

Annual Report for Fiscal Year 2001

Division of Water Ohio Department of Natural Resources



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Division of Water



Mission

To ensure the wise management of Ohio's water resources.

Vision

To be a leader in water resources management by providing the highest quality customer service.

Guiding Principles and Values

We commit to providing the highest quality customer service by adhering to these guiding principles and values:

- ◆ Ensure the highest level of protection for public health, safety and welfare
- ◆ Continually evaluate and improve programs, policies and services
- ◆ Use best available and innovative technology
- ◆ Promote public education of water management
- ◆ Provide prompt and effective technical assistance
- ◆ Faithfully administer regulations as mandated
- ◆ Promote resource management partnerships
- ◆ Promote professional growth and development through training and education
- ◆ Promote pride in job
- ◆ Provide a positive work atmosphere

Words from the Chief

The Division's staff has continued its long tradition of improving and expanding services while creating even better ways to meet its customers' needs and requirements. The lists of accomplishments contained in this report are significant to "ensuring the wise management of Ohio's water resources."

A couple of key themes have come together in Fiscal Year 2001 (FY01).

- ◆ A number of information management efforts have really started to improve the Division's ability to provide information to those who need water information. Good examples of this may be found in the Internet access of well log information and ground water observation well data. Geographic Information Management Systems (GIMS) projects in all programs and sections are beginning to make access to water data collected and analyzed by the Division more useable and available to a wide range of Division customers. The Floodplain Management Unit's new GIMS system is an exciting example of how GIMS can provide extensive efficiencies in accessing the Division's vast information network for our own and our customers' needs.
- ◆ Process improvement efforts have resulted in key accomplishments. For example, the State's Dam Safety Program performed inspections at a rate that exceeded what is necessary to meet the five-year rotation of inspections mandated in state law. This milestone was accomplished through a lot of hard work and a very well designed streamlining of the inspection

process including an innovative report writing method that uses standardized comments to shorten writing and review times.

- ◆ The Division authored or co-authored, in partnership with other agencies, a number of publications that provide new information or update older publications concerning Ohio's water resources.

The Great Lakes Charter Annex 2001 and further efforts to develop a water management standard and binding agreements between the Great Lakes States and Canadian Provinces have consumed a great deal of time and effort by several Division of Water staff in support of the ODNR Director's involvement on the Council of Great Lakes Governors Water Management Work Group. This effort has focused the Division on exploring what the future of water permitting may be and what information we will need to collect, analyze and provide to make any future water use program successful.

Accomplishments for Fiscal Year 2001 by Section and Program

Water Management Section

Canals – A major goal for the Canal Program in FY01 was the completion of canal improvement projects with local partners.

- ◆ Program staff completed a tow-path improvement project with the City of Barberton on the Ohio and Erie Canal. The project consisted of regrading the tow-path and installing a crushed stone surface. The improved surface will facilitate access for repairs and maintenance of the canal and enhance its use as a recreational trail.
- ◆ The Miami and Erie Canal staff completed a partnership project with the City of St. Marys and the Division of Parks and Recreation to dredge and rehabilitate the “Lower Level” portion of the canal in the City of St. Marys.
- ◆ Canals staff continued to participate in working groups with local partners for both the Miami and Erie and Ohio and Erie Canals. The groups are working to enhance the structural integrity and preservation of the canals.

Coastal Engineering – FY01 was the first full year for the Coastal Engineering Program in the Division of Water.

- ◆ A project to log all previous permit data into a database application was completed.
- ◆ The program was awarded a grant in FY01 to develop a GIS application for coastal information. Work on the grant will be completed in FY02.

- ◆ Program staff completed the review of several shore structure permits and provided technical assistance to lakefront property owners and to the Coastal Management Program.

Dam Safety – The fiscal year goal for the Dam Safety Program was to meet the statutory mandate for the dam safety inspection program and to develop an administrative enforcement strategy for delinquent dams. To attain this goal, the program achieved the following objectives in FY01.

- ◆ Staff inspected 391 dams during the fiscal year. This number of inspections exceeded the goal needed to meet the statutory mandate by 50 inspections. Part of the success of the program can be attributed to the development and implementation of a streamlined procedure for inspection of Class III, low-hazard dams. Under this procedure, the program inspected 143 Class III dams in a period of about ten weeks.
- ◆ In addition to meeting the inspection mandate, all statutory mandates for permitting the construction of new dams and the repair of existing dams were also met.
- ◆ A project to develop enforcement strategies for delinquent dams was initiated. Priorities and procedures for enforcement of delinquent dams will be identified by the project team. The project will be completed in FY02.

Floodplain Management – The fiscal year goal for the program was to continue the development of state program elements to improve local floodplain management by increasing technical assistance capability and integration of technology. To attain this goal, the program achieved the following objectives in FY01.

procedure for post-flood disaster recovery and an Alternative Violation Remedy Process for use by communities in meeting NFIP responsibilities.

