
Disbursement of Federal Funds Pursuant to the Federal Water Pollution Control Act

2004 Report

(per Senate Bill 150, 1st Session of the 49th Legislature, 2003)



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Introduction

During the 1993 reorganization of Oklahoma's environmental agencies, the office of Secretary of the Environment was established by statute to serve, among other things, as the primary recipient of Federal Water Pollution Control Act ("Clean Water Act") grant funds in Oklahoma. The role of coordinating Clean Water Act funding provides the Secretary of the Environment with a unique opportunity to ensure that many water quality management activities are coordinated and necessary well before they are funded and initiated.

Ten years after passage of the Environmental Quality Act of 1993, the Oklahoma Legislature sought minor changes to this oversight responsibility through passage of Senate Bill 150 (2003 Session). In addition to seeking increased coordination through consultation with the Secretary of Agriculture, the Legislature added the requirement of an annual report to heighten accountability and increase understanding of how Clean Water Act funds are disbursed throughout the state.

Funding is delivered to Oklahoma's Secretary of the Environment from the U.S. Environmental Protection Agency ("EPA") through five distinct grant programs that are defined by the section of the Clean Water Act in which they are established: Section 104(b)(3), Section 104(b)(3) Wetlands, Section 106, Section 319, and Section 604(b). Each grant program has its own priorities, guidance, and funding cycles. This report summarizes the Clean Water Act grant program funding received by the Secretary of the Environment during the 2004 Federal fiscal year October 1, 2003 – September 30, 2004 (see Table 1 for overview).

Table 1. Clean Water Act Funding to Subrecipients (Federal Dollars for Federal fiscal Year 2004).

	Association of Central Oklahoma Governments	Indian Nations Council of Governments	Oklahoma Conservation Commission	Oklahoma Corporation Commission	Oklahoma Department of Agriculture, Food and Forestry	Oklahoma Department of Environmental Quality	Oklahoma Water Resources Board
FY 03 104(b)(3) Water Quality Cooperative Agreement		\$57,750					\$319,412
FY 03 104(b)(3) Supplemental TMDL				\$130,757			\$117,198
FY 04 104(b)(3) Supplemental TMDL		\$98,500				\$99,528	\$55,730
FY 04 104(b)(3) Probabilistic Sampling							\$120,658
FY 03 104(b)(3) Wetlands Protection			\$168,058				\$47,122
FY 04 104(b)(3) Wetlands Protection		\$87,000					\$127,928
FY 05/06 106 Program*					\$43,750	\$569,062	
FY 03 319(h) NPS Program			\$3,577,000				
FY 04 604(b) Water Quality Management Program	\$21,631	\$21,631					\$64,891
TOTAL FUNDING	\$21,631	\$264,881	\$7,267,858	\$130,757	\$43,750	\$668,590*	\$852,939

**Additional funding (\$3,978,728) for the FY 05/06 106 Program is expected by January 2005*

Section §104(b)(3) Program

Section 104(b)(3) authorizes funding to State agencies, Tribes, other public or nonprofit private agencies, institutions, organizations and individuals to conduct and promote the coordination and acceleration of research, investigations, experiments, training, demonstrations, surveys and studies relating to causes, effects, extent, prevention, reduction and elimination of pollution. Funding is available annually through both EPA Headquarters and EPA Region 6 and usually requires a 5% match. The funding is normally competitive on a regional basis. However, at times, EPA may offer provisional funding to states or regions for a specific purpose.

FY 03 §104(b)(3) Water Quality Cooperative Agreement

Project 1 – Level 3 Ecoregion Refinement and level 4 Ecoregion Delineation for Oklahoma -- OWRB..... \$189,293

The objective of this project is to refine the level 3 ecoregions and to define level 4 ecoregions for Oklahoma. This refinement will improve the ability of state and federal agencies to assess and management aquatic and terrestrial resources.

Project 2 – Development of a Stream/River Probabilistic Sampling Network for the State of Oklahoma – OWRB..... \$130,119

The objective of this project is to develop a probabilistic monitoring network in Oklahoma. The project will sampl of 2 of the 11 sub-basins in the state. It will assess the general health of the waters in those 2 sub-basins through the comparison of data to known reference conditions and water quality standards. OWRB will then determine the logistical and monetary feasibility of conducting the study throughout the state.

