

Deadly Trap

Here are the dangers when floodwaters overflow a low-head dam:

1. Raft gets held up on edge of dam until water builds up under it and tips the raft over the dam.
2. Occupants of the raft are thrown into backwashing water, which forms a vortex of recirculating water at base of dam.
3. The trapped rafters are caught in the undertow and smashed repeatedly against the face of the dam. The turbulent waters can even pull life vests under.

SOURCES: American Whitewater Association.
Ohio Department of Natural Resources

Chagrin River rafting tragedy puts focus on dangerous dams.

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There may be 2,000 small but lethal dams throughout the state [Ohio], just like the one that killed a Lyndhurst rafter Sunday on the Chagrin River near Willoughby.

And those are just the ones the state knows about, said Emily King, public-information and education manager for the Ohio Dept. of Natural Resources' Division of Watercraft.

Many have labeled the low-head dams "killing machines". The greatest danger comes at the foot of the dam, where water tumbles and churns, engineers and safety experts say, the hydraulic action can pull boaters and watercraft underwater and hold them there.

Debris caught in the undertow can pummel a person to death. And the danger is compounded because the low-profile dams may not be visible or audible to the unwary upstream boater until it's too late.

... "Most [victims] appear to be teenagers or kids or young adults who see the river up high, grab a boat or kayak and jump in". "They have no idea what's awaiting them."

King, who trained safety personnel in river rescues for 13 years, said the force is so strong that "it is not unusual for the power of that water to rip a life jacket off".

James Winger
Plains Dealer Reporter