



**JOINT WORK SESSION MEETING
AGENDA
CITY OF CREVE COEUR
CITY COUNCIL AND ENERGY &
ENVIRONMENT COMMITTEE
300 NORTH NEW BALLAS RD
AUGUST 14, 2023
6:00 PM**

CALL TO ORDER

ROLL CALL

DISCUSSION ITEMS

1. Approval of July 10, 2023 City Council Joint Work Session Minutes

2. Republic Services

Summary: Representatives from Republic Services will discuss the state of the industry and discuss issues relating to the City's trash and recycling programs.

ADJOURNMENT

Pursuant to Section 610.022 RSMo., the City Council could, at any time during the meeting, vote to close the public meeting and move to closed session to discuss matters relating to litigation, legal actions and/or communications from the City Attorney as provided under Section 610.021(1) RSMo. and/or personnel matters under Section 610.021(13) RSMo. And/or employee matters under Section 610.021(3) RSMo. and/or real estate matters under Section 610.021(2) or other matters as permitted by Chapter 610.

Posted by: _____

Date/Time posted: _____

If you need special accommodations to attend a meeting, services may be arranged by contacting the Office of the City Administrator in advance.



**JOINT CITY COUNCIL WORK SESSION MEETING
WITH STORMWATER COMMITTEE**

MINUTES

CITY OF CREVE COEUR

CITY COUNCIL

300 NORTH NEW BALLAS RD

JULY 10, 2023

6:00 PM

CALL TO ORDER

A joint work session meeting of the City Council of the City of Creve Coeur and the Stormwater Committee was called to order by Mayor Robert Hoffman at the City Council Chamber, 300 North New Ballas Rd, City of Creve Coeur Government Center, Creve Coeur, MO 63141 on Monday, July 10, 2023 at 6:01 PM.

ROLL CALL

Mayor Robert Hoffman
Council Member, Ward 1 Mark Manlin
Council Member, Ward 2 Tim Carney
Council Member, Ward 2 Nicole Greer
Council Member, Ward 3 Sari Neudorf
Council Member, Ward 3 David Hoffman
Council Member, Ward 4 Dan Tierney
Council Member, Ward 4 Joseph Martinich

Council Member Silverman was absent.

Staff Present: City Administrator Mark Perkins, City Attorney Carl Lumley, Director of Community Development Jason Jaggi, Director of Finance Lori Obermoeller, Director of Public Works Jim Heines, Chief of Police Jeffrey Hartman, and City Clerk Kellie Henke.

Stormwater Committee Members Present: Samantha Davies, Kathleen Rizzo, and Peter Wazlawek.

Others Present: Tim Dean of Intuition and Logic.

DISCUSSION ITEMS

1. Approval of May 22, 2023 City Council Joint Work Session Minutes

RESULT: APPROVED (UNANIMOUS)

MOVER: Council Member Ward 4 Tierney

SECONDER: Council Member Ward 2 Carney

AYES: Manlin, Greer, Hoffman, Tierney, Martinich, Carney, Neudorf



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The vote on the motion being 7 ayes and 0 nays, motion carried.

2. Watershed Management Plan Update

Tim Dean, of Intuition and Logic, provided an update on the City's Watershed Management Plan (See Exhibit A). Discussion included watershed master planning, channel condition assessments and channel dominant process results, criteria for public funding consideration, and next steps, including construction and design costs.

Council Member Neudorf asked for clarification regarding the criteria used to measure the channel condition assessments. Mr. Dean stated criteria included channel bank heights, bank stability and angles, vegetative cover, and erosion.

Mr. Dean stated the online stormwater questionnaire provided residents with the opportunity to identify stormwater problems they have seen or experienced on a map to help the City prioritize future projects; 172 responses were received and categorized by home flooding, property flooding, streambank erosion, and street flooding. Mr. Dean stated the questionnaire will remain open through the end of the year.

