

ISSUE ONE : FALL 2015  
OPEN RIVERS : RETHINKING THE MISSISSIPPI

An aerial, sepia-toned photograph of a town completely inundated by floodwaters. A large steel truss bridge spans across the top of the frame. The town's buildings are clustered together, with many roofs visible above the water level. A small boat is seen in the water on the right side. The overall scene depicts the devastating impact of a major flood.

# KNOWING

<http://openrivers.umn.edu>

An interdisciplinary online journal rethinking the Mississippi  
from multiple perspectives within and beyond the academy

FROM WASHINGTON BY 33 261 LOOKING UP STREAM

The cover image is of spring flooding at the Bohemian Flats in 1897. Image Courtesy of the Hennepin County Library.

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PERSPECTIVES

# THE NEW MADRID LEVEE: A NEW TAKE ON AN ENDURING CONFLICT

By Olivia Dorothy, Patrick Nunnally

**O***pen Rivers* contacted Olivia Dorothy [OD], Associate Director for Mississippi River management at American Rivers. American Rivers is a national nonprofit group dedicated to improving the health of rivers and communities across the country. We wanted to learn more about American Rivers' work in the Mississippi River basin and, more particularly, understand its highest priority project, halting the proposed St. Johns-New Madrid levee.

She spoke by phone with Patrick Nunnally of *Open Rivers* [OR] in September 2015. The interview has been edited for length and clarity.

**[OR]** Your web site lists your title as “Associate Director, Mississippi River Management.” What do you do, and why is American Rivers so particularly interested in the Mississippi River?

[OD] My work is part of a plan under development by American Rivers where we take a more place-based approach to conservation, protection, and management of rivers. The Upper Mississippi is a priority basin for us, so we have established some offices and are expanding our programs within the basin.

I focus on the main stem of the Upper Mississippi, particularly the ways it is managed



*Mallard Jump by Chris Young*

by federal entities. I work with the Fish and Wildlife Service, the Army Corps of Engineers, and the EPA. There are many debates about operation and maintenance of the navigation channel, investments in the lock and dam system and things like that. We are intensely involved with agencies in hashing out solutions for a variety of stakeholders, so we aren't doing a huge public outreach right now. We'll be more visible as more offices open and our presence expands.

**[OR] We're talking today about the St Johns Bayou New Madrid Floodway project. What exactly has been proposed?**

[OD] The St. Johns Bayou/New Madrid Floodway is part of the broader, regional Mississippi River and Tributaries Project (MR&T). After the 1927 flood, which is cited as the most damaging flood on the Mississippi in recent history with massive loss of life, Congress and the Corps of Engineers decided that such a flood could never happen again, so MR&T was proposed and has guided a lot of work since then. Much of MR&T is a system of levees and floodways designed to protect communities. In certain areas, levees are designed to be breached during high water to take pressure off levees by putting water back in the floodplain. St. Johns/New Madrid is one of those places that allows for intentional breaching, which protects communities like Cairo IL and even as far away as St. Louis. When it's breached the levee is broken at a designated point, and is also broken downstream from there to allow water to leave the floodplain. One of the drainage points is an intentional gap in the levee near New Madrid MO. The gap at New Madrid allows water to be intentionally let into the floodplain during high water, even if the levee is not breached, so every couple of years an area the size of Washington DC is inundated.

The problem is that there's a lot of agricultural development in the floodplain now, even though the land has easements that allow for flooding.

With the expansion of agriculture and the increasing investment in ag facilities, there's growing opposition to the operation of the floodway. In 2011, during the last major flood in this part of the river, the State of Missouri sued the Corps of Engineers to try to stop the floodway from being used. They lost, and the Corps breached the levee upstream, but the delay caused a great deal of flood damage to the small community of Olive Branch IL.

Local people at New Madrid are proposing to close the gap in the levee there and to drain the wetland that has been there all along, to protect farm land and ag processing facilities that have been built more recently. If this is successful, it would close the largest remaining connection of the Mississippi to its floodplain in the middle Mississippi, which is the area between Memphis and the Missouri River junction at St. Louis. The connection is incredibly important for fish spawning and migrating birds; closing the levee and draining for agriculture would constitute a significant environmental degradation.

**[OR] Why is this such a bad idea?**

[OD] Well, there are a lot of reasons, including the impacts on fish spawning, bird migration, and all the other ecological benefits that come from having a substantial wetland connected to the river's main stem. It's also important to note that closing the levee will lead to further development in the floodway, which will in turn make the floodway much harder to operate in extreme floods. This is a broad regional impact.

American Rivers is part of a broad coalition that has come out in opposition to the project. The National Wildlife Federation, Prairie Rivers Network and the Missouri Coalition for the Environment all oppose it. Others against it include the NAACP, the City of Cairo IL and other communities who would be threatened by high water if the floodway could not be used.