- ◆ A consultant was selected and work began on the development of a Floodplain GIMS that will provide easy and efficient access to flood hazard information. In addition, the system will contain an inventory of structures in flood hazard areas and provide tools for engineering modeling and determination of flood hazard areas. A pilot of the system will be completed in FY02.
- ◆ In conjunction with FEMA and the Ohio Floodplain Managers Association, the first-ever statewide floodplain management conference was held in August of 2000. Nearly two hundred people, including local, state and federal officials, and private consultants, attended the two-day conference.
- ◆ Staff began work on a technical standards manual for flood studies in Ohio. A manual to support state agencies in meeting the mandates of ORC 1521.13 will be produced. The project will include input from local, state, federal and private stakeholders, and will be completed in FY02.
- ◆ Staff continued work for the National Flood Insurance Program (NFIP). As the state coordinator for the NFIP, the Floodplain Management staff provides planning and technical assistance to local communities, participates on the state hazard mitigation team, and is developing a standard operating

Water Resources Section

Ground Water Resources - Two main functions are performed by the program: Ground Water Technical Assistance and Ground Water Mapping. The goals of this program during FY01 were aimed at hosting a major conference, developing methods for distributing new information, enhancing the computerized well log system, and partnering with Ohio EPA for the Source Water Assessment and Protection Program (SWAP). The following mark some of the highlights for the year.

- ◆ The Division hosted the Annual Midwest Ground Water Conference. The conference provides an opportunity for hydrogeologists, geologists, engineers, students, and others studying ground water resources in their respective states to meet and exchange ideas, discuss mutual problems affecting the Midwest, and summarize results of field and laboratory studies. Fifteen states share hosting of the conference on a rotating basis.
- ◆ GIS Mapping of the Yields of Ohio's Aquifers was published in ESRI Map Book. ESRI is the leading company worldwide for developing GIS software and applications. The ESRI Map Book is a publication of the best projects presented at their annual conference in San Diego. Only a few dozen projects are published from the several thousand presented at the conference. The published map was produced from a portion of a three-year, 319 Grant effort to map all of the aquifers within the state.
- ◆ An Internet application was developed to disseminate these latest aquifer maps that show all the consolidated and unconsolidated aquifers of the state in a

GIS format.

- ◆ A process was developed and implemented to incorporate 12,000 well logs into the well log computer system. These logs were backlogged when received because they were not entered into the system during software upgrades and platform changes.
- ◆ An additional 15,000 well logs were geographically located using geocoding techniques and entered into the well log system. The system now has about 300,000 well logs with location data.
- ◆ In partnering with the Ohio EPA for SWAP, the Ground Water Resources Program completed the following projects:
 - ◆ Ground Water Pollution Potential Maps for Belmont, Harrison, Morgan, Muskingum, Tuscarawas, Washington, and Wayne counties.
 - ◆ Potentiometric Surface Maps (ground water tables for the buried valley aquifers) for Champaign, Franklin, Licking, and Tuscarawas counties.
 - ◆ Resource Characterization for 26 counties across the state.

Water Inventory and Cooperative Stream and Ground Water Gauging - The following projects were completed.

- ◆ Data were collected and maintained from 117 ground water monitoring gauging sites, and summary data were published.
- ◆ A new observation well network database was designed and tested. Data now reside on-site which provides for interactive, instantaneous access allowing improved review, dissemination, and statistical products

for users. About 40,000 daily data values are added annually to the 1.8 million existing data values which date back to the late 1930s.

- ◆ A new Internet application was designed that provides for viewing and retrieving data and other numerical and graphical statistical products from the Ohio Observation Well Network database.
- ◆ Data were compiled and database updated for 2,050 registered water withdrawal facilities. The information documents 40 trillion gallons of water withdrawals of both surface and ground water since 1990.
- ◆ Water Withdrawal Registration requirements were researched and verified for 168 mega-farms.
- ◆ Five new stream gauges were installed and will be used for flood forecasting, low-flow monitoring, and regional streamflow characterization.
- ◆ A new 18-site, crest-stage stream gauging network was designed and installed. These sites provide supplemental continuous-record sites and provide data for transportation, floodplain, and other land-use and structural design needs.
- ◆ Staff supported and participated in the preparation of three reports: *Low-Flow Characteristics of Ohio Streams*, *Hydrologic Considerations for Estimation of Storage-Capacity Requirements of Impounding and Side Channel Reservoirs for Water Supply in Ohio*, and *Techniques For Estimating Selected Streamflow Characteristics of Ohio Streams*. The reports provide updated data and methodologies to determine design requirements for activities like stream loading and water withdrawals.
- ◆ Three Stream Management Guides were

published: *Stream Debris and Obstruction Removal*, *Eddy Rocks and the Importance of In-Stream Structure*, and *Gravel Riffles*.

Water Planning and Watershed Hydrology

- This program primarily assists the public and local governments with water resources issues. The following projects were completed in FY01.