Project 3 – Wastewater Homeland Security Assessment for INCOG Area – INCOG \$57,750

This program will evaluate existing wastewater systems in the INCOG area and identify options for improving system security. Outcomes of this program are expected to lead to reduce risk in handling and storage of hazardous chemicals at POTWs, improvements in overall POTW site security and reduce risk of potential terrorist actions including theft or release of dangerous chemicals and sabotage of critical operations that could result in environmental damage or injury to public health and safety.

FY 02 §104(b)(3) Supplemental TMDL Funding

Project 1 - Impairment Source Location, Effects Determination and TMDL/BMP/Cleanup Action Planning – Corp Comm/OCC \$130,757

The purpose of this project is to identify the extent of salinity impacted and impaired streams and tributaries and of contributing groundwater plumes in the Washita River Watershed.

Project 2 – Monitoring in Support of TMDL Development in the Upper Kiamichi and Upper Little River Watersheds – OWRB..... \$117,198

The objective of this project is to review available historical data and analyze trends related to seasonality, rainfall, sediment and flows. Through the continuous monitoring and trend analysis the project will determine the cause(s) of low pH, low DO values, and metal concentrations within the Upper Kiamichi and Upper Little River Watersheds. Biological data will also be collected on all segments to determine the health and impairment status of the stream segments within the watershed.

FY 04 §104(b)(3) Supplemental Funds for TMDL

Project 1 – Turbidity TMDL Development - ODEQ..... \$99,528

This project is intended to rapidly develop TMDLs for waterbodies impaired by turbidity using the load-duration curve method. Specifically, this project targets waterbodies for which good water quality data is available, excellent daily flow data is available and priority on the 2002 303(d) list is high.

Project 2 – Revisions, Corrections or Updates to Historic Mineral Concentrations Used in Determining Ambient Chloride, Sulfate or Total Dissolved Solids (TDS) Concentrations for Oklahoma Stream Segments – OWRB..... \$55,730

This project aims to review the source data and correct as necessary the listings of historic mineral data currently housed in Oklahoma’s Water Quality Standards. OWRB will address the published EPA high priority areas of “indicators of ecological condition” as well as those of the TMDL program. This project will also determine historic ambient mineral water chemistry for the greatest number of stream segments possible. Correction of possibly erroneous historic values will prevent unnecessary TMDLS and allow the state to direct resources towards more urgent areas.

Project 3 – Development of TMDLs for Bird Creek – Pathogens, Lead and Turbidity – INCOG..... \$98,500

Two high priority TMDLs (for lead and pathogens) and Phase I of a TMDL for turbidity will be completed under this grant for Bird Creek.

FY 04 §104(b)(3) Probabilistic Sampling Program

Project 1 – Implementation of Randomized Sampling at the Level II Ecoregion Scale - OWRB..... \$99,528

This is a national study to gain an understanding of the health of our nation's waters based on the level II ecoregion scale. This project will collect biological data from several watersheds within Oklahoma from which EPA and the State will be able to draw inferences on stream health. Comparable, scientifically defensible data will be collected and findings will be reported to US EPA, Congress and other concerned parties.

Section §104(b)(3) Wetlands Program

Section 104(b)(3) Wetlands authorizes funding for the development and implementation of activities to protect state wetlands. The goal of the program is to build the capacity of all levels of government to develop and implement effective, comprehensive programs for wetland protection and management. This grant program is competitive on a regional basis and requires a 25% match. A funding level of approximately \$1.2 million is available per year at the regional level.

FY 03 §104(b)(3) Wetlands Protection Workplan

Project 1 – National Wetland Inventory Map Digitization – OCC/OWRB..... \$125,000

The goal of this project is to create an Oklahoma specific interactive wetland mapping system, which will provide increased analytical opportunities for the public as well as the private sectors.

Project 2 – Stream Corridor Riparian Area Restoration – OCC..... \$38,430

The goal of this project is to restore and enhance over one-half mile of forested riparian wetlands on a tributary of the Little River. This project will also provide educational opportunities to the City of Norman in terms of planning and development as well as focusing attention on the importance of riparian areas for environmental and economic benefits.

