

# URBANWATERS

## FEDERAL PARTNERSHIP

*Restoring Urban Waters, Revitalizing Communities*

## The Meramec River and Big River Watersheds (St. Louis, Missouri)



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## Overall Assessment of the Partnership Since the Beginning

### Background

The Meramec River and Big River watersheds are located southwest of St. Louis City, Missouri, covering portions of 12 counties and over 360 linear miles of waterway. The Big River flows into the Meramec River, which is a tributary of the Mississippi River. The watersheds represent a mix of urban and agricultural development. Formerly a booming lead-producing region, the towns in the Meramec and Big River watersheds hold over 200 years of lead mining pollution. As a result, high levels of heavy metals and lead in sediment have entered the rivers. Lead contamination has affected wildlife, especially mussel and fish populations. Public consumption warnings still exist on the Big River and some tributaries. The Meramec River is a huge recreation attraction with a nationally important biological community. Economic and social attractions include the Route 66 Visitor's Center, Meramec Caverns, and historic mill dams and parks.

### Current Condition

The partnership has moved from an "infancy" stage to an "adolescent" stage, due largely to the expansive geographic and political footprint of the location. During its infancy stage, the location surveyed and identified key stakeholders; assessed the level of community involvement already

underway; assessed the level of community/stakeholder capability; and began educating and informing federal agency and key community stakeholders about the Urban Waters Federal Partnership (UWFP) program vision, mission, and goals. This coordination eventually led to involvement in several on-the-ground activities and collaboration.

The partnership was ushered into the adolescent stage with the location's First Federal Agency Meeting in August 2016, where federal agencies committed to the program by willingly signing "commitment sheets" and attentively engaging in the meeting (more on the meeting discussed below). The partnership is now developing its partnering strategy; refining and defining the processes that will be used to maintain community engagement; expanding the partner network; identifying community priorities; overcoming partnering barriers (discussed below); developing an interagency communication strategy; and maintaining continuity into a mature, committed, fully-functioning partnership.

### **Ambassador**

The U. S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (EPA) funded and formed the foundation for this partnership by executing an Interagency Agreement in September 2014 for the Ambassador position in Fiscal Year 2015. Succeeding Interagency Agreements were executed between the agencies for Fiscal Year 2016 and Fiscal Year 2017.

Over the course of the partnership, the location has had three Ambassadors, both part-time. The current Ambassador, Mr. Greg Kohler, has held the position since February 2017. Ms. Traycee Verdun-Chapman, the second ambassador, held the position from February 2016 to February 2017. Mr. Matt Cosby, the first Ambassador, held the position from September 2014 to October 2015.

USACE has an active ecosystem restoration Feasibility Study in the watershed that requires similar coordination to that of the UWFP. The Ambassador serves a dual role – as the Study Manager on the ecosystem restoration Feasibility Study and as the UWFP Ambassador, coordinating both efforts to achieve both UWFP and Feasibility Study objectives. Both EPA and USACE have been able to leverage funding because the Ambassador activities complement the ecosystem restoration Feasibility Study, as well as areas beyond the immediate Feasibility Study area within the watersheds.

## Nature of the Partnership

Early members of the partnership included EPA, USACE, and the Missouri Department of Natural Resources (MDNR). The location gained eight additional federal partners as a result of the First Federal Agency Meeting in August 2016.

Through the regional watershed coordinator, MDNR co-partners with the Ambassador as the “community liaison” representing community priorities in the two watersheds. MDNR leverages its resources to participate in activities that complement the UWFP program and accomplish both MDNR and UWFP program goals.

This co-partnership approach was agreed upon at the inception of the partnership in an effort to avoid confusion within the community; MDNR was already engaging the community with a vision and goals similar to that of the UWFP: listen to community needs, develop programs that meet those needs, connect people to their waterways, and promote clean water through education and engagement.