Mr. Dean provided an overview of the prioritization ranking methodology and stated the system considers severity, frequency, benefits, and estimated project costs. The prioritization ranking system is closely aligned with Metropolitan St. Louis Sewer Districts (MSD's) scoring criteria, which would help the City seek MSD funding for possible future projects. Mr. Dean stated MSD is responsible for maintenance of improved channel segments and natural channel segments are maintained by the City. City Administrator Mark Perkins stated MSD does not provide capital funding for stormwater projects unless the project is located within the Operation Maintenance Capital Improvement (OMCI) district.

Mr. Dean provided an overview of the criteria to be used for project consideration and stated potential city-funded projects would require approval by the Stormwater Committee and the City Council.

Council Member Martinich asked if there are building code requirements to prevent new stormwater issues as well as prevent the worsening of existing issues. Mr. Dean stated



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the implementation section of the final report will provide recommendations which will include following MSD's criteria for detention standards and quality channel assessments for new construction and future redevelopment.

Council Member Martinich shared his concerns regarding worsening cost benefit analysis for long-standing stormwater issues and stated public funding consideration should consist of small- and large-scale projects, both old and new. Mr. Perkins stated funding should be made available for large projects and serious issues; serious issues would need defining. Mr. Dean stated projects could be grouped into large scale and small-scale projects with dedicated funding percentages for each.

Council Member Manlin asked if other cities have conducted a watershed study. To which, Mr. Dean stated the City of Ladue, Frontenac, Webster Groves, and Maryland Heights have conducted this type of study and utilized the prioritization ranking methodology.

3. Stormwater Grant Program Proposal

Director of Public Works Jim Heines provided an overview of a proposed stormwater cost-share program and stated the program could be used to help homeowners and homeowner associations whose project may not qualify as a city-funded project or the City's Capital Improvement Program. Mr. Heines stated the program could be used to resolve existing stormwater issues, including reducing runoff from neighboring sites and structures, restraining streambank erosion, and improving water quality.

Mr. Heines stated the details of the program are being discussed and the first year would be considered a pilot program; information learned from the first year could be used to improve the program and give City staff an opportunity to better understand the level of effort required to manage the program. Mr. Heines stated project cost estimates submitted would be verified by City staff and funding would come from the Parks and Stormwater Tax fund.

Stormwater Committee Member Samantha Davies stated projects that may not qualify for City funding, public or private, could be identified and reviewed for estimated project costs. Ms. Davies stated the estimated costs could help guide the cost recommendation



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for year one of the program.

ADJOURNMENT

The vote on the motion being 7 ayes and 0 nays, motion carried.

The meeting adjourned at 6:57 pm.

Submitted by:

