilize expertise, equipment, and materials to the site to take physical actions to save the dam. NPS dam safety program officials informed us that they have developed a 3-year plan, from 2012 through 2014, to formalize the EAPs for its high hazard dams. We were told this initiative is currently underway.

We commend NPS for beginning the process of formalizing their EAPs, and for recognizing the need for emergency preparedness to reduce the risk for potential loss of life and property damage for park staff, visitors, and downstream

<sup>8</sup> "Heroic Planning: Strategies for Taking Physical Actions at Dams to Prevent Failures," presented to the Association of State Dam Safety Officials, Annual Conference, Washington, DC, September 2011.

communities. The July 2011 technical paper states that dam incidents will continue to occur, and dam owners can better prepare to respond effectively to the incidents and prevent dam failures. The technical paper also states that it is important that dam EAPs include procedures for responding to dam incidents and to take physical action to prevent dams from failing, if possible. As part of NPS' efforts to demonstrate the need for emergency preparedness, NPS developed a video, "Managing the Risks of Dams," which was debuted during a high hazard dam exercise we observed in April 2012.

#### Recommendation

6. NPS adhere to a timeline and deadline for the completion and exercise of formal EAP documents.

### **No Written Policy for After-Action Reports at BLM, NPS, and OSM**

BLM, NPS, and OSM do not have written policies requiring after-action reports (AARs) to be prepared following EAP exercises to document the resulting recommended corrective actions, nor do they have a mechanism to track recommendation implementation. Of the eight BLM high hazard dams reviewed, we found only three (Hult Pond, Little Robber, and Rock Creek) had AARs. Hult Pond had two AARs—one for an actual dam incident that occurred in January 2012 and another for an orientation seminar that occurred in July 2009. Based on our review of the four AARs, we determined that all were insufficient because they either lacked recommended corrective actions or contained suggested actions but no specifics on the implementation and tracking of these actions.

For example, the Little Robber Dam EAP was activated during an incident in April 2011; the outlet works of the dam failed, resulting in damage to the dam and an uncontrolled release of water. The AAR for this dam incident did not include a review to determine the effectiveness of the EAP, and the EAP has not been updated to incorporate any recommended corrective actions. In addition, the two Hult Pond EAPs did not include specific dates for implementation or the officials responsible for the execution of the action items. Finally, the Rock Creek Dam conducted an orientation seminar exercise for its EAP in September 2011 and prepared a subsequent AAR. The suggested actions in the AAR, however, did not contain specific dates or designated officials responsible for implementation.

BLM, NPS, and OSM may find USBR's directives and standards for AAR development useful in creating their own AAR procedures. USBR's directives and standards require each exercise to be documented in an AAR containing identified strengths, deficiencies, and recommended corrective actions, including a planned course of action to implement and track the recommended actions. As USBR states in its "Emergency Planning and Exercise Guidelines," coming up

with recommendations is the whole reason for doing an exercise, as recommendations are vital to building an improved emergency management system.

#### **Recommendation**

7. BLM, NPS, and OSM require the preparation and issuance of an AAR after each incident or exercise and require the inclusion of a planned course of action to implement and track the recommended corrective actions in the AAR.

### **Dams Not Owned by BLM or NPS but Located on Their Lands May Pose a Liability**

BLM and NPS dams located on bureau lands but not owned by BLM or NPS may pose a potential health, safety, and liability issue for the bureaus. State and local governments or private landowners may own dams located on BLM and NPS land. These dams were either constructed on BLM and NPS lands or the dams were constructed on lands that were later acquired by BLM and NPS.

In July 2012, the Interagency Committee on Dam Safety Task Group on Non-Federal Dams drafted a position paper.<sup>9</sup> The task group reported that the responsibility for many of these dams is not clear and regulating authority is either lacking or inconsistent. Although we did not find evidence that BLM and NPS have a specific legal duty to inspect and regulate dams they do not own, we did find that these bureaus could address dam safety in any permit and other land-use agreement that they issue, and that it would be in their interest to do so. BLM allows the operation of dams through the issuance of permits or rights-of-way (ROWs) and has the authority to address safety by including appropriate terms and conditions to the ROW agreements. In addition, BLM may also change the terms and conditions of existing ROW agreements if “necessary to protect public health or safety or the environment.”

In its draft position paper, the task group reported that many of the privately owned dams on Federal lands were permitted by Federal agencies many years ago without permit conditions for addressing dam safety. The task group, chaired by BLM’s dam safety officer for policy in Washington, DC, is currently working to determine if the identified high hazard non-Federal dams are being inspected and have EAPs in place. The draft position paper reported that of the 125 non-BLM owned high hazard dams, only 58 (46 percent) of these dams have been inspected in the last 5 years, and only 72 (58 percent) of these dams have EAPs in place.

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<sup>9</sup> “Non-Federal Dams on Federal Lands: A Position Paper from the Interagency Committee on Dam Safety Task Group on Non-Federal Dams” (July 2012 draft). The committee’s mission is to provide Federal leadership to reduce risks to life, property, and the environment from dam incidents in the United States.