Project 3 – McCurtain County Oxbow Enhancement and Outdoor Learning Center – OCC..... \$51,750

The goal of this project is to restore and enhance a wetland area which is owned by the Little River Conservation District. The area will be developed into an outdoor learning center for use that can then be utilized by the residents of McCurtain County.

FY 04 §104(b)(3) Wetlands Protection Workplan

Project 1 – Development of a Use Attainability Analysis Procedure for Oklahoma’s Wetlands - OWRB..... \$127,928

The objective of this project is to establish a preliminary Use Attainability Analysis (UAA) protocol that will determine, through examination of field and laboratory parameters and/or historic data, which of the traditional Clean Water Act §101(a)(2) uses may be appropriate and attainable for Oklahoma wetlands.

Project 2 – Establishing a Stream Team for the Tulsa Metropolitan Area - INCOG \$87,000

This project will establish a Stream Team for the Tulsa Metropolitan Area. The INCOG Stream Team will consist of a consortium of local, State, and Federal agencies willing to provide resources to developers and local governments (cities and counties) for the purpose of protecting and enhancing watersheds exposed to urbanization.

Section §106 Program

Section 106 of the Clean Water Act authorizes assistance to the State in administering programs for the prevention, reduction, and elimination of water pollution including programs for the development and implementation of groundwater protection strategies. The state receives approximately \$2,147,700 for surface water and groundwater activities. The state is required to set forth a minimum level of effort towards the §106 program of \$257,655. All base surface and groundwater activities are included in the FOCUS document, which is part of DEQ’s Performance Partnership Grant. By including the activities in the FOCUS document, EPA allows DEQ flexibility and the ability to cross fund programs. Activities and projects under this grant program are reviewed and awarded on an item-by-item basis. The program period for the §106 grants is two years.

NOTE: In January 2005, OSE is expecting EPA to award additional base and carryover funds in the amount of \$3,978,728. Of this amount, \$1,685,863 will go towards ODEQ "core activities" listed below, and the balance will fund the 22 "carryover" projects described below. Funding for FY 2006 Core Activities will begin in July 2005.

FY 05/06 §106 Program

FY 05/06 Core Activities - ODEQ \$569,062

- Administration – The agency will monitor its finance, personnel and data processing operations. Surveys will evaluate customer satisfaction with major program activities.
- Enforcement – The agency will ensure compliance with the law through an enforcement program that will include issuing orders and assessing fines.

- Permitting – Permitting, along with rulemaking, provides the basic tool for controlling pollutant discharges. Particular emphasis will be placed on the issuance of high quality permits in a timely manner.
- Planning – The agency will implement a planning process called “FOCUS” to integrate budget, planning, personnel evaluation and reporting based on measuring for results.
- Sludge –The agency will review and respond to all sludge management plans within 60 days of receipt of all necessary information to ensure that construction is performed.
- TMDL – The agency will develop and/or review TMDL/WLA models in accordance with schedules established in the 1998 303(d) list and submit these models to EPA for approval
- Groundwater Monitoring – The agency will continue to conduct both environmental and programmatic monitoring to determine the effectiveness of its programs

FY 05/06 §106 Workplan

Project 1 – Management and Coordination - OSE \$268,918

This project provides for maintenance of federal responsibility/accountability of funds to support all Clean Water Act programs. Additionally, the Governor has initiated, and will continue to initiate, activities for the protection of water quality through the Office of the Secretary of Environment. Staff assistance to facilitate progress in these activities will be required.

Project 2 - Statistical Analysis - ODEQ \$15,172

The purpose of this project is to 1) compile information on water quality collected by various divisions of ODEQ over the years into a single database, 2) determine if the quality of the data are sufficient to do statistical analyses of the information, 3) perform statistical analyses on the data, 4) do 305(b) reports and 5) make information available to the public.

