ASCE’s EWRI Declares April Low Head Dam Public Safety Awareness Month

RESTON, Va. – The American Society of Civil Engineers (ASCE) Environmental & Water Resources Institute (EWRI) has determined April 2021 and every April hereafter will be known as Low Head Dam Public Safety Awareness Month. The designation is meant to draw awareness to the safety hazard posed by low head dams to swimmers, kayakers, or other river goers, who may not recognize these structures and the turbulent currents they may cause. Between 2018 and 2020 there were 111 reported deaths due to incidents cause by low head dams.

“Preventing the tragedies caused by low head dams is a matter very near and dear to my heart,” said Tom Smith, ASCE Executive Director. “As someone who enjoys river kayaking, swimming and fishing, I’m particularly aware of the dangers of low head dams, the hydraulics of which have caused numerous fatalities, including here in Virginia. They also create a host of liability issues, as you can see from a 2011 Virginia Supreme Court case (Volpe v. City of Lexington), involving a fatality on the Maury River, on which I lived and spent a great deal of time while in law school. It is time we address this important issue which affects any of us who enjoy being on the water.”

A low head dam is a manmade structure spanning a river or stream channel in which water flows over the top of the dam. They can be difficult to locate and are not usually marked and become deadly when unknowing river goers are pushed underwater due to the strong turbulence and recirculating currents caused by the dam.

Low Head Dam Public Safety Awareness Month is meant to spread awareness of the risks associated with low head dams. In addition, ASCE’s EWRI is encouraging the public to assist in identifying low head dams across the country to create a database of where these dams are located to protect those who may now know where the dams are located. Marked low head dams could keep residents safe by knowing where to avoid recreational activities that would be dangerous near a low head dam.

ABOUT THE AMERICAN SOCIETY OF CIVIL ENGINEERS

Founded in 1852, the American Society of Civil Engineers represents more than 150,000 civil engineers worldwide and is America’s oldest national engineering society. ASCE works to raise awareness of the need to maintain and modernize the nation’s infrastructure using sustainable and resilient practices, advocates for increasing and
optimizing investment in infrastructure, and improve engineering knowledge and competency. For more information, visit www.asce.org and follow us on Twitter, @ASCETweets and @ASCEGovRel.

ABOUT THE ENVIRONMENTAL & WATER RESOURCES INSTITUTE

ASCE is the oldest engineering association in the United States and includes over 140,000 members. The 26,000 member ASCE-EWRI was founded in 1999 and includes engineers and scientists from all sectors of the water resources and environmental community including government regulators, academia, consultants, cities, agencies, and project owners. Follow us on Twitter and Instagram @ASCE_EWRI.

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LOW HEAD DAM PUBLIC SAFETY AWARENESS MONTH

April 2021

WHAT IS A LOW HEAD DAM?
A low head dam is a manufactured structure, built in a river or stream channel, extending fully across the banks. Low-head dams are dams characterized by their low height - usually with a one foot to fifteen foot drop off - that allows water to flow over the top of the dam.

WHY ARE LOW HEAD DAMS DANGEROUS
Water falling over a low head dam creates highly aerated, circulating currents that trap people and objects underwater against the face of the dam. These forces are a practically inescapable trap for even the strongest, life jacket clad swimmer or often boats and kayak too.

KEEP YOUR DISTANCE, KEEP YOUR LIFE
To stay safe:
- Study a map or ask a local beforehand to locate potential dangers;
- Always stay alert;
- Always navigate around the structure or turn around well before reaching the dam;
- Obey all posted signage and barriers in the area;
- Let someone know when and where you are heading out and when to expect you to return;
- Never enter the water to help someone else. Call 911 and use a remote assistive device, such as a rope or throw bag, to try and pull them to safety.

The ASCE EWRI, and partner organizations such as ASDSO and USSD, have determined April 2021 and every April hereafter will be known as Low Head Dam Public Safety Awareness Month. The designation is meant to draw awareness to the safety hazard posed by low head dams to swimmers, kayakers, or other river goers, who may not recognize these structures and the turbulent currents they may cause.

WHAT IS LOW HEAD DAM PUBLIC SAFETY AWARENESS MONTH?

Each year, dozens of lives are lost at dams on America’s waterways. Low head dams are deceptively deadly, and even the strongest swimmers and rescuers wearing the best personal flotation devices have drowned at low head dams. It is critical that the public is made aware of the many ways they can keep themselves safe and avoid a tragedy.

