

PART V: RECONNECTING THE RIVERS, 18-MONTH GOALS AND STRATEGIES

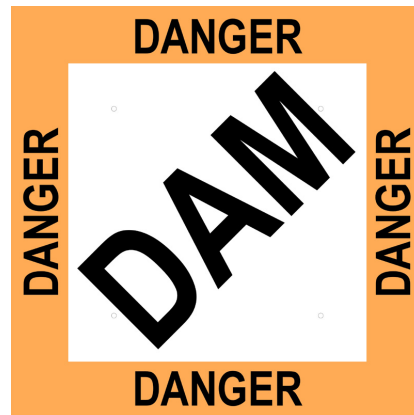
With the drowning of Megan Pavelick at the Boone Water Works dam July 9, 2006, it became immediately clear that adequate warning signage and well marked portage trails around dams are urgently needed to protect those who recreate on or near Iowa's waterways. With more water trails being established on Iowa's rivers, more Iowans and out-of-state residents are going to be attracted to the recreational opportunities they offer. It is imperative that dams are first adequately signed with clearly marked portage trails. Therefore, we will focus our energy and attention immediately on this phase at each targeted dam. Our approach to individual structures is outlined below.

As a result of IWC's quick response to Megan's drowning, adequate signage is now in place at the Boone Water Works dam, and portage trail construction will be completed by the end of September 2006. This will be the first dam in Iowa with adequate signage and a clearly marked portage trail. It will serve as a model for future projects at other dams in the state. It is time for a proactive approach!

IWC's Approach to Iowa's Low-Head Dams:

Phase 1: Signage & Portage Trails

Portage trails and signage costs pale in comparison to the costs of modifying or removing a dam. IWC will work with dam owners, county conservation managers and the Iowa DNR to organize and manage volunteer work parties to create portage trails at targeted dams. This empowers community members to take ownership of that stretch of the river; and it assures the portage trail is done properly and with consistency. Likewise, rather than each community having to figure out what signs to use and where to put them, IWC will offer guidance and on-hand assistance in order that the signs are properly erected and that placement is consistent with other structures. If communities lack the funds to erect adequate signage, IWC will purchase the signage with the agreement that the community will provide the ongoing maintenance. IWC will also purchase materials for portage trails if needed. Adequate signage and well marked portages save lives and there is no excuse not to have them. All is not lost if the dam eventually is modified, as signs will change from a "warning dam" sign to a "warning rapids" sign, and the portage route will still be needed for those wishing not to run the rapids. IWC has adopted the standard signage that the Iowa DNR is promoting on their water trails web page. The sign that is placed at the dam site is educational, showing a stick figure trapped in the recirculating currents below a dam. See signage below:



Phase 2: Fundraising Plan

IWC realizes, however, that signage and portage trails are not a fix, but a mere first step in the right direction. The next step is to define a plan to either modify or remove the targeted dam. Where communities wish to pursue removal or modification, IWC will develop alternatives, facilitate communication, and foster implementation. IWC will meet with all dam owners and stakeholders, as well as provide direct assistance. We will work with conservation boards to hire engineering consultants to complete alternatives analyses. IWC will identify funding sources, and help with grant writing and fundraising campaigns if resources allow. It makes sense that one agency manages all projects rather than each community having to reinvent the wheel at each structure.

We cannot impose our will on communities where dams exist. Though we believe that removal or modification is the safest and most environmentally sound solution, local communities may not agree. Anglers may view the removal of a dam as the destruction of their fishing hole, or a community may see the dam as historically significant and oppose modification or removal. We will make an effort to educate and provide outreach to communities that request our input, but in some cases IWC may have to accept signage and portage trails as the only viable solution.

Phase 3: Modification or Removal

When adequate funds are obtained, the projects should move forward with either removal or modification. This may take a few months to two-years depending on the size of the project and the funding available, and whether it's a removal or modification.