The Ambassador meets weekly with MDNR’s regional Watershed Coordinator, Ms. Tracy Haag, brainstorming ideas for ways to partner and engage with stakeholders. The Ambassador and Watershed Coordinator routinely attend Big and Meramec River watershed planning meetings together. Meetings have been facilitated by East-West Gateway Council of Governments.

Watershed planning meetings include other state agencies, federal agencies, local government, community groups, nongovernmental organizations (NGOs), business enterprises, and quasi-governmental agencies (e.g., East-West Gateway Council of Governments). In the fall of 2016, The Nature Conservancy (TNC) brought on a project coordinator to produce a Watershed Management Plan for the Meramec Basin. As a result, TNC has become an important stakeholder for this partnership.

## Members of the Partnership

The UWFP Meramec and Big River Partnership location “network” continues to grow and consists of federal agencies, state agencies, local governments, NGOs, and private citizens. The largest category of members is federal agencies because gaining consensus among these agencies was one of the main priorities of the partnership in 2016. Gaining consensus has successfully expanded the federal network of willing and committed partners who will support their communities within the watershed. As the location continues to grow and mature into the

adolescent stage, more local government, private, and NGOs will likely emerge. Current members include:

- Federal Government: EPA, USACE, US Fish and Wildlife Service (FWS), US Geological Survey (USGS), Natural Resources Conservation Service (NRCS), National Park Service, Federal Emergency Management Agency (FEMA), US Forest Service, Agency for Toxic Substances and Disease Registry (ATSDR), US Department of Housing and Urban Development, and the Economic Development Administration
- State: MDNR, Missouri Department of Conservation (MDC), Missouri Department of Health and Senior Services
- Local/County Government: East-West Gateway Council of Governments, Meramec Regional Planning Commission, Jefferson County Soil and Water Conservation District, and several local municipalities such as the cities of Pacific, Eureka, and Byrnes Mill
- NGOs: TNC, Open Space Council, Meramec River Recreation Association, Meramec River Tributaries Alliance, and Ozark Regional Land Trust

## Major Actions of the Partnership

### The Past



Figure 2. COL Anthony Mitchell, USACE (L) and Ms. Sara Parker Pauley, MDNR (R) sign Joint Feasibility Study cost-sharing agreement.

### 1. Increase the resiliency of urban waters and local communities by restoring urban watersheds:

**Joint Feasibility Studies & Collaboration**—On August 27, 2015, the St. Louis District USACE executed a Feasibility Cost Sharing Agreement with MDNR to study portions of the Meramec and Big River watersheds for ecosystem restoration. The St. Louis Riverfront/Meramec Feasibility Study will allow USACE and MDNR to focus on ecosystem restoration while EPA focuses on remediation of lead contamination within the watersheds. Together, the MDNR-USACE Feasibility Study and EPA’s remediation efforts will result in comprehensive projects to address

the problems in the watershed. MDNR Director, Sara Parker Pauley, and St. Louis District USACE Commander, Colonel Anthony Mitchell, joined with their staff, EPA, and stakeholders to kick off the Joint Feasibility Study. This effort was also one of only 10 new investments in 2015 in the USACE Civil Works investigations portfolio.

**Lower Meramec Hands-On Stewardship and Watershed Education Project**—A watershed management plan was completed for the Lower Meramec Watershed in July 2012 that identified ways to improve the watershed. This collaborative effort built on community partnerships and resulted in specific recommendations in the Lower Meramec Watershed plan that included: 1) on-the-ground riparian habitat restoration through the Open Space Council’s Operation Clean Stream river stewardship project; 2) a public education exhibit of this watershed by creating and publicizing a public work of art, known as “Watershed Cairns” by artist Libby Reuter ([www.watershedcairns.com](http://www.watershedcairns.com)); and 3) an assessment, analysis, and technical interpretation conducted by St. Louis University. East-West Gateway is currently working on an update to this watershed plan that is scheduled to be complete in 2017.

