

## **FOR IMMEDIATE RELEASE**

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**ASDSO**  
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### **Dam Safety Association Presents Annual Awards**

Lexington, KY 9/22/2003

At each annual conference, the Association of State Dam Safety Officials recognizes individuals who have made outstanding contributions to the field of dam safety. This year's award winners were recognized on September 9<sup>th</sup>, at the 2003 ASDSO Awards Banquet in Minneapolis.

#### **ASDSO National Award of Merit: All of the ASDSO Past Presidents**

For outstanding leadership and service to ASDSO and to the cause of dam safety, the ASDSO National Award of Merit was presented to the Association's past presidents: Joseph J. Ellam (1984-1986), Charles Gardner (1986-1987), J. Bruce Pickens (1987-1988), Jeris A. Danielson (1988-1989), Martin J. Stralow (1989-1990), Dan R. Lawrence (1990-1992), Raul F. Silva (1992-1994), James D. Simons (1994-1995), George E. Mills (1995-1996), Alan E. Pearson (1996-1997), Brian R. Long (1997-1998), Brad Iarossi (1998-1999), Francis E. Fiegle II (1999-2000), Robert H. Dalton (2000-2001), and John H. Moyle (2001-2002).

#### **West Regional Award of Merit: Darrel Temple**

Darrel Temple, Supervisory Research Hydraulic Engineer and Laboratory Director for the USDA Agricultural Research Service Plant Science and Water Conservation Research Laboratory in Stillwater, received an ASDSO West Regional Award of Merit.

Mr. Temple has had an outstanding 27-year career with the ARS, resulting in more than 40 peer-reviewed publications. He has been particularly active in hydraulic research and application to dam safety issues involving earthen spillways, embankment overtopping, and rehabilitation of existing structures.

Temple has received numerous USDA Superior Service Awards for his contributions at the Hydraulic Engineering Research Unit. In his role as Research Leader, he has been responsible for guiding the long-range research planning efforts of individual scientists. He has directed the research program toward determining and quantifying the failure processes associated with earth embankments and spillways subjected to hydraulic stresses, and toward development of channel stabilization measures.

Temple published Ag Handbook 667, *Stability Design of Grass-Lined Open Channels*, a state-of-the-art guide for using the effective stress approach to design of grass-lined open channels. He has extended this concept to predicting the time of failure of grass linings in earth auxiliary spillways, and led the effort that demonstrated a three-phase progression of failure in these spillways. The resulting computational model was incorporated into the Natural Resources Conservation Service dam design/analysis software SITES, which is used by many federal and state agencies and by consulting engineers.

Mr. Temple has also been professionally active in the dam safety community through his research, leadership of a nationally and internationally recognized hydraulic laboratory, meeting presentations; professional peer-reviewed journal papers, leadership of workshops related to dam safety, and involvement in societies such as ASDSO, the American Society of Civil Engineers, and the American Society of Agricultural Engineers.

### **West Regional Award of Merit: The Lower Colorado River Authority (LCRA)**

A second West Regional Award of Merit was awarded to the Lower Colorado River Authority (LCRA) for its outstanding commitment “to do the right thing” in its multiple roles as a provider of water and electric services, flood protection and community services.

Formed in 1934 by the Texas Legislature, LCRA constructed six hydroelectric dams - Buchanan, Inks, Wirtz, Starcke, Mansfield, and Tom Miller - between 1930 and 1951. These dams are collectively known as the Highland Lakes dams.

Following the National Dam Safety Phase I Inspection Program, which called for significant safety improvements to two of these dams, LCRA initiated a program to evaluate all six dams with respect to current hydrologic, structural and geotechnical criteria. In 1990, LCRA began a 15-year, \$50 million Modernization Program directed at five of the six dams.

LCRA has taken a proactive role in assisting local governments and communities. When the financially strapped City of Austin was unable to rebuild its twice-failed Tom Miller dam, LCRA corrected design problems, rebuilt and then operated the dam.