Kellie Henke
City Clerk

Dr. Robert Hoffman
Mayor



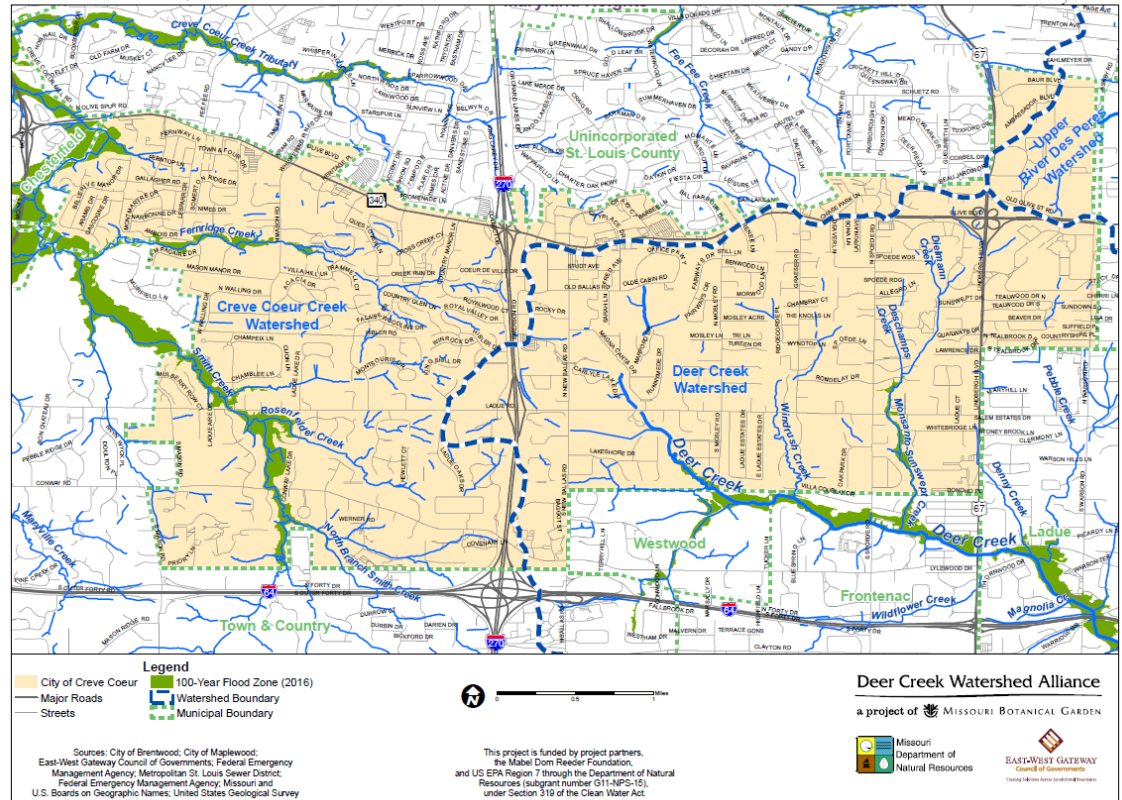
Watershed Management Plan

Watershed Master Planning

- City Planning Effort
- Previous Efforts
 - 1999 Stormwater Evaluation Report
 - 2010 Stormwater Questionnaire
 - 2012 Stormwater Master Plan Update
- Overall Goals
 - Updated Master Plan
 - Integrate Public Input