## 2. Engagement of people at locations:

**Big River Task Force (BRTF)**—In 2015, the UWFP Ambassador and MDNR launched the UWFP program in the Meramec and Big River Partnership location from this core group of stakeholders. The BRTF is made up of federal and state agencies responsible for remediation and restoration in the Big River Watershed. These agencies include MDNR, EPA, Missouri Department of Conservation, U. S. Fish and Wildlife Service, USACE, Missouri Department of Health and Human Services, and the Agency for Toxic Substances and Disease Registry.

## 3. Ensure local partnerships are functioning at a consistently high quality:

**Forming the Partnership**—Building on the existing Big River Task Force of state and federal agencies, the Ambassador and MDNR have coordinated presentations and information sharing about the UWFP program, grants offered, existing programs in the watershed, and opportunities for collaboration within the watershed. Through outreach efforts, the partnership has successfully expanded participation in the BRTF meetings to include The Nature Conservancy, Saint Louis University, U. S. Forest Service Watershed program, U. S. Geological Survey Missouri Water Science Center, Natural Resources Conservation Service, Ozark Regional Land Trust, and East-West Gateway Council of Governments.

## 4. Maintain the nature and quality of the national partnership:

**Ambassador Funding**—The St. Louis District USACE and EPA jointly funded the Ambassador for three years (Fiscal Years 2015, 2016, and 2017). Both agencies have found that the Ambassador’s stewardship significantly contributes to the progress and success of the UWFP and their

respective agency missions in the watershed. Both agencies continue to pursue resources to fund the Ambassador role.

## The Present

### 1. Increase the resiliency of urban waters and local communities by restoring urban watersheds:

**Missouri Area Flood Inundation Mapping (FIM) Tool**—In 2016, MDNR and the Ambassador began hosting and facilitating meetings within the watershed to inform local communities about the USGS-developed FIM Tool. These meetings created an opportunity for community Q&A, stakeholder engagement on important flooding and flood risk reduction measures, and funding options for the tool. Funding has been secured for FIM for four reaches along the Lower Meramec River. Mapping has begun for all reaches and is scheduled to be complete in 2017. For full details and the status of this project, visit <http://dnr.mo.gov/env/meramecfloodingproposal.htm>.

**St. Louis Riverfront/Meramec Ecosystem Restoration Study, Continued**—The MDNR-USACE Joint Ecosystem Restoration Feasibility Study (discussed above) is well underway, with anticipated completion in late 2019. The study is cost-shared between MDNR and USACE. Technical and collaborative partners include the U.S. Fish and Wildlife Service, EPA, The Nature Conservancy, the Missouri Department of Conservation, and USGS. The study is investigating problems associated with bank instability and erosion; contaminated and excessive sedimentation; connectivity; and altered hydrology and habitat. The ultimate goal of the study is to identify cost-effective, implementable projects that will protect, enhance, and restore the degraded aquatic ecosystem. These projects will be documented in a Chief of Engineers report that will be transmitted to Congress for construction authorization. If the projects are authorized and funding is appropriated, the construction would be cost shared 65% Federal (USACE) and 35% non-federal (MDNR). A tentative list of recommended projects is scheduled to be identified in late 2017.

**Kiefer Creek Stream Restoration Master Plan Implementation**—Kiefer Creek is a small tributary to the Meramec River, one of the most biologically significant river systems in mid-continental North America. The Nature Conservancy (TNC) Missouri Chapter, is leading a stream restoration Master Plan for the lower portion of Kiefer Creek. The plan will include assessments of stream hydrology, hydraulics, and geomorphology; prioritization of restoration/ stabilization locations; and conceptual restoration plans and designs for prioritized areas, with a focus on implementing bioengineering solutions. The MDNR-USACE Joint Ecosystem Restoration Feasibility Study project delivery team (PDT) members collaborate and share relevant data and best practices with TNC, which helps ensure both projects' resiliency and sustainability. The Ambassador is also a PDT

member on the MDNR-USACE Joint Feasibility Study, and navigates between the two projects for continuity and knowledge sharing.