LCRA spearheaded a floodplain management initiative, the Texas Colorado River Floodplain Coalition, which discourages development downstream of dams. LCRA conducts public forums after floods to address community concerns.

Although LCRA historically has included dam safety as part of its operations, a formal in-house program was not established until 2000. The program, currently staffed by two full-time employees, serves as LCRA's primary liaison with state and federal dam safety authorities. Besides maintaining a rigorous dam inspection and evaluation schedule, the Dam Safety Program staff helps ensure the continued security of LCRA structures by staying informed on homeland security issues. Other initiatives include archiving documentation on LCRA dams in an electronic library, developing and maintaining Standing Operating Procedures and Emergency Action plans, evaluating gate operations, and reviewing instrumentation at all dam facilities.

### **Midwest Regional Award of Merit: Terry Hampton**

For numerous contributions to dam safety and for outstanding service to ASDSO, Terry L. Hampton, Senior Water Resources Engineer for Gannett-Fleming, received the 2003 Midwest Region Award of Merit.

Mr. Hampton received his B.S.C.E. from the University of Wisconsin-Madison, and is a registered Professional Engineer in Wisconsin and Michigan.

At Gannett Fleming, Mr. Hampton participates in legal proceedings as an expert witness; provides design, analysis, and construction management services for water-related projects; provides quality assurance/quality control services for structural and geotechnical designs and performs risk analyses and inspections and hydraulic, hydrologic, and environmental engineering investigations.

He has been active in ASDSO for many years, and has served on the Affiliate Member Advisory Committee since 1987. As chairman of this committee from 1998-2002, Mr. Hampton served on the ASDSO Board of Directors. He has contributed greatly to the success of ASDSO's annual conferences

by serving on seven conference planning committees, and as Moderator Coordinator from 1989-1998. He also served as an ASDSO affiliate representative on the National Dam Safety Information Resources Committee.

Mr. Hampton has contributed his time and talents to a number of other organizations, including the Electric Power Research Institute (EPRI), the Federal Energy Regulatory Commission (FERC), the American Board of Engineering Technology (ABET), Wisconsin Association of Consulting Engineers, the Interagency Committee on Dams, and the United States Society on Dams.

### **Southeast Regional Award of Merit: Jonathan T. Phillippe**

Jonathan T. Phillippe, recently retired Director of the Virginia Dam Safety Division, was honored by the representatives of ASDSO's Southeast Region.

Mr. Phillippe graduated from Virginia Polytechnic Institute with B. S. and M.S. degrees in Civil Engineering, and is a licensed professional engineer and land surveyor in Virginia.

During his 36 years of professional experience, Mr. Phillippe worked in both state and private sectors. Prior to joining Virginia's Dam Safety Program in 1996, he provided consulting engineering and land surveying services to both public and private clients. He also taught engineering and surveying subjects at various institutions of higher education.

Mr. Phillippe has contributed his time and talents to ASDSO as Virginia's state representative, a member of the Board of Directors, and as 2002-2003 Secretary/Treasurer. He also served on ASDSO's Strategic Planning, Public Awareness, and Executive committees. He is continuing his service to the goals of ASDSO by speaking to homeowners' associations and other groups about dam safety and dam maintenance issues.

### **Southeast Regional Award of Merit: Gwinnett County, Georgia Department of Public Utilities**

ASDSO's Southeast Region also recognized Gwinnett County, Georgia for its commitment to protecting public safety from the dangers of dam failure.

Gwinnett County has taken the lead in Georgia in upgrading existing USDA Natural Resources Conservation Service dams and regulating other small earth dams. One of its projects, increasing the spillway capacity of Yellow River No. 14 dam, was the first in the nation to receive federal funding under recently passed legislation concerning upgrades to small watershed dams.

