

Dam Safety E-Newsletter



NJDEP BUREAU OF DAM SAFETY
Office of Dam Safety and Flood Engineering




Spring 2022

Submissions to the NJDEP Bureau of Dam Safety

As a reminder, all submittals to the NJDEP Bureau of Dam Safety (Bureau) should be both e-mailed to DamSafety@dep.nj.gov and sent in hard copy format to our mailing address, with the exception of Emergency Action Plans which should only be provided electronically at this time. Please note our mailing address is Mail Code 44-03A, PO Box 420, Trenton, NJ 08625-0420. See Page 4 of this newsletter for a complete summary of the Bureau's contact information.

Please also note that the Bureau encourages pre-application meetings with our office, particularly for construction of new dams and dam removal projects. Please do not hesitate to contact our office to set up a meeting or conference call to discuss a new dam construction or dam removal project prior to submitting the permit application.

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Dam Restoration Loan Program

The Dam Restoration and Inland Water Projects Loan Program utilizes a revolving fund with loan repayments being deposited for future use. Projects to be funded are selected based upon a priority ranking procedure and the amount of monies available at the time. The Department has received approximately \$38 million in proposed project applications for 2021 - a future application period will open as funds are replenished through project completions and repayments or cancellations. Applications from 2021 are currently under review and letters of acceptance are anticipated to be sent out in early May. Please be aware that loan awards are subject to a legislative appropriation of the funds and we anticipate that money may not be available until the end of 2022 at the earliest. To learn more about the Loan Program, please visit the Bureau's Grants and Loans web site [here](#).

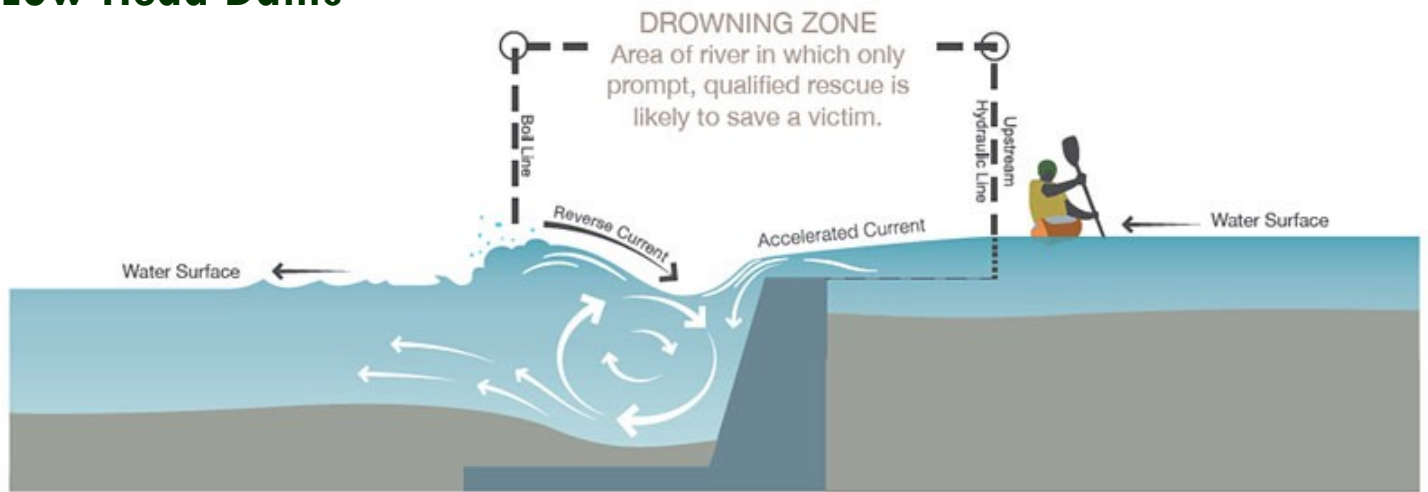
National Dam Safety Awareness Day: May 31, 2022

