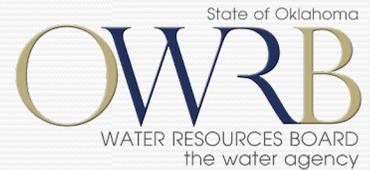


OKLAHOMA WATER RESOURCES BOARD DAM SAFETY QUARTERLY

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NEWSLETTER OF THE OKLAHOMA DAM SAFETY PROGRAM



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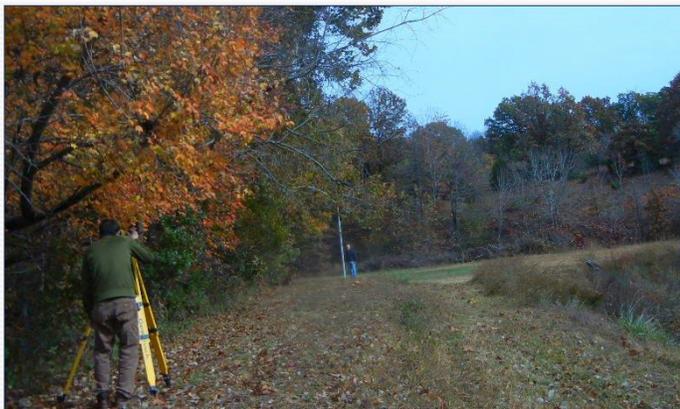
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Zachary Hollandsworth measures the height of a dam.

OWRB Dam Safety Program on National Public Radio

In December, the National Public Radio aired a segment on the OWRB's Dam Safety Program and the challenges in keeping Oklahoma's dams safe. Logan Layden of State Impact Oklahoma reported that half of the state's dams are privately owned, which presents unique obstacles when dams are selected for hazard-potential reclassification due to downstream development. Oklahoma's Dam Safety program manager Yohanes Sugeng identified the lack of monetary resources as the number one challenge private dam owners face in upgrading a newly reclassified dam to meet state standards. The segment highlighted the OWRB's free low hazard dam inspection program, which includes a breach inundation map that dam owners may use to plan for future downstream development and potentially minimize their liability.

Listen to the radio story on [NPR's website](#).



OWRB Dam Safety staff perform a low hazard dam inspection.

Hydraulic Modeling Workshop Wrap-Up

This December, the OWRB's Dam Safety Program hosted a Hydraulic Modeling Workshop in Oklahoma City. Thirty-eight people representing the private sector, state, and local government attended the class. Marc Johnson, P.E., CFM from FTN Associates introduced participants to the basics of 1D and 2D modeling. Mr. Johnson also detailed each model's computational requirements, cost, engineering assumptions, labor and hardware requirements, and the accuracy of model outcomes.



Marc Johnson, P.E., lectures at OWRB's Hydraulic Modeling workshop.

Lee Beshoner, P.E., CFM from FTN Associates, discussed case studies using the new HEC-RAS 2D model. Mr. Beshoner also reviewed the required computations, involved assumptions, and the model's preliminary results. Participants had the opportunity to contest the assumptions and outcomes of the case study models.

Dam Safety Teams Up With Floodplain Management

As the state coordinating agency for the National Flood Insurance Program (NFIP), the OWRB performs Community Assistance Visits (CAVs) to participating communities. These visits are conducted to provide information to the Federal Emergency Management Agency (FEMA) regarding compliance with regulations.

To assist the OWRB's floodplain management section, dam safety staff were recently trained to conduct CAVs and had the opportunity to perform several visits to communities in Osage County. These communities were selected for visits through use of a risk prioritization tool and due to recorded development in the Special Flood Hazard Area (SFHA), the area where the NFIP's floodplain management regulations must be enforced and where the mandatory purchase of flood insurance applies.

During the visit, OWRB staff looked at structures within the SFHA and met with local floodplain authorities to determine whether the community had the proper documentation to remain in compliance.

FEMA provides more information on the NFIP, floodplain regulations, and community assistance visits on their [website](#).

ASDSO's Earthquake Hazards Webinar

In December, OWRB Dam Safety engineers participated in ASDSO's *Earthquake Hazards, Ground Motions, and Dynamic Response* webinar. Frequent earthquakes over the past few years have raised new concerns about the potential seismic impacts on Oklahoma's dams. The webinar discussed the physics and geology of the earthquake process and identifying seismic effects during dam inspections. Lastly, the dynamic response of embankment dams and their soil foundations to earthquake motions along with methods to predict them were introduced.

Congratulations to Zachary Hollandsworth, P.E.



The OWRB is pleased to announce that dam safety engineer Zachary Hollandsworth successfully completed the Principles and Practice of Engineering exam in October and earned his Professional Engineering license. Zachary also celebrated five years of dedicated service at the OWRB in December.

◀ OWRB Executive Director J.D. Strong recognizes Zachary Hollandsworth for 5 years of dedicated service.

Reminder: 2014 Inspection Reports Due

The OWRB would like to remind owners of high and significant hazard-potential dams that all inspection reports for the 2014 calendar year were due December 31, 2014. Updates and revisions to emergency action plans (high hazard-potential dams only) should have also been submitted to the OWRB for approval. Reports for inspections performed in late December will be accepted through January 31, 2015.

Upcoming Events

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| January 13 | ASDSO Webinar: Introduction to Public Safety Risk Evaluation and Treatment for Dams and Levees |
| February 4-5 | ASDSO Seminar: Emergency Action Planning for Dams and Levee Safety , Phoenix, AZ |
| February 10 | ASDSO Webinar: Introduction to Hydrologic Modeling Using Geospatial Information |
| February 18-19 | NDSP Technical Seminar: Dam Breach Modeling and Consequence Assessment , Emmitsburg, MD |
| March 10 | ASDSO Webinar: Designing Slope Protection for Dams and Levees |
| March 31-April 2 | ASDSO Seminar: HEC-HMS , Seattle, WA |

J.D. Strong, Executive Director
Oklahoma Water Resources Board

Julie Cunningham, Chief
Planning & Management Division

Yohanes Sugeng, P.E., Manager
Dam Safety Program

The Oklahoma Dam Safety Act recognizes that properly constructed, operated, and maintained dams used to impound water and create reservoirs for public and private beneficial uses constitute vital parts of the State of Oklahoma's water resources, and authorizes the Oklahoma Water Resources Board to regulate the construction, operation, and maintenance of dams to protect lives and property.

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