According to BLM's dam safety officer for operations in Lakewood, Colorado, the current ROW agreements do not require EAPs. To require the establishment of EAPs, each ROW agreement would have to be amended by BLM's Realty Division to incorporate this provision. The FGDS does not directly apply to BLM's permitted dams, which are not owned, operated, or regulated by BLM. The FGDS, however, could be extended to such dams by incorporating the requirements of the FGDS into individual permits that BLM issues for dam operations on Federal land.

NPS "Reference Manual 40" provides that non-NPS dams that could have a detrimental effect on park safety or operations over which NPS managers have no direct operational responsibility—

. . . will be monitored carefully and information about them kept within the NPS inventory of data base management system. [Also,] Regional Directors and Superintendents will request observer status during inspections and in the preparation and review of emergency action plans at non-NPS dams that significantly affect park areas.

"Reference Manual 40" further states: "NPS managers should be constantly alert to what impact both NPS and non-NPS dams have on park safety and operations." According to NPS' dam safety officer, he is aware of only one NPS park that participates in non-NPS dam EAP exercises. This park is located downstream from two Bureau of Indian Affairs dams. The dam safety officer informed us that he has started contacting the owners and regulators of non-NPS dams to request that NPS be included in any EAP development and testing efforts.

NPS regularly acquires new lands into the National park system, and occasionally these lands have existing dams. According to USBR's November 2009 IOR report,<sup>10</sup> there is no formal procedure in place to review the safety and condition of these dams before acquisition. The report suggests that adopting a more formal process for reviewing these dams could help prevent NPS from acquiring a dam that will need expensive safety or maintenance improvements.

DM Part 753 suggests that DOI bureaus are responsible for maintaining only an inventory of their permitted dams that are privately owned but located on bureau lands. USBR's October 2009 IOR report<sup>11</sup> on BLM noted a similar point:

There is no uniform approach in the States or the Federal agencies to regulating and inspecting private dams on Federal lands. . . .  
BLM's current involvement with non-BLM owned dams is limited

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<sup>10</sup> "U.S. Department of the Interior 2009 Independent Oversight Review Report: National Park Service Dam Safety Program and Dam Security Program," November 2009.

<sup>11</sup> "U.S. Department of the Interior 2009 Independent Oversight Review Report: Bureau of Land Management Dam Safety Program and Dam Security," October 2009.

to maintaining an inventory of these dams and sharing this information with the appropriate State dam safety program.

BLM and NPS may not have a direct responsibility to inspect or regulate privately owned dams directly on or adjacent to their lands, but it is good management practice to keep current on the emergency preparedness status and operational condition of these dams to ensure the health and safety of the general public. In our opinion, the presence of a privately owned dam on Federal property could present some level of risk of legal liability to the U.S. Government in the event of a failure, although the determination of liability would depend on the facts of the specific incident and other factors. For example, in a February 1985 court case, NPS was found liable for negligence for failing to prepare an emergency plan for the potential collapse of a privately owned dam and for not properly warning campers to evacuate after the dam failed.<sup>12</sup> The court awarded damages of \$480,000 to the family of a man who died in the resulting flood.<sup>13</sup> NPS would not necessarily incur liability in all, or even most cases, but it nevertheless has some legal risk with regard to private dams operated on NPS property.

### Recommendations

8. To the extent practicable, as BLM ROW agreements or permits that allow for dam operations are reviewed for renewal, amend them to include the FGDS requirements or appropriate dam safety and emergency preparedness terms and conditions.
9. Ensure that NPS Regional Directors and Superintendents are requesting observer status during inspections and in the preparation and review of EAPs at non-NPS dams that could significantly affect park areas, in accordance with NPS Reference Manual 40.
10. Continue BLM and NPS' efforts in addressing the inventory of non-BLM and non-NPS owned dams located on BLM or NPS lands, including determining the agreements in place that allow for the existence and operation of these dams and determining if these dams are being inspected and have EAPs in place.
11. Revise the "Departmental Manual" to include a uniform approach to monitoring and emergency action planning for non-DOI dams located on DOI lands.

<sup>12</sup> The July 1982 Lawn Lake Dam failure in Rocky Mountain National Park resulted in the deaths of three people and, according to a newspaper article, caused an estimated \$30.6 million in damages.

<sup>13</sup> *Coates v. United States*, 612 F. Supp. 592, 596 (C.D. Ill. 1985).

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# Conclusion and Recommendations

## Conclusion

DOI manages 584 dams that are classified as either high or significant hazard. A USBR official informed us that an average of four dam incidents occur annually<sup>14</sup> at these dams. Because these dam safety incidents put the public and property at risk, it is important for BLM, NPS, and OSM to have EAPs in place that have been properly prepared, exercised, reviewed, and updated to ensure an effective response to incidents.

EAPs exist to prevent or minimize any potential loss of life and damage to property. Noting the importance of dam safety, we were concerned to find that OSM is currently not requiring mining operators in the primacy and non-primacy States to have an EAP in place. This knowledge is especially surprising because a primary impetus for the enactment of the SMCRA and, hence, the creation of OSM was the 1972 coal mine impoundment failure in West Virginia that resulted in the loss of 125 lives.