Project 3 - Water Quality, Flow, and Sediment Monitoring Plan for Tar Creek Basin – ODEQ \$174,730

This project will 1) initiate flow weighted stream/mine water monitoring at established wadable sites in Tar Creek basin; 2) monitor high flow at six sites in the watershed area; 3) calculate metals loading in Tar Creek, including sediment load, and analysis of bed material and estimate the impact immediately below its confluence with the Neosho River due to dilution (and other) factors; 4) verify the quality of water flowing to Grand Lake; and 5) evaluate damage to biota at three individual monitoring sites (above, within and below mine discharge).

Project 4 – Surface-Water Quality in the Grand-Neosho River Basin, Northeastern Oklahoma – ODEQ..... \$145,515

The objectives of this project are to (1) analyze high-flow water samples from Tar Creek, the Spring River, and the Neosho River for general water properties, trace elements, and major ions; (2) utilize continuous stream flow data and water quality data from Tar Creek, Neosho River, and Spring River to estimate water and sediment quality entering Grand Lake; and (3) quantify the sediment movement and composition in Tar Creek, the Neosho River, and the Spring River under high flow conditions. The project will also enhance the current stream-monitoring network in the Picher-Miami-Commerce area. Data collected will provide information to aid Federal, State, Tribal and local officials in the remediation of the area.

Project 5 - TMDL Development for the Washita River Below Foss Reservoir Phase I (part 2) – ODEQ..... \$253,121

The purpose of this project is to produce a TMDL for the targeted watershed and to support Watershed Restoration Action Strategy development.

Project 6 - TMDL Monitoring – Washita River Watershed above Foss Dam – ODEQ..... \$100,783

The purpose of this project is to collect water quality data to verify waterbody impairment and to support TMDL development for all pollutants of concern. The data collection will be designed to assist in identifying the source(s) and extent of impairment to the waterbodies.

Project 7 - Blue River Watershed TMDL Phase I Water Quality Monitoring – ODEQ..... \$22,954

The purpose of this project is to collect water quality data to verify waterbody impairment and to support TMDLs for nutrients, suspended solids and noxious aquatic plants. The data collection will be designed to assist in identifying the source(s) and extent of impairment to the waterbodies

Project 8 - TMDL Development – Wister Lake – ODEQ..... \$93,474

The intent of this project is to develop the Total Maximum Daily Load for the pollutant of concern for Wister Lake. The data for the TMDL will be the existing data collected by various agencies.

Project 9 - Illinois River Watershed TMDL Phase I Water Quality Monitoring for Metals & Pesticides – ODEQ..... \$74,992

The objective of this project is to collect water quality data to verify waterbody impairment and to support a TMDL for metals and pesticides. The data collection will be designed to assist in identifying the source(s) and extent of impairment to the waterbodies.

Project 10 - TMDL Monitoring – Atoka Lake Watershed - ODEQ..... \$106,771

The objective of this project is to collect water quality data to verify waterbody impairment and to support TMDL development for all pollutants of concern. The data collection will be designed to assist in identifying the source(s) and extent of impairment to the waterbodies.

Project 11 - North Canadian River Pathogens TMDL - ODEQ..... \$18,917

The objective of this project is to collect monitoring data and develop a Total Maximum Daily Load model for pathogens in the North Canadian River. The study area encompasses the North Canadian River in the Oklahoma City metropolitan area. The Association of Central Oklahoma Governments, with guidance from the ODEQ, will conduct project activities.

Project 12 - Arkansas River Metals TMDL - ODEQ..... \$53,620

The objective of this project is to collect existing data from recent studies by INCOG, the City of Tulsa and others and develop a TMDL model for the Arkansas River. The TMDL will include all Arkansas River segments between Sand Springs and Broken Arrow, Oklahoma. All eleven metals currently listed in the Oklahoma Water Quality Standards will be modeled. Mixing zone models will be developed for metals of concern that are identified in the TMDL modeling process. The Indian Nations Council of Governments will conduct project activities with guidance from the ODEQ.

Project 13 -Bacteria TMDL Development Using GIS Toolbox.....\$117,073

This project is intended to develop bacteria TMDLs using the tools being developed by Parsons Water & Infrastructure, Inc. in cooperation with EPA Region 6 and ODEQ. The “toolbox” comprises a load duration curve tool and a GIS spreadsheet tool. The load duration curve tool estimates relative point and nonpoint source loads indication bacteria based on instream flow and concentration data. The GIS spreadsheet tool predicts nonpoint and point source loading of indicator data.

Project 14 - TMDL Monitoring on Priority 1 and Priority 2 Waters Listed on the 1998 303(d) List - ODEQ..... \$225,752

The objective of the proposed sampling initiative is to 1) establish if listed waters are currently meeting their assigned beneficial uses, 2) gather historical data (if available) to be used in Phase 1 of the TMDL process and 3) support TMDL development. The Oklahoma Water Resources Board will conduct project activities with guidance from the ODEQ.

Project 15 - Basin 6 & 7 TMDL Water Quality Monitoring - ODEQ..... \$141,675

The objective of the proposed sampling initiative is to 1) determine if listed waters are currently meeting their assigned beneficial uses, 2) gather historical data (if available) to be used in Phase 1 of the TMDL process and 3) support TMDL development. The Oklahoma Water Resources Board will conduct project activities with guidance from the ODEQ.

Project 16 - Comparison Study of Water Quality from PWS Wells and other wells in Central Oklahoma Aquifer - ODEQ..... \$157,991

ODEQ will use public water supply ("PWS") wells to characterize water quality in major aquifers. Specifically this study will compare the results of chemical analysis of PWS wells with other data from the Central Oklahoma Aquifer to evaluate the "equivalence" of information. USGS will reactivate portions of its former sampling program to establish if water quality of waters from non-PWS wells is comparable to water from PWS wells in the Central Oklahoma Aquifer. The United States Geological Survey will conduct project activities with guidance from the ODEQ.

Project 17 - Review of Monitoring and Assessment Data to Support Development of TMDL for Lake Tenkiller and Illinois River Watershed - ODEQ..... \$25,678

In conducting a Total Maximum Daily Load (TMDL) study for the Tenkiller Ferry Reservoir and its attendant watershed, the ODEQ Water Quality Division will use the Soil & Water Assessment Tool (SWAT) computer model simulation by Oklahoma State University to estimate a maximum allowable nutrient loading. Oklahoma State University will conduct project activities with guidance from the ODEQ.

Project 18 - Ground Water Monitoring FY03/04 – Continuation of Project 2 – ODEQ \$284,986

This project will continue the ambient groundwater monitoring program administered through the ODEQ. The primary objective of this project is to assess the quality of groundwater. In the long term, data will be analyzed for trends to identify areas where measures should be taken to preserve the beneficial uses of the groundwater. These objectives will be met by sampling a subset of Public Water Supply wells to determine current constituent levels.

Project 19 - Statewide Groundwater Quality Analysis Using GIS FY03/04 – ODEQ \$101,690

State agencies have been gathering data on groundwater quality for many years. ODEQ wants to use this information to develop maps showing the quality of water in the major aquifers in Oklahoma. Using new GIS software and more powerful hardware, ODEQ will be able to create layers over images of aquifers with isopleths of water quality data. These will help citizens of Oklahoma ascertain groundwater quality for every major aquifer area for many parameters.

Project 20 - Proposed Stream Gaging Program (Year 5) - ODEQ..... \$95,000

The monitoring sites listed in this proposal for funding are all located in Unified Watershed Assessment Category I watersheds. These monitoring sites are critical to TMDL development and are also essential in tracking the progress of TMDL implementation procedures. Flow data will be used to assess the total pollutant loading, and the water quality data will be used to determine the degree of impairment to the water's beneficial use(s). Where appropriate, screening and review criteria

developed for the 303(d) program will be utilized to assess impairment. The United States Geological Survey will conduct project activities with guidance from the ODEQ.

Project 21 – TMDL Contractual Funds – ODEQ \$106,095
These funds will be used for Total Maximum Daily Loads (TMDL) contractual work

Project 22 - Licensed Managed Feeding Operations Monitoring Well Sampling for 2004 – ODAFF..... \$137,500

The Oklahoma Concentrated Animal Feeding Operations Act (2 O.S. § 9-205.4(F)(3)) and its implementing regulations (OAC 35:17-3-11(e)(6) (H)) both require that the Oklahoma Department of Agriculture, Food, and Forestry (ODAFF) annually sample monitoring wells at swine Licensed Managed Feeding Operations (LMFOs). This project will allow for the collection of groundwater samples at monitoring wells of LMFOs and a review of the analyzed data for indication of possible pollution. Determining the sources of pollutants in groundwater will aid ODAFF in assessing whether LMFOs negatively affect nearby groundwater quality and what actions are necessary to address such pollution.

Section § 319(h) Nonpoint Source Program

Section 319(h) of the CWA authorizes funding to designated State agencies to implement the State's NPS management program to control nonpoint source pollution. The state receives approximately \$3,600,000 annually and is required to provide a 40% match. The funds within this grant program are tied to priorities listed within Oklahoma's Nonpoint Source Management Plan and directed by the Nonpoint Source Working Group, and the Oklahoma Conservation Commission serves as the technical lead agency for the program.

FY 03 319(h) Program

*Project 1 - Coordination and Management of Oklahoma's NPS Program – OSE
..... \$100,000*

Provide support for coordination and management of the FY 03 319 (h) grant and related activities, including departmental and technical review, coordination of interagency technical review, and management and maintenance of Oklahoma's Nonpoint Source Grants Reporting and Tracking System.

Project 2 - Oklahoma Conservation Commission Implementation of the NPS Management Program October 2003- September 2004 – OCC..... \$1,147,665

The purpose of this project is to provide staff support and funding to implement Oklahoma's Comprehensive Nonpoint Source Pollution Program, including planning,

assessment, education, and implementation activities between October 1, 2003 and September 30, 2004.

Project 3 - Rotating Basin Monitoring Program (Year 4) – OCC \$767,495

The purpose of this project is to complete year 4 of the Rotating Basin Monitoring Program (RBMP). Funding will provide staff support, laboratory contracts, motor vehicle contracts, travel costs, and supplies for one year of monitoring in the six basins to be monitored as part of year 4. Monitoring will include physical, chemical, and biological sampling of sites selected by OCC Water Quality Specialists.

Project 4 – Spavinaw Creek Watershed Implementation Project – OCC..... \$1,661,840

The objective of this project is to initiate a watershed scale effort to reduce NPS loading to eliminate threats and impairments to Spavinaw Creek. In accomplishing this goal, loadings as established in the future TMDL and Water Quality Standards will eventually be met. The education, implementation, and monitoring activities outlined in this workplan are only the first step in what should be a long-term effort to achieve the objective.

Section §604(b) Water Quality Management Program

Section 604(b) of the CWA authorizes assistance to States to carryout water quality management planning. The States must pass through 40% of these funds to regional planning agencies unless the Governor, in consultation with affected parties, determines that regional planning agency participation will not significantly assist the State in its water quality management planning efforts.

The state receives approximately \$100,000 per year in funding (no state match is required). Forty percent of the annual funding goes to the sub-state planning districts - usually ACOG (Association of Central Oklahoma Governments - Oklahoma City area) and INCOG (Indian Nation Council of Governments - Tulsa area). The remaining 60% is allocated to the Oklahoma Water Resources Board (OWRB) for planning purposes.

FY 04 604(b) Program

Project 1 – Revision of Oklahoma’s Water Quality Standards and Associated Implementation Documents – OWRB

..... \$64,891

It is the objective of this project to continue with the development and promulgation of beneficial uses, water quality criteria, anti-degradation limitations and implementation language as is necessary to protect the water resources of the state of Oklahoma.

These activities will include the state-mandated review, and revision as necessary, of Water Quality Standards Implementation Plans (WQSIPs) for all state environmental

agencies. Through the public participation element of this process, opinions and input from individuals and potentially affected entities outside of the regulatory arena will be considered.

Project 2 – Enhancing INCOG’s Water Quality– INCOG..... \$21,631

The objective of this project is to provide resources for the INCOG Areawide Water Quality Management Planning Program to enhance and manage activities used for water quality planning and participate in State water quality programs on behalf of entities in the INCOG area regarding water quality issues.

Project 3 – Salt Water Contamination Mapping in Oklahoma County – Phase 2– ACOG \$21,631

The objective of this workplan proposal is to map salt-water contamination sites in the ACOG area that pose threats to public and domestic water supplies.