National Dam Safety Awareness Day was created to memorialize the South Fork Dam failure in Johnstown, Pennsylvania that occurred on May 31, 1889. This dam failure was the worst dam-related disaster in the history of the United States where over 2,200 lives were lost. We encourage all dam safety stakeholders to educate themselves on best practices for dam safety by promoting the lessons learned from dam failures. Community outreach is essential and can either help to prevent future catastrophic dam failures or lessen the impacts of a dam failure. Please visit the Association of State Dam Safety Officials [website](#) for more information regarding National Dam Safety Awareness Day as well as the FEMA [website](#).



In addition to community outreach and education, Dam Safety Awareness Day also highlights the increasing number of dams that are in need of rehabilitation due to deterioration, changes in land use, and updated design standards. A major challenge facing dam owners is the ever-rising cost of rehabilitation. The Association of State Dam Safety Officials recently posted an article on the staggering cost associated with dams that are in need of upgrades throughout the nation - [click here](#).

Low Head Dams

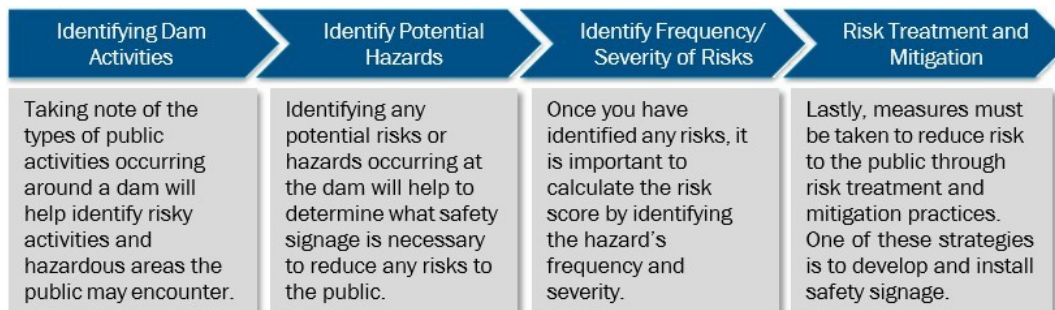


Stay out of the Drowning Zone - Source: Iowa Department of Natural Resources

Public safety at dams, particularly at low head dams, is a notable topic for the dam safety community. A low head dam typically spans the entire width of a stream or river channel and allows water to flow continuously over its crest from bank to bank. The danger lies in the submerged hydraulic roller that can form immediately downstream of the structure. The American Society of Civil Engineers (ASCE) has recently declared the month of April to be “Low Head Dam Public Safety Awareness Month”. The Association of Dam Safety Officials (ASDSO) provides valuable information on their web page with regard to public safety at dams ([click here](#)). ASDSO notes that “while all dams are potentially dangerous, low head dams are especially dangerous because the water around them often appears to be tranquil and inviting. Many drowning victims deliberately jump from or float over [low-head dams] without knowing the risks.”

Dam Safety Warning Signs Best Practices - FEMA

Best practices have been developed on a national level to address the need to accurately and consistently warn against potentially hazardous conditions resulting from the general operation of dams. FEMA has developed a “fact sheet” on their website which highlights dam owner responsibilities for assessing risk and promoting public safety at and around their dam. Please visit the website by clicking: [FEMA’s Dam Safety Warning Signs Best Practices](#).



