Lower Meramec Watershed Plan

Water Resources Committee meeting

December 7, 2017

East-West Gateway Council of Governments

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Council of Governments

Core partners

Missouri Department of Natural Resources

Conservation Department Missouri

The Nature Conservancy

MSD

The Open Space Council for the St. Louis Region

US Army Corps of Engineers® St. Louis District

Great Rivers Greenway

USGS science for a changing world

Saint Louis COUNTY PARKS

9 Element plan to voluntarily improve water quality in impaired streams from non-point sources of pollution

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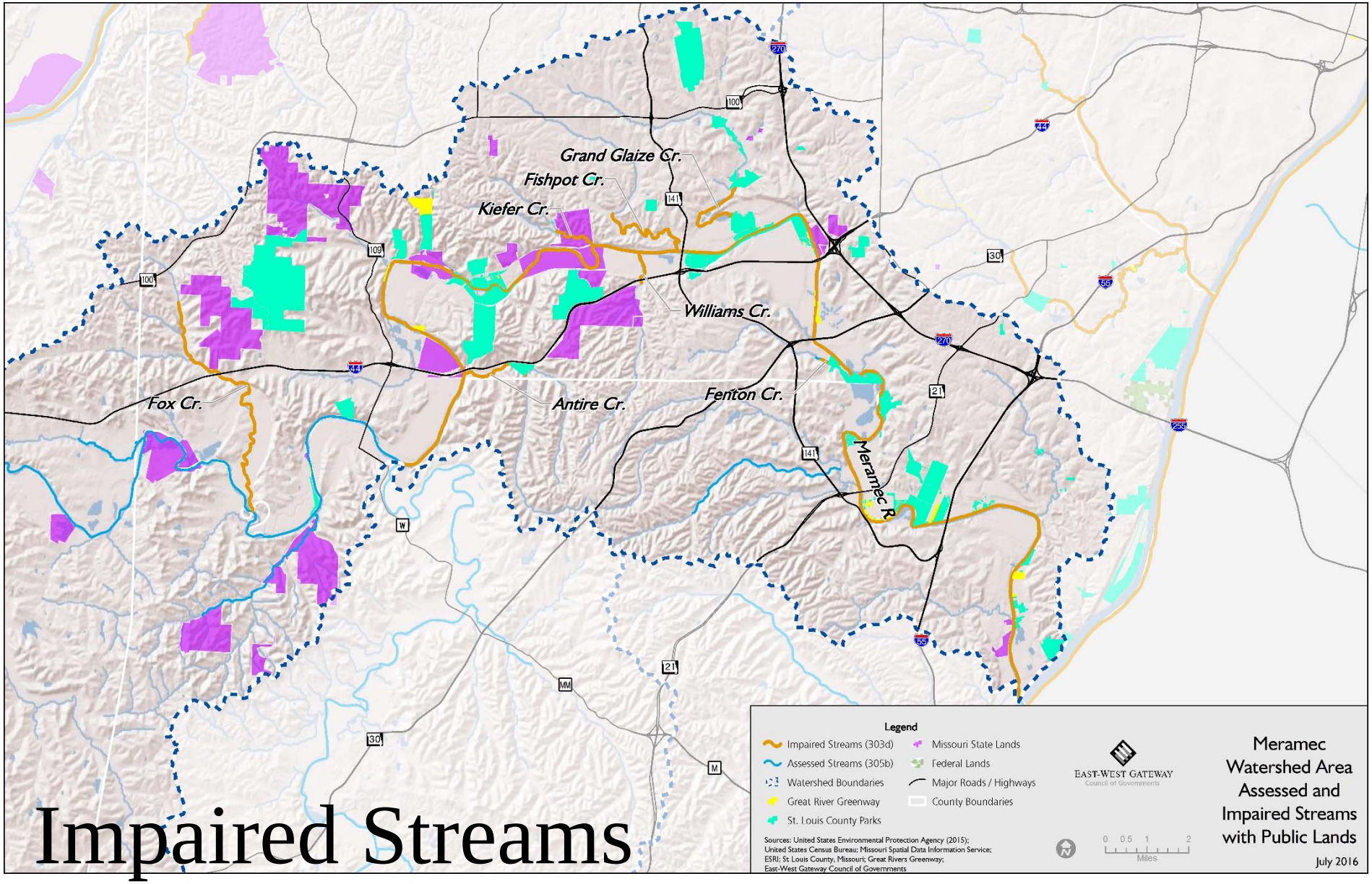