In addition, although we commend BLM for having EAPs in place for all of its high hazard dams, we found areas in the preparing, exercising, reviewing, and updating of the EAPs where BLM can improve. We were encouraged to learn of NPS' current 3-year initiative to formalize its interim EAPs, and we believe that NPS is committed to the improvement of its dam safety and emergency preparedness program.

Lastly, although we understand that BLM and NPS do not have a direct responsibility to inspect or regulate privately owned dams on their lands, staying informed about the emergency preparedness status and operational condition of these dams is important for public health and safety. BLM and NPS have expressed concerns regarding their responsibilities to review appropriate dam safety and emergency preparedness plans for non-BLM and non-NPS owned dams because they have neither the regulatory authority over these dams nor the resources to address their safety. We understand the dam safety officers for BLM and NPS are participating in the Interagency Committee on Dam Safety Task Group on Non-Federal Dams to establish a consistent Federal policy for addressing the safety concerns posed by privately owned dams on Federal lands. We believe that this is a positive step toward addressing the issues concerning these dams.

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<sup>14</sup> The DOI annual average number of four dam incidents is for the years 1995 through 2009. This annual average number is probably higher because there is no required uniform method of reporting dam incidents within DOI. As such, DOI does not have a comprehensive list of dam incidents.

## Recommendations

Our recommendations should help DOI monitor the high hazard dams it does not own, as well as the high hazard dams that BLM, NPS, and OSM are responsible for managing and regulating.

### OSM

We recommend that OSM:

1. Establish a timeline and deadline for updating, as appropriate, OSM regulations to include FGDS requirements for the non-primacy and primacy States.

**OSM Response:** OSM concurred with the recommendation. In consultation with the Office of the Solicitor, OSM will conduct a legal, technical, and policy review of its authorities under the SMCRA and other Federal law then initiate a rulemaking, as appropriate, to incorporate specific FGDS requirements. OSM established a target date of May 30, 2013, to complete the legal, technical, and policy review and a target date of December 30, 2014, to publish the final rule, as appropriate. The Assistant Director for Program Support is the official responsible for implementing the recommendation.

**OIG Reply:** We consider this recommendation resolved but not implemented (Appendix 3). The recommendation will be referred to the Assistant Secretary for Policy, Management and Budget for tracking.

2. Enforce and revise, as appropriate, the TSR-15 requirements so that the directive aligns with the actions resulting from OSM's review and update of its regulations conducted under Recommendation 1.

**OSM Response:** OSM concurred with the recommendation. OSM will revise the TSR-15 directive, as necessary, to reflect the final rule. The Assistant Director for Program Support is the official responsible for implementing the recommendation by April 30, 2015.

**OIG Reply:** We consider this recommendation resolved but not implemented (Appendix 3). The recommendation will be referred to the Assistant Secretary for Policy, Management and Budget for tracking.

### BLM

We recommend that BLM:

3. Ensure that EAPs are exercised within 3 years of development, in accordance with the BLM Manual.

**BLM Response:** BLM concurred with the recommendation. The BLM dam safety officer will monitor compliance of the requirement to conduct EAP exercises within 3 years of development. The Deputy Assistant Director for Business and Fiscal Resources and the Director for the National Operations Center are the officials responsible for implementing the recommendation by March 31, 2013.

**OIG Reply:** We consider this recommendation resolved but not implemented (Appendix 3). The recommendation will be referred to the Assistant Secretary for Policy, Management and Budget for tracking.

4. Correct Little Robber Dam's EAP and ensure that EAPs are prepared in accordance with FGDS.

**BLM Response:** BLM concurred with the recommendation. BLM's Wyoming State engineer and the National Operations Center engineers are currently updating the Little Robber Dam EAP to include an official signature page and suggested critical elements. BLM will continue to take appropriate measures to ensure that other EAPs are consistent with Federal and DOI guidelines. The Deputy Assistant Director for Business and Fiscal Resources and the Director for the National Operations Center are the officials responsible for implementing the recommendation by March 31, 2013.

**OIG Reply:** We consider this recommendation resolved but not implemented (Appendix 3). The recommendation will be referred to the Assistant Secretary for Policy, Management and Budget for tracking.

5. Ensure that the entire EAP document is reviewed annually for accuracy and updated accordingly.

**BLM Response:** BLM concurred with the recommendation. BLM will issue an instruction memorandum to require annual EAP updates and a review of emergency procedures, changes in land use, or other significant changes. The memorandum will include a checklist for annual EAP review and the BLM State Offices will be required to submit the checklists to the BLM dam safety officer through the BLM Dam Safety SharePoint site. The dam safety officer will monitor compliance with the annual update process. The Deputy Assistant Director for Business and Fiscal Resources is the official responsible for implementing the recommendation by March 31, 2013.

**OIG Reply:** We consider this recommendation resolved but not implemented (Appendix 3). The recommendation will be referred to the Assistant Secretary for Policy, Management and Budget for tracking.

## **NPS**

We recommend that NPS:

6. Adhere to a timeline and deadline for the completion and exercise of formal EAP documents.

**NPS Response:** NPS concurred with the recommendation. As of September 30, 2012, NPS developed and exercised formal EAPs for 4 of its 11 high hazard dams. NPS established a target date of September 30, 2014, for completing the EAPs for the remaining seven high hazard and three significant hazard dams. The NPS dam safety officer is the official responsible for implementing the recommendation.