 - Develop Prioritization Ranking Methodology

Creve Coeur, Missouri Streams

February 2017





Watershed Management Plan

Goals & Objectives

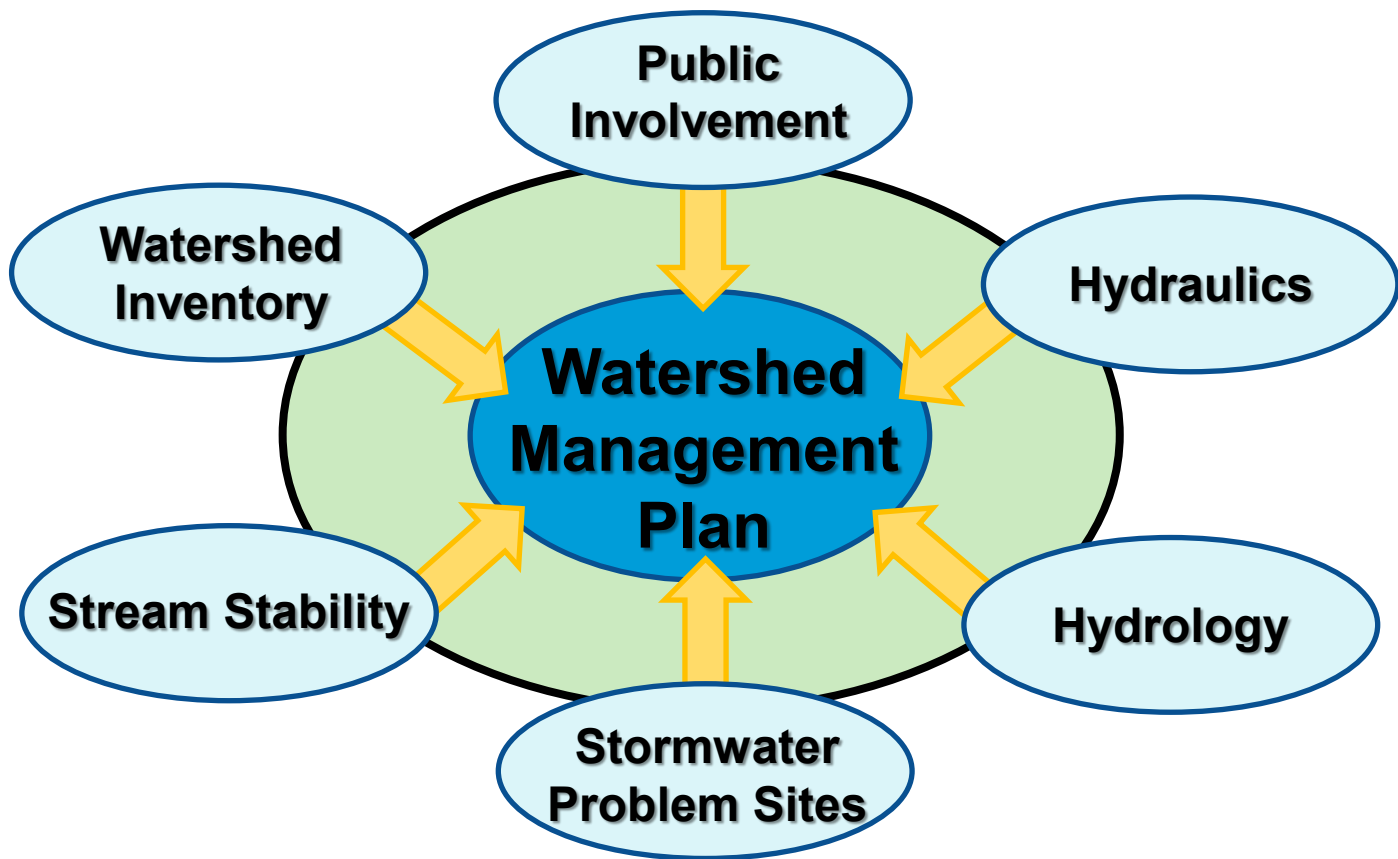
Goal - Develop planning tools and capital improvement projects to address water quality, stream stability, and stormwater infrastructure and drainage issues.

