

Dam Safety E-Newsletter



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



Spring 2024

Bureau of Dam Safety - Office Location Update

Happy Spring, Dam Safety Stakeholders! Please be aware that the NJDEP Bureau of Dam Safety (Bureau) office has moved back to our previous location. Our office is located at 501 East State Street, 1st Floor, Trenton, NJ 08625.

For all submittals to the Bureau, please continue to e-mail electronic versions to DAMSAFETY@dep.nj.gov in addition to sending hard copies to our mailing address. Please note our mailing address is 501 East State Street, 1st Floor, Mail Code 501-01A, PO Box 420, Trenton, NJ 08625-0420. See Page 4 of this newsletter for a complete summary of the Bureau's current contact information.

Dam Inspections

A reminder that dam owners must hire professional engineers experienced in the design and construction of dams to inspect their dams on a regular basis and submit comprehensive reports of the inspections to the Bureau. Per the New Jersey Dam Safety Standards (N.J.A.C. 7:20), Class I (High Hazard) and Class II (Significant Hazard) Dams must be inspected every two (2) years, and Class III (Low Hazard) Dams must be inspected every four (4) years. Please contact the Bureau by e-mailing DAMSAFETY@dep.nj.gov or calling 609-984-0859 if you have any questions regarding the date of your next dam inspection.

National Dam Safety Awareness Day: May 31, 2024

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, where over 2,200 lives were lost, was the worst dam-related disaster in the history of the United States. 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 help either to prevent future catastrophic dam failures or lessen the impacts of a dam failure. 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 (see [FEMA's Dam Safety Warning Signs Best Practices](#)). Please visit the Association of State Dam Safety Officials website (<http://www.damsafety.org/>) for more information regarding [National Dam Safety Awareness Day](#) and learn about [Public Safety at Dams](#).



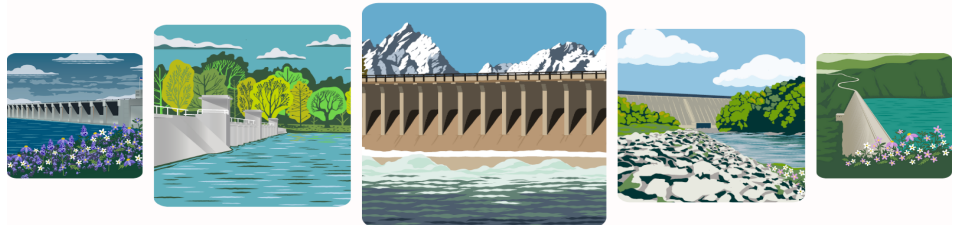
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NATIONAL DAM SAFETY AWARENESS DAY

MAY 31, 2024



ASDSO
Dam Safety



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Dam Safety Loan Appropriation



In June 2022, the Department conditionally approved approximately \$28.7 million in funding through the Dam Restoration Loan Program for 19 projects (18 dam restoration projects and one lake dredging project). The NJ State Legislature has been working to appropriate this funding since the bills were introduced in the Fall of 2022. The current status of these bills is as follows: on May 20, 2024, S2594 was voted through the Senate (37-0). A3951, the Assembly version of this bill, is currently with the Assembly Environment, Natural Resources, and Solid Waste Committee. If a bill passes both the NJ Senate and Assembly, the bill moves to the Governor's desk. Should the Governor sign this bill, making the funds available, the Department would coordinate loan agreements with the recipients and provide the loan funding necessary to advance these important infrastructure projects.

At this time, it is estimated that the Department will be able to open the next application period in early 2025. The Notice of Availability of Loan Funds and Application Deadline will be published in the New Jersey Register and on the Bureau of Dam Safety Web Site when available.

To learn more about the Dam Restoration Loan Program, please visit the Bureau's website [here](#).

New Jersey Emergency Preparedness Conference: 25th Anniversary

The 25th Annual New Jersey Emergency Preparedness Conference took place at the Hard Rock Hotel in Atlantic City, New Jersey the week of April 22, 2024 and featured multi-disciplinary training seminars, breakout sessions, and networking with emergency response professionals from New Jersey. The Bureau provided a wealth of information to conference attendees about dam safety in New Jersey and received excellent remarks from guests at their information booth. The Bureau plans to participate in the conference again next year to continue to promote dam safety and effective emergency action planning for dams in New Jersey.



EMERGENCY ACTION PLANS

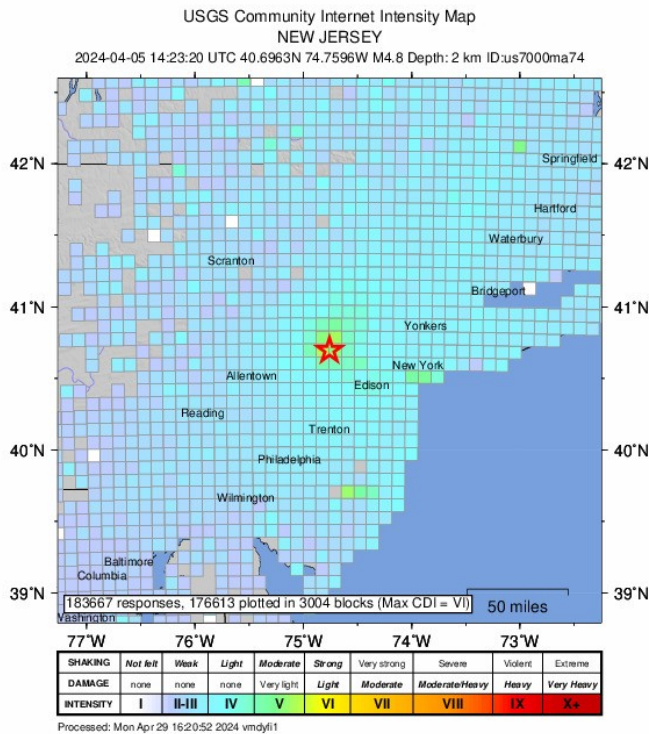
A dam's Emergency Action Plan (EAP) should be reviewed annually to ensure all contact information and other elements of the plan are up-to-date.

EAP updates (including text updates) must be submitted electronically as a complete PDF document with inundation maps to the Bureau at DamSafety@dep.nj.gov.

Did You Feel It?



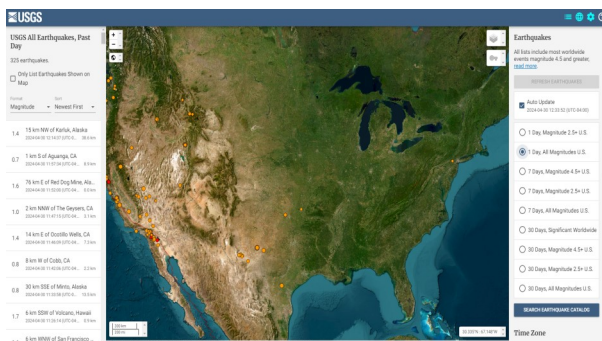
Post-Earthquake Dam Inspections



New Jersey does not typically experience earthquakes of notable magnitude; however, on April 5, 2024, a 4.8 magnitude earthquake occurred several miles outside of Califon, NJ and could be felt across a vast area of the State. This rare seismic event prompted the Bureau to notify dam owners of their responsibilities related to ensuring the safety and integrity of their dams following a seismic event. Post-earthquake inspections of Class I and Class II dams must be performed if an earthquake of magnitude 4.0 or greater occurs with an epicenter located within a 10 mile radius of the dam, or an earthquake of magnitude 5.0 or greater occurs with an epicenter located within a 20 mile radius of the dam. The Bureau recommends that a dam owner/operator perform a site inspection immediately following any earthquake felt at a dam site regardless of dam classification or earthquake magnitude. A post-earthquake inspection must be performed by a New Jersey licensed Professional Engineer hired by the dam owner/operator as soon as possible, but no later than 24 hours after the event.

