

another Dam newsletter



Ohio Dam Safety Organization, Spring 2004

Ohio Dam Safety Organization by Dick Lorenz

The Ohio Dam Safety Organization (ODSO) was formed in 1995 as Division of the Water Management Association of Ohio and is also affiliated with the national Association of State Dam Safety Officials. Membership is free and open to all who are members of the Water Management Association of Ohio. A membership form is available in this newsletter. It is ODSO's mission to promote dam safety by establishing a partnership between dam owners, operators, engineers and regulators. We do this by providing forums for education and discussion and being a voice for all concerned in the formation and implementation of dam safety policy in Ohio. Currently, ODNR is reviewing their regulations; if you have a concern with the regulations please contact me at rlorenz@westerville.org.

The Ohio Dam Safety Organization is governed by an Executive Board of representative dam owners elected at our annual Fall meeting. This year's Executive Board consists of newly elected members Pedro Amaya from American Electric Power, representing Industrial owners; Joe Stock from Buckeye Engineering, Ltd., representing Engineering Consultants; Warren Baas from Ohio Ready Mixed Concrete Association, representing Construction Contractors; and reelected Marshall Edens from Rushcreek Conservancy District, representing Conservancy Districts. Continuing on the Board are Dick Lorenz from the City of Westerville, representing Municipal Owners; Tim Granata from Ohio State University, representing Academia; and Gary Ketron from Lakengren, representing private owners. Officers from the Board are Dick Lorenz as Chairman, Pedro Amaya as Vice Chairman and Joe Stock as Secretary/Treasurer. The Advisory Committee members are Dan Hill (past chair) from Burgess & Niple, Pete George from Ohio Department of Natural Resources (ODNR) and Art Brate from Natural Resources Conservation Service (NRCS). Further information is available on our website: <http://www.wmao.org/div/odso>.

Dam Safety by Dick Lorenz

The safety of dams is taken for granted by most citizens of Ohio, as it should be in a state that has a strong dam safety program. Owners of dams, however, must not take dam safety for granted. Like most safety programs, an effective dam safety program must go beyond the initial step of building a safe dam and developing a safety plan. To have an effective plan the owners of dams must have an active operation and maintenance program, updated emergency action plan and awareness of what to look for when performing routine inspections and monitoring. Dams can be hazardous structures and should not be built and forgotten.

Dams do fail and when they do many have the potential to cause property damage and loss of life. In the past two years more than 50 dams have failed in the U.S. The most recent large failure occurred in March of this year in Mississippi when a 57 foot earthen dam gave way. The Big Bay Lake Dam was only 13 years old when it failed. The breached dam released floodwaters 15-20 feet deep and cause substantial property damage. There was fortunately no loss of life but 48 homes were destroyed and another 50 damaged. Prior to the failure, the dam's drains were observed to be discharging discolored water. Further information, including pictures, is available at http://www.srh.noaa.gov/jan/events/DamBreak/index_dambreak.html.

Dam owners are legally responsible for maintaining a safe structure. This includes making periodic inspections, performing maintenance and repairs. Dam failures most commonly occur due to overtopping, seepage and structural failures. Many Ohio dams are deficient in flood capacity, which can result in overtopping of the dam and failure. Approximately 30% of the class I dams and 25% of the class II dams in Ohio do not meet current standards for flood capacity. To report any potential concerns, the ODNR Dam Safety office has a 24 hour emergency number, (614) 799-9538. Further information on dam safety is available at <http://www.ohiodnr.com/water>.

Ohio Cities and Villages Now Required to Pay Annual Fees on Dams They Own: State's dam safety laws overhauled for the first time in 13 years

Reprinted from *Cities & Villages* magazine, January/February 2004 issue (permission from ODNR)

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Last summer's heavy rains, flooding and near catastrophic dam failures once again reinforced the need for maintaining a strong dam safety program in Ohio, according to the Ohio Department of Natural Resources (ODNR).

Dam owners and downstream residents benefit from a strong dam safety program. Owners of Class I dams – those that generally pose the greatest risk to life and property – are assured of regular and thorough safety inspections by ODNR dam engineers. In addition, ODNR provides oversight of dam construction and repairs, as well as professional technical assistance during emergency situations. Owners also receive information on maintenance and operational procedures, as well as help in developing emergency action plans. At the same time, Ohioans living and working downstream from these dams are at a reduced risk from catastrophic failure.

