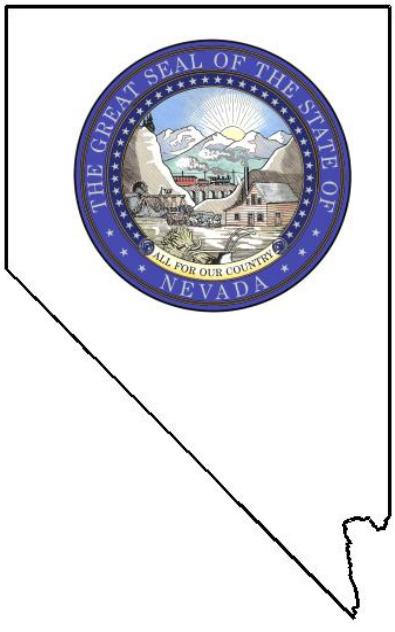
LA14-03

STATE OF NEVADA

Audit Report

Department of Conservation and Natural Resources
Division of Water Resources

2013



Legislative Auditor
Carson City, Nevada

Audit Highlights

Highlights of Legislative Auditor report on the Division of Water Resources issued on March 4, 2013. Report # LA14-03.

Background

The office of the State Engineer was created in 1903. The State Engineer is the executive head of the Division of Water Resources, which became a division of the Department of Conservation and Natural Resources in 1957. Its mission is to conserve, protect, manage, and enhance the state's water resources for Nevada's citizens through the appropriation and reallocation of public waters.

The Division's six main program areas include water rights, well drilling, dam safety, flood program, water planning, and adjudications.

As of July 2012, the Division had 81 employees located in its Carson City, Elko, Las Vegas, and Winnemucca offices. The Division has 61 budget accounts: 12 operating and 49 water system accounts. The Division's fiscal year 2012 revenues amounted to over $11 million, including $5 million in state appropriations. Fee collections amounted to $3.5 million.

Purpose of Audit

The purpose of this audit was to: (1) determine whether dam safety inspections were performed timely and emergency action plans were submitted, (2) evaluate the reliability of performance measures used in the state's budget process, and (3) determine whether fees were collected and deposited in accordance with laws and regulations. Our audit focused on the Division's activities for fiscal year 2012, and included some inspections up to November 2012.

Audit Recommendations

This audit report contains eight recommendations to improve upon the inspection of dams, strengthen the reliability of performance measures, and enhance controls over the safeguarding of receipts.

The Division accepted the eight recommendations.

Recommendation Status

The Division's 60-day plan for corrective action is due on May 28, 2013. In addition, the six-month report on the status of audit recommendations is due on December 2, 2013.

DIVISION OF WATER RESOURCES

Department of Conservation and Natural Resources

Summary

The Division can improve upon the inspection of dams throughout the State. Dam safety inspections were not always performed timely, and emergency action plans were not submitted to the State Engineer in accordance with state regulations. Stronger controls are also needed over the management of data used to track information about each dam. Since the failure of a dam could cause a loss of human life or extensive economic loss or disruption in a lifeline, inspecting dams is very important.

The Division can take steps to strengthen the reliability of its performance measures used in the state's budget process. Underlying records did not adequately support some of the reported measures. It is important for performance measures to be reliable because it can affect budget and policy decisions made by agency managers and oversight bodies, and judgments made by stakeholders and the public about the Division's operations.

The Division has an effective process for the collection and deposit of fees. We found the Division collected and deposited fees in accordance with state laws and regulations. Although the Division's controls over fee collections and deposits are effective, improvements can be made over the safeguarding of fee receipts.

Key Findings

As of June 30, 2012, the Division reported 655 dams: 148 high, 119 significant, and 388 low hazard dams. Of 75 dams tested, 31 dam safety inspections were not performed timely in accordance with state regulations. The inspections were untimely by an average of 5.9 years. State law requires the Division to perform dam inspections for the purpose of determining their safety. Additionally, no inspection was documented in 4 of the dam files reviewed. Of the 71 dam inspections reviewed, the Division's inspection checklist was only prepared for 39 (55%) of the dams inspected. Inspections should be performed timely and adequately documented. (page 5)

Emergency Action Plans (EAPs) were not always submitted by dam owners. Of 60 high and significant hazard dams tested, 55 dams were granted an approval to impound and 17 (31%) had not submitted an EAP. NAC 535.320 requires all high and significant hazard dams to have an EAP prior to obtaining an approval to impound. This approval allows an owner to detain water or other fluid substance using a dam. (page 7)

Dam database information used to monitor dam inspections is inaccurate. We tested 30 dams with timely inspections (per the database) and 212 dams with untimely inspections (per the database) and found 7 and at least 73, respectively, in which the inspection date did not agree to the last inspection date in the dam file. Further, we found 7 of 90 dams' hazard classifications to be incorrect. Dam data maintained in the Division's database should be accurate for the proper monitoring of the state's dams. (page 8)

The Division included 16 performance measures in its budget documents for fiscal years 2014 and 2015, specifically, the Executive Budget and the Priorities and Performance Based Budget. We selected five measures and found three were not adequately supported. These measures were the number of high, significant, and low hazard dams inspected in fiscal year 2012. Since adequate documentation was not retained, we were unable to determine the accuracy of each measure. In addition, the database queried had inaccurate information and therefore generated inaccurate results. Furthermore, the numbers the Division reported to us were the number of dams, not the number of inspections. (page 10)

The Division lacked sufficient controls to ensure performance measures were reliable. Control weaknesses included inadequate written procedures and insufficient review of the measurement computation for the five measures tested. It is important for performance measures to be reliable because it can affect budget and policy decisions made by agency managers and oversight bodies, and judgments made by stakeholders and the public about the Division's operations. (page 11)

During fiscal year 2012, the Division collected over $3.5 million in fee revenue, of which $1.6 million was made by check or cash and processed in its Carson City, Elko, or Las Vegas office. We tested 60 transactions totaling over $390,000 and found fees were collected and deposited in accordance with state laws and regulations. Although controls are effective, safeguarding of receipts can be improved. Not securely storing fee receipts increases the risk that payments could become lost, stolen, or misappropriated. (page 13)

For more information about this or other Legislative Auditor reports go to: http://www.leg.state.nv.us/audit (775) 684-6815.

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Legislative Commission
Legislative Building
Carson City, Nevada

This report contains the findings, conclusions, and recommendations from our completed audit of the Department of Conservation and Natural Resources, Division of Water Resources. This audit was conducted pursuant to the ongoing program of the Legislative Auditor as authorized by the Legislative Commission. The purpose of legislative audits is to improve state government by providing the Legislature, state officials, and Nevada citizens with independent and reliable information about the operations of state agencies, programs, activities, and functions.

This report includes eight recommendations to improve upon the inspection of dams, strengthen the reliability of performance measures, and enhance controls over the safeguarding of receipts. We are available to discuss these recommendations or any other items in the report with any legislative committees, individual legislators, or other state officials.

Respectfully submitted,

Paul V. Townsend, CPA
Legislative Auditor

February 20, 2013
Carson City, Nevada

Division of Water Resources
Table of Contents

Introduction

Background

The office of the State Engineer was created in 1903. The State Engineer is the executive head of the Division of Water Resources, which became a division of the Department of Conservation and Natural Resources in 1957. Its mission is to conserve, protect, manage, and enhance the state's water resources for Nevada's citizens through the appropriation and reallocation of public waters.

Division Program Areas/Responsibilities

The Division's six main program areas and responsibilities include:

Water Rights – Reviews and approves water rights applications for new appropriations and for changes to existing water rights, as well as evaluating and responding to protests of applications, conducting administrative hearings, approving subdivision dedications for water quantity, evaluating domestic well credits and relinquishments, issuing certificates for permitted water rights, and conducting field investigations.

Well Drilling – Administers the regulations for water well and related drilling, including the licensing of well drillers; maintains the statewide well log database for public view, inspects well construction, decommissioning, and drilling operations statewide; and reviews and acts on waiver requests.