## 2. Engagement of people at locations:

**First Federal Agency Partnership Meeting**—On August 17, 2016, the Ambassador hosted the First Federal Agency Meeting at the Missouri History Museum in St. Louis, Missouri. The MDNR Watershed Coordinator, Ms. Tracy Haag, co-hosted the meeting and created the interactive Partner and Project Tree Exhibit. Nine of the original 14 federal agencies and one additional federal partner, the USGS, participated in the meeting, for a total of 10 federal agencies. Thirty-one participants attended the meeting, including EPA Region VII and EPA Urban Waters headquarters.



Figure 3. Aug. 17, 2016 - First Urban Waters Federal Partnership Meeting of Federal Agencies, Meramec & Big River Partnership Location. Photos clockwise: Meeting participants, including COL Anthony Mitchell, St. Louis District Commander, U.S. Army Corps of Engineers; Ms. Amy Beussink, Director, USGS Missouri Water Science and Center presenting to group; Interactive Partner and Project Tree Exhibit.

**FEMA Region VII Missouri Flood Recovery Partner Meetings and Planning**—In 2016, the Ambassador participated in Federal Emergency Management Agency (FEMA) Region VII Missouri Flood Recovery meetings and planning). FEMA’s Community Planning and Capacity Building (CPCB) staff held a series of outreach meetings to develop recovery strategies and identify recovery partners, programs, and resources. CPCB staff also met with communities impacted by the disaster that potentially needed recovery assistance to identify unmet recovery needs and refer issues to appropriate agencies for additional assistance. The Ambassador assisted with small group facilitation during the partner meetings, and supported and collaborated with FEMA’s staff, East-West Gateway Council of Governments, USACE Flood Fight/Sr. Project Manager, and MDNR Watershed Coordinator Tracy Haag during and after the meetings.

### 3. Ensure local partnerships are functioning at a consistently high quality:

**Partnership “Point of Contact” Database**—In Fiscal Year 2016, the Ambassador established a “Meramec and Big River Partnership Network” database of existing and new points of contact using Microsoft Outlook. The database continues to be updated.

**Network Communication Tool (e-Newsletter)**—In Fiscal Year 2016, the Ambassador created an “organic” e-newsletter listing current events in the watersheds, webinars, workshops, meetings, conferences, special events, web-based environmental justice tools (i.e., EJSCREEN), links to Smart Growth publications, and other announcements pulled from the location’s government and nongovernment stakeholders.

### 4. Maintain the nature and quality of the national partnership:

**Ambassador Funding Continued**—Both agencies found that the Ambassador’s stewardship significantly contributed to the progress, continuity, and success of the UWFP and their agency missions in the watershed in 2015 and 2016, and both agencies contributed again in Fiscal Year 2017 to fund the Ambassador role.

## The Future

### 1. Increase the resiliency of urban waters and local communities by restoring urban watersheds:

MDNR will share community priorities and collaborate with the Ambassador to further on-the-ground projects consistent with the UWFP Meramec and Big River location. These projects may include:

- Exploring outdoor classrooms, and connecting urban youth to the natural world through hands-on, outdoor learning
- GIS-enabled solutions for online mapping, identification, and ranking of trash sites along waterways
- Floodplain management and/or flood risk management projects in partnership with cities in the watershed
- Community resiliency and sustainability technical support projects in partnership with cities in the watershed
- Continue the St. Louis Riverfront/Meramec Ecosystem Restoration Study

## 2. Engagement of people at locations:

- Develop a web site for members of the Meramec and Big River Partnership network to use as a centralized, secure location for information-sharing and knowledge transfer. Network partners are encouraged to use this to leverage resources
- Strategic communication by the Ambassador through outreach – engage watershed stakeholders about ongoing efforts in the watershed and encourage collaboration between these stakeholders
- Engage with the Nine Network’s (local PBS TV station) Water Matters Initiative to raise awareness of important water issues in the Meramec and Big River watersheds

