Minutes
Regional Water Resources Advisory Committee
Friday, December 8, 2016
Center for Global Leadership, St. Louis University

Attendees:
Carol Lawrence, Chair – East-West Gateway Council of Governments
Ed Weilbacher – HeartLands Conservancy & Kaskaskia Regional Port District
Chris Neaville – Doe Run
Dallas Alley – St. Clair County
Josh Ward – Missouri Department of Conservation
Barbara Charry – The Nature Conservancy
Matt Jones – U.S. Army Corps of Engineers
Josiah Holst – HR Green
Traci Lichtenberg – Missouri American Water
David Shanks – Boeing
Libby Reuter – Watershed Cairns
Steven Brendel – Madison County Planning and Development
Janet Buchanan – HeartLands Conservancy
Christine Favilla – Sierra Club, Illinois
Gene Rovak – ASCE/EWRI
Michael McFadden – TRC Environmental
Amy Buessink - USGS
Traycee Verdun-Chapman – U.S. Army Corps of Engineers
Angie Weber – Great Rivers Greenway
Mike Alesandrini – AECOM
Jamie Page – City of Wentzville
Warren Grace – America's Confluence

Others:
Kara Andrews – St. Louis University
Chin-Lung Wu – Center for Sustainability, St. Louis University
Kevin Krause – St. Louis University
Damon Hall – St. Louis University
Kevin Hutchins – Coro Fellow, Great Rivers Greenway

Staff:
Mary Grace Lewandowski David Wilson Aaron Young Bonnie Harper

1. Call to Order/Introductions

The meeting of the Regional Water Resources Advisory Committee (WRC) was called to order by Chair Carol Lawrence, East-West Gateway Council of Governments (EWG). Those attending the meeting introduced themselves.

2. Discussion Items

A. Continuation of Discussion from June – OneSTL Blue Gray Green Infrastructure Initiative and the Water Resources Committee
- Aaron Young, East-West Gateway Council of Governments

Earlier this year a conversation was begun about how the WRC could be involved with Blue Gray Green Infrastructure (BGGI) Initiative, a regional opportunity identified in OneSTL. Blue refers to the natural system of waterways and engineering practices which mimic natural processes. Gray is the built systems which convey water, people, products and by-products. The Green portions consists of the nodes and corridors of vegetation/natural resources plus the site scale installation of landscaping and other materials which recreate natural processes. BGGI Initiative is a way to highlight the role of, impact of and issues impacting rivers and waterways in the St. Louis region. In the St. Louis area there are a number of groups, including the WRC, who are interested in or are working on different aspects of the BGGI. These include: The Nine Network – Water Maters; OneSTL; Metro Water Infrastructure Partnership; EWG; U.S. Water Alliance; Upper Mississippi River Basin Association; Magnificent Missouri; and Mississippi River Mayors group. Solutions will need to rely on synergies and multi-functional approaches. With a focus on BGGI there is an opportunity to form a regional working group which could reconcile separate planning initiatives, identify priorities and attract new funding. Existing OneSTL working groups are involved with energy, community development and food access.

On April 5, 2017 OneSTL is hosting a regional sustainability summit at Washington University.

B. Lower Meramec Watershed Plan Update
1. Overview of Project
- David Wilson, East-West Gateway Council of Governments

The focus of the 2010-2012 Lower Meramec Watershed Plan was on those HUC12 watersheds from Pacific to Valley Park. Last year EWG received 319 funding from the Missouri Department of Natural Resources (MoDNR) to do an update to this plan. The update will focus on non-point source runoff, aquatic habitat, healthy streams and meeting the needs of local communities. Other plans and Meramec River and tributary streams initiatives will be referenced. For the Plan Update, the Sugar/Fenton Creeks and Pomme/Mattese Creeks HUC12 watersheds were added. The study area now extends from Pacific to the mouth of the Meramec River. Core Plan Update partners include: MoDNR; Missouri Department of Conservation (MDC); Metropolitan St. Louis Sewer District (MSD); The Nature Conservancy; Great Rivers Greenway; and The Open Space Council for the St. Louis Region. The Plan Update is a way to coordinate and build partnerships with state and local governments and organizations interested in the Meramec River.

Six goals have been established for the Plan Update. The first is to provide a framework for planning, particularly in subwatersheds like Kiefer Creek. Another is to protect and improve water quality. Other goals include to reduce extreme fluctuations in stream flow and to reduce flooding and erosion problems. The fifth goal is to demonstrate strategies for water quality protection. To educate citizens about non-point source pollution and strategies to reduce

stormwater runoff is the sixth goal. Priorities for the Plan Update include: protect/expand size of riparian corridor buffer zone on main stem and tributaries; expand use of green infrastructure; eliminate/control wastewater system discharges; engage the public in positive action; and encourage agricultural best management practices. To address these goals and priorities a number of potential projects have been identified along with lead agencies and financial resources.

2. The Simple Method to Calculate Urban Stormwater Loads
- Carol Lawrence, East-West Gateway Council of Governments

Modeling is one way to characterize or describe the baseline pollutant load contribution in a watershed. It can also be used to estimate what changes in loading could occur with the implementation of various control strategies. Pollutant loading and estimated load reductions are two of the elements required by EPA to be included in a Nine Element Watershed Plan.

The Simple Method to Calculate Urban Stormwater Pollutant Loads (Stormwater Managers Resource Center) was used in both the original Lower Meramec Watershed Plan and this Plan Update. It is a spreadsheet-based tool to estimate annual storm event runoff pollutant and bacteria loads by developed land uses and roads in a specific drainage area. Baseline pollutant loading were calculated for the Sugar/Fenton Creeks and Pomme/Mattese Creeks HUC12 watersheds and for the watersheds of the following impaired streams: Kiefer Creek; Fishpot Creek; Williams Creek; Grand Glaize Creek; Fenton Creek; and Mattese Creek. The Simple Method model was also used to estimate changes in loadings over a 20 year period with implementation of different stormwater best management practices (BMPs) by land use type. Pollutant and bacteria reduction efficiencies by BMP can from national and regional studies.

For each developed land use in a drainage area, model inputs needed include: impervious acres; annual runoff; pollutant concentration (phosphorus, nitrogen, total suspended solids and biological oxygen demand; and bacteria mean event concentration (fecal coliform and *E. coli*). User follows the steps delineated in the Simple Method to calculate impervious acreage and annual runoff. Default pollutant concentration factors from both the Simple Method and the Spreadsheet Tool for Estimating Pollutant Load (STEPL) were utilized. Bacteria concentrations came from the Minnesota Pollution Control Agency Estimator tool to calculate TMDL benefits.

C. Meramec River Watershed Modeling Effort
Jason Knouft, St. Louis University

Members from St. Louis University and University of Illinois at Champaign-Urbana are in the initial stages of a two year modeling effort for the entire Meramec River watershed plus the watersheds of the Bourbeouse and Big Rivers. This project is funded by the Nature Conservancy. The purpose is to develop landscape scale models which can be used to predict the impacts of variable land use and climate on water quantity (flow) and quality. Temperature, precipitation and landscape characteristics regulate the flow and quality of water in rivers and streams. The general flow patterns regulate physical and biological processes at smaller scales.

The Soil Water Assessment Tool (SWAT) and the MIKE-SHE/MIKE11 models will be used to identify problem areas in the watershed on which to focus management strategies. The models can use the same data inputs so they can be run at the same time. SWAT is a conceptual model focused on agricultural and land management. MIKE-SHE is a deterministic, physically-based, watershed model which can be scaled down to reach and site level predictions of management and remediation activities. Project deliverables include output of these models for the Meramec River basin with monthly mean outputs for 1980-2014. Total suspended solids, nitrogen, phosphorus and temperature estimates will be generated for each HUC12 watershed, plus Kiefer Creek. In addition, at the HUC12 level, model outputs will be produced which reflect environmental responses and economic (costs per practice) outcomes to various conservation actions throughout the entire Meramec basin.

D. Upper Silver Creek Watershed Plan and Implementation
Janet Buchanan, HeartLands Conservancy

HeartLands Conservancy is a non-profit land trust focused on land conservation, building greener communities and engaging people with nature in seven Illinois counties. The upper portion of the Silver Creek watershed is located in eastern Madison County. The primary use of the 120,000 acre watershed is agriculture but is adjacent to urbanized areas. There have been water quality challenges and flooding events. In 2014 HeartLands began a two year effort to develop a watershed plan for this watershed. Funding for this effort was through an EPA 604b grant. A water resources inventory of existing conditions and issues and a community flood survey to assess the impact of flooding in on homes, businesses and property were conducted. BMPs were identified for urban land, streams and agricultural land. 21 potential locations for BMP implementation were selected. Selection criteria included: areas had existing or potential (based on modeling) future causes and sources of pollution; existing function are significantly worse than other areas of the watershed; or there was significant potential for the area to make a difference in making improvements toward one or more of the goals of the Plan. EPA approved the Watershed Plan in November 2015. HeartLands Conservancy was awarded a 319 grant to implement projects which address water quality and stormwater issues in the Upper Silver Creek watershed.

Other watershed plans underway in Madison County include: Lower Silver Creek; Indian-Cahokia Creek; and Canteen-Cahokia Creek. Outreach has begun for the American Bottom watershed plan in southwest Madison County. The policies and standards contained in the Madison County Stormwater Management Plan serves as the foundation for all of these watershed planning efforts.

E. Our Missouri Waters – Lower Missouri Project
David Wilson, East-West Gateway Council of Governments

EWG has a contract with MoDNR to lead the Our Missouri Waters Collaborative Watershed Process for the lower Missouri River watershed (Montgomery County to the Confluence). EWG and the Boonslick Regional Planning Commission are partnering in this effort to engage citizens, local governments, farmers, soil and water conservation districts and other parties in discussions about issues, priorities and goals for this watershed. This fall there have been a series of small

group interviews and discussions. In 2017 a series of stakeholder meetings are planned for throughout the watershed.

F. What Makes for Good Watershed Planning

General discussion occurred. Mr. Sullivan, U.S. Army Corps of Engineers, remarked that a good example of a group is the Kaskaskia River Association. It involves a number of counties and is a state-led initiative. Basin-wide vision is needed so partnerships and stakeholders can be aligned. Ms. Buchanan, HeartLands Conservancy, observed that identifying funding opportunities which are simple for residents to understand and follow is important. Mr. Alley, St. Clair County, recommended working with Soil and Water Conservation Districts.

3 Other Business

A. September 2016 Mississippi River Earthtones Festival and River Clean Up - Christine Favilla, Sierra Club – Piasa Palisades

In 2006, Illinois Lieutenant Governor Quinn began the "It's Our River Day" initiative to be held on the third Saturday in September. Since that time the Sierra Club – Piasa Palisades and other partners have held the Mississippi Earthtones Festival in Alton to celebrate the river through art, music, educational activities and conservation/river clean-up. Last year was the tenth anniversary of this festival. To date, approximately 27 tons of materials have been removed from the Mississippi River. The 2017 Mississippi Earthtones Festival is scheduled for September 16, 2017. This year the river clean-up will take place on October 7. Festival partners will be working with Missouri River Relief and Missouri Stream Teams on this activity.

4. Adjournment

The next meeting of the WRC will be scheduled for spring 2017. There being no other business, the meeting of the Water Resources Committee was adjourned.

EAST-WEST GATEWAY
Council of Governments

Creating Solutions Across Jurisdictional Boundaries

Chair
Ken Waller
County Executive
Jefferson County
Vice Chair
Alan Dunstan
Chairman, Madison County Board
2nd Vice Chair
Steve Stenger
County Executive
St. Louis County
Executive Committee
Steve Ehlmann
County Executive
St. Charles County
John Griesheimer
Presiding Commissioner
Franklin County
Mark A. Kern
Chairman, St. Clair County Board
Terry Liefer
Chairman, Board of Commissioners
Monroe County
Francis G. Slay
Mayor, City of St. Louis
Members
Ron Blum
Franklin County
Scott Douglass
St. Louis County Municipal League
Mark Eckert
President, Southwestern Illinois
Council of Mayors
John Hamm III
President, Southwestern Illinois
Metropolitan & Regional
Planning Commission
Emeka Jackson-Hicks
Mayor, City of East St. Louis
Reggie Jones
St. Louis County
Jack Minner
Madison County
Roy Mosley
St. Clair County
Lewis Reed
President, Board of Aldermen
City of St. Louis
Tom Smith
Vice President,
Southwestern Illinois
Council of Mayors
John White
St. Charles County
Regional Citizens
Barbara Geisman
C. William Grogan
Richard Kellett
John A. Laker
Dave Stoecklin
Non-voting Members
Roger Driskell
Illinois Department of
Transportation
Brian May
Missouri Office of Administration
Patrick McKenna
Missouri Department of
Transportation
John Nations
Bi-State Development
Vacant
Illinois Department of Commerce
and Economic Opportunity
Executive Director
James M. Wild

AGENDA

WATER RESOURCES COMMITTEE

Friday, June 24, 2016

10:00 a.m. – 12:00 Noon

EAST WEST GATEWAY COUNCIL OF GOVERNMENTS

1. CALL TO ORDER - Carol Lawrence, Chair, East-West Gateway Council of Governments

2. DISCUSSION ITEMS

   A. Flood Inundation Mapping
   - Amy Beussink, U.S. Geological Survey

   B. The Meramec River Feasibility Study and Urban Waters Partnership
   - Traycee Verdun-Chapman, U.S. Army Corps of Engineers, St. Louis District

   C. Update Our Missouri Waters Program and Lower Meramec River Watershed Plan
   - Tracy Haag, Missouri Department of Natural Resource
   - Aaron Young, East-West Gateway Council of Governments

   D. OneSTL – Blue, Gray, Green Infrastructure as a Regional Opportunity
   - Aaron Young, East-West Gateway Council of Governments

3. OTHER BUSINESS

4. ADJOURNMENT

Gateway Tower
One Memorial Drive, Suite 1600
St. Louis, MO 63102-2451

314-421-4220
618-274-2750
Fax 314-231-6120

webmaster@ewgateway.org
www.ewgateway.org