Study Objectives

- Maintain a proactive public involvement process
- Identify needed Capital Improvement Projects (CIPs) for stormwater issues
- Quantify existing hydrologic and hydraulic data
- Map stream corridors
- Evaluate stormwater problem sites
- Develop prioritization ranking method
- Develop software to assist the City in planning and budgeting for projects to maximize benefit of City residents throughout the five-year planning timeframes of the Capital Improvement Program (CIP)

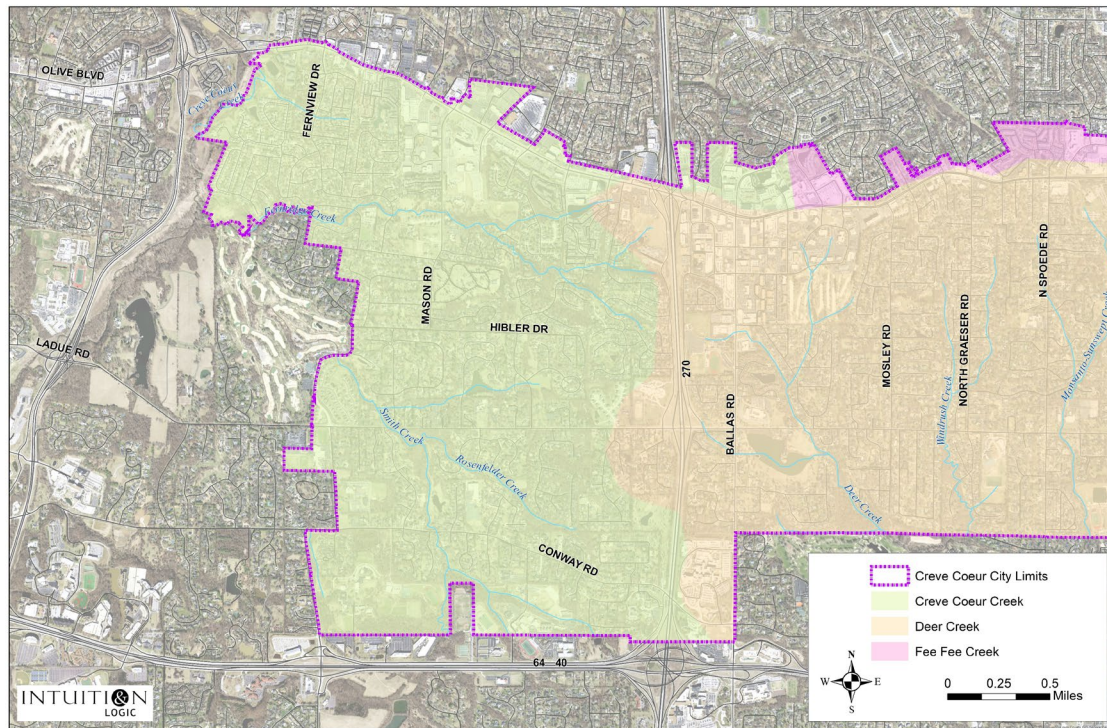
Watershed Management Plan

Major Study Components



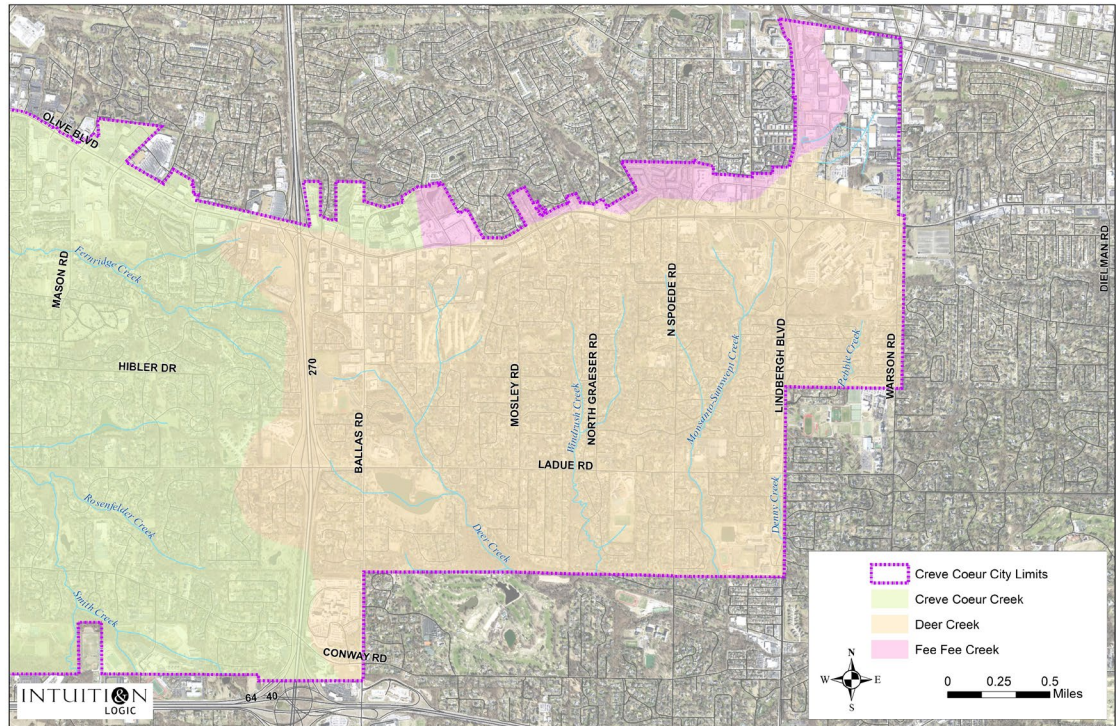
Creve Coeur Creek Watershed Study Area

- 27 Square Miles Watershed
- 4.4 Square Miles Channel Condition Assessment Study Area