## 3. Ensure local partnerships are functioning at a consistently high quality:

- Organize the next UWFP partnership meeting to include not only federal agencies, but potentially other state and community stakeholders (e.g., The Meramec River Tributary Alliance, Big River Task Force, EPA Superfund Project Managers (PMs), and EPA Community Engagement Specialist who will work with PMs to re-engage with the Washington and Jefferson County Health Departments and update all Community Involvement Plans)
- Collaborate with The Nature Conservancy on the development of a Watershed Management Plan for the Meramec basin and ensure that all interested stakeholders are part of the planning process

## 4. Maintain the nature and quality of the national partnership:

- Coordinate and maintain a web-based list of all grants available through federal agencies represented at the location’s First Federal Agency Meeting. Ongoing communication with federal agency partners is required to assist in screening for grant opportunities, as they may apply to specific projects once projects are identified
- Continue to engage with NGOs and other local organizations to maintain support for the partnership into the future. Members of these groups are already active participants in the partnership and could take on more formal roles (potentially the Ambassador role) in the future
- Consider the creation of a grants coordinator position. This activity might also be achieved under a full-time Ambassador

## Major Challenges in the Future

Building trust and credibility in the location is a continuous focus and need. Many watershed alliances have not been fully functioning or active, and many municipalities do not have the

financial or staffing capacity to participate in on-the-ground projects – particularly projects that require cost-sharing.

Encouraging federal agencies, councils of governments, and watershed alliances to work together with local communities, see a common vision and goal, and leverage funding by jointly applying for grants, other funding, and technical support is a work in progress.

Due to the expansive geographic nature of the location, the number of stakeholders, and the potential for additional partners, at least one full-time Ambassador is desired to maintain continuity of data/information and facilitate on-the-ground projects.

The following list of barriers and challenges were identified during a roundtable discussion at the First Federal Agency Meeting in August 2016:

**Knowledge Transfer and Continuity:** Knowing what resources each partner has and the funding, planning, and authorizations to access those resources; accessibility of agencies; sharing resources and knowledge; prioritization and availability of good data to support efforts; partner and federal agency turnover (which can result in loss of information, knowledge, and priorities).

**Examples of Success:** Need to draw on other examples of partnerships to see what kinds of challenges have already been addressed and how successful participation in grass-roots community engagement has been achieved.

**Policy:** Understanding and overcoming policy or legislative challenges and adapting them for other agencies.

**Strategic Communication:** Effective communication with other agencies throughout the planning process. Information needs to be provided in manageable amounts to avoid information overload that can be overwhelming to the public and other stakeholders.

**Identification and Continuity of Local Leadership:** Finding local influential leaders, recognizing that there will be frequent turnover of elected officials.

**Public Engagement and Priority Setting:** It is critical to establish community priorities. If it is a priority for the public, it should be a priority for federal partners.

**Trust and Credibility:** Overcoming the lack of trust and credibility of the federal government among external partners.

## Major Impacts of the Partnership

A significant impact of the partnership occurred during the First Federal Agency Meeting, which established face-to-face interaction and commitments from federal agencies in the watershed. A record-setting number of federal agencies came together, set priorities, identified barriers to partnering, and listed ways to overcome those barriers. Those present learned a tremendous amount about each other's programs, funding vehicles and capacity, community engagement efforts, existing partnerships, and potential collaboration opportunities.

This face-to-face federal agency networking event was critical for the partnership location – it set the tone for continued collaboration, sent a consistent message that federal government will listen to community needs, and rallied federal government participation in grassroots community engagement.

Overall, the partnership has helped facilitate better collaboration between federal agencies, state agencies, NGOs, and local groups. There are several active projects and studies within these watersheds and the partnership has helped sync up these ongoing efforts to improve communication, reduce redundancy, and leverage resources to achieve better results for local communities.