In 2003, the Ohio General Assembly modified laws governing the dam inspection and permitting process, raising many fees for the first time in 13 years. "I trust most dam owners will understand the need for these increases in order to maintain high standards of service and public safety," said Richard S. Bartz, chief of the ODNR Division of Water, which oversees the state's dam safety program.

Under the new laws, the 317 Ohio cities and villages that own dams are no longer exempt from paying annual fees and will pay at the same rate as charged for privately-owned and state-owned dams. In addition, these municipalities will be required to pay permitting fees for any new dams, dikes or levees they plan to build. ODNR notified these municipal owners of the new fee schedule in November – well in advance of the dam safety program's spring billing cycle. "By providing advance notice of these fees, we are helping Ohio municipalities with their budgeting processes," Bartz said.

The Ohio General Assembly established the state's dam safety program in 1963 and for the next 24 years it was funded entirely by general revenue funds. That changed in 1987, when private, state and commercial dam owners began sharing program costs through annual fees.

Dams in Ohio are classified according to height, water storage volume and potential threat to people and property downstream. Class I dams have the largest annual fees. Under the new law, that fee is a base \$30, with an additional \$10 for every foot of dam height. Owners of Class II dams, those that generally pose a threat to property only, are assessed the base \$30 with an additional \$1 for every foot of height. Class III dams, generally smaller structures with potential damage limited to roads and less valuable property, are assessed only the base \$30. "These fees will offset declining GRF support for the dam safety program and help ODNR maintain regular inspections of the highest hazard dams (Class I). These fee adjustments will go a long way in helping to maintain and improve the integrity for the 1,726 dams regulated by ODNR," said Richard S. Bartz.

For additional information on dam safety in Ohio, check out the Ohio Department of Natural Resources Division of Water's web page at: <http://ohiodnr.com/water/>.

For further information Contact Mark Ogden, ODNR Dam Safety Program, (614) 265-6727, or Jane Beathard, ODNR Media Relations, (614) 265-6860.

ODSO Program Committee News by Tim Granata & Tadd Henson

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The Program Committee wants to remind its newsletter readers that the annual Water Management Association of Ohio (WMAO) Conference will be held jointly with the County Engineers Association of Ohio (CEAO) on October 6 and 7, 2004 at the Marriot North in Columbus, Ohio.

The program for the Ohio Dam Safety Organization session has not yet been finalized, but some ideas for Conference topics are emergency action plans, dam operation and maintenance, and low head dams and dam removal. If you have other suggestions for topics, please contact Tim (granata.6@osu.edu) or Tadd (thenson@fmsmengineers.com).

In an effort to encourage younger members/students interested in dam safety or water resource issues, a financial discount will be provided to the Conference.

Dam Safety Tip: Ground Cover by Pete George

The establishment and control of proper vegetation are an important part of dam maintenance. Properly maintained vegetation can help prevent erosion of embankment and earth channel surfaces, and aid in the control of groundhogs and muskrats. The uncontrolled growth of vegetation can damage embankments and concrete structures and make close inspections difficult.

Grass vegetation is an effective and inexpensive way to prevent erosion of embankment surfaces. If properly maintained, it also enhances the appearance of the dam and provides a surface that can be easily inspected. Roots and stems tend to trap fine sand and soil particles, forming an erosion-resistant layer once the plants are well established. Grass vegetation may not be effective in areas of concentrated runoff, such as at the contact of the embankment and abutments, or in areas subjected to wave action.

Some common problems associated with lack of or improper ground cover includes: bare areas, footpaths, vehicle ruts, and crown vetch. Bare areas, footpaths, and vehicle ruts on an embankment are void of protection and more susceptible to erosion which can lead to localized stability problems such as small slides and sloughs. Crown vetch, a perennial plant with small pink flowers, hides the embankment surface preventing early detection of cracks and erosion and provides a habitat for burrowing animals.