Impaired Streams

9 Elements

A – ID causes and sources of pollution

B – Estimate load reductions expected from management actions

C – Description of actions needed to achieve load reduction and description of critical areas

D – Estimate of costs

E – Information and education

F – Schedule of implementation

G – Interim measurable milestones

H – Criteria to determine if load reductions being achieved

I – Monitoring/evaluation process

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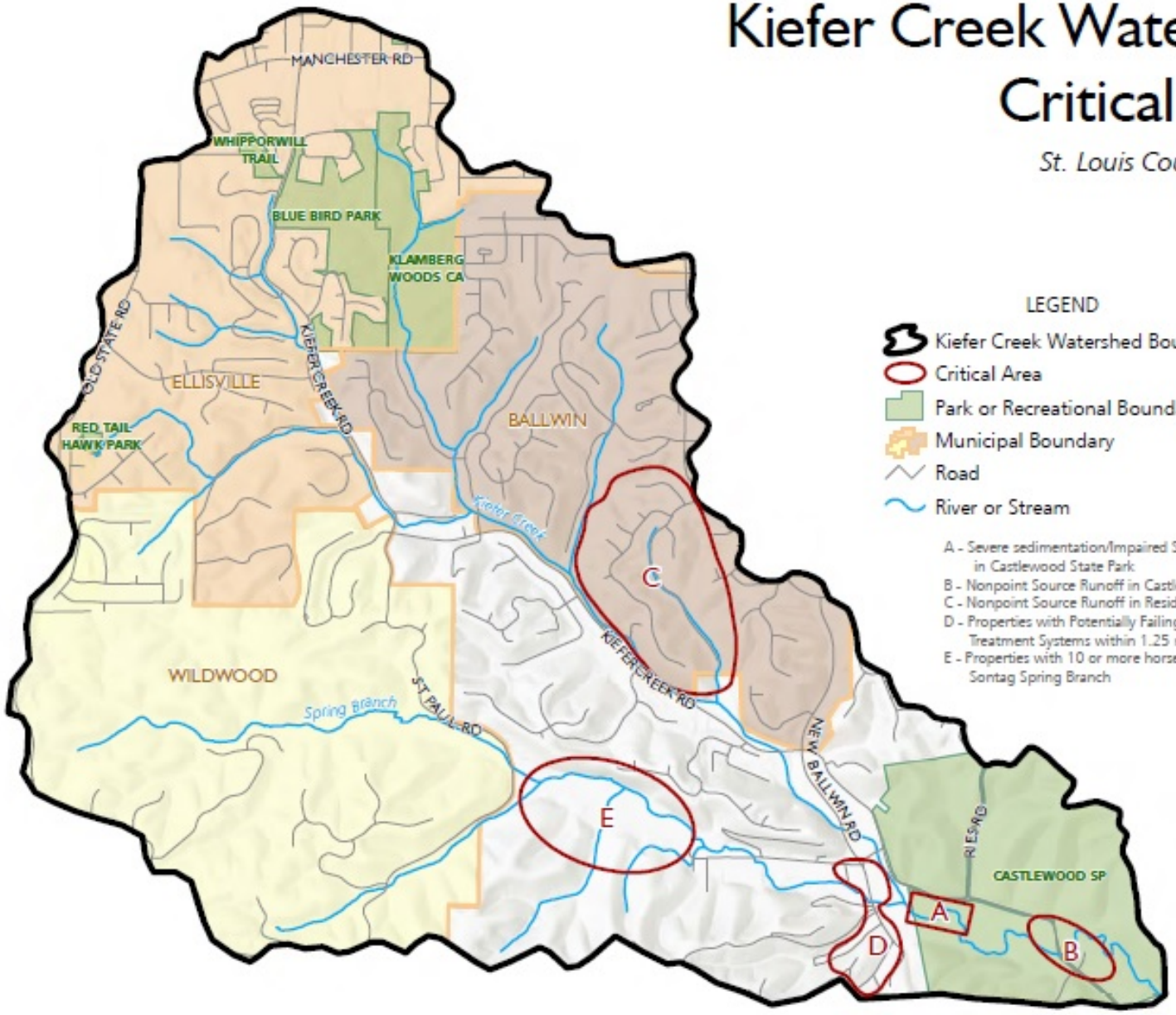
Map 13

Kiefer Creek Watershed Critical Areas

St. Louis County, Missouri

September 2017



LEGEND

- Kiefer Creek Watershed Boundary
- Critical Area
- Park or Recreational Boundary
- Municipal Boundary
- Road
- River or Stream

A - Severe sedimentation/Impaired Section of Stream in Castlewood State Park
B - Nonpoint Source Runoff in Castlewood State Park
C - Nonpoint Source Runoff in Residential Area
D - Properties with Potentially Failing On-site Wastewater Treatment Systems within 1.25 miles of Kiefer Creek
E - Properties with 10 or more horses within 400 feet of Sontag Spring Branch

0 0.5 1
Miles

Sources: United States Geological Survey, National Hydrography Dataset (NHD); St Louis County GIS; East-West Gateway Council of Governments

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Reduce bacteria loading in Kiefer Creek by 38.8 % by 2038

- Streambank stabilization
- Septic system cost-share program
- Rainscaping demonstrations and cost-share program
- Horse farm manure management
- Interviews and education
- Clear Choices Clean Water pilot project
- Stream-clean ups and riparian restoration
- Long-term water quality monitoring

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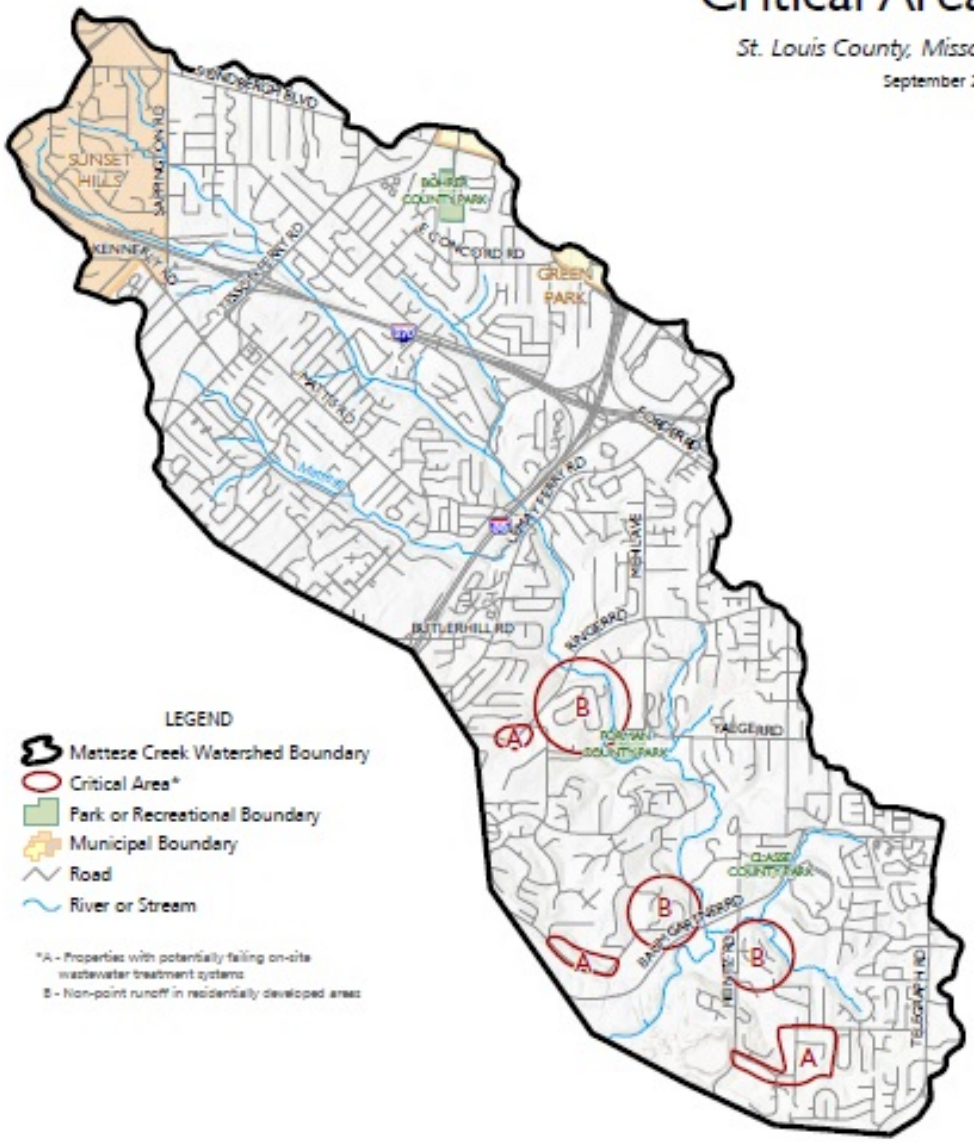
Map 17

Mattese Creek Watershed Critical Areas

St. Louis County, Missouri

September 2017



0 0.5 1 Miles

Sources: United States Geological Survey, National Hydrography Dataset (NHD); St. Louis County GIS; East-West Gateway Council of Governments

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Reduce bacteria loading in <u>Mattese Creek</u> by 28% by 2038

- Geomorhpic feasibility study and implementation
- Common ground rainscaping
- Septic system cost-share program
- Residential rainscaping cost-share program
- Stream clean-ups and riparian restoration
- Water quality monitoring

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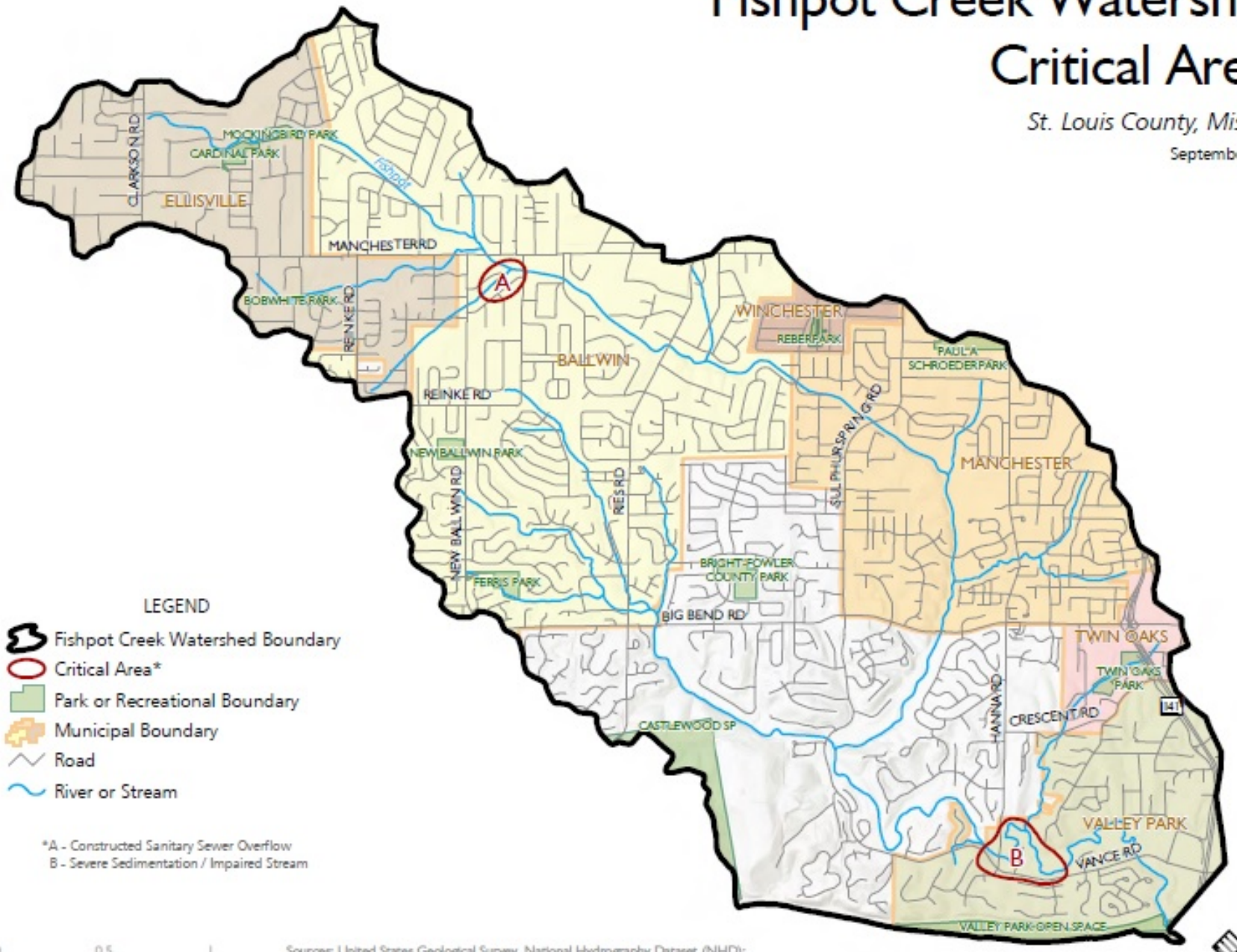
Map 20

Fishpot Creek Watershed Critical Areas

St. Louis County, Missouri

September 2017



LEGEND

- Fishpot Creek Watershed Boundary
- Critical Area*
- Park or Recreational Boundary
- Municipal Boundary
- Road
- River or Stream

*A - Constructed Sanitary Sewer Overflow
B - Severe Sedimentation / Impaired Stream

0 0.5 1
Miles

Sources: United States Geological Survey, National Hydrography Dataset (NHD); St. Louis County GIS; East-West Gateway Council of Governments

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Reduce bacteria loading in <u>Fishpot Creek</u> by 39% by 2038

- Valley Park streambank stabilization feasibility study and implementation
- Stream clean ups and riparian restoration