**OIG Reply:** We consider this recommendation resolved but not implemented (Appendix 3). The recommendation will be referred to the Assistant Secretary for Policy, Management and Budget for tracking.

## **BLM, NPS, and OSM**

We recommend that BLM, NPS, and OSM:

7. Require the preparation and issuance of an AAR after each incident or exercise and require the inclusion of a planned course of action to implement and track the recommended corrective actions in the AAR.

7a. **BLM Response:** BLM concurred with the recommendation. BLM is currently supplementing BLM guidance and will issue an instruction memorandum to require the preparation and issuance of an AAR after every incident or EAP exercise, including a planned course of action, and the submission of the reports to the BLM dam safety officer through the BLM Dam Safety SharePoint site. The dam safety officer will monitor compliance with this requirement. The Deputy Assistant Director for Business and Fiscal Resources and the Director for the National Operations Center are the officials responsible for implementing the recommendation by January 31, 2013.

7b. **NPS Response:** NPS concurred with the recommendation. AARs were completed for two high hazard dam EAP exercises. Requirements for AARs following an incident or exercise have been included in the draft NPS "Reference Manual 40" currently under NPS-wide review. The completion target date to finalize "Reference Manual 40" and establish a system for implementing and tracking the AAR recommended corrective actions is April 30, 2013. The NPS dam safety officer is the official responsible for implementing the recommendation.

7c. **OSM Response:** OSM concurred with the recommendation. OSM considers this recommendation a subset of Recommendation 1. Therefore,

the target completion dates for Recommendation 1 also apply to this recommendation. The Assistant Director for Program Support is the official responsible for implementing the recommendation.

**OIG Reply:** We consider this recommendation resolved but not implemented (Appendix 3) by BLM, NPS, and OSM. The recommendation will be referred to the Assistant Secretary for Policy, Management and Budget for tracking.

### **Dams Not Owned by BLM**

We recommend that BLM:

8. To the extent practicable, as BLM ROW agreements or permits that allow for dam operations are reviewed for renewal, amend them to include the FGDS requirements or appropriate dam safety and emergency preparedness terms and conditions.

**BLM Response:** BLM concurred with the recommendation. BLM will identify high hazard dams authorized by ROW agreements, and will issue an instruction memorandum to require field offices to add the terms and conditions to ROW agreements, as they are renewed. As appropriate, BLM will examine these ROW agreements to determine if it is feasible and warranted to modify prior to expiration of the ROWs. The target date for issuance of the instruction memorandum is March 31, 2013. The Assistant Director for Minerals and Realty Management and the Director for the National Operations Center are the officials responsible for implementing the recommendation.

**OIG Reply:** We consider this recommendation resolved but not implemented (Appendix 3). The recommendation will be referred to the Assistant Secretary for Policy, Management and Budget for tracking.

### **Dams Not Owned by NPS**

We recommend that NPS:

9. Ensure that NPS Regional Directors and Superintendents are requesting observer status during inspections and in the preparation and review of EAPs at non-NPS dams that could significantly affect park areas, in accordance with NPS "Reference Manual 40."

**NPS Response:** NPS concurred with the recommendation. NPS is working with other Federal agencies and has developed an initial inventory of dams owned by others on NPS lands. NPS is also developing an initial inventory of dams owned by others upstream from NPS lands whose failure could put people and resources at parks at risk. NPS will transmit to its regions and parks the inventory of dams it does not own but

that are located on NPS land and the policy for the regions and parks to be included in the preparation and review of non-owned dam EAPs and in the examination of these dams. The target date to transmit this information to the regions and parks is June 1, 2013. A report on the parks' performance on meeting these requirements will be included in the "Dam Safety Program Annual Report". The target completion date for this report is December 31, 2013, and every year thereafter. The NPS dam safety officer is the official responsible for implementing the recommendation.

**OIG Reply:** We consider this recommendation resolved but not implemented (Appendix 3). The recommendation will be referred to the Assistant Secretary for Policy, Management and Budget for tracking.

10. Continue BLM and NPS' efforts in addressing the inventory of non-BLM and non-NPS owned dams located on BLM or NPS lands, including determining the agreements in place that allow for the existence and operation of these dams and determining if these dams are being inspected and have EAPs in place.

10a. **BLM Response:** BLM concurred with the recommendation. BLM will continue its efforts to update its inventory of dams it does not own but that are located on its lands. In April 2012, BLM issued an instruction memorandum to require field offices to annually update their inventory of privately-owned dams located on BLM lands. BLM will continue its work with the Interagency Committee on Dam Safety to determine the status of inspections and EAPs on dams BLM does not own. As stated in its response to Recommendation 8, BLM will identify which of the non-BLM high hazard dams have ROW agreements in place. The target completion date for updating its inventory of dams BLM does not own but that are located on its lands is January 31, 2013. The Deputy Assistant Director for Business and Fiscal Resources and the Director for the National Operations Center are the officials responsible for implementing the recommendation.