Embankments, areas adjacent to spillway structures, vegetated channels, and other areas associated with a dam require continual maintenance of the vegetal cover. Removal of improper vegetation is necessary for the proper maintenance of a dam, dike or levee. All embankment slopes and vegetated earth spillways should be mowed at least twice a year. Reasons for proper maintenance of the vegetal cover include unobstructed viewing during inspections, maintenance of a non-erodible surface, discouragement of burrowing animal habitation, and aesthetics.

Common methods for control of vegetation include the use of weed trimmers or power brush-cutters and

mowers. Chemical spraying to kill small trees and brush is acceptable if precautions are taken to protect the local environment. Some chemical spraying may require proper training prior to application.

ODSO Nominations

by Tim Granata, Pedro Amaya, & Bernie Rasmussen

The Committee is taking nominations for the following three Executive Board seats: 1) Academic; 2) Municipal Dam Owner; and 3) Private Dam Owner. Terms will start on January 1, 2005 and will last until December 31, 2007. We request the nominees' names, qualifications, and email addresses be sent by June 1, 2004 to the following email address: granata.6@osu.edu.

The Committee will review the nominations and place two names on the ballot. Ballots will be attached to the Fall WMAO newsletter. Voting will take place on October 6, 2004 at the ODSO session of the joint WMAO/CEAO (County Engineers Association of Ohio) Conference.

Best Maintained Dam Awards

by Dan Hill

Nominations for the 2004 awards are now being sought. Eligibility is based on two simple requirements: (1) the dam must be at least 5 years old; and (2) it must be in compliance with all of the Ohio Department of Natural Resources' dam safety regulations.

There were no ODSO Dam Safety Awards for best maintained dam presented in 2003. Two nominations in the private ownership category were reviewed by the Awards Committee, found to be not eligible, and the nominators advised of those findings. There was a change in the committee membership in 2003, and there may have been additional nominations that did not receive any response from the committee. We sincerely apologize for any such oversight, and encourage your resubmittal for the 2004 awards.

This year's awards will be presented during the October 6th awards luncheon at the Water Management Association of Ohio annual conference. To make a nomination for this year's awards, fill out the form in this newsletter and return it by July 8, 2004 to: **Dan Hill, ODSO Awards Committee, Burgess & Niple, 5085 Reed Road, Columbus, OH 43220**

ODSO 2004 Best Maintained Dam Nomination Form

Categories (*check one*):

<input type="checkbox"/> Industrial	<input type="checkbox"/> Private	<input type="checkbox"/> Property Owner Association
<input type="checkbox"/> Municipal	<input type="checkbox"/> State	<input type="checkbox"/> Conservancy District

Name of Dam: _____ ODNR File No. (if known) _____

Owner: _____

Address: _____

Telephone No.: _____

Nominator (optional): _____

Address: _____

Telephone No.: _____



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Membership Application

Please complete this form and include it with your payment (made payable to WMAO) to:

Water Management Association of Ohio
 601 Dempsey Road
 Westerville, OH 43081-8978

NAME: _____

ORGANIZATION: _____

TITLE: _____

MAILING ADDRESS: _____

OFFICE PHONE: _____

EMAIL: _____

MEMBERSHIP	ANNUAL DUES	BENEFITS
Individual	\$65.00	1 member
Organizational	\$180.00	3 members, additional members \$60 each
Sustaining	\$400.00	6 members, additional members \$60 each; business card advertisement space in 4 Ohio Water Table issues (Please provide complete information on each individual.)
Student	\$10.00	1 member
Emeritus	\$25.00	1 member; must be 65 years of age with 5 years membership in WMAO or be approved by the executive board

Membership Type: _____ The benefit of the advertisement space offered in the Sustaining Membership is also offered to any other organization or individual at a cost of \$125.

Areas of Interest (Please check all that apply):

- | | | |
|--|--|--|
| <input type="checkbox"/> Agriculture | <input type="checkbox"/> Floodplain Management | <input type="checkbox"/> Research and Data Mangement |
| <input type="checkbox"/> Dam Safety (ODSO) | <input type="checkbox"/> Groundwater | <input type="checkbox"/> Stormwater Management |
| <input type="checkbox"/> Education | <input type="checkbox"/> Recreation and Navigation | <input type="checkbox"/> Water and Wastewater |