In addition, these organizations encourage the public to assist in identifying low head dams across the country to create a database of where these dams are located to protect those who may not know where the dams are located. Marked low head dams could keep residents safe by knowing where to avoid recreational activities that would be dangerous in the vicinity.

The American Society of Civil Engineers Environmental & Water Resources Institute, along with partner organizations such as the Association of State Dam Safety Officials and the U.S. Society on Dams, have determined April 2021 and every April hereafter will be known as Low Head Dam Public Safety Awareness Month. The designation is meant to draw awareness to the safety hazard posed by low head dams to swimmers, kayakers, or other river goers, who may not recognize these structures and the turbulent currents they may cause.


Public Safety Resources: DamSafety.org/Public-Safety

PARTNER ORGANIZATIONS CALL FOR:

- Spreading awareness of the dangers and risks associated with low head dam structures.
- Encouraging public assistance in identifying locations throughout the country where these dams are located.
- Encouraging people who recreate on or near water to avoid low head dams both upstream and downstream.
- Keeping a safe distance away from dams both upstream and downstream to avoid drowning, and if you need to go around them, walk or portage over land to a safe distance downstream.
KEEP YOUR DISTANCE, KEEP YOUR LIFE

There are a huge number of things that can go wrong near low-head dams, seemingly small as they are, so it is always best to avoid them.

FOLLOW THESE TIPS

Know the area: Check maps or speak with locals to get information about hazards on that waterway. If swimming or fishing, always remain a safe distance from the structure to avoid sudden currents. If kayaking, canoeing, or boating, always portage around the structure or turn around well before reaching the dam to avoid being pulled over.

Read the signs: Obey any and all posted signage and barriers in the area, including flood warnings, restricted access signs, portage signs, or other posted signs.

Dress for danger: Wear a personal floatation device (such as a life jacket) if you are boating, fishing, swimming, or otherwise recreating in or around a waterway.

Tell someone your plans: Let someone know, such as a friend or family member, when and to where you are heading out, and let them know when you return so they know you are safe.

If you see someone in trouble, do not enter: Never enter the water yourself to try and help someone. Instead, call 911 and use a remote assistive device, such as a rope or throw bag, to try and pull them back to safety.

Remember - keep your distance, keep your life.

Always stay a safe distance away from low-head dams both upstream and downstream to avoid drowning, and if you need to go around them, walk or portage over land to a safe distance downstream.

Learn more at DamSafety.org/Public Safety
LOW HEAD DAMS

"WHAT IS A LOW HEAD DAM"

A low head dam is a manufactured structure, built in a river or stream channel, extending fully across the banks. A low head dam is designed and built such that water flows continuously over the crest from bank to bank. Low-head dams are characterized by their low height, usually with a 1-foot to 15-foot drop off, which allows water to flow over the top of the dam.
SAFETY HAZARDS

"WHY ARE LOW HEAD DAMS SO DANGEROUS?"

Water falling over the dam creates highly aerated, circulating currents that trap people and objects underwater against the dam. These forces are nearly inescapable for even the strongest, life-jacket-clad swimmer, boats, and kayaks. These structures have earned the title of “the killer in our river” or “drowning machines.” Victims also include many would-be rescuers and first responders, several of whom have lost their lives trying to save others caught in the hydraulic current.
KEEP YOUR DISTANCE, KEEP YOUR LIFE

"HOW DO I STAY SAFE?"

- Study a map beforehand to locate potential dams and hazard locations or ask a local for more information about dam locations
- Always be alert for potentially dangerous situations
- Always navigate around the structure or turn around well before reaching the dam when kayaking, canoeing or boating
- Obey all posted signage and barriers in the area
- Let someone know when and where you are heading out and when to expect your return
- Never enter the water to try and help someone. Call 911 and use a remote assistive device, such as a rope or throw bag, to try and pull them to safety
NATIONAL INVENTORY OF LOW HEAD DAMS

"HOW CAN I HELP?"

Organizations such as the Association of State Dam Safety Officials, the United States Society on Dams and the Environmental & Water Resources Institute are collaborating to locate and catalogue low head dams across the United States.

Get involved at: www.asce.org/environmental-and-water-resources-engineering/national-inventory-of-low-head-dams/