- ◆ Negotiated a water sales agreement with the Burr Oak Regional Water District for water supply from Burr Oak Reservoir.
- ◆ Negotiated an agreement with the City of Findlay to turn over State's equity and responsibility of Findlay Reservoir No. 2 to the City.
- ◆ 14 additional Project WET (Water Education for Teachers) facilitators were certified, who then conducted 34 Project WET Educator Workshops, certifying 680 additional educators.
- ◆ "Make a Splash With Project WET Water Festival" was conducted for 450 central Ohio students. Project Wet activities were presented at 8 educational events sponsored by other agencies and organizations.
- ◆ Administrative rules to regulate diversion of water between the Lake Erie and Ohio River Basins were updated.
- ◆ A benchmarking analysis of nine other states and two river basin commissions was performed on their water resources allocation/permitting programs.
- ◆ *Use of Streamflow Records and Basin Characteristics to Estimate Ground-Water Recharge Rates in Ohio* was published and was based on the data collected and evaluations made during the baseflow/ground water recharge 319 project.

Ohio Water Advisory Council

The Ohio Water Advisory Council is created by statute in Ohio Revised Code Section 1521.031. The council consists of seven members appointed by the Governor. Each member represents a different area of expertise or interest and serves a two-year term. The Council's primary function is to meet quarterly and provide advice, recommendations, and direction to the Chief of the Division of Water on goals, programs, and issues. During FY01, members included:

Member	Interest or Expertise
Ms. Joan Brassaemle Chair Akron, Ohio	Ground Water
Doug Johnson Dayton, Ohio	Dam Safety
Dr. Harry Kaneshige, Vice Chair Athens, Ohio	Representing Public
Dr. Vincent T Ricca Columbus, Ohio	Floodplains
Dr. Robert Stiefel Columbus, Ohio	Surface Water
Sandra Zellmer Toledo, Ohio	Representing Public
Paul R. Labovitz Peninsula, Ohio	Canal Lands

The Council met on the following dates during 2001 with the primary focus area indicated:

March 16 - Water Withdrawal Permit Benchmarking

March 22 - Coastal Permit PE Requirement

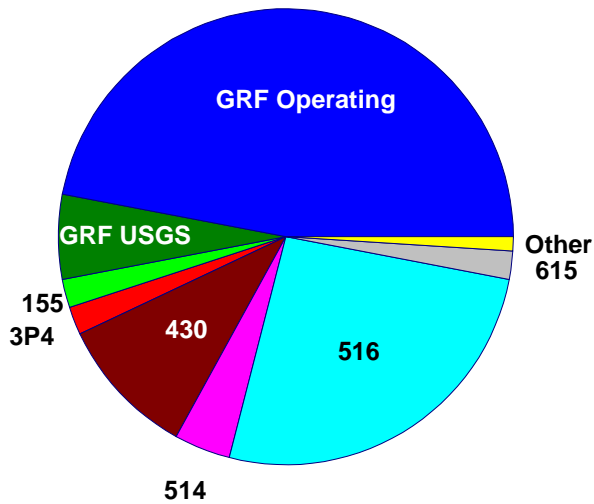
June 8 - Coastal Engineering Program

December 8 - Professional Development and Training Skills Criteria

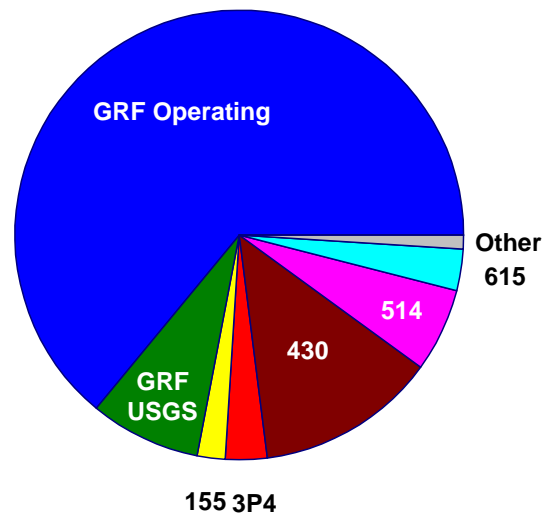
Fiscal Report FY01

Overview of Appropriations

All Funds



All Funds minus 516*



Fund	Amount	% All	% -516
General Revenue – Operating	\$3,910,304	47	64
General Revenue – USGS Cooperative Gauging	\$491,079	6	8
Fund 155 - Groundwater Contract Projects	\$150,770	2	2
Fund 3P4 - Floodplain Indirect	\$162,097	2	3
Fund 430 - Canal Operations	\$825,539	10	13
Fund 514 - Coastal	\$351,507	4	6
Fund 516 - Water Management (Reservoirs)*	\$2,167,237	26	-
Fund 615 - Dam Safety Fees and Grants	\$183,889	2	3
Other Funds – 4S9, 508, 4X8, 4J2	\$44,119	1	1
Total	\$8,286,541		

* Note: Fund 516, the Water Management Fund, is used primarily for pass through payments to the U.S. Army Corps of Engineers for reservoir projects and to pay the state's share of upground reservoir operation, maintenance, and repair projects. No personnel costs were charged to Fund 516 in FY01

Office Locations and Telephone Numbers

Central Offices

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Coastal Engineering Office

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Great Lakes Center
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Ohio & Erie Canal Office

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