Dams are owned and operated by private individuals or organizations (almost 60% of all New Jersey dams) and government entities. All dam owners/operators in the State are required to operate and to maintain their dams in accordance with the Dam Safety Standards. Owners must retain licensed professional engineers with experience in the design and construction of dams to perform inspections, conduct studies, and propose work on dams. In the event of an emergency or unusual condition at a dam, such as an earthquake, dam owners are responsible for notifying their engineer, appropriate emergency management officials, and the Bureau.

Dam owners are also responsible for initiating emergency actions in accordance with their Emergency Action Plan (EAP) and in coordination with the Bureau. In accordance with Appendix F of the document, activation of the EAP and issuance of a dam advisory condition is required following seismic activity meeting the above-referenced criteria. The dam owner is responsible for contacting the Bureau (and other agencies on the EAP flow chart) to report the status of the potential emergency condition and either terminating or modifying the condition to match the current status of the emergency.



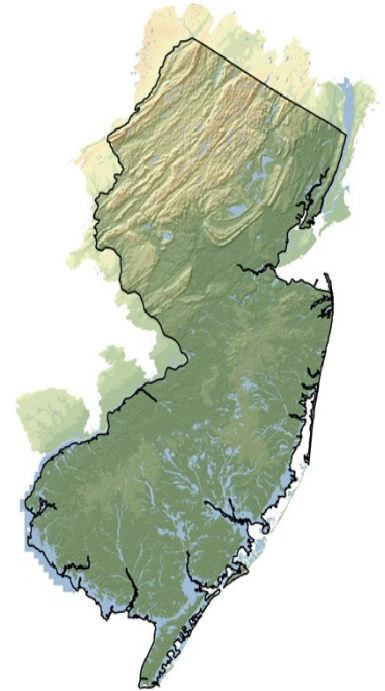
USGS EARTHQUAKE HAZARDS PROGRAM

Visit the [USGS website](https://www.usgs.gov/earthquake-hazards-program) to locate recent or historic earthquakes, see earthquake resources for New Jersey, and find other webservices.

Rainfall Updates for Dam Design

The Bureau has adopted updated New Jersey 24-hour rainfall frequency data based on the results of an [independent study](#) contracted by the NJDEP. The existing Atlas 14 volume available for New Jersey was last updated in 2006 and included data through 1999. This current independent study incorporates the past two decades of rainfall events and allows the State to plan and design projects based on data through 2020. The updated rainfall amounts must be utilized for applicable hydrologic and hydraulic studies as well as dam breach analyses for regulated dams in New Jersey. Rainfall adjustment factors developed from the study are applied to the [NOAA Atlas 14 point precipitation frequency](#) estimates up to and including the 100-year storm.

Please note that these updates and adjustment factors do not apply to any dam with a spillway design storm based on a Probable Maximum Precipitation (PMP) event. The NJDEP has contracted a state-wide PMP study and additional information concerning implementation of that data will be disseminated upon completion of the study later this year. The study will provide PMP values using current state-of-the-science and incorporate 50 years of data since the last PMP study was developed by the National Weather Service. The PMP is the theoretical maximum rainfall that could occur over a given duration and is used as part of the regulatory design requirements for Class I and Class II dams. Updated studies allow New Jersey dams to be evaluated and rehabilitated using the most current science and data, thus, increasing public safety and protecting the resources provided by dams.



New Jersey Department of Environmental Protection

BUREAU OF DAM SAFETY

LOCATION

501 East State Street
1st Floor
Trenton, NJ 08625-0420

MAILING ADDRESS

State of New Jersey
Department of Environmental Protection
Watershed and Land Management
Bureau of Dam Safety
Mail Code 501-01A
PO Box 420
Trenton, NJ 08625-0420

Phone: 609-984-0859
E-mail: damsafety@dep.nj.gov

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 <https://dep.nj.gov/wlm/drec/dam-safety/>