A number of state and federal agencies have voiced concerns about the project and its impacts. The US Fish and Wildlife Service is concerned about the impact on the Middle Mississippi fishery, as are the Missouri Department of Conservation and the EPA. Even the peer review on the Corps of Engineers proposal has called into question the scientific and economic analysis the Corps has used to justify the project.

**[OR] So who could possibly be supporting this?**

[OD] Well, powerful landowners have political influence. One of the members of the Mississippi River Commission, folks who are appointed by the President to be on the commission that advises the Corps of Engineers, is a farmer and ag processing facility operator in this area. The project is very much a political beast, and a small number of people are influencing the Corps to keep it on the docket.

As history, the levee project was initially proposed by landowners in the 1950s. It got through the planning process the Corps had then, which was before there was a robust federal environmental review. It never got to the top of the funding list, and once environmental reviews were required it got delayed further. At one point the Corps even started to build it without review under the National Environmental Policy Act, but a judge made them take the work out. So the Corps, probably through its Memphis District, is dedicated to getting it completed.

**[OR] Is this just an example of competing uses for the same space, nature vs. human use of the land?**

[OD] Yes, we've had this age-old conflict ever since the rise of the conservation and environmental movements. There are limited spaces left where ecological functions can work, and those spaces are always threatened to be diminished by expanding human development.

**[OR] What is American Rivers' desired outcome at St Johns New Madrid? How might that outcome be brought about?**

[OD] Our "win," the goal, is to stop the levee from being built so this wetland and the relatively small floodplain can remain connected to the river. This connection would allow the natural flooding process to continue to happen seasonally.

The only way to stop it permanently is for the EPA to veto the project under the Clean Water Act. The EPA has authority to tell the Corps that the proposed project would cause an unreasonable degradation of water resources. Section 404c of the Clean Water Act permits a veto or the failure to grant a permit.

This provision has been very rarely used; the EPA has vetoed 13 projects in 42 years, which include 2 during the Bush administration and none during Obama's term. We think this project would meet the requirements because it is so egregiously bad.

It's important to remember that the Clean Water Act is not just about contaminants, although that's how most of us know it. It also governs dredging and fill permits, addressing operations in a floodplain that damage floodplain and wetland resources either by dredging or by disposing of dredged materials in a wetland.

**[OR] So, what is the larger river planning and management context that we need to see for this one particular project?**

[OD] A lot of the bigger context has to do with disconnection of the river from its floodplain. In the middle part of the Mississippi between 80% and 90% of the river is physically separated from the floodplain. On the upper river the figure is about 50%, but on the lower river, it's above 90%. This is important because interaction with the

floodplain is necessary for the river to operate well, to clean the water by sediment dropping out and to support fish and wildlife.

But it's not just about the animals and fish for their own sake; when we cut rivers off from floodplains we lose the ecosystem services that the floodplains provide. When the river is degraded, human lives along the river are also negatively impacted. The river does not exist in isolation from us. If nothing else, the presence of levees creates a false sense of security. Manipulating the river as much as we have will ultimately be a significant economic problem.

Ultimately, this is a significant and special place in the region; why take the one last place away?

**[OR] What are some of the broader principles/lessons that can be taken out of this particular case?**

[OD] Aside from the importance of keeping rivers and floodplains connected, I think the bigger lesson is how hard this work is. Protecting natural

form and function is really, really difficult. We have very few tools to use, and the deck is stacked against those who are working to preserve natural areas. We have to be really persistent and at the same time come out swinging against a project as bad as this one. This project has been on the books for generations and it hasn't gone away; a couple of my predecessors have fought this project. The St. Johns-New Madrid Floodway battle is one of the multi-generational fights on the river in this part of the country.

**[OR] So in that multigenerational struggle, what skills and abilities do you use most? What might you offer college students who want to get involved in work like what you are doing?**

[OD] I think my key advice on environmental advocacy and organizing is to make sure your basis is in science. Don't necessarily start out with a more general perspective. It's always very helpful to have a basis in the sciences, then do other work in whatever you find most interesting such as law, policy, or whatever.

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## About the Authors

Olivia Dorothy is associate director for Mississippi River management at American Rivers, which she joined in 2014. Prior to that she worked in Illinois Governor Pat Quinn's administration as an environmental policy advisor, with the Illinois Department of Natural Resources, and with the Izaak Walton League of America. She has a background in natural resources and environmental sciences.

Patrick Nunnally coordinates the River Life Program in the Institute for Advanced Study at the University of Minnesota. He serves as editor for *Open Rivers* and one of the lead scholars for the University's John E. Sawyer Seminar, "Making the Mississippi: Formulating New Water Narratives for the 21st Century and Beyond," funded by the Andrew W. Mellon Foundation.