FEMA Fact Sheet

Emergency Action Plans - Updating Inundation Maps

Due to recent advancements in aerial imagery clarity and the ever-changing landscape with regard to development in New Jersey, the Bureau is requesting dam breach inundation mapping updates on a case-by-case basis. Outdated and/or indistinct base mapping must be updated to current aerial imagery in order to clearly show the inundation area. Current aerial imagery will also aid in the effective use of the inundation mapping during an emergency. Mapping must be in 11" x 17" format and at a scale sufficient to identify downstream structures and roadways. In most cases, the mapping update will incorporate previously approved inundation lines for the sunny day breach and spillway design storm with breach event, with the only changes to the maps being the background imagery and title blocks. If existing inundation maps are not based on an approved study or there are no inundation maps on record with the Bureau, a dam breach analysis will be required to generate new inundation mapping. For any Class I - High Hazard dams, the Bureau is also requesting GIS compatible files of the inundation lines. All EAP updates (including text updates) must be submitted electronically as a complete PDF document with inundation maps (and GIS files, if applicable) to the Bureau at DamSafety@dep.nj.gov.

In addition, the Bureau has been diligently working to update the Emergency Action Plan (EAP) Guidelines with important information for document submissions and inundation mapping requirements, as well as additional terminology and language involving dams with overtopping protection. The revisions will be consistent with Federal guidelines and will clarify the inundation mapping, making maps more useful for emergency response and planning personnel. These updates are forthcoming on the Bureau's website ([click here](#)). For details and inquiries, please contact the Bureau for more information.

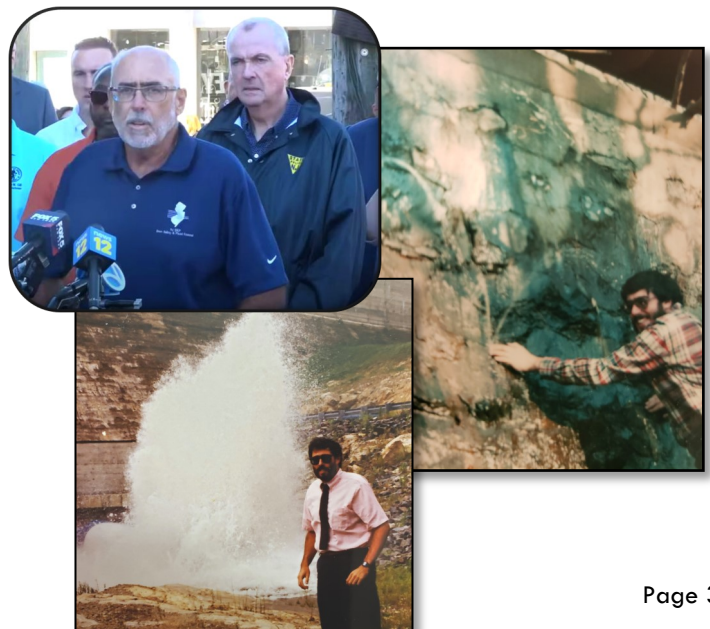
VISIT THE BUREAU OF DAM SAFETY
[WEBSITE](#) TO LEARN MORE



FORMS AND GUIDELINES
EMERGENCY ACTION PLAN GUIDELINES

Retirement Wishes to John H. Moyle, P.E.

It is impossible to overstate the contributions that John Moyle has made not only to the dam safety program in New Jersey, but also to dam safety on a national level. John came to the NJDEP in 1979 and was instrumental in forming the State's Dam Safety Program. From developing the State's regulatory requirements to championing dam safety efforts nationwide, John's list of accomplishments are too numerous to detail. John has captained the New Jersey Bureau Dam Safety (including their softball team) for over four decades and his invaluable wealth of information and knowledge is exceptional. The Bureau offers heartfelt congratulations to John on a standout career and best wishes in his well-deserved retirement!





New Jersey Department of Environmental Protection

BUREAU OF DAM SAFETY

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Meet: via Microsoft Teams - call or
e-mail to schedule a virtual meeting

Helpful Dam Safety Links

[Association of State Dam Safety Officials](#)

[Responsible Dam Ownership](#)

[Living With Dams](#)

[FEMA - National Dam Safety Program](#)

[Bureau of Reclamation - Dam Facilities](#)

[U.S. Army Corps of Engineers](#)

Visit our website at www.nj.gov/dep/damsafety/

