

The Time to Act is now: Removing and Modifying Iowa's Low-head Dams

The recent Drowning of Megan Pavelick on Sunday, July 9th at the Boone Water Works dam was a tragedy that could've been prevented. Better signage might have made the difference, but had the low head dam been converted to rapids she would still be alive today. So who is responsible? Perhaps, we are all a bit responsible. These dams have existed for decades, and every year or two one claims a life in Iowa. We and then slowly let it drift out of our conscious minds as the event passes into history. I know, because this happened to me last year when Tom Manatt drowned at the US Filter dam in Ames.

The dam in Boone is arguably the most dangerous on Iowa Whitewater Coalition's strategic plan outlining 14 dams to be targeted for modification or removal. Although it has an infamous history of claiming lives in the past, the Boone Water Works dam doesn't look dangerous to one who lacks river reading skill, skills that often come with whitewater paddling.

From upstream the dam is hardly visible. Whitewater paddlers are trained to look for horizon lines, which usually foreshadow a drop, which could be fun, or quite dangerous. Your average river user is not trained to look for horizon lines, and even a whitewater paddler wouldn't expect to find one on the Des Moines River. By the time one navigating downstream realizes a dam is present, it's usually too late to act.



Downstream



Upstream

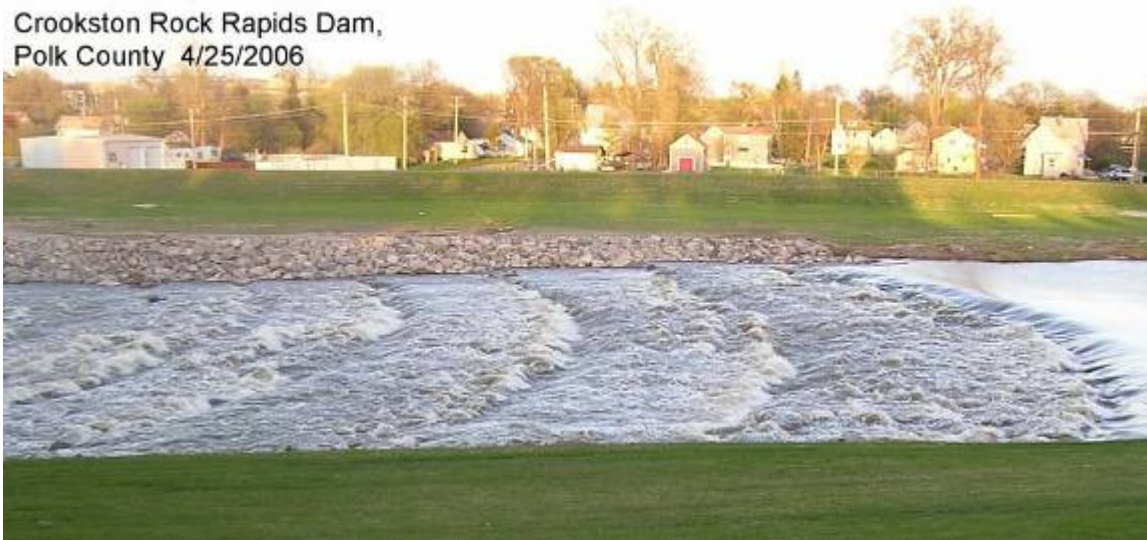
Adequate signage and well marked portage trails are needed. IWC advocates using the DNR's Water Trails Sign Manual: <http://www.iowadnr.gov/watertrails/files/signmanual.pdf>. Each site will be a little different, but the large signs should be placed on each side of the river well upstream of the dam and the small signs showing the image of a stick figure caught in the boil should be placed at each edge of the dam to educate anglers or people who happen to be on the banks at the site. The portage trail should be well marked with the blue "Portage Here" signs, and the directional arrows will lead the way.

As with all rivers, the depth and flow varies. This dam is often under water in the spring. If a paddler navigates down river when the dam's underwater, he may assume it's not there and ignore any warning signage on subsequent trips. Below, is a picture in the spring after high water levels hid the Boone Water Works dam.



Because this dam serves the city of Boone by pooling water for drinking, it is not targeted for removal. However, there is a way to modify dams that would eliminate the deadly threats they pose and still maintain their intended use. These structures would also provide a means for fish passage and allow for exhilarating recreation in the form of a set of rapids that river users could navigate through in a canoe, kayak, or innertube.

Below is a picture of a conversion from low head dam to rock rapids in Crookston, MN, designed by Luther Aadland.



Luther, the man behind Minnesota's dam removals and conversions, is sending information on this particular design to IWC. His focus is primarily on river restoration, but he said many times the reasons dams are targeted is because of the safety hazards they pose.

Another project he worked on is the Kidder dam in Wahpeton, MN. The photos below, taken by our own Gerry Rowland, show the end result of this conversion.



Recreational use of rivers has increased over the years. According to American Canoe Association's Critical Judgment II report (2002), canoeing had increased 49.4 % between 1996 and 2002. Within this same period, kayaking increased a whopping 272%. Though no hard data is available past 2002, this trend seems to continue. In their 2005 fiscal end of the year report, Johnson Outdoors, makers of Current Designs, Necky, and Old Town kayaks, reported "The Watercraft division grew 6% year-over-year as a result of a strong line-up of new canoe, kayak and paddle sport accessory products which drove double-digit growth in international markets and among the division's top 30 domestic customers" (*Fiscal 2005 Fourth Quarter and Full Year Results*).

Iowa has more than 200 low-head dams. Most of these no longer serve a useful purpose. Over 650 miles of water trails are being created on Iowa's waterways catering to a growing number of river users.

Funding for proper signage, dam removals and modifications will be needed. The pros far outweigh the cons. IWC is requesting assistance from the DNR to find funding for these projects. The time is ripe for change, but as Saul Alinsky says, "Change means movement; movement means friction". If you ask me, the friction is worth the movement

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