

MINUTES

CALL TO ORDER

The Oklahoma Conservation Commission met Monday, November 7, 2011, in the Agriculture Building Board Room located at 2800 N. Lincoln in Oklahoma City, Oklahoma. The meeting was called to order at 9:30 a.m. by Chairman George Stunkard. He stated this was a regularly scheduled meeting in accordance with the Open Meeting Law, Title 25, Sections 301 and following as amended. The agenda for this meeting was posted at 9:00 a.m. on November 4, 2011, at the front entrance of the building.

ROLL CALL

Kim Tweed, Executive Secretary, took roll call and the following members were in attendance:

George Stunkard, Chair
Dan Lowrance, Vice Chair
Jim Grego, Secretary
Karl Jett, Member
Mike Rooker, Member

Others in attendance were:

Mike Thralls, Executive Director
Ben Pollard, Assistant Director
Steve Coffman, Financial Management and Human Resources Director
Robert Toole, Conservation Programs Director
Shanon Phillips, Water Quality Program Director
Mike Kastl, Abandoned Mine Land Program Director
Mike Sharp, Information Technology Director
Lisa Knauf Owen, District Services Director
Mark Harrison, Information Representative
Janet Stewart, General Counsel
Tammy Sawatzky, Conservation Programs Deputy Director
Johnny Pelley, Watershed Technician
George Moore, Watershed Technician
Dennis Boney, Watershed Technician
Karla Beatty, Education Coordinator
Lil Holcum, Administration Assistant
Jim Henley, GIS Specialist
Ray Riley, Hydrologic Engineer
Ron Hilliard, Natural Resources Conservation Service State Conservationist
Brian Dillard, Natural Resources Conservation Service
Clay Pope, Oklahoma Association of Conservation Districts Executive Director
Blayne Arthur, Oklahoma Department of Agriculture, Food and Forestry Associate
Commissioner
Jeff Brown, State Auditor's Office

Hilaire Johnson, State Auditor's Office
Erin Boeckman, eCapitol
Steve Thompson, American Farmers and Ranchers
Kim Tweed, Executive Secretary

PLEDGE OF ALLEGIANCE

Mr. Lowrance led the group in the Pledge of Allegiance.

MINUTES OF PREVIOUS MEETING

A motion was made by Mr. Lowrance and seconded by Mr. Rooker to approve the minutes of the October 3, 2011, Commission meeting as written. Those voting aye were: Jett, Rooker, Stunkard, Lowrance and Grego. Nay votes: none. Motion carried.

DISTRICT DIRECTOR RESIGNATIONS AND APPOINTMENTS

Mike Thralls, Executive Director, presented recommendations for appointment of conservation district directors as listed in Exhibit #1. A motion was made by Mr. Grego and seconded by Mr. Rooker to approve district director appointments as listed. Those voting aye were: Jett, Rooker, Stunkard, Lowrance and Grego. Nay votes: none. Motion carried.

CLAIMS/FINANCIAL STATEMENT

Steve Coffman, Financial Management and Human Resources Director, presented the claims and financial statement as listed in Exhibit #2. A motion was made by Mr. Rooker and seconded by Mr. Lowrance to approve the claims and financial statement. Those voting aye were: Jett, Rooker, Stunkard, Lowrance and Grego. Nay votes: none. Motion carried.

PRESENTATION BY THE STATE AUDITOR AND INSPECTOR'S OFFICE OF THE COMMISSION'S AUDIT

Mr. Coffman stated that the State Auditor and Inspector's Office recently concluded an audit of the Commission for the period of January 1, 2008 through December 31, 2010 to determine whether the Agency's internal controls provide reasonable assurance that revenues, expenditures and inventory were accurately reported in the accounting records. Hilaire Johnson and Jeff Brown with the State Auditor and Inspector's Office presented its findings from the audit as listed in Attachment A and stated that the Commission's management has addressed or is in the process of addressing the reported findings.

PRESENTATION ON THE WATERSHED REHABILITATION ASSESSMENT PROJECT

Robert Toole, Conservation Programs Director, stated that the Watershed Rehabilitation Assessment Project was a two year program that began in 2009 and was completed on September 30, 2011. He thanked Ron Hilliard, Natural Resources Conservation Service State Conservationist, for his support of not only this project but also of the overall watershed program. Mr. Toole then introduced the team members: Larry Caldwell, Watershed Specialist, project manager & team leader; Ray Riley, Hydrologic Engineer; Jim Henley, GIS Specialist; Lil Holcum, Administrative Assistant; Mike Sharp, Information Technology Director; Watershed Technicians Dennis Boney, Johnny Pelley, and George Moore; Tammy Sawatzky, Conservation Programs Deputy Director; and those not in attendance Dwain Phillips, Technical Writer and Gary Utley, NRCS Hydrologic Engineer.

Mr. Caldwell then provided a power point summary of the project along with an executive summary and findings as listed in Attachment B.

PRESENTATION OF AGREEMENTS

Ben Pollard, Assistant Director, presented agreements for approval as listed in Exhibit #3. He recommended approval of new agreements listed as (a) through (b). A motion was made by Mr. Lowrance and seconded by Mr. Rooker to approve the new agreements as listed. Those voting aye were: Jett, Rooker, Stunkard, Lowrance and Grego. Nay votes: none. Motion carried.

Mr. Pollard recommended approval of amended agreements listed as (c) through (f). A motion was made by Mr. Jett and seconded by Mr. Rooker to approve the amended agreements as listed. Those voting aye were: Jett, Rooker, Stunkard, Lowrance and Grego. Nay votes: none. Motion carried.