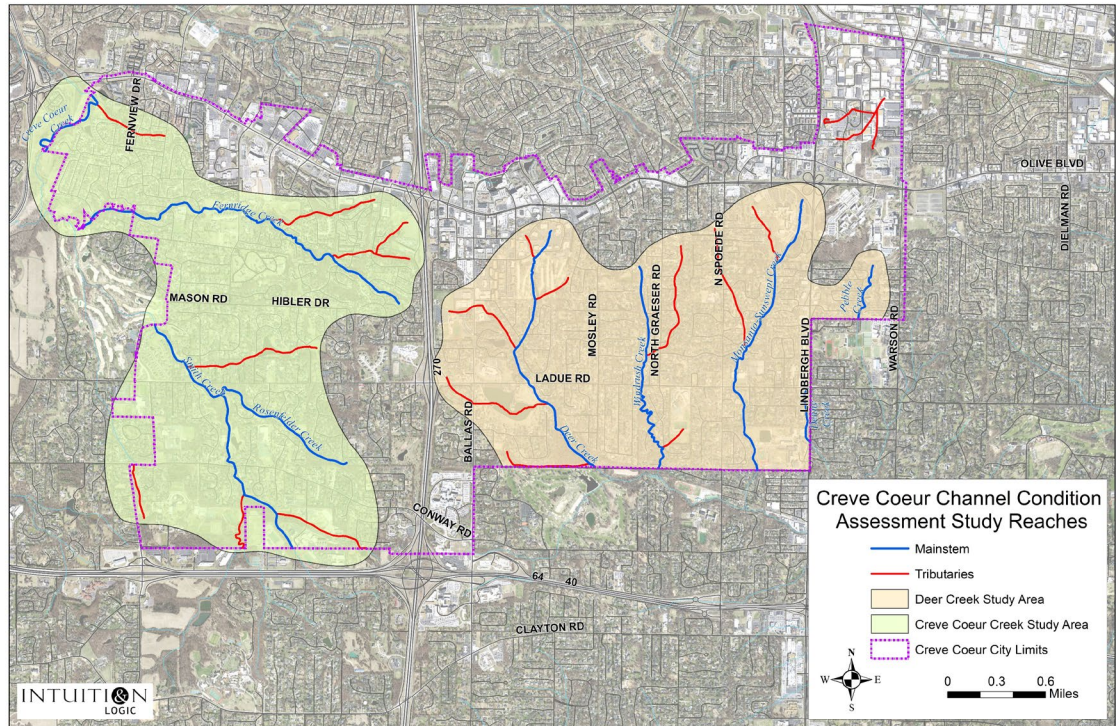
Deer Creek Watershed Study Area

- 37.7 Square Miles Watershed
- 5.1 Square Miles Channel Condition Assessment Study Area