Dam Safety – Provides regulatory oversight of dams within Nevada by reviewing and permitting new dams, on-site inspections, provide assistance with emergency action planning, and educational outreach. The program's goal is to avoid dam failure and thus prevent loss of life and destruction of property.

Flood Program – Assists the public and local governments with floodplain management through the Community Assistance

Program, flood mitigation assistance, and flood hazard mapping assistance to communities. Activities in the program are undertaken in conjunction with agreements between the Federal Emergency Management Agency (FEMA) and the State, which define floodplain management, flood hazard mapping, and flood mitigation objectives.

Water Planning – Provides resources and assistance to the State Engineer, local governments, and the public relating to the planning and development of the state's water resources. The resources include water planning publications; basin summaries and ground water usage (pumping) reports; and county and water purveyor conservation plans. This program also includes a compliance enforcement function, which is designed to protect water resources and promote public safety by enforcing compliance with statutes, regulations, permits, certifications, orders, and decisions of the State Engineer.

Adjudications – Administers the adjudication statutes to determine the relative rights of claimants of vested rights and distribute water in accordance with the resulting court decrees. Completed adjudications result in a court decree, which must then be administrated. Distribution and regulation of waters under state decrees are responsibilities of this section.

Staffing and Budget

As of July 2012, the Division had 81 employees located in its Carson City, Elko, Las Vegas, and Winnemucca offices. The Division has 61 budget accounts: 12 operating and 49 water system accounts. A separate account has been established for each water system to record assessments and pay personnel and operating costs. During fiscal year 2012, assessments amounted to over $1.4 million. The Division's total fiscal year 2012 revenues amounted to over $7.6 million, excluding beginning cash and associated reversions. In addition, fee collections amounted to $3.5 million, which are deposited directly to the General Fund. Exhibit 1 shows the Division's revenues (exclusive of transfers between Division accounts) and expenditures for fiscal year 2012.

Revenues and Expenditures **Exhibit 1**
Fiscal Year 2012

Revenues	Amount	Percent of Total
State Appropriations	$5,015,692	65.30%
Assessments	1,437,786	18.71%
Reimbursements	615,923	8.02%
Federal Funds	373,283	4.86%
Transfers from Other Agencies	218,301	2.84%
Local Funds	20,000	0.26%
Treasurer's Interest	577	0.01%
Total Revenues	**$7,681,562**	**100.00%**
Expenditures		
Personnel	$5,617,956	73.50%
Operating	1,903,713	24.91%
Information Services	79,997	1.05%
Travel	32,431	0.42%
Director's Office Cost Allocation	6,500	0.08%
Purchasing Assessment	1,974	0.03%
Statewide Cost Allocation	861	0.01%
Total Expenditures	**$7,643,432**	**100.00%**

Source: State accounting system.

Scope and Objectives

This audit is part of the ongoing program of the Legislative Auditor as authorized by the Legislative Commission, and was made pursuant to the provisions of NRS 218G.010 to 218G.350. The Legislative Auditor conducts audits as part of the Legislature's oversight responsibility for public programs. The purpose of legislative audits is to improve state government by providing the Legislature, state officials, and Nevada citizens with independent and reliable information about the operations of state agencies, programs, activities, and functions.

This audit focused on the Division's activities for fiscal year 2012, and included some inspections up to November 2012. Our objectives were to:

- Determine whether dam safety inspections were performed timely and emergency action plans were submitted.
- Evaluate the reliability of performance measures used in the state's budget process.
- Determine whether fees were collected and deposited in accordance with laws and regulations.

Improvements Needed Over the Inspection of Dams

The Division can improve upon the inspection of dams throughout the State. Dam safety inspections were not always performed timely, and emergency action plans were not submitted to the State Engineer in accordance with state regulations. Stronger controls are also needed over the management of data used to track information about each dam. Inaccuracies were found with inspection data and hazard classifications recorded in the Division's dam database. This information is used to determine when dam inspections are due. Since the failure of a dam could cause a loss of human life or extensive economic loss or disruption in a lifeline, inspecting dams is important.

Dams in Nevada are built for three primary purposes: industrial, flood control, and storage for beneficial use such as irrigation. Hazard designations are assigned to dams based on downstream hazard potential in the event of a dam failure. These designations are initially determined when dam design plans are reviewed; however, hazard designations are updated as downstream conditions change as a result of development. NAC 535.140 defines hazard classifications as follows:

High Hazard – Failure carries a high probability of causing a loss of human life.

Significant Hazard – Failure carries a reasonable probability of causing a loss of human life or high probability of causing extensive economic loss or disruption in a lifeline. Disruption in a lifeline refers to the physical access to people or property such as roads and utilities being affected.

Low Hazard – Failure carries a very low probability of causing a loss of human life and reasonable probability of causing little, if any, economic loss or disruption in a lifeline.

As of June 30, 2012, the Division reported 655 dams: 148 high, 119 significant, and 388 low hazard dams.

Inspections Not Always Performed Timely

Dam safety inspections were not always performed timely. Of 90 dams tested, 75 required an inspection. The remaining dams were either not yet constructed or newly constructed and not yet due for an inspection. Of the 75 dams, 31 (41%) were not conducted timely in accordance with state regulations. The inspections were untimely by an average of 5.9 years. Exhibit 2 shows the untimely dam inspections by hazard classification.

Untimely Dam Inspections by Hazard Classification **Exhibit 2**

Hazard Classification	Inspections Required	Inspections Not Timely	Percent Not Timely	Average Years Late
High	36	11	31%	8.5
Significant	18	10	56%	3.0
Low	21	10	48%	6.1
Total	**75**	**31**	**41%**	**5.9**

Source: Auditor analysis of inspections documented in Division dam files.

State law requires the Division to perform dam inspections for the purpose of determining their safety. NAC 535.360 outlines the inspection frequency per hazard classification: annual inspection of high hazard dams, every three years for significant hazard dams, and every five years for low hazard dams. We found these frequencies to be similar to federal dam guidelines.

Division management indicated that for some of the high hazard dams we selected in which an inspection was several years overdue, they had visited the dam more frequently. However, we found no evidence of these inspections in the Division's dam files. To determine whether an inspection was conducted, we reviewed each dam file for the latest inspection report. The inspection report is a letter sent to the dam owner indicating when the dam was inspected and the inspection results. The results include corrective actions that should be taken immediately, in the short term (1 year), and in the long term (3 years). If an inspection report was not prepared, we also accepted the Division's 5-page

inspection checklist for confirmation that an inspection was performed. Division management indicated that a report should be prepared for every inspection performed.

Division personnel also stated that staffing and budget constraints have led to untimely inspections. Most inspections are performed by two dam inspection engineers. Other Division personnel are asked to inspect dams as they are performing other duties in the field, although relatively few inspections are performed by these individuals. The Division has recognized this challenge and developed some strategies, including:

- *Training staff not primarily engaged in dam safety in the principles of dam inspection and safety and combining staff field time with dam inspection activities.*
- *Assigning senior engineers to assist in more technical dam inspection activities such as high hazard dam inspections.*

If the Division does not have enough personnel to inspect all dams timely, it should ensure it inspects the dams with the highest risk (i.e. high hazard dams or dams with deficiencies) first.

Additionally, of the 75 dams requiring an inspection, no inspection was documented in 4 of the dam files reviewed. Of the 71 dam inspections reviewed, the Division's inspection checklist was only prepared for 39 (55%) of the dams inspected.

The Division developed and has included in their dam guidelines a standard 5-page inspection checklist to be used by staff to ensure complete, comprehensive, and consistent inspections are performed. Federal dam guidelines also recommend states develop standards and require the use of a standard inspection checklist and reporting format to ensure quality and consistency among inspectors.

Division personnel said the inspection checklist is not always used. Staff use various forms of documentation to document their inspections, including notes and photos. Although we observed some of this documentation, the notes were minimal and photos undated. Additionally, the documentation was stored on

individual's computers or in their office, not easily accessible for others to view.

Since the failure of a dam could cause loss of life or destruction of property, dams should be periodically inspected for the public's safety. Inspections should be performed timely and adequately documented. If dams are not being frequently inspected, dam deficiencies may not be recognized and corrective action taken in a timely manner.

Emergency Action Plans Not Submitted

Emergency Action Plans (EAPs) were not always submitted by dam owners. Of 60 high and significant hazard dams tested, 55 dams were granted an approval to impound and 17 (31%) had not submitted an EAP. The 17 dams without an EAP included 5 high and 12 significant hazard dams.

An EAP is an important document that guides the dam owner in the event of an emergency at their dam. NAC 535.320 requires all high and significant hazard dams to have an EAP prior to obtaining an approval to impound. This approval allows an owner to detain water or other fluid substance using a dam. The dam owner must also periodically test and update their plan, as needed. Federal dam guidelines reiterate this requirement.

Division personnel stated that these plans can be expensive to prepare. The EAP for a high hazard dam must be prepared by a Professional Engineer, which can be costly. Division personnel are working with dam owners with the greatest risk (high hazard dams) to implement this requirement established in 2003, and then plan to help the other dam owners.

An EAP is a collection of possible events and appropriate actions to take in each instance. Swift, decisive, and effective action in the face of a flood, gate failure, dam overtopping or other emergency can mean the difference between an inconvenience and a tragedy.

Information Used to Monitor Inspections Is Inaccurate

Database information used to monitor dam inspections is inaccurate. During our review of dam inspections:

- We tested 30 dams with timely inspections (per the database) and found 7 (23%) in which the inspection date in the database did not agree to the last inspection date in the dam file.

- We tested 212 dams with untimely inspections (per the database) and found at least 73 (34%) in which the inspection date in the database did not agree to the last inspection date in the dam file.

- We found 7 of 90 dams misclassified in the database. Six dams were recorded as a significant hazard when file documentation indicated the dam to be a high hazard dam. One dam was recorded as a significant hazard when file documentation indicated the dam to be a low hazard dam.

The Division's dam safety program uses a Microsoft Access database to maintain its dam data. Information such as the dam's name, ID number, hazard classification, and last inspection date are among the data stored and maintained in this database.

It is imperative inspection data and hazard classifications are accurate in the dam database, since this information is used to schedule annual dam inspections, to measure the dam program's performance, and viewed by the public on the Division's website. Without accurate data, management has misleading information about the dam program's performance and whether regulatory requirements are being met.

Division personnel indicated that the dam database may not always get updated due to time and manpower constraints. However, dam data maintained in the Division's database should be accurate for the proper monitoring of the state's dams.

Recommendations

1. Develop periodic reports (e.g. monthly, quarterly, annually) identifying dams inspected, due for an inspection, and past due.

2. Ensure dam safety inspections are performed based on risk, and utilize qualified staff not primarily engaged in dam safety to perform inspections in conjunction with other assigned duties.
3. Ensure staff utilize the Division's standard inspection checklist when performing dam safety inspections to ensure comprehensive inspections are consistently performed.
4. Continue to monitor Emergency Action Plans and work with dam owners to ensure plans are developed and submitted in accordance with state regulations.
5. Implement controls to ensure inspection data and hazard classifications in the Division's dam database are accurate and updated when needed.

Reliability of Performance Measures Can Be Improved

The Division can take steps to strengthen the reliability of its performance measures used in the state's budget process. Underlying records did not adequately support some of the reported measures. It is important for performance measures to be reliable because they can affect budget and policy decisions made by agency managers and oversight bodies, and judgments made by stakeholders and the public about the Division's operations. Reliability can be improved by enhancing written procedures on how to collect and calculate performance measurement data and providing for review of the results.

The Division included 16 performance measures in its budget documents for fiscal years 2014 and 2015, specifically, the Executive Budget and the Priorities and Performance Based Budget. The measures are also included in the Division's strategic plan and are linked to its goals and objectives.

Results Were Not Always Supported By Underlying Records

Performance measures cannot be considered reliable unless they are supported by sufficient underlying records. We selected 5 of the Division's 16 performance measures and found 3 were not adequately supported. Exhibit 3 shows the measures tested.

Performance Measures Tested **Exhibit 3**

Performance Measure
Applications processed
Actions taken on backlogged applications
High hazard dams inspected
Significant hazard dams inspected
Low hazard dams inspected

Source: Division of Water Resources, 2013 - 2015 State Budget.

The three measures lacking adequate documentation were the number of high, significant, and low hazard dams inspected in fiscal year 2012. Supporting documentation included an electronic spreadsheet with inspection totals per hazard type. According to Division personnel, the totals were obtained from a query performed in the Division's dam database. The query produced a listing of the dams inspected, but the listing was not retained after staff totaled each listing by hazard type. Since the listings were not retained, we were unable to determine the accuracy of each dam performance measure. In addition, the database queried to determine the number of inspections for each measure had inaccurate information about inspection dates and therefore generated inaccurate results. Finally, the numbers the Division reported to us for each measure were the number of dams, not the number of inspections.

Written procedures do not provide adequate guidance to assist staff with developing and providing adequate support for reported performance measures. The State Administrative Manual requires agencies to retain the records used in computing measures for three fiscal years. The lack of underlying records prevents measure results from being verified, and therefore the results are not reliable.

Controls Over Measures Need Improvement

The Division lacked sufficient controls to ensure performance measures were reliable. Control weaknesses included inadequate written procedures and insufficient review of the measurement computation for the five measures tested. It is important for performance measures to be reliable because it can affect budget and policy decisions made by agency managers and oversight bodies, and judgments made by stakeholders and the public about the Division's operations.

The Division's written procedures do not describe all aspects of how the measures are computed, including formulas and information on where the data is located. The Division's internal controls include a section on performance measures; however, the information is not detailed. Procedures should address the sources of the data, retention of underlying records, calculations performed, and supervisory review to ensure the data is reliable.

Written procedures demonstrate a commitment to reliable performance measures by providing agency personnel clear instructions for collecting applicable information. Procedures help ensure the process for collecting performance measurement data is reasonable and consistent over time.

Recommendations

6. Develop written procedures on how performance measures are computed, including the methodology and source documents used and retained.
7. Provide for review of calculations and methodology used to compute performance measures.

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Fees Were Collected and Deposited Properly

The Division has an effective process for the collection and deposit of fees. We found the Division collected and deposited fees in accordance with state laws and regulations. Although the Division's controls over fee collections and deposits are effective, improvements can be made over the safeguarding of fee receipts.

The Division charges various fees for the appropriation of water and licensing well drillers and water right surveyors. During fiscal year 2012, the Division collected over $3.5 million in fee revenue, of which $1.6 million was made by check or cash and processed in its Carson City, Elko, or Las Vegas office. We tested 60 transactions totaling over $390,000 and found fees were collected and deposited in accordance with state laws and regulations.

Safeguarding of Receipts Can Be Improved

Although controls are effective, safeguarding of receipts can be improved. Fee receipts in the Division's Carson City office are stored in an unlocked drawer during office hours, allowing access to all employees. In the Elko and Las Vegas offices, receipts are stored in lock boxes located in unsecure cabinets. These offices receive checks or cash regularly, so adequate safeguarding of these items is important.

State Accounting Policies and Procedures recommend entry to safekeeping devices be limited to as few people as possible. In addition, NRS 353A.020 requires access be allowed to only employees who need access to assets to perform their duties. Fee receipts were not restricted because policies and procedures do not adequately address the storage of fee receipts and access controls. Additionally, staff had not recognized the need to restrict access to fee receipts during the day. Not securely storing fee receipts increases the risk that payments could become lost,

stolen, or misappropriated. When management was informed of the safeguarding weaknesses, it took action to correct them.

Recommendation

8. Revise policies and procedures to ensure revenue is adequately safeguarded before being deposited.

Appendix A
Audit Methodology

To gain an understanding of the Division of Water Resources, we interviewed staff and reviewed statutes, regulations, policies, and procedures. We also reviewed financial information, the prior audit report, budgets, legislative committee minutes, and other information describing the activities of the Division. Furthermore, we documented and assessed the Division's internal controls over dam safety inspections, performance measures, and fee collections.

To determine whether dam safety inspections were performed timely, we obtained a listing of all dams per hazard classification. We verified the accuracy of each listing by randomly selecting 30 dams with timely inspections and all dams with untimely inspections (as indicated in the Division's dam database), and traced the last inspection date to the inspection report in the dam file. We also verified the completeness of each listing by selecting 30 dam files and tracing inspection documentation to each listing. We then selected 90 dams (30 of each hazard classification) and reviewed each dam file for when the last inspection was performed and compared to state regulations to determine the inspection's timeliness. For the 60 high and significant hazard dams previously selected, we also determined whether Emergency Action Plans were submitted as required per state regulation.

To determine the reliability of performance measures, we obtained the Division's performance data reported to the Department of Administration for fiscal year 2012. We selected five measures based on our perception of legislative and public interest and requested supporting documentation to review for accuracy and reasonableness of methodology. We then determined the Division's compliance with the State Administrative Manual

requiring written procedures, review, and retention of calculation documentation for agency performance measures.

To determine whether fees were collected and deposited in accordance with state laws and regulations, we calculated the amount of fees collected in fiscal year 2012. We then selected 50 receipts, 10 of the largest and the other 40 randomly, to verify the proper amount was collected, properly processed, and deposited timely. Next, we evaluated the Division's internal controls over fee collections for compliance with State Accounting Policies and Procedures. We also selected 10 of the largest debit transactions to determine their propriety.

Our audit work was conducted from July to November 2012. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

In accordance with NRS 218G.230, we furnished a copy of our preliminary report to the Administrator of the Division of Water Resources. On February 6, 2013, we met with agency officials to discuss the results of the audit and requested a written response to the preliminary report. That response is contained in Appendix B which begins on page 17.

Contributors to this report included:

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Appendix B

Response From the Division of Water Resources

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Governor

STATE OF NEVADA

LEO DROZDOFF
Director

JASON KING, P.E.
State Engineer

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February 19, 2013

Paul V. Townsend, CPA
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Re: Division of Water Resources Response to Audit Recommendations

Dear Mr. Townsend:

On February 7, 2013, we received the revised preliminary report of the audit your staff conducted on the *Division of Water Resources* during mid to late 2012. I would like to thank the members of your audit team for their courtesy and professionalism during the audit process. The Division of Water Resources accepts all eight of the audit recommendations and has begun the process of developing a plan of corrective action and implementation to meet the eight recommendations.

While we do accept all eight audit recommendations, I would like to provide some explanation and context related to the audit findings.

Dam Safety

The Division's Dam Safety Program acknowledges the deficiencies discovered through the audit process and will implement the recommendations in an effort to make the program stronger and to achieve our overall objective of protecting the health and well being of Nevada's citizens.

For any state dam safety program to be effective and accountable, personnel and funding levels must be sufficient to satisfy the statutory mandates. It is from this perspective that I hope to put the inspection of dams into context.

During the promulgation of the dam safety regulations found in NAC 535, the Division established an inspection interval of 1 year, 3 years, and 5 years based on the dam hazard potential rating of high, significant, and low, respectively. The Division established this

regulation based on the Model State Dam Safety Program (Document 316, July 2007 prepared by the Federal Emergency Management Agency). Although many states do not adopt such ambitious inspection measures, the Division felt it is the standard to aspire to while recognizing that the current staffing and funding levels are not commensurate with the work necessary to meet those standards. It is especially difficult in a state of Nevada's size, where dams are located all across the state. Division staff dedicated to the program primarily consists of two engineers trying to conduct over 270 inspections per year. The Model State Dam Safety Program document recommends 11 full time personnel for a portfolio of 200 dams and in Nevada there are 655 dams.

Additionally, in response to the finding related to untimely dam inspections, a search of additional records in the office that were not in the individual dam files reviewed (and I understand this is a problem as those documents should be filed in the file) during the audit reveals that many inspections were conducted much more timely for the high, significant, and low hazard dams than described on Page 5, Exhibit 2. For example, Bishop Creek Dam under NV00050 is classified as a high hazard dam and the file reflects a last inspection date being October 1996, which would make it out of compliance. Inspection notes that hadn't been filed in the dam file indicate that the dam was last inspected on July 30, 2012, and this date complies with the regulation. Another example is Weber Dam under NV10132, also a high hazard facility which is a federal facility located on the Walker Lake Indian Reservation and where the State's statutory authority may not apply. This dam is regulated by the USDI Bureau of Indian Affairs (BIA) and under our dam safety program we have a working relationship with both the Walker River Paiute Tribe and BIA to inspect the facility. This relationship is important in the event of extreme events that could impact life and property downstream outside of the reservation boundaries. Again, notes not yet filed indicated that staff conducted an inspection on July 23, 2012, and found no immediate issues with the facility. After taking into account notes and photos in the office that weren't filed in the dam files or entered into the dam database, the inspection frequency analysis found in Exhibit 2 for high hazard dams, averages about 1.0 year late as opposed to 8.5 years; for significant hazard dams, averages 1.0 year late as opposed to 3.0 years; and for low hazard dams, none of the sample dams were untimely as compared to 6.1 years. The Division will continue to work towards meeting the standards set forth in the regulations and improve the timeliness of dam safety inspections through the implementation of the recommendations in the audit report.

Another audit finding related to the Dam Safety Program relates to NAC 535.320 which requires the owners of high and significant hazard dams to file an Emergency Action Plan (EAP) with the Division. The cost of an EAP is borne by the dam owner and varies widely from facility to facility. During the adoption of the Dam Safety Regulations it was recognized as having a significant economic impact on dam owners and that compliance would be an issue. The creation of EAPs can be expensive to develop for dam owners since in many cases they must be prepared by licensed professionals. The Division currently complies with this regulation for

newly permitted dams and will implement action to gain EAP filings by those dam owners not in compliance.

Lastly, the dam database is being revised and a new one is currently under development. The discrepancies in the dam file and database will be addressed immediately and appropriately.

Performance Measures

The Division's performance measures have long been an area of concern and focus. Meeting or exceeding some of the measures in many cases, are subject to the amount of work submitted to the Division – in other words, if X amount of temporary applications aren't filed on an annual basis, then it is impossible to process and complete X temporary applications. The Division will continue to work towards adopting measures that are meaningful.

The audit report also identifies a lack of supporting documentation of some of our performance measures and inadequate written procedures and insufficient review of the measurement computation for some of our performance measures. We agree that we can improve in these areas. This will be the first undertaking in making our performance measures more meaningful.

Revenue Collection

The audit report found that fees were collected and deposited properly but made a recommendation that policies and procedures should be revised to ensure revenue is adequately safeguarded before being deposited. Steps have already been taken to safeguard those revenues and the policies and procedures will be updated.

We look forward to working with you and your staff to implement the needed improvements. Should you have any questions, please contact me at 684-2870.

Best Regards,

P.E.

Jason King, P.E.
State Engineer

cc: Leo Drozdoff, P.E., Director, DCNR
Kay Scherer, Deputy Director, DCNR

Division of Water Resources' Response to Audit Recommendations

	Recommendations	Accepted	Rejected
1.	Develop periodic reports (e.g. monthly, quarterly, annually) identifying dams inspected, due for an inspection, and past due	X	
2.	Ensure dam safety inspections are performed based on risk, and utilize qualified staff not primarily engaged in dam safety to perform inspections in conjunction with other assigned duties	X	
3.	Ensure staff utilize the Division's standard inspection checklist when performing dam safety inspections to ensure comprehensive inspections are consistently performed.	X	
4.	Continue to monitor Emergency Action Plans and work with dam owners to ensure plans are developed and submitted in accordance with state regulations	X	
5.	Implement controls to ensure inspection data and hazard classifications in the Division's dam database are accurate and updated when needed	X	
6.	Develop written procedures on how performance measures are computed, including the methodology and source documents used and retained	X	
7.	Provide for review of calculations and methodology used to compute performance measures	X	
8.	Revise policies and procedures to ensure revenue is adequately safeguarded before being deposited	X	
	TOTALS	8	0