- Eliminate constructed SSOs

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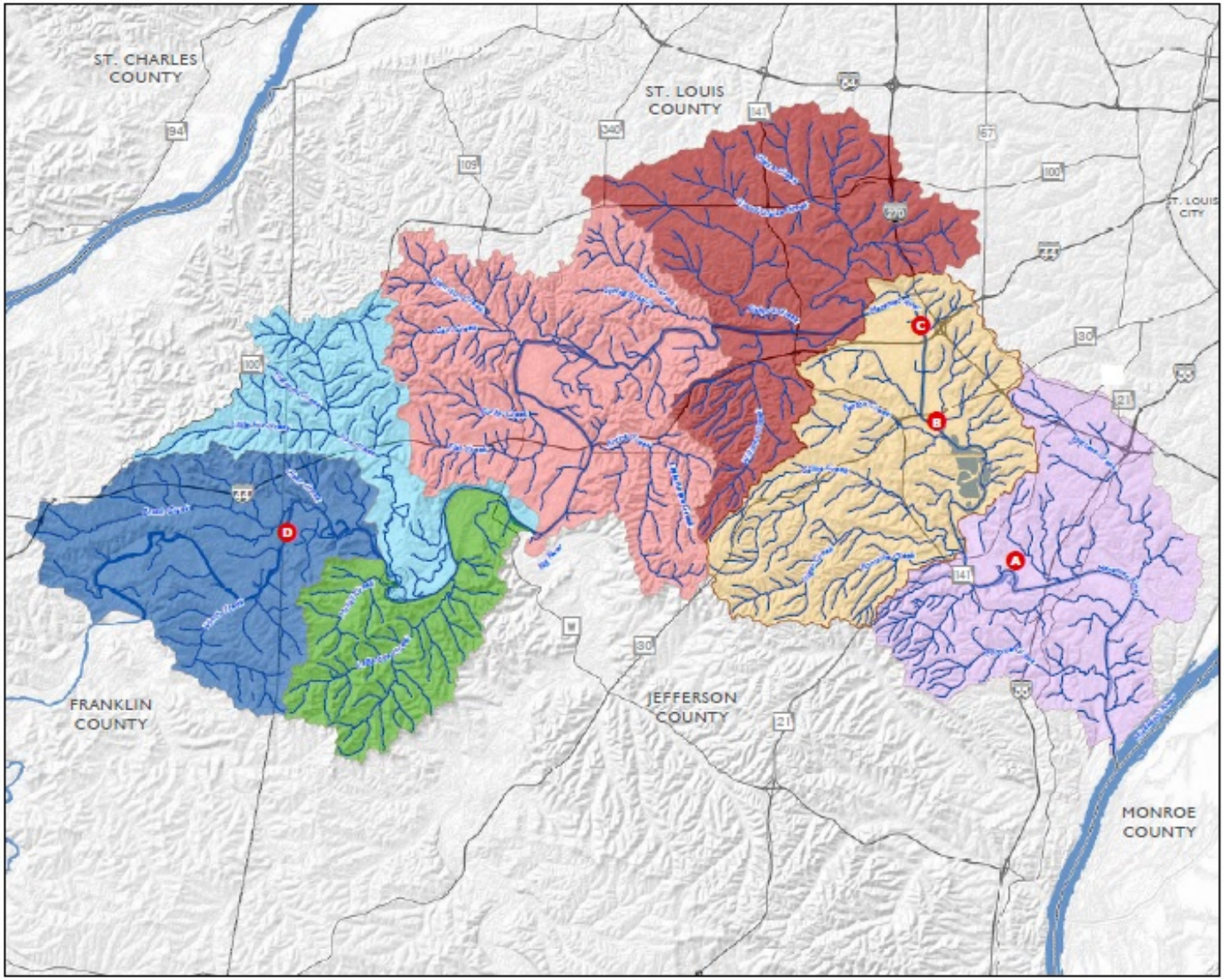

Map 21

Proposed Projects

Meramec River

Basemap Elements

- Proposed Projects*
- County Boundary
- Major Road
- Interstate Highway

Selected Watersheds

- Brush Creek
- Fox Creek
- Grand Glaize Creek
- Hamilton Creek
- LaBarque Creek
- Pomme Mattese
- Sugar Creek

*See text for project information

0 1 2 Miles

Sources: County GIS Departments, East-West Gateway Council of Governments and other Core Partners September 2017

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Demonstrate the effectiveness and feasibility of re-establishing a healthy riparian corridor and implementing stormwater BMPs to reduce bacteria loading in the <u>lower Meramec River.</u>

- Public land riparian restoration activities
- Public land BMP demonstrations
- Operation Clean Stream

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Plan Implementation

- Core partners continue to meet to coordinate project implementation via WRC and MRRA

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http://www.ewgateway.org/community-planning/environmental/water-resources/lower-meramec-watershed-plan/

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