



Daniels Dam has yet to have its future set. The Department of Natural Resources and Maryland Park Service officials met in July and decided to wait on removal of the dam because it's a popular canoeing site. (Staff photo by Inge K. Hooker)

State to remove dams for spawning fish

'Fish ladders' not 100 percent effective

By Kaitlyn Seith

Posted 11/20/08

About 15 years ago, Maryland spent more than \$3 million to make it easier for spawning fish to swim upriver past three aging dams along the Patapsco River.

The structures they built -- known as "fish ladders" -- were part of a statewide effort to bring once-prolific shad and herring back to the rivers that feed the Chesapeake Bay.

Now, however, state officials say the ladders didn't work as well as they hoped and that they are seeking to remove the dams instead, a solution they considered 15 years ago, but rejected as too costly.

Although the fish spend most of their lives in the ocean, they return to the rivers of their birth to spawn.

The dams, many of which were built in the early 1900s to serve now-defunct mills, have blocked those spawning runs, leading, throughout the 20th century, to precipitous declines in the number of shad and herring that were being caught in Maryland.

Destroying the dams is the best way to clear the way for spawning fish, said Nancy Butowski, program manager in the fisheries department of the DNR.

The ladders, she said, "are not 100 percent effective. ... There's a lot of maintenance and upkeep to keep ladders working.

"Renewing or restoring the stream flow and water conditions and curves of the river is a better holistic approach. For the ecosystem, it's better to remove."

In all, the state built 19 ladders on 19 dams. DNR officials could not provide information about how much the state agency spent on the projects. From 1993 to 1997, the Environmental Protection Agency's Chesapeake Bay Program and the National Oceanic and Atmospheric Administration gave more than \$1.7 million to DNR for fish ladder projects.

Three targeted

On the Patapsco, officials are seeking to remove three of the river's four dams, including two that have fish ladders -- Simkins, south of Ellicott City, and Bloede, near Elkrige. The third, Union, north of Ellicott City, has no ladder but was breached in a 1990 storm that allowed the passage of spawning fish.

Removing the dams would cost about \$5 million, officials say.

A fourth dam, Daniels, which is north of Union Dam and has a fish ladder, is scheduled for routine repairs and a study to determine the best option for its future.

Officials expect to start removing Union Dam by the beginning of next summer at a cost of about \$1.5 million, including design. DNR is seeking a contractor to remove it, said Michelle Hurt, an engineer at the Maryland Department of Natural Resources.

Although DNR would like to remove Bloede, cost and historical factors could prevent complete removal, and DNR is studying the best options for the dam.

As for Simkins, a citizens group dedicated to the Patapsco Valley State Park -- in concert with the National Oceanic and Atmospheric Administration, DNR and American Rivers, a non-profit organization dedicated to the preservation of the country's rivers -- is studying ways in which the dam might be removed.

A design for the removal of Simkins could be done by next spring, said Serena McClain, an associate director for American Rivers.

Costly removal

Fifteen years ago, officials considered knocking down the dams rather than building the ladders. They decided against that because of the high cost of removal, which includes paying to pump out the large amount of silt that has built up behind the dams over decades.

Removing the dams presents other problems, officials said.

DNR spent eight years getting approval for permits to remove Union Dam from local, state and federal agencies, Hurt said.

Officials believe Simkins Dam will be removed relatively soon because it is a private dam and the owners have given permission to have it studied for removal, McClain said.

American Rivers and NOAA gave \$50,000 to Friends of Patapsco Valley State Park, a citizens group, to look into a design assessment for dam removal, said Mary Andrews, an environmental engineer with NOAA.

A few years ago, members of the Friends group started questioning the purpose of the dams along the Patapsco, said Jim Palmer, the vice president of the group. Simkins Industries, which owns the dam, gave the group permission last year to have the dam studied to be removed, Palmer said.

Simkins' owners could not be reached for comment.

It is common for citizens' groups to apply for grants for dam removals because NOAA often gives money to volunteer projects, Andrews said.

The Friends will contract with an engineering firm to complete design of a removal project. The work won't take place until the design is completed, permits are obtained and funding is secured, she said.

Safety also a factor

Bloede likely will cost DNR millions to remove -- if the department decides to do that.

Currently, DNR is writing a proposal to hire an architectural engineer to study the options for the dam in regards to "repair or removal," said Wiley Hall, spokesman for DNR.

DNR does not have Bloede listed to receive money in this fiscal year's budget, he said.

Improving safety around the dam also is an argument for removal, said Jim Thompson, a fisheries biologist at DNR.

"We always wanted to take it out, but it seems to be such an expensive project," he said. "The safety part of it along with the fish in collaboration made it a worthwhile thing to do. It justified the expense."

Daniels Dam has yet to have its future set. DNR and Maryland Park Service officials met in July and decided to wait on removal of the dam because it's a popular canoeing site.

DNR also is seeking a consultant to study the best future for Daniels, Hall said. In 2006, DNR estimated it would cost \$340,000 to remove the dam, though that cost is now predicted to be higher.