18-Month Plan

Our 18-month plan will narrow the focus to 15 existing structures in five target areas where water trails are under development or consideration. Overall, our goals flow from a five-point strategy:

- 1) Implement IWC's approach to each structure as outlined above
- 2) Continue to educate the public statewide about the dangers of Iowa's low-head dams and create a photo and informational database of their location.
- 3) Inform public policy that includes a more progressive and comprehensive approach to low-head dams on a statewide basis, and assist with drafting legislation to earmark funds for communities wishing to modify or remove their low-head dams.
- 4) Actively support efforts to improve Iowa water quality by Iowa Environmental Council and other groups.
- 5) Respond to communities requesting our assistance

Goal 1: Pilot projects

The following projects will be part of Iowa Whitewater Coalition's 18-month plan.

Goal 1a: Upper Des Moines River dams

Webster and Boone counties are creating a water trail system on the Des Moines River where five dams are located.

Boone Water Works Dam: Megan Pavelick drowned after going over the Boone Water Works dam in an innertube on July 9, 2006. IWC responded by communicating with the IDNR, Boone Water Works officials, city leaders, the Boone County Conservation manager, and concerned citizens. As a result, signs were installed at this structure and a portage trail is planned. IWC also requested the assistance of Luther Aadland to provide possible assistance to convert this dam. Luther Aadland, a Minnesota DNR employee has successfully converted many dams to rapids in his effort to restore Minnesota's rivers. Community leaders expressed support to convert this dam to rapids. The DNR has been in communication with Luther to determine cost for this project. The portage trail will be completed by the end of September, 2006.

Fraser Dam: The mayor of Fraser has requested IWC's assistance to install signage at this dam, and has even expressed interest in removing it.

Lehigh Dam: The dam in Lehigh is broken, and though the rapids may present a challenge for average users of the river, whitewater enthusiasts consider this a playspot at certain levels.

Fort Dodge Hydro Dam: This dam is currently in the relicensing phase to generate hydro-electric power. It is owned by Fort Dodge Hydro-electric Development Company. It is not adequately signed and no portage trail exists.

Fort Dodge Little Dam: This dam doesn't serve a useful purpose and is not adequately signed and no portage trail exists.

IWC will continue to work with county conservation managers, city leaders, the IDNR, and the water trail committee to insure that phase I of IWC's approach to low head dams is accomplished.

Measurable results: By January 2008, phase I of IWC's approach to low-head dams will be complete on the dams above. Phase II will have started on the rest, and the Boone Water Works dam will be in phase III. Successes or lack thereof will be detailed in the IWC annual report.

Goal 1b: Polk County's Des Moines River Water Trail and dams

A water trail is being created on the Des Moines River from near Saylorville Dam to Yellow Banks Park, thanks to a \$28,000 Federal Recreational Trails grant written for the Polk County Conservation Board by Iowa Whitewater Coalition. Two urban dams 1.1 miles from each other in downtown Des Moines bisect the water trail, creating a dangerous zone considered off limits to paddlers. Fish passage is also blocked, especially at the 10-foot-high Center Street Dam, which is the upper dam. Meanwhile, the Principal Riverwalk is being constructed along the riverbanks in the same area. After input from Iowa Whitewater Coalition, Principal's master plan took into account dam issues, including safety improvements at both dams, and recreational improvements such as a whitewater bypass and portage trail around the Center Street Dam. In the capital city, this piece of our project is expected to show what can be accomplished for multiple other areas.

The McLaughlin Whitewater Group met with stakeholders June 27th, 2006 to provide alternatives to the two downtown dams. Their recommendation was to create an off-river channel along the bank downstream of the Scott Street Dam where there is plenty of area and fewer obstacles. This concept has the highest value for whitewater recreation since the conditions are the most controlled and since it has the highest visibility for spectators, events, etc. This would be a world class caliber whitewater park on par with the 1972 Olympic run created in Augsburg, Germany, which is still in operation, and the Nottingham, England park where the European Freestyle Championships which took place this year.