10b. **NPS Response:** NPS concurred with the recommendation. NPS is working with BLM, U.S. Fish and Wildlife Service, and other Federal and State agencies to identify dams NPS does not own that are located on its lands. NPS is also working to identify dams it does not own that are located upstream from NPS lands whose failure could affect parks. NPS will continue working with the other Federal and State agencies for a common best approach to managing the risks of dams located on NPS lands but not owned by NPS, including the need for agreements with the dam owners. The NPS dam safety officer is the official responsible for implementing the recommendation by December 2015.

**OIG Reply:** We consider this recommendation resolved but not implemented (Appendix 3) by BLM and NPS. The recommendation will be referred to the Assistant Secretary for Policy, Management and Budget for tracking.

11. Revise the “Departmental Manual” to include a uniform approach to monitoring and emergency action planning for non-DOI dams located on DOI lands.

**BLM and NPS Response:** BLM and NPS concurred with the recommendation. The BLM dam safety officer leads the Non-Federal Dams on Federal Lands Task Group (Task Group) of the Interagency Committee on Dam Safety. One of the Interagency Committee’s goals is to make recommendations to create a consistent Federal policy for addressing the safety concerns posed by nonfederal dams on Federal lands. Based on the Task Group’s findings, the USBR will use the Reduce Dam Safety Risk initiative to develop a uniform, DOI-wide approach to monitoring and emergency action planning for non-DOI dams located on DOI lands. USBR will take the lead in having the “Departmental Manual” modified as needed. The target date for the Task Group to provide its findings is December 31, 2014. The target date for USBR to initiate applicable “Departmental Manual” revisions is December 31, 2015. USBR’s Director for Security, Safety and Law Enforcement is the official responsible for implementing the recommendation.

**OIG Reply:** We consider this recommendation resolved but not implemented (Appendix 3). The recommendation will be referred to the Assistant Secretary for Policy, Management and Budget for tracking.

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# Appendix I: Objective, Scope, and Methodology

## Objective

Our objective was to determine if emergency action plans (EAPs) are in place, reviewed, updated, and exercised appropriately for the high hazard dams of the Bureau of Land Management (BLM), National Park Service (NPS), and Office of Surface Mining (OSM). The objective originally included reviewing EAPs to see if the equipment and materials listed in the EAPs for high hazard dams are accounted for and in working order. Due to the small size and remoteness of the dams, however, and because the EAPs we reviewed included only a vendor listing rather than an equipment listing, we limited the objective to a review of the EAPs.

## Scope

We performed our evaluation in accordance with the “Quality Standards for Inspection and Evaluation,” as put forth by the Council of the Inspectors General on Integrity and Efficiency. We believe that the work performed provides a reasonable basis for our conclusions and recommendations.

Our focus was to review the emergency preparedness of BLM, NPS, and OSM high hazard dams. Our report also includes information on privately owned, high hazard dams located on BLM and NPS lands, as well as high hazard nonfederal dams over which OSM has no regulatory jurisdiction. We obtained the number of high hazard dams, both bureau and non-bureau owned and regulated, from BLM, NPS, and OSM. We obtained the number of privately owned dams on BLM land from the Bureau of Reclamation’s (USBR) October 2009 “U.S. Department of the Interior Independent Oversight Review” report for BLM. We did not perform a review or substantiate the accuracy or completeness of the number of high hazard dams reported.

## Methodology

To accomplish the evaluation, we—

- reviewed laws, rules, and regulations and BLM, NPS, and OSM policies for emergency preparedness as it relates to dam safety;
- reviewed USBR’s 2009 and 2010 “U.S. Department of the Interior Independent Oversight Review” reports for BLM, NPS, and OSM;
- reviewed the U.S. Department of the Interior (DOI), BLM, NPS, and OSM “Fiscal Years 2010 and 2011 Progress Report to Federal Emergency Management Agency on the Implementation of the Federal Guidelines for Dam Safety” reports;

- obtained high hazard dam inventory listings from BLM and NPS, as well as the list of high hazard dams under the Federal Program regulated by OSM;
- obtained DOI's annual average number of dam incidents from USBR;
- interviewed BLM, NPS, and OSM officials regarding emergency preparedness;
- attended one EAP orientation seminar and tabletop exercise;
- reviewed EAPs, after action reports, and other documents;
- obtained legal advice from our Office of General Counsel; and
- met with USBR officials to discuss the Reduce Dam Safety Risk initiative.

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## **Appendix 2: Office of Policy, Management and Budget Response**

The Office of Policy, Management and Budget response follows on page 22.



# United States Department of the Interior

OFFICE OF THE SECRETARY

Washington, DC 20240

NOV - 9 2012

## Memorandum

To: Kimberly Elmore  
Deputy Inspector General, Audits, Inspections, and Evaluations

From: Rhea Suh *Amy Hollingsworth*  
Assistant Secretary – Policy, Management and Budget

Subject: Response to the Office of Inspector General's Draft Evaluation Report, *Bureau of Land Management, National Park Service, and Office of Surface Mining Reclamation and Enforcement's Safety of Dams: Emergency Preparedness* (Report No. WR-EV-MOA-0015-2011)

Thank you for the opportunity to review and comment on the Office of Inspector General's (OIG) draft evaluation report titled *Bureau of Land Management, National Park Service, and Office of Surface Mining Reclamation and Enforcement's Safety of Dams: Emergency Preparedness* (Report No. WR-EV-MOA-0015-2011). In the report, the OIG makes 11 recommendations: six recommendations are specific to the Bureau of Land Management (BLM); three recommendations to the Office of Surface Mining Reclamation and Enforcement (OSM); four recommendations to the National Park Service (NPS); and one recommendation to the Bureau of Reclamation (Reclamation). In general, the bureaus concur with the recommendations.

Attachment 1 provides a summary of the actions planned or taken by the bureaus to comply with the recommendations as well as the contact information for the responsible officials and the target dates of implementation. Attachment 2 provides technical comments.

If you have any questions about this response, please contact: LaVanna Stevenson, BLM Audit Liaison Officer, at (202) 912-7077; Towanna Thompson, OSM Audit Liaison Officer, at (202) 208-2726; Vera Washington, NPS Audit Liaison Officer, at (202) 354-1959; Elaine Ferrari, Reclamation Audit Liaison Officer, at (303) 445-2788; or Alexandra Lampros, Financial Specialist, at (202) 208-4427.

Attachments

**Department of the Interior**  
**Response to the Office of Inspector General Draft Evaluation Report**  
**“Bureau of Land Management, National Park Service, and Office of Surface Mining**  
**Reclamation and Enforcement's Safety of Dams: Emergency Preparedness”**  
**(Report No. WR-EV-MOA-0015-2011)**

**Recommendation 1:** *OSM needs to establish a timeline and deadline for updating, as appropriate, OSM regulations to include Federal Guidelines for Dam Safety (FGDS) requirements for the non-primacy and primacy States.*

**Response:** Concur

OSM, in consultation with the Office of the Solicitor, will conduct a comprehensive legal, technical, and policy review of its authorities under the Surface Mining Control and Reclamation Act (SMCRA) and other applicable federal law. OSM will then initiate a rulemaking, as appropriate, to incorporate specific FGDS requirements.

**Target Completion Date:**

- May 30, 2013: Complete the legal, technical and policy review.
- June 30, 2013: Initiate rulemaking, as appropriate, to incorporate FGDS requirements into OSM regulations for dams subject to the SMCRA regulation.
- December 30, 2013: Publish proposed rule, as appropriate.
- December 30, 2014: Publish final rule, as appropriate.

**Responsible Official:** Sterling Rideout, Assistant Director-Program Support

**Recommendation 2:** *OSM should enforce and revise, as appropriate, the Technical Services and Research -15, “Dam Safety Program”, requirements so that the directive aligns with the actions resulting from OSM's review and update of its regulations conducted under Recommendation 1.*

**Response:** Concur

**Target Completion Date:** April 30, 2015: Revise Directive Technical Services and Research -15, *Dam Safety Program*, as necessary to reflect the final rule.

**Responsible Official:** Sterling Rideout, Assistant Director-Program Support

**Recommendation 3:** *BLM should ensure that emergency action plans (EAPs) are exercised within 3 years of development, in accordance with the BLM Manual.*

**Response:** Concur

The BLM is currently supplementing its existing guidance, BLM Manual 9177, *Maintenance and Safety of Dams*, on EAP and will issue an Instruction Memorandum (IM) to require Dam Safety Engineers to complete After Action Reports (AARs) for each dam exercise and submit the reports to the Dam Safety Officer through the BLM Dam Safety SharePoint site. The BLM Dam Safety officer will monitor compliance with the requirements in the

BLM Manual 9177, including the requirement to conduct EAP exercises within three years of development.

Target Completion Date: March 31, 2013

Responsible Official: Ann DeBlasi, Deputy Assistant Director, Business and Fiscal Resources and Ruth Welch, Director, National Operations Center

**Recommendation 4:** *BLM should correct Little Robber Dam's EAP and ensure that EAPs are prepared in accordance with FGDS.*

Response: Concur

The Wyoming State Engineer and the National Operations Center engineers are currently updating the Little Robber Dam EAP to include an official signature page and suggested critical elements (notification flow charts and inspection frequency guidelines). As noted in the report, the BLM has already taken the appropriate measures to ensure that other EAPs are consistent with Federal and the Department of the Interior (DOI) guidelines and will continue to do so.

Target Date: March 31, 2013

Responsible Official: Ann DeBlasi, Deputy Assistant Director, Business and Fiscal Resources and Ruth Welch, Director, National Operations Center

**Recommendation 5:** *BLM should ensure that the entire EAP document is reviewed annually for accuracy and updated accordingly.*

Response: Concur

This recommendation will be addressed in conjunction with Recommendations 3 and 7. An IM will be issued to require annual EAP updates and a review of emergency procedures, changes in land use, or other significant changes. The IM will also include a checklist for annual EAP review and the BLM State Offices will be required to submit the checklists to the Dam Safety Officer by posting on the BLM Dam Safety SharePoint site. The BLM Dam Safety Officer will monitor compliance with the annual update process.

Target Completion Date: March 31, 2013

Responsible Official: Ann DeBlasi, Deputy Assistant Director, Business and Fiscal Resources

**Recommendation 6:** *NPS should adhere to a timeline and deadline for the completion and exercise of formal EAP documents.*

Response: Concur

In fiscal year 2012, the NPS has developed and exercised formal EAPs for the following high hazard dams: Lily Lake Dam; Bear Gulch Dam; Ricks Estate Dam; and Nuclear Lake Dam.

Target Completion Date: The NPS has established the following timelines for completing EAPs for the remaining high and significant hazard dams:

- September 30, 2013: Star Fort Pond Dam, Price Lake Dam, Trout Lake Dam, Bass Lake Dam, Virginia Kendall Dam and Hidden Lake Dam.
- September 30, 2014: Upper Franklin Dam, Veterans Dam, Peaks of Otter Dam, and Rocky Oaks.

Responsible Official: Mark E. Baker, NPS Dam Safety Officer

**Recommendation 7:** *BLM, NPS, and OSM should require the preparation and issuance of an AAR after each incident or exercise and require the inclusion of a planned course of action to implement and track the recommended corrective actions in the AAR.*

OSM Response: Concur

This recommendation is a subset of Recommendation 1.

Target Completion Date:

- May 30, 2013: Complete the legal, technical, and policy review.
- June 30, 2013: Initiate rulemaking, as appropriate, to incorporate FGDS requirements into OSM regulations for dams subject to the SMCRA regulation.
- December 30, 2013: Publish a proposed rule, as appropriate.
- December 30, 2014: Publish a final rule, as appropriate.

Responsible Official: Sterling Rideout, Assistant Director-Program Support

NPS Response: Concur

After action reports have been completed for the completed exercises for Lily Lake and Bear Gulch Dams. Requirements for AARs following an incident or exercise have been included in the draft Reference Manual 40, *Dam Safety Program*, currently under NPS-wide review.

Target Completion Date: April 30, 2013: Finalize the Reference Manual 40 to include after action reports and establish a system for implementing and tracking the after action recommended corrective actions.

Responsible Official: Mark E. Baker, NPS Dam Safety Officer

BLM Response: Concur

As mentioned earlier, this recommendation will be addressed in conjunction with Recommendations 3 and 5. An IM will be issued to require the preparation and issuance of an AAR after every incident or EAP exercise, including a planned course of action, and require posting of documents to the Dam Safety SharePoint site. The BLM Dam Safety Officer will monitor compliance with this requirement.

Target Completion Date: January 31, 2013

Responsible Official: Ann DeBlasi, Deputy Assistant Director, Business and Fiscal Resources and Ruth Welch, Director, National Operations Center

**Recommendation 8:** *To the extent practicable, as BLM rights-of-way (ROW) agreements or permits that allow for dam operations are reviewed for renewal, amend them to include the FGDS requirements or appropriate dam safety and emergency preparedness terms and conditions.*

Response: Concur

The BLM will identify high hazard dams authorized by ROW and will change the terms and conditions as feasible and appropriate to protect public health or safety or the environment. The BLM will identify the number of high-hazard non-Federally owned dams located on BLM land. Using recently collected non-owned dam data, the BLM will further identify which of those high-hazard dams have ROW agreements in place. The BLM will issue an IM that will require field offices to add the terms and conditions to ROW agreements, as the ROW agreements are renewed. The BLM will examine these ROW agreements and determine if it is feasible to add terms and conditions to a ROW prior to renewal if the situation warrants.

Target Date: March 31, 2013, for issuance of the IM. As appropriate, the BLM will modify the terms and conditions upon expiration of the ROW agreements unless BLM determines that it is feasible and warranted to modify prior to expiration of the agreements.

Responsible Official: Michael D. Nedd, Assistant Director, Minerals and Realty Management and Ruth Welch, Director, National Operations Center

**Recommendation 9:** *Ensure that NPS Regional Directors and Superintendents are requesting observer status during inspections and in the preparation and review of EAPs at non-NPS dams that could significantly affect park areas, in accordance with NPS Reference Manual 40.*

Response: Concur

The NPS is working with several other Federal agencies and has developed an initial inventory of dams owned by others on NPS lands. The NPS is also developing an initial inventory of dams owned by others upstream from the NPS lands whose failure could put people at parks or park resources at risk if these dams were to fail.

Target Completion Date:

- November 15, 2012: Transmit OIG audit finding and our initial list of non-owned dams to the Regional Dam Safety Coordinators.
- April 30, 2013: Request engineering resources for initial and long-term management of the risks of these non-owned dams.
- April 30, 2013: Revise chapter 20 of the draft Reference Manual 40, *Dam Safety Program*, consistent with the above recommendation. Complete NPS internal reviews and finalize.
- April 30, 2013: Develop a database and further develop the inventory of non-owned dams that could affect the parks.

- June 1, 2013: Transmit dam inventory and policy/guidance to regions and parks about the need for being included on non-owned dam EAPs and to participate in the examinations of these dams. Include a request for communication to the Dam Safety Program to track accomplishment.
- December 31, 2013, and every year thereafter: Report on regions parks' performance on meeting these requirements in the Dam Safety Program Annual Report.

Responsible Official: Mark E. Baker, NPS Dam Safety Officer

**Recommendation 10:** *Continue BLM's and NPS' efforts in addressing the inventory of non-BLM and non-NPS owned dams, including determining the agreements in place that allow for the existence and operation of these dams and determining if these dams are being inspected and have EAPs in place.*

NPS Response: Concur

The NPS has been working with the BLM, the U.S. Forest Service, the U.S. Fish and Wildlife Service and other Federal and state agencies to identify dams on NPS-lands. The NPS has also reviewed its' files, the NPS Dam Safety database, aerial imagery, and paper park maps to identify non-owned dams whose failure could affect parks.

Target Completion Date: December 2015: Continue working with the other Federal and state agencies for a common best approach to managing the risks of dams on our lands, including the need for agreements with the dam owners. Include these non-owned dams on our lands in the steps for Recommendation 9 above.

Responsible Official: Mark E. Baker, NPS Dam Safety Officer

BLM Response: Concur

The BLM will continue its efforts to update its inventory of non-owned dams on its property. Pursuant to Departmental Manual 753, on April 13, 2012, the BLM issued IM 2012-099 entitled, "Identification of Privately Owned Dams on Bureau of Land Management (BLM) Lands," which requires field offices to update their inventory of privately owned dams that are located on BLM lands. Information for each dam is being compiled for the periodic updates to the National Inventory of Dams. The BLM will continue work on this issue through the efforts of its own Permitted Dams Team, which consists of engineers from various BLM State Offices.

There are some limitations on BLM's abilities to inspect and regulate these privately owned dams. However, the BLM continues to address safety issues for these dams through the Interagency Committee on Dam Safety (ICODS). One goal of the ICODS is to make recommendations to create a consistent Federal policy for addressing the safety concerns posed by these dams as discussed in recommendation 1. The BLM Dam Safety Officer serves as a Task Group Lead.

The BLM will continue its work with the ICODS to determine the status of inspections and EAPs on non-owned dams and develop recommendations to create a consistent Federal

policy for addressing safety concerns posed by these dams and will update its non-owned (permitted) dam inventory annually in response to IM 2012-099.

Target Completion Date: January 31, 2013, for updating the inventory

Responsible Official: Ann DeBlasi, Deputy Assistant Director, Business and Fiscal Resources and Ruth Welch, Director, National Operations Center

**Recommendation 11:** *Revise the Departmental Manual (DM) to include a uniform approach to monitoring and emergency action planning for non-DOI dams located on DOI lands.*

Response: Concur

The Non-Federal Dams on Federal Lands Task Group (Task Group) of the ICODS is exploring this subject with a government-wide perspective. The BLM leads the Task Group, which is coordinating with the other departments and agencies that make up ICODS and with non-governmental organizations such as the Association of State Dam Safety Officials. Based on ICODS' findings, Reclamation will use the Enterprise Architecture Reduce Dam Safety Risk initiative to develop a Department-wide uniform approach to monitoring and emergency action planning for non-Department dams located on Department lands. Reclamation will take the lead in having DM 753 modified as needed to ensure departmental implementation of the uniform approach.

Target Completion Date: The ICODS task group expects to provide available findings by December 31, 2014. Reclamation will initiate applicable DM revisions by December 31, 2015.

Responsible Official: David Achterberg, Director, Security, Safety and Law Enforcement, Bureau of Reclamation

**Technical Comments:**

- On page 2, first bullet under the USBR Evaluation Report section: The largest BLM high hazard dam has a capacity of “580 acre-feet” rather than 3,600 acre-feet.
- In Recommendation 10, the words "on BLM or NPS lands" should be added to the recommendation.

In addition, the following comments also apply:

- OSM wishes to clarify that the SMCRA and its implementing regulations impose significant safety standards on dams subject to regulation under the SMCRA. Among other things, 30 CFR 780.25 and 784.16 require detailed design plans for each impoundment and an engineering stability analysis and foundation investigation for each high-hazard and significant-hazard dam. Under 30 CFR 816.49 and 817.49, all high-hazard and significant-hazard dams must meet stringent emergency spillway criteria, must achieve minimum static and seismic safety factors, and must be examined weekly for the appearance of structural weakness and other hazardous conditions. In addition, these regulations require that if an examination discloses the existence of a potential hazard, either OSM in non-primacy states or the regulatory authority in a primacy state must be notified of that condition, the emergency procedures, and the planned remedial action formulated to protect the public.
- Further, all 10 high-hazard dams for which OSM has direct permitting authority under the SMCRA (i.e., those located in non-primacy states) currently have emergency action plans.
- OSM agrees with the importance of ensuring the safety of operations at surface coal mining sites subject to regulation under the SMCRA. As noted in the OIG’s draft report, however, OSM’s authorities differ depending upon whether dams are located in primacy or non-primacy states subject to the SMCRA. In particular, it is unclear whether OSM may require primacy states to adopt performance standards incorporating the requirements of the FGDS. OSM will therefore review the relevant authorities and policies and undertake regulatory changes, as appropriate.

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## Appendix 3: Status of Recommendations

Recommendations	Status	Required Action
I – 6, 7a, 7b, 7c, 8, 9, 10a, 10b, and 11	Resolved but not implemented.	No further response to the Office of Inspector General is required. The recommendations will be referred to the Assistant Secretary for Policy, Management and Budget for tracking.

# **Report Fraud, Waste, and Mismanagement**



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