Construction of residential developments in areas below Gwinnett County's fourteen NRCS flood control dams has increased their hazard potential classification. Six dams were originally designed as low-hazard, and eight were designed as intermediate-hazard structures; now six of these dams have been classified by the Georgia Safe Dams Program as high-hazard-potential dams. Dam breach studies are planned for seven of the remaining eight intermediate-hazard dams, which will likely indicate that some, if not all, of these dams are also high-hazard-potential structures.

The County will study each of these NRCS dams to determine the downstream risk potential. Should a dam be identified as posing a safety hazard, alternatives for mitigating the hazardous situation will be studied. If the studies indicate that a dam does not pose a threat to downstream structures, the County will study the option to buy land downstream of the dam in order to prevent future development.

The County's Development Regulations place strict requirements on small hazardous dams that are not regulated by the State. If structures exist in the breach zone of any dam exceeding 9 feet in height or 20 acre-feet in volume, the dam must meet state requirements for high-hazard dams. Should no development exist within the breach zone, the dam must meet the state requirements for high-hazard dams or the owner must provide restrictive easements to prevent future development.

**Northeast Regional Award of Merit: Eric Ditchey**

Eric Ditchey, Senior Associate with McCormick, Taylor and Associates, Mount Laurel, New Jersey, received ASDSO's Northeast Regional Award of Merit.

As Chairman of the Council for Safe Dams, Mr. Ditchey has worked extremely hard toward the advancement of legislation which would provide funding for dam restoration projects in New Jersey. In meetings with Senators Littell and Bucco, Eric requested additional funding sources for dam restoration. Senators Littell and Bucco later sponsored legislation which would allow a bond issue to be placed on the ballot and would provide for \$110,000,000 for dam restoration projects throughout the state. Mr. Ditchey continued to work with the Legislative Services Office to keep the proposed bill on track and to push for

its passage. On June 30, 2003, the New Jersey State Senate and Assembly both passed bill S2182, which allows the bond issue to appear on the November 2003 ballot.

Mr. Ditchey also works hard to keep the Council for Safe Dams moving forward to accomplish its goals of public outreach. Through his leadership, the Council has coordinated the planning of the past three Northeast Regional Conferences. Additionally, he has spoken on behalf of the Council at the New Jersey League of Municipalities to emphasize the importance of dam safety and the need of dam safety funding to State, County and Municipal officials.

Mr. Ditchey has presented courses on Dam Safety Engineering at Villanova University and has presented a dam safety workshop at Rutgers University to New Jersey state offices involved in dam safety. He has often volunteered to make presentations at regional dam owner workshops.

Mr. Ditchey is a member of numerous ASDSO committees, including the Dam Financing Solutions Committee, the Affiliate Member Advisory Committee, and the Organizational Review Committee. He is also a member of the American Concrete Institute and is involved in Committee 207 - Mass Concrete.

**National Rehabilitation Project of the Year: Boyle Engineering Corporation, Lakewood, Colorado, for the Monument Lake Dam Rehabilitation Project**

Boyle Engineering Corporation, of Lakewood, Colorado, dealt with many technical challenges and unusual environmental issues in its rehabilitation of 110-year-old Monument Lake Dam

The Class II, 40-foot high, 840-foot long, zoned embankment dam is jointly owned and operated by El Paso County and the Town of Monument. The reservoir provides a scenic backdrop for the town of Monument, and has been providing irrigation water and flood control along Fountain Creek for more than 100 years.

In 1998, the Colorado State Engineer's Office recommended a zero-storage restriction due to the dam's poor condition. The deficiencies included:

- trees up to four feet in diameter along the toe, downstream slope, crest, and upstream slope of the dam,
- surface erosion channels up to three feet deep on the crest, downstream slope, and right abutment,
- a failed valve on twin 16-inch-diameter cast-iron outlet pipes,

- inadequate spillway capacity, and
- erosion and collapsed gabion walls along the downstream spillway channel.

By using a two-dimensional incremental damage analysis, compared to a one-dimensional model, Boyle Engineering justified a 100-year spillway capacity instead of the 50 percent probable maximum precipitation spillway capacity normally required by the State. The downstream floodplain is wide and diverging, which would cause a flood to spread out in several directions. Boyle discovered that the one-dimensional models would over-estimate downstream impacts, which would require a larger, more costly spillway. The project sponsors realized an approximate savings of \$2 million in spillway construction costs through the use of the two-dimensional incremental damage analysis.

The technical aspects of the project were complicated by the presence of Preble's Meadow Jumping Mouse (PMJM). Obtaining a Corps of Engineers permit required consulting with the U.S. Fish & Wildlife Service regarding the protected species. Boyle Engineering designed a 60-foot wide "mouse highway," to connect downstream and upstream PMJM habitats. The corridor is complete with shrubs, grasses, and an irrigation system.

Reservoir sediment potentially contaminated by whirling disease spores caused further complications. In order to avoid spreading the whirling disease, the dredged sediment was wasted on site, as per State requirements.

The construction cost for rehabilitating the dam and dredging the reservoir was \$3.2 million.

### **New Honorary Member: Jack Healy, Hanson Engineers**

In recognition of his many contributions to the cause of dam safety in the U.S., John M. Healy, P.E., Special Consultant to Hanson Professional Services, Inc., Springfield, Illinois, was named an Honorary Member of ASDSO.

Mr. Healy's experience in engineering began in 1954 when, as a commissioned officer in the U.S. Air Force, he worked on the development of the experimental SAGE system at the Massachusetts Institute of Technology.

From 1960 to 1962, Mr. Healy was a research assistant in the department of civil engineering at the University of Illinois where he received his bachelor's and master's degrees.

Mr. Healy joined Hanson in 1962. During his employment with the firm, he worked in all 50 states and six international locations on a variety of projects ranging from dams, storage structures, highway and railroad soil surveys, communication structures, buildings, industrial projects and buried blast-resistant structures. As a senior vice president and director of the firm, he had operational management responsibilities for the geotechnical and hydrology/hydraulics engineering consulting practice and for the quality control/materials testing service. In 1995, he retired from Hanson and now serves as a special consultant to the firm.

Mr. Healy was a member of the ASDSO Peer Review team that evaluated the Army Corps of Engineers' Dam Safety Program nationwide. He also served on Peer Review teams for reviews of the U.S. Mine Safety and Health Administration's dam safety program, and state dam safety programs in Maryland, Virginia (twice), Georgia, Ohio, Kansas, Oregon, Hawaii, Alaska and Texas.

Mr. Healy has also been an active member of many other organizations, including the American Society of Civil Engineers, the International Society of Soils Mechanics and Foundation Engineering, the National Society of Professional Engineers, the U.S. Society on Dams, the Springfield Chamber of Commerce Infrastructure Committee, the Illinois Mining Institute, the Association of Conservation Engineers, the Illinois Geologic Mapping Advisory Committee, and the Consulting Engineers Council of Illinois.

### **President's Award**

For extraordinary dedication to the idea and ideals of ASDSO, the members of ASDSO's 2002-2003 Executive Committee - Jon Phillippe, Sec.-Treas. (VA); Meg Galloway, Vice-Pres. (WI); Doug Johnson, President (WA); Lori Spragens, ASDSO Exec. Director; John Moyle, Past Pres. (NJ); Steve Verigin, President-Elect (CA) - and Brad Iarossi, ASDSO Legislative Committee Chairman, received this year's President's Award.

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*The Association of State Dam Safety Officials (ASDSO) is a national, non-profit organization dedicated to improving dam safety through research, education and communication. Since its formation in 1984, ASDSO has served as one of the premier professional organizations for individuals committed to ensuring the safety of dams in the U.S. For more information, please visit [www.damsafety.org](http://www.damsafety.org).*