In order for this to work, a new structure (dam) would be put in downstream of the current Scott Street dam. This new dam would raise the pool 4 feet, allowing for greater flatwater recreation downtown and swamp both the current dam at Scott Street and the low head dam at Fleur Drive, eliminating those safety risks.

Part of the Scott Street dam would be demolished allowing for sediment removal.

The new dam would have a step feature to it that would break up the hydraulic below. By raising the pool above this new dam, the drop below Center Street is smaller, which makes the step feature that will be constructed there less expensive. The new dam will allow for fish passage and sediment removal.

Measurable results: By January 2008, on the 20 miles of Des Moines River in Polk County not between the dams, the Des Moines River Water Trail will be complete. Phase I of IWC's approach to low-head dams will be complete. The design phase will be complete for modifications at both the Center Street and Scott Street dams, and a fundraising plan for the capital phase will be complete. Modifications will include safety, habitat/fish passage, and recreational improvements including portage trails, improved warning signage, retrofits that will break up low-head dam hydraulics, and a whitewater course or whitewater bypass at the upper dam. Successes or lack thereof will be detailed in the IWC annual report.

Goal 1c: Polk County's Raccoon River Water Trail and dams

Whitewater paddlers currently use natural rapids .75 miles upstream of Walnut Woods State Park known locally as Commerce Ledges. This site has a very muddy access; sometimes paddlers wade through knee-deep silt to reach it. The City of West Des Moines parks and recreation department, the DNR, National Park Service, and IWC have worked together to come up with a plan to create an access upstream of the area IWC currently uses to enter the rapids there. There is also interest in preserving the riverside corridor near Interstate 35 that will soon be in the path of development. The Des Moines Water Works (DMWW) also owns significant amounts of land along the Raccoon River corridor, as well as a failing low-head dam near Gray's Lake Park in Des Moines. DMWW has plans to build a new dam west of Interstate 35, which after input from IWC will include 1/3 channel of whitewater bypass/fish passage. The North Raccoon Watershed Association (NRWA) is proposing a water trail that will run through the city of Adel, which has a dangerous low-head dam. IWC will work with the City of West Des Moines, City of Des Moines, the Iowa DNR, the NRWA and DMWW to create a water trail to address the safety hazards at both the Adel and Fleur Drive dams.

Measurable results: By January 2008, IWC will have established a plan for creating Polk County's 18-mile Raccoon River Water Trail, which will begin near Interstate 35 and continue to the river's mouth at the Des Moines River near Principal Park in downtown Des Moines. Either no new DMWW dam will be constructed, or it will be built with safety and fishery considerations in mind. Phase I of IWC's approach to low head dams will be complete at both the Fleur

Dr and Adel dams, and phase II will be underway. Funding for the access at Commerce Ledges will be complete and construction will be in progress. Successes or lack thereof will be detailed in the IWC annual report.

Goal 1d: Assist Black Hawk County's Cedar River Water Trail and dams

The Cedar River Water Trail and whitewater by-pass of the three dams in the area was not embraced by the community in 2005. IWC will support future modifications to these dams if the plan is resurrected. Until then, IWC advocates completing phase I of its approach to low-head dams.

Measurable results: By January 2008, phase I of IWC's approach to low-head dams will be complete. Successes or lack thereof will be detailed in the IWC annual report.

Goal 1e: Assist Story County's Skunk River Water Trail and dams

Story County and local paddlers are making needed improvements to the existing water trail including two handicap accessible sites, extending the trail further in the county and making safety improvements at three dams; the Story City Dam, the US Filter Dam and the 13th Street Dam in Ames. IWC has donated \$2100 toward retro-fitting the Story City dam by placing boulders on the downstream face of the dam, which is currently in progress. The project includes a portage around the converted dam and signs warning of challenging rapids. Additional funding is needed to complete the final construction of this dam. Warning signage has been purchased and erected at the US Filter Dam and the 13th Street Dam, but IWC would like to see additional signage that is recommended by the DNR water trails program.

Measurable results: By January 2008, the story city dam retrofit project will be complete. IWC will monitor the progress of the project and try to locate additional funding if needed. Phase I of IWC's approach to dams will be complete on the US Filter dam and 13th Street dam.

Goal 2: Public Education and outreach

IWC has exceeded its expectations in the realm of public education and outreach. IWC has accomplished the following:

- Organized and hosted *Iowa Rivers Revival*, a 2-day seminar & retreat on the state of Iowa's rivers, which allowed for collaboration among a variety of groups and spawned the creation of a new rivers group.
- Exhibited informational booth with pump-driven model low-head dam at more than six events, including the Children's Water Festival in Ankeny where 900 children were educated by interacting with the model.
- Distributed the educational brochure "The Drowning Machine" and other safety literature from The American Canoe Association at the Iowa Games and other events.

- Presented a 45 minute slide show “The Future of Iowa’s Dams” at the Iowa Rivers Revival and at a meeting with Buchanan County community leaders who requested solutions for their dams.
- Granted interviews with TV news stations KCCI and KDSM, The Ames Tribune, Citadel Radio Group in Des Moines, and KWBG Radio News in Boone in response to the drowning of Megan Pavelick.
- Wrote editorials that were published in the Des Moines Register, Ames Tribune and Fort Dodge Messenger advocating for safer rivers and spreading awareness about dam dangers.

This effort needs to continue at its present pace. In addition, a web-site database needs to be established showing where these dangerous low-head dams exist, a picture of them, information on whether or not signage and a portage trail is present, and any information that may be useful to those recreating on the rivers there.

Goal 3: Low-head dam policy work and legislation efforts

IWC will take advantage of recent canoeist and kayaker initiatives, such as formation of the Iowa Water Trails Taskforce, to work with Iowa DNR and Iowa General Assembly members to develop a cohesive strategy on low-head dams to do the following:

- Require fish passage not only at newly constructed dams, but during repair or rehabilitation of dams.
- Require stringent inspections of dam integrity with system in place for decommissioning or re-permitting dams.
- Develop statewide warning sign/cabling requirements based on best available safety data.
- Educate municipalities about alternatives to low-head dams as needs arise.
- Track deaths at low-head dams statewide.
- Categorize dams: The Iowa DNR will begin maintaining a list of beneficial uses for existing dams to better understand which structures are obsolete.
- Precedence put on safer, more ecological designs than low-head dams when state funds are used.
- Cooperate with U.S. Department of Agriculture’s Natural Resources Conservation Service for technical assistance, and work with Iowa RC&Ds, U.S. Environmental Protection Agency, and U.S. Fish and Wildlife Service to progressively influence institutional policies regarding low-head dams.
- IWC will educate legislators and assist with legislative language that earmarks funding for communities wishing to remove or modify low-head dams.

Measurable results: By Jan. 2008, implementation of listed policies and legislation at the statewide level will be complete. Successes or lack thereof will be detailed in the IWC annual report.

Goal 4: Support water quality initiatives

IWC will actively support water quality initiatives already being led by other groups, including the Iowa Environmental Council. IWC lobbied at the statehouse for clean water in 2006, working in concert with the IEC and other groups, i.e., NRWA. Input by paddlers – particularly whitewater paddlers – is useful as the activity includes both secondary and primary contact with river water. IWC believes Iowa needs to be compliant with the Clean Water Act of 1977.

Measurable results: By 2008, refocused efforts on watersheds will be collaboratively achieved alongside listed groups. Successes or lack thereof will be detailed in the IWC annual report

Goal 5: Respond to communities requesting our assistance

IWC has identified a limited number of areas to focus our attention for the next 18 months. However, we reserve the right to change priorities based on the needs of communities who request our assistance. If Megan Pavelick had drowned at a dam not located on our strategic plan, IWC would still have responded the way it did. Communities not on our strategic plan may request our assistance with signage, portage routes, or identifying funds for removal or modification. IWC will determine whether a change in priorities is feasible based on monetary and human capital available.