OUT OF STATE TRAVEL REQUESTS

Mr. Thralls presented travel requests for approval as listed in Exhibit #4. A motion was made by Mr. Grego and seconded by Mr. Jett to approve the requests as listed. Those voting aye were: Jett, Rooker, Stunkard, Lowrance and Grego. Nay votes: none. Motion carried.

ATTENDANCE AT THE NACD ANNUAL MEETING

The National Association of Conservation Districts Annual Meeting will be held January 29-February 1 in Las Vegas, Nevada. A motion was made by Mr. Lowrance and seconded by Mr. Grego to approve the attendance of Mr. Stunkard, Mr. Rooker and Mr. Thralls. Those voting aye were: Jett, Rooker, Stunkard, Lowrance and Grego. Nay votes: none. Motion carried.

REGULAR SCHEDULED MEETINGS FOR CALENDAR YEAR 2012

Mr. Thralls stated that staff is recommending regular scheduled meetings for calendar year 2012 as listed in Exhibit #5 and is providing options for the September meeting. After discussion, a motion was made by Mr. Grego and seconded by Mr. Lowrance to approve the meetings as listed and to schedule the September meeting for the second Monday, September 10. Those voting aye were: Jett, Rooker, Stunkard, Lowrance and Grego. Nay votes: none. Motion carried.

CO-SPONSOR EVENTS

A motion was made by Mr. Grego and seconded by Mr. Rooker to co-sponsor the following events. Those voting aye were: Jett, Rooker, Stunkard, Lowrance and Grego. Nay votes: none. Motion carried.

- a. 2012 No-till Oklahoma Conference, February 21-22, 2012, Norman, Oklahoma.
- b. Oklahoma Association of Conservation Districts Annual Meeting, February 26-28, 2012, Reed Conference Center, Midwest City, Oklahoma.

COST SHARE PROGRAM YEAR 13 SPECIAL REQUEST FROM GREER COUNTY CONSERVATION DISTRICT

Robert Toole, Conservation Programs Director, stated that the Greer County Conservation District is requesting to add Pumping Plant (533) for solar pump for Cost-share Program Year 13 and recommended approval. A motion was made by Mr. Lowrance and seconded by Mr. Jett to

approve the request. Those voting aye were: Jett, Rooker, Stunkard, Lowrance and Grego. Nay votes: none. Motion carried.

PERSONNEL REQUEST BY GREER COUNTY CONSERVATION DISTRICT

Mr. Thralls stated that the Greer County Conservation District is requesting to keep the district manager position as a full-time benefitted employee. He provided a draft letter to the district denying the request along with a listing of district and Commission positions that have been eliminated or reduced. A motion was made by Mr. Lowrance and seconded by Mr. Rooker to deny the request and to send documentation of the Commission’s action. Those voting aye were: Jett, Rooker, Stunkard, Lowrance and Grego. Nay votes: none. Motion carried.

PUBLIC COMMENTS

None.

NEW BUSINESS

None.

OKLAHOMA CONSERVATION COMMISSION MEMBERS

Mr. Jett reported on attending the Harper County Conservation District breakfast. He stated that over 70 people were in attendance including State Representative Gus Blackwell and the Farm Service Agency Director Francis Tolle. Mr. Jett also attended an economic development tour of the Oklahoma panhandle with Governor Mary Fallin. He reported on attending an endangered species task force meeting at the State Capitol.

Mr. Grego reported on attending the Governor’s Water Conference and annual banquets at the Pittsburg County and Haskell County Conservation Districts.

Mr. Lowrance also attended the Governor’s Water Conference as well as the Oklahoma Association of Conservation Districts (OACD) Area 4 meeting.

Mr. Rooker attended the OACD Area 2 Meeting. Mr. Thralls stated that Dan Sebert is replacing Richard Parker as OACD Area 2 Director.

Mr. Stunkard attended the Governor’s Water Conference and will be attending the OACD Area 3 meeting this week.

OKLAHOMA CONSERVATION COMMISSION STAFF

Administration - Executive Director: Mr. Thralls attended the OACD Area 2 meeting and stated that the discussion on drought issues was good. He gave a presentation at the Joint Legislative Water Committee meeting. Mr. Thralls stated that the Comprehensive Water Plan includes funding recommended for watershed rehabilitation, operation and maintenance and watershed protection. During his presentation he spoke about watershed protection, roadside erosion, and water quality monitoring.

District Services Division: Lisa Knauf Owen, Director, reported that districts in western Oklahoma are losing employees to the oil field. She will be attending an Open Meeting Act

workshop today. Ms. Owen has been working with districts on payment of state withholding taxes which are now paid electronically.

Water Quality Program: Shanon Phillips, Director, stated that staff had an end of year meeting with the Environmental Protection Agency, Region 6 and was told to expect an additional 10% cut for 2012 and to adjust the FY12 work plan to reflect this reduction. This would be an overall 24% cut to the program in one year. Ms. Phillips stated that the program has reduced staff and the number of vehicles as well as looking at cost-saving options with the Ag lab.

Ms. Phillips then reported on the success of the Honey Creek Implementation Project and provided a written summary (Attachment C).

Abandoned Mine Land Reclamation Program: Mike Kastl, Director, stated there are two active projects. He reported on the 2011 Grant stating that the Office of Surface Mining (OSM) has issued only one Authorization to Proceed (ATP) out of four AML projects submitted to OSM in this grant.

Mr. Kastl expressed appreciation to Mr. Hilliard for his openness to providing engineering assistance to the program.

Financial Management and Human Resources Division: Mr. Coffman commended Lynn Weldon, Human Resources Specialist, on conducting 10 insurance/benefits meetings around the state for district employees. Mr. Coffman stated that staff is working with the Surplus office on transferring used equipment to update the physical inventory.

Information Technology Division: Mike Sharp, Director, gave a status report on information technology consolidation efforts. House Bill 1304 states that IT assets will be transferred to the Office of State Finance on January 1, 2012 and that IT employees will be transferred on February 1, 2012. The Commission has submitted an exemption request and are awaiting a meeting with Alex Pettit, state chief information officer, to discuss next steps.

Conservation Programs Division: Robert Toole, Director, again thanked Mr. Hilliard for his support of the watershed assessment project and the watershed program. He stated that due to earthquake activity in the state the Dam Safety Incident Management Team (DS-IMT) was put on alert. He stated that Lincoln County Conservation District staff inspected their watershed structures and saw no visible signs of damage. Mr. Toole stated that inspections will be performed on dams within a 75 mile radius from the epicenter. He also stated that heavy rains in south central Oklahoma has also put the DS-IMT on notice.

Administration - Assistant Director: Mr. Pollard stated that in the interest of time a written report was included in the meeting packet.

OKLAHOMA ASSOCIATION OF CONSERVATION DISTRICTS

Clay Pope, Executive Director, reported that Area 2 and 4 meetings were concluded with Dan Sebert being named Area 2 director replacing Richard Parker.

He reported on the Endangered Species Task Force stating that OACD is a member of this committee. Discussions continue on eastern red cedar and advising producers to convert to no-till.

Mr. Pope stated that he has been working with Congressman Lucas on federal issues primarily the Farm Bill. He was told that the Conservation Title could be good news and that the Commodity Title is still a work in progress.

Mr. Pope reported on meeting with Senator Bingman regarding Commission and Oklahoma Scenic Rivers Commission issues and will also be speaking with Speaker Steele about these issues.

Mr. Pope stated that a Chinese Department of Ag official was in the state and that he gave a tour on no-till, water quality, and upstream flood control. He also gave a presentation to the State Chapter of the Sierra Club. Mr. Pope held a teleconference with the head lobbyist of the American Farm Land and Trust. He presented at the with Oklahoma Ag Expo regarding the prairie chicken. Mr. Pope will be meeting with Channel 25 today at Lake McMurtry in Stillwater on a follow up interview regarding the bond issue and upstream flood control dams.

USDA-NATURAL RESOURCES CONSERVATION SERVICE

Ron Hilliard, State Conservationist, introduced Brian Dillard, Design Engineer, from the NRCS state office. He provided copies of a poster designed for American Indian/Alaska Native Heritage Month by Oklahoma artist Carrie Silverton. Mr. Hilliard stated that the NRCS is still waiting on word about the new Farm Bill.

DEPARTMENT OF AGRICULTURE, FOOD AND FORESTRY

Blayne Arthur, Associate Commissioner, reported on lesser prairie chicken issues stating that the Oklahoma Department of Transportation will be updating its methods on ODOT fencing to better accommodate the chicken. She stated that the OG&E has provided the Oklahoma Department of Wildlife Conservation with \$9 million and the ODWC has allocated \$1 million to the lesser prairie chicken issues. State Representative Gus Blackwell has directed the Panhandle State University to develop a website for lesser prairie chicken information.

Ms. Arthur reported on the Feral Swine Directory stating 330 hunters have signed up; however, only 1 landowner has offered land for hunting. The American Quarter Horse World Show is being held in Oklahoma City over the next two weeks. Ms. Arthur stated that Secretary of Agriculture Jim Reese will be attending a meeting in Texas to address ag issues for the United States, Mexico and Canada. Discussions will include invasive species, food safety, country of origin statements, and rail transportation.

NEXT MEETING

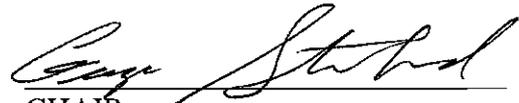
The next regular meeting of the Oklahoma Conservation Commission will be held on December 5, 2011, in the Agriculture Building Board Room, 2800 N. Lincoln Boulevard, Oklahoma City, Oklahoma beginning at 9:30 a.m. Mr. Thralls stated that the annual full staff Christmas luncheon will be held at the Cattlemen's Event Center immediately following adjournment.

ADJOURNMENT

There being no further business a motion was made by Mr. Grego and seconded by Mr.

Rooker to adjourn. Those voting aye were: Jett, Rooker, Stunkard, Lowrance and Grego. Nay votes: none. Motion carried. The meeting adjourned at 11:22 a.m.

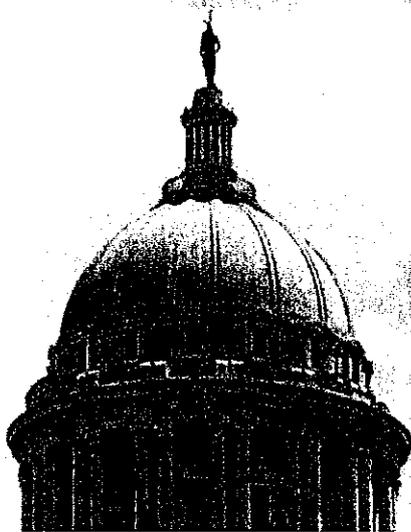
Approved by the Oklahoma Conservation Commission on December 5, 2011.


CHAIR

OPERATIONAL AUDIT

OKLAHOMA CONSERVATION COMMISSION

For the period January 1, 2008 through December 31, 2010



*Independently serving the citizens of
Oklahoma by promoting the
accountability and fiscal integrity of
governmental funds.*



Oklahoma State
Auditor & Inspector
Gary Jones, CPA, CFE
11/07/11

ATTACHMENT A

**Audit Report of the
Oklahoma Conservation Commission**

**For the Period
January 1, 2008 through December 31, 2010**

This publication, issued by the Oklahoma State Auditor and Inspector's Office as authorized by 74 O.S. § 212, has not been printed, but is available on the agency's website (www.sai.ok.gov) and in the Oklahoma Department of Libraries Publications Clearinghouse Digital Collection, pursuant to 74 O.S. § 3105.B.



Oklahoma State Auditor & Inspector

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September 7, 2011

TO THE OKLAHOMA CONSERVATION COMMISSION

This is the audit report of the Oklahoma Conservation Commission for the period January 1, 2008 through December 31, 2010. The goal of the State Auditor and Inspector is to promote accountability and fiscal integrity in state and local government. Maintaining our independence as we provide this service to the taxpayers of Oklahoma is of utmost importance.

We wish to take this opportunity to express our appreciation for the assistance and cooperation extended to our office during our engagement.

Sincerely,

A handwritten signature in black ink, appearing to read "Gary A. Jones", written in a cursive style.

GARY A. JONES, CPA, CFE
OKLAHOMA STATE AUDITOR & INSPECTOR

**Oklahoma Conservation Commission
Operational Audit**

Background

The Oklahoma Conservation Commission (Agency) was established by the Legislature in 1937 to conserve, protect, and restore Oklahoma's natural resources, working in collaboration with the conservation districts and other partners on behalf of the citizens of Oklahoma.

Oversight is provided by five commissioners (commission members) appointed by the governor. Each member serves a term of five years.

Commission members are:

Matt Gard (ending June 30, 2011).....Area I
 Karl Jett (beginning July 1, 2011).....Area I
 Mike Rooker.....Area II
 George Stunkard.....Area III
 Dan Lowrance.....Area IV
 Virginia Kidd (ending June 30, 2010).....Area V
 James Grego (beginning July 1, 2010).....Area V

Table 1 summarizes the Agency's sources and uses of funds for state fiscal years 2010 and 2009 (July 1, 2008 through June 30, 2010).

Table 1 - Sources and Uses of Funds for SFY 2010 and SFY 2009

	2010	2009
Cash Balance	\$ 11,399,756	\$ 16,262,785
Sources:		
State Appropriations	\$ 9,032,390	\$ 10,281,862
Gas Production Tax-Oil	2,627,701	2,627,701
Federal Reimbursements	12,551,715	14,580,948
Employee Contribution - State Health Insurance Plan and Retirement Plan	272,837	273,834
Other	11,109	24,282
Total Sources	<u>\$ 24,495,752</u>	<u>\$ 27,788,627</u>
Uses:		
Personnel Services	\$ 7,772,933	\$ 7,394,281
Professional Services	3,720,019	1,800,380
Travel Expenses	156,761	180,826
Miscellaneous Administrative	289,321	440,478
Rent Expense	374,713	439,755
Maintenance and Repair Expense	128,155	162,329
Office Furniture and Equipment	161,320	142,970
Land, Right of Ways, Pass Thru Assets	4,888,522	3,806,938
Program Reimbursements - Litigation Costs	3,090,923	3,947,130
Payments to Local Gov't - Non-Profits	6,456,012	6,667,177
Loans, Taxes, Other Disbursements	2,106,986	822
Other	118,203	120,907
Total Uses	<u>\$ 29,263,868</u>	<u>\$ 25,103,993</u>

Source: Oklahoma PeopleSoft Accounting System (unaudited, for informational purposes only)

**Oklahoma Conservation Commission
Operational Audit**

**Purpose, Scope, and
Sample Methodology**

This audit was conducted in response to 74 O.S. § 212, which requires the State Auditor and Inspector's Office to audit the books and accounts of all state agencies whose duty it is to collect, disburse or manage funds of the state.

The audit period covered was January 1, 2008 through December 31, 2010.

Sample methodologies can vary and are selected based on the audit objective and whether the total population of data was available. Random sampling is the preferred method; however, we may also use haphazard sampling (a methodology that produces a representative selection for non-statistical sampling), or judgmental selection when data limitation prevents the use of the other two methods. We selected our samples in such a way that whenever possible, the samples are representative of the populations and provide sufficient evidential matter. We identified specific attributes for testing each of the samples. When appropriate, we projected our results to that population.

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. This report is a public document pursuant to the Oklahoma Open Records Act (51 O.S. § 24A.1 et seq.), and shall be open to any person for inspection and copying.

Objective: Determine whether the Agency's internal controls provide reasonable assurance that revenues, expenditures (including payroll), and inventory were accurately reported in the accounting records.

Conclusion

The Agency's internal controls provide reasonable assurance that revenues (manually receipted federal reimbursements received from the Office of the Secretary of Environment and payments received from the individual conservation districts) and payroll were accurately reported in the accounting records; however, they do not provide the same assurance for expenditures and inventory.

Methodology

To accomplish our objective, we performed the following:

- Documented internal controls related to the receipting, expenditure, payroll, and inventory processes through discussions with Agency personnel, observation, and review of documents;
- Tested controls which included:
 - Reviewing payroll documentation from nine randomly selected months to determine the documents were properly approved;
 - Reviewing payroll change forms for seven changes that occurred in nine randomly selected months to ensure the forms were properly approved and reflected on the payroll documentation;
 - Ensuring 13 employee separations that occurred in nine randomly selected months were properly reflected on the payroll documentation;
 - Observed where funds are retained prior to deposit to ensure they are properly secured.

Observation

Inadequate Segregation of Duties in the Expenditure Process

An effective internal control system should provide reasonable assurance that assets are adequately safeguarded by properly segregating the duties of employees.

The comptroller is responsible for approving expenditures and serves as the back-up for posting expenditures, should other employees not be available. Misappropriations could occur and may not be detected in a timely manner.

Recommendation

Management should assign the back-up responsibility for generating the claim vouchers in PeopleSoft to another employee who does not have approval responsibilities. In addition, the comptroller's PeopleSoft access should be changed so that he does not have this ability.

Views of Responsible Officials

The comptroller was removed as an approving officer for expenditures with the Office of State Finance. The comptroller will continue to have the ability to generate claim vouchers in PeopleSoft.

Observation

Inadequate Segregation of Duties in the Inventory Process

An effective internal control system should provide reasonable assurance that assets are adequately safeguarded by properly segregating the duties of employees.

The accountant is responsible for inventory record keeping and purchasing functions. Management did not consider this lack of segregation of duties as a risk. Misappropriations could occur and may not be detected in a timely manner.

Recommendation

Management should assign the recordkeeping duties to another employee who does not have purchasing duties.

Views of Responsible Officials

The responsibility for inventory record keeping has been reassigned to the agency's Information Technology division with primary responsibility given to the Geographic Information Systems Specialist.

Observation

Inadequate Electronic Data Access – Repeat Finding

An effective internal control system should limit access of records to authorized individuals.

The Agency's inventory records are stored electronically on their network where multiple employees have complete access to the records. Failure to limit access to the records could allow errors, misuse, or unauthorized alterations to occur. Management stated in the previous audit report the records are only accessible to employees of the Financial Management and Human Resources Divisions, and that the records would be password protected. It appears the implementation of the password protection did not occur.

Recommendation

Management should ensure the inventory records are password protected with only authorized personnel having knowledge of the password.

Views of Responsible Officials

The agency's inventory records have been password protected with only authorized personnel of the Information Technology division having knowledge of the password.

Observation

Lack of Physical Inventory Count – Repeat Finding

An effective internal control system should provide for physical control over vulnerable assets through the use of periodic physical counts and comparison to records.

A physical inventory count has not been recently performed by Agency personnel, nor could they identify when the last count was performed. Without a periodic physical inventory count conducted by an employee independent of the recordkeeping and purchasing processes, errors or misappropriation could occur and may not be detected in a timely manner. In the previous audit report, management stated these counts would be performed by employees in each division; however, it appears the counts did not occur.

Recommendation

Management should ensure an employee independent of the recordkeeping and purchasing processes conducts a physical inventory count. Documentation of who performed the count, when the count was performed, and any errors noted should be retained as evidence the count occurred. In addition, written policies and procedures should be developed documenting who is responsible for the inventory count, frequency (annual, bi-annual, etc.) of the count, and what documentation will be retained.

Views of Responsible Officials

Procedures are being developed to perform an agency wide physical inventory. No employee responsible for recording keeping of inventory or employees responsible for purchasing processes will conduct the physical inventory. Employees responsible for conducting the physical inventory will perform inventory count on items not assigned to the division in which the employee is assigned.



ATTACHMENT A

OFFICE OF THE STATE AUDITOR AND INSPECTOR

2300 N. LINCOLN BOULEVARD, ROOM 100

OKLAHOMA CITY, OK 73105-4896

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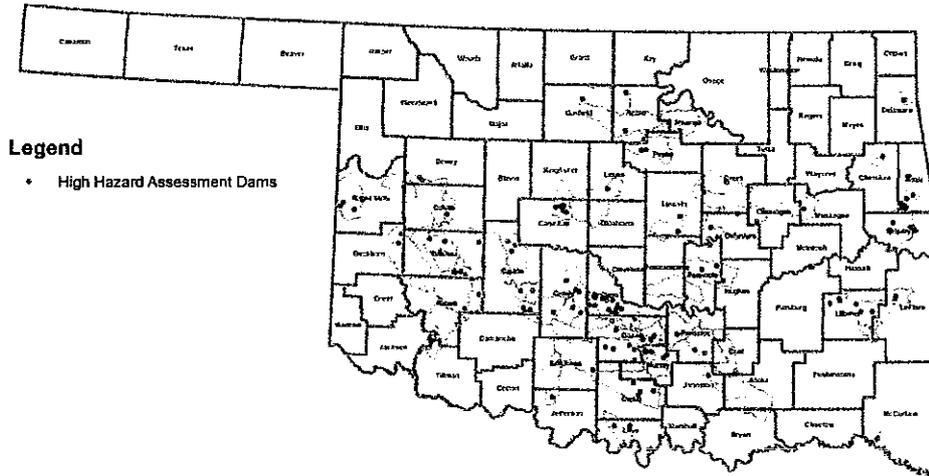
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Executive Summary

Dam Assessment Project Summary Report

October 2011

Cooperative Agreement 68-7335-9-42 between the Oklahoma Conservation Commission and the USDA Natural Resources Conservation Service was signed September 23, 2009. The purpose of this agreement was to complete assessments of 141 aging high-hazard watershed dams that were located in 59 watershed projects in 40 conservation districts and 39 counties.



Location of watershed dams assessed under the OCC-NRCS agreement

This final report summarizes the actions and findings of the special team assigned to conduct these assessments from October 2009 to September 2011.

The assessment report for each dam included the following information:

- Description of the condition of the dam and appurtenances
- Breach inundation analysis and map
- Verification of hazard classification
- Status of the operation and maintenance of the dam
- Conceptual rehabilitation alternatives, including site specific restraints
- Estimated cost ranges for the rehabilitation alternatives
- Priority ranking spreadsheets

OCC Team Approach to Conducting the Assessments

The Oklahoma Conservation Commission identified ten employees to complete the assessments. Some of these employees were retired NRCS employees who are experts in their technical disciplines. The employees were located in five different locations. This involved some unique challenges to allow the different individuals to have access and use various electronic files on the same project.

The following are the members of the OCC Assessment Team (A-Team):

Jim Henley, GIS Specialist	George Moore, Watershed Tech.
Ray Riley, Engineer/Hydrologist	Johnny Pelley, Watershed Tech.
Larry Caldwell, Engr./Project Leader	Dennis Boney, Watershed Tech.
Lil Holcum, Clerical Assistant	Robert Toole, Dir. Cons Prog. Division
Dwain Phillips, Technical Writer/Editor	Tammy Sawatzky, Cons. Prog. Div.
Mike Sharp, GIS/IT Support	Gary Utley, NRCS Hydrologist

The following is a summary of the work completed during this agreement:

Establishing procedures: Completing 141 dam assessments within a two year period necessitated making maximum use of the efficiency afforded by technology developments in hydrologic modeling, geographic information systems (GIS), high speed networks, and affordable computer hardware and software used for desktop publishing and video capture. The success of the project rested on the ability of the team members to work independently from remote locations, but coordinate work and share data on a daily basis through a central server and high speed internet.

The process included an on-site dam inspection, video inspection of the principal spillway conduits, acquisition of Light Detection And Ranging (LiDAR) imagery and its use with GIS and hydrologic modeling to develop breach inundation maps, checking conformance with state dam safety requirements, development of site specific rehabilitation alternatives, and preparation of cost estimates for rehabilitation alternatives based upon historic cost data.

Assessments: The assessment work was divided into the following four deliverables.

- (a) Site Reviews: This deliverable consisted of gathering basic site data. A review of the dam in the field by three watershed technicians was completed by walking over the site and documenting the condition of the dam. They also took photos documenting the general condition of the dam as well as specific problems or issues that were highlighted. The principal spillway was videoed if the outlet could be accessed and water was not flowing through it. Ray Riley also made a site visit to review and supplement the documentation of the watershed technicians. Videos of 46 principal spillways were completed.
- (b) Breach Analysis and Mapping: Processing of aerial photos, topographic maps, and elevation data, and completing a HEC-RAS analysis was done to develop a preliminary breach inundation map. The inundation areas were reviewed in the field. The final inundation map, PDL database, and documentation for the breach analysis were then completed. These breach inundation studies provided the basis for verification of the current hazard classification.
- (c) Rehabilitation Alternatives and Ranking: Alternatives for rehabilitating the dam were developed. This included structural alternatives, such as raising the top of dam, widening the auxiliary spillway, increasing the principal spillway discharge, and adding a Roller Compacted Concrete (RCC) structure over the embankment. Non-structural alternatives were also considered, such as relocation of downstream at-risk properties and decommissioning. Cost estimates for each alternative were made. The ranking spreadsheets were then completed to compute the failure and risk indexes.
- (d) Assessment Report Preparation: Information gathered during the process was organized and a narrative report was prepared in a formal report. Copies were made and distributed to the project sponsors, NRCS, OCC, and the NRCS National Office.

The project sponsor's copies included a DVD of the pipe video inspection and a CD with the electronic file of the assessment report. A notebook with the support data is maintained in the NRCS state office.

Summary of Findings:

1. Information on each of the 141 dams was gathered and summarized throughout the project. This information is stored for future reference on the OCC server.
2. Video inspections of 46 principal spillway conduits were completed. Almost all of the conduits were found to be in good condition with no major cracks or joint separations. Nine revealed cracks or joint issues that should be monitored to assure that the conditions do not worsen. Small (2 to 8 inch) diameter pipes were found inside 4 of the conduits. These pipes need to be removed so they do not block debris and to assure the dams function as designed.
3. Operation and maintenance needs were identified during the site reviews. A total of \$657,000 was estimated to be needed to address all of the O&M needs identified on the 141 dams assessed. These costs do not include the cost of the work that the conservation districts plan to do using their own personnel and equipment.
4. Some of the O&M needs identified were considered serious enough to label them as "urgent" which should be addressed immediately to keep the dam safe. Thirteen dams had conditions that should be further investigated by an engineer to determine actions that should be taken.
5. Alternatives were prepared to rehabilitate the dam to meet current NRCS and OWRB safety criteria and extend the life of the dam for another 100 years. The total estimated cost of rehabilitating the 141 dams was \$225,000,000. These costs do not include landrights costs.
6. A statewide registry of Potential Damage Locations (PDLs) was developed. A total of 1,685 PDLs were identified downstream from the 141 dams assessed. Some of the PDLs (168) were impacted by more than one dam.
7. The population-at-risk (PAR) was computed for each dam. The PAR is the total number of people that could be potentially threatened if the dam should fail. The maximum PAR was 1,438 (Stillwater Creek Watershed Dam No. 40M). The failure and risk indices were computed using the standard spreadsheets and methodology established by NRCS policy. The maximum failure index computed was 269 (Chigley Sandy Creek Watershed, Dam No. 8) and the maximum risk index was 1,325 (Rock Creek Watershed, Dam No. 15).
8. The breach inundation studies routed the breach volume from a dam failure downstream until the breach water surface was within channel or within the 10-year frequency capacity. In most cases, the breach extended downstream much farther than originally expected. The maximum length of the breach inundation area was 36 miles (Sallisaw Creek Watershed, Dam No. 19). The median length of the breach inundation area was 8.2 miles; the median flood plain width was 0.5 mile, and the median breach area was 1,169 acres.
9. The hazard classification of each of the dams was verified based on the breach inundation studies. The studies found that 3 dams did not have potential damage locations within the breach inundation area so their hazard classification may be able to be lowered.

Summary of High Priority Dams to Meet OWRB and/or NRCS Criteria:

1. There were several dams assessed that either currently meet OWRB high hazard criteria or with minimal effort, could be made to meet. However, none of the dams currently meet NRCS high hazard criteria.

There are five dams that currently meet OWRB high hazard criteria. There are 13 dams that would meet OWRB high hazard criteria if less than 0.5 feet of fill is added to the top of dam; eight other dams need between 0.6 and 1.0 feet; and 16 dams need between 1.1 and 1.5 feet. If an engineering analysis confirms this minimal work to meet OWRB criteria, it would be significantly less costly than a major rehabilitation project.

2. There were several dams assessed that were found to be hydraulically deficient (i.e. they have minimal storage capacity and top of dam elevations that are significantly lower than needed to meet OWRB high hazard criteria). Seven dams need to have their top elevation raised between 7 and 13 feet to meet OWRB high hazard criteria. There are 51 other dams that require their top elevations to be raised more than 3 feet to meet OWRB high hazard criteria.
3. Priority for NRCS funding for rehabilitation is based on the risk index. The list of assessed dams was sorted by risk index to help identify good candidates for consideration for rehabilitation assistance. Notes were added to the list to highlight those dams that are within one foot of meeting OWRB criteria, those that serve as municipal water supply, and those that are in the process of having rehabilitation plans prepared. This information should be helpful for sponsor's to identify their highest priority rehabilitation projects.

Recommendations to Watershed Sponsors:

1. Update the emergency action plan for their high hazard dams to incorporate the breach inundation maps prepared with these assessments.
2. Immediately address recommended actions identified as urgent to help keep the dams safe.
3. Follow-up with recommended operation and maintenance actions.
4. Monitor the principal spillway conduits shown in appendix 2 to check for changes in cracks in the conduits and joint leakage.
5. Request NRCS and OWRB to review the hazard classification of 3 dams identified to see if a lower classification is warranted.
6. Submit a request to NRCS for assistance for rehabilitation of the high hazard dams assessed. To date, 29 of the 141 dams assessed have had requests for federal assistance submitted.
7. Consider investigating the design and construction needed to bring selected dams to meet OWRB requirements for high hazard dams.

Figure 1a: Listing of Number of Dams by Conservation District

Number of Dams Per Conservation District

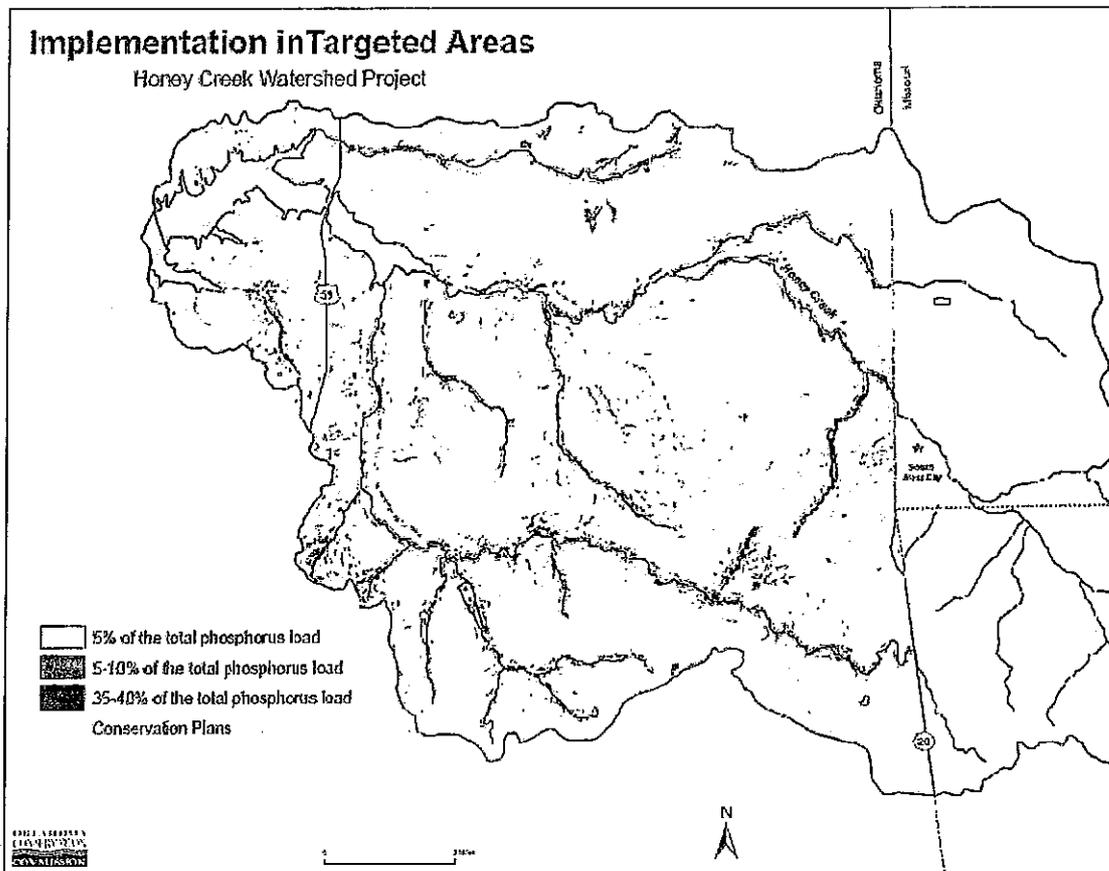
<u>Conservation District</u>	<u>No. of Dams</u>
Adair County CD	9
Arbuckle CD	4
Cherokee County CD	1
Coal County CD	2
Comanche County CD	1
Creek County CD	3
Custer County CD	2
Delaware County CD	1
Dewey County CD	2
E. Canadian County CD	5
Garfield County CD	1
Garvin CD	12
Grady County CD	6
Hughes County CD	1
Jefferson County CD	1
Johnson County CD	1
Kiowa County CD	1
Konawa CD	5
Latimer County CD	7
LeFlore County CD	2
Lincoln County CD	1
Logan County CD	1
Love County CD	3
McClain County CD	18
Murray County CD	6
Muskogee County CD	1
North Fork of Red River CD	2
Noble County CD	5
North Caddo CD	1
Okfuskee County CD	1
Okmulgee County CD	1
Payne County CD	2
Pontotoc County CD	3
Seminole County CD	2
Sequoyah County CD	3
South Caddo County CD	8
Stephens County CD	2
Upper Washita CD	5
Valliant CD	2
Washita County CD	7
Total	141

Honey Creek Implementation Project Summary

A. Acknowledgements- Delaware County Conservation District and NRCS



B. Participation- Eighty-six landowners installed BMPs through the Honey Creek Watershed project, resulting in about 26% of the land in the Oklahoma portion of the watershed having some sort of BMP. Implementation occurred on approximately 42% of the high phosphorus yield areas identified in watershed modeling.



ATTACHMENT C

11/07/11

C. **Funding-** A total of \$1,686,914 was spent on BMP implementation, of which landowners provided \$658,320 (approximately 40% of the total) and the rest was a combination of federal and state funding.

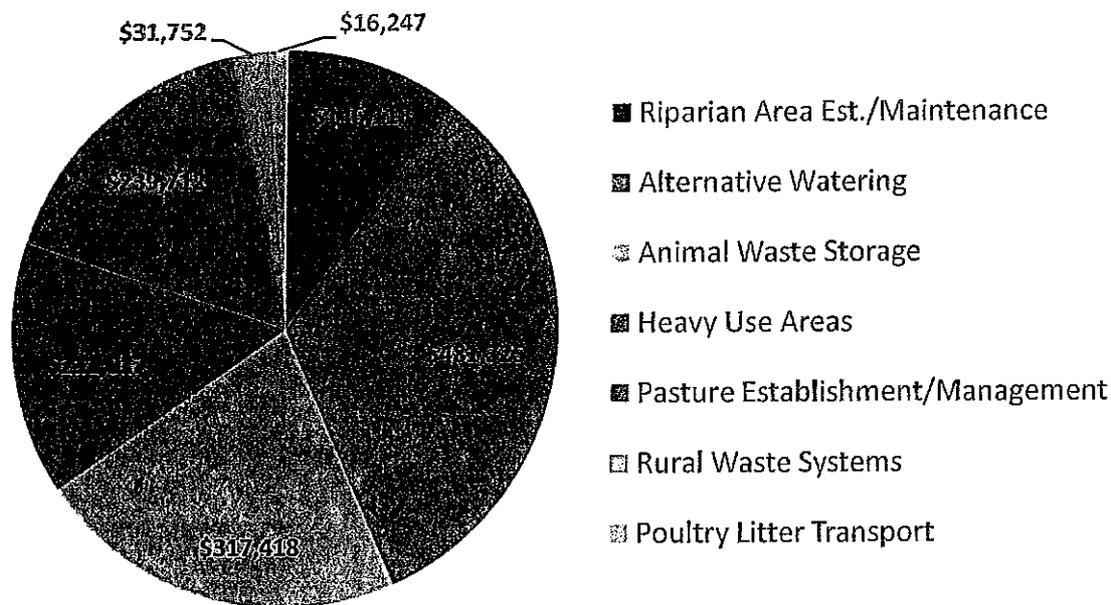


Table 1. Implementation Summary.

Practice	# Landowners	Amount Installed	Units of Implementation
Riparian Area	18	415	acres
Poultry litter storage	2	2	storage sheds
Winter Feeding Facilities	24	25	feeding sheds
Pasture Improvement-Planting, Fertilizer, Liming	10	270	acres
Cross Fencing	59	235,037 (44.5)	Feet (miles)
Watering facilities & pipeline	63	167	tanks
Ponds	18	24	ponds
Wells	43	54	wells
Poultry Litter Transfer	4	175,957	Lbs of phosphorus
Heavy Use Areas	58	92	areas
Septic Systems	14	14	systems

D. Water Quality Results-

- 9-15% reduction in total phosphorus loading comparing upper vs. lower sites
- Improved benthic macroinvertebrates over time at Honey Creek Lower site while state line and reference streams sites stayed the same
- Approximately a 40% reduction in *E. coli* and *Enterococcus* bacteria loading.