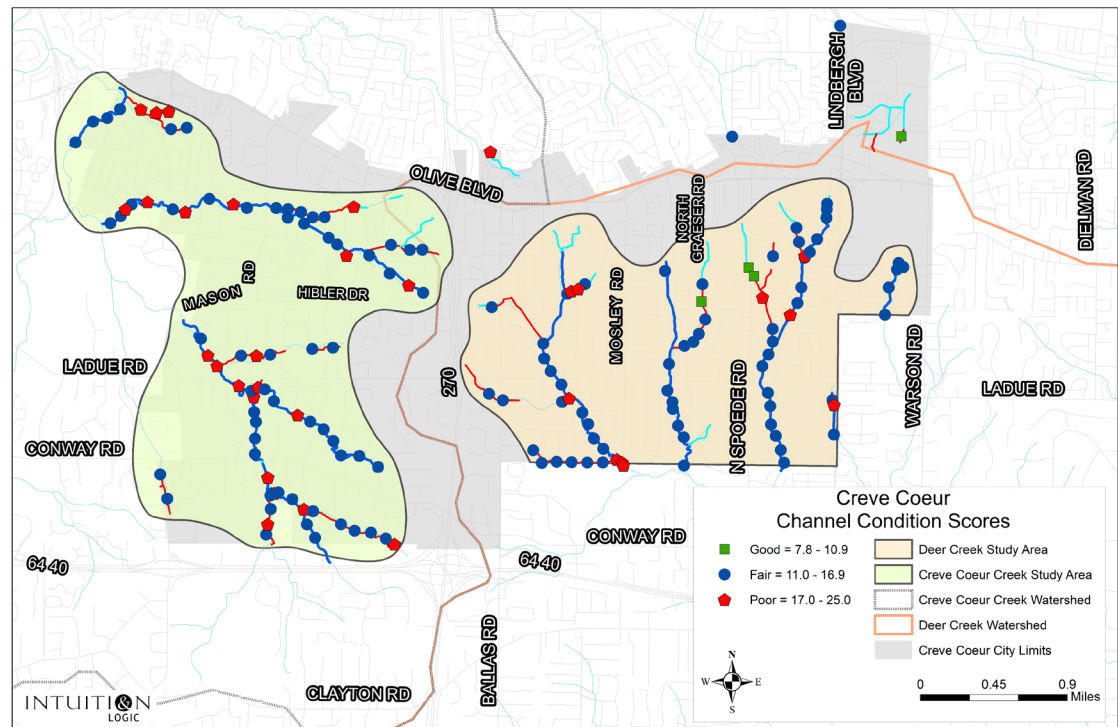
Channel Condition Assessment

- 9.5 Square Miles Study Area
- Over 20 miles of stream field observation
 - Creve Coeur Creek
 - Fernridge Creek
 - Smith Creek
 - Rosenfelder Creek
 - Deer Creek
 - Windrush Creek
 - Monsanto-Sunswept Creek
 - Pebble Creek
 - Denny Creek



Channel Condition Assessment Results

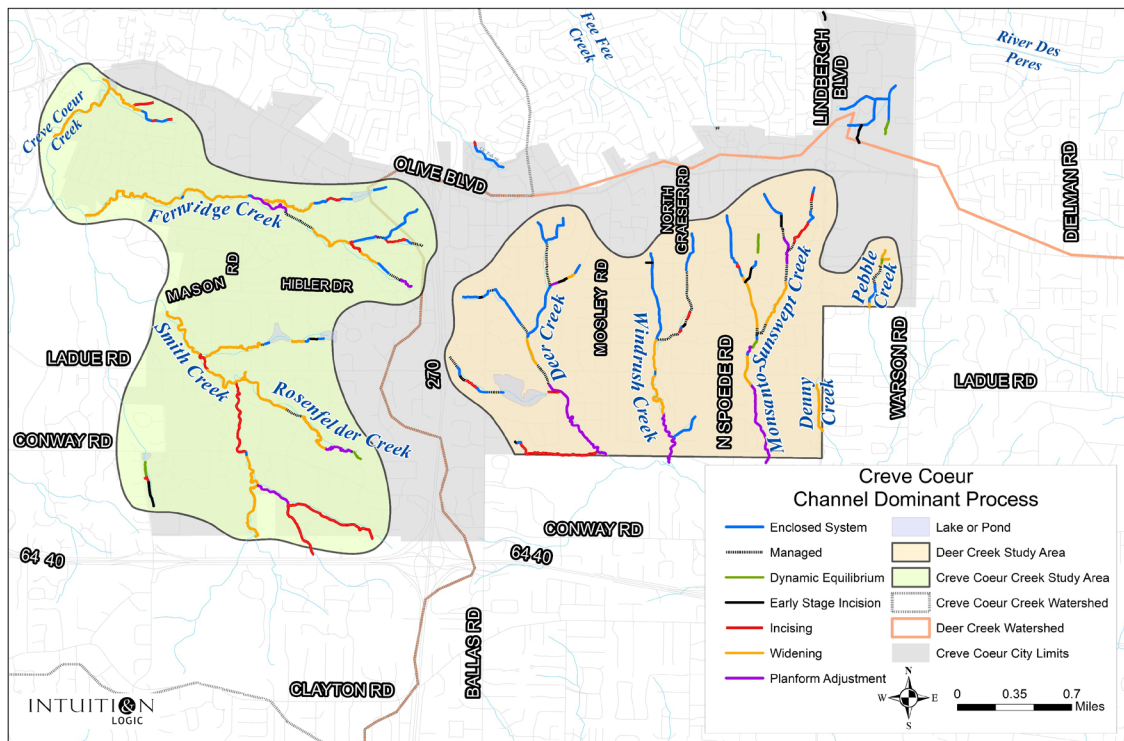
- 159 Total Channel Condition Data Points Taken
- 77 Points in the Deer Creek Watershed
 - Average Channel Condition Score of 14.1 (Fair)
- 82 Points in the Creve Coeur Creek Watershed
 - Average Channel Condition Score of 15.5 (Fair)



Channel Dominant Process Results

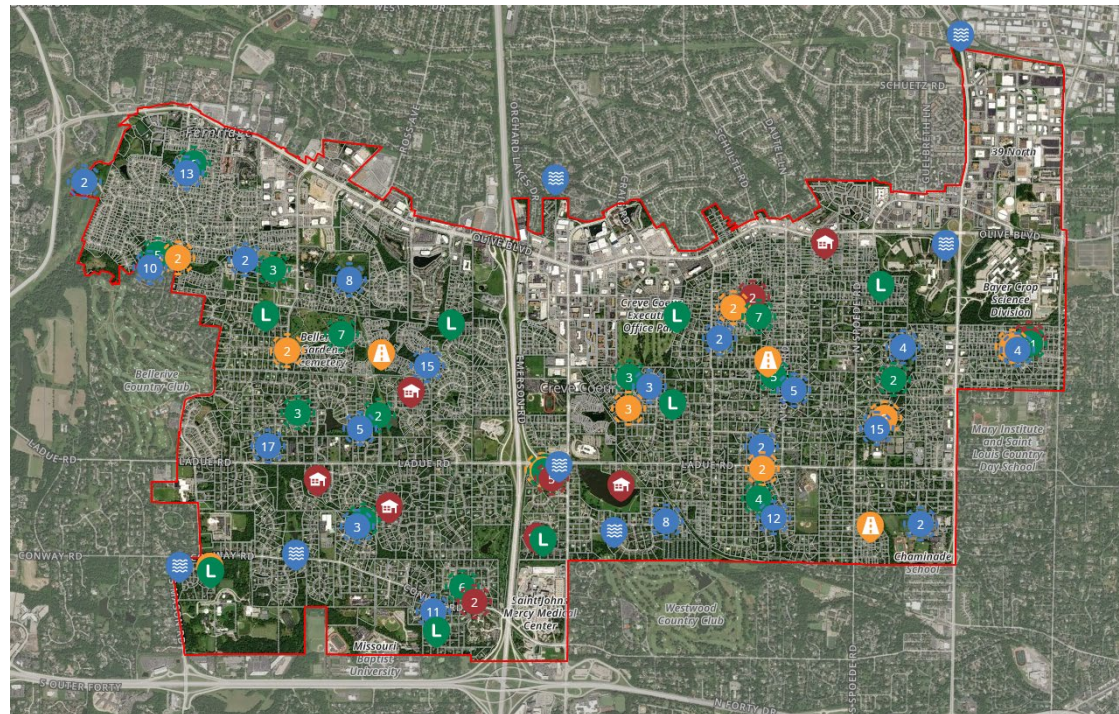
- Deer Creek Watershed
 - 29 Mainstem Reaches
 - 32 Tributary Reaches
 - Mainly Widening with some Planform Adjustment at the downstream limits

- Creve Coeur Creek Watershed
 - 24 Mainstem Reaches
 - 25 Tributary Reaches
 - Mainly Widening



Stormwater Problem Site Investigation

- Based on past problems received by the City and online survey responses
- Thank you for all for participating in the online survey!! A total of 172 responses were received
 - 23 Home Flooding
 - 73 Property Flooding
 - 52 Streambank Erosion
 - 24 Street Flooding
- Stormwater problem sites and field identified issues were grouped into 129 potential problem areas



Prioritization Ranking Methodology

- Problem Solved Categories
 - Stream Flooding and Erosion
 - Storm Sewer/Overland Flow Flooding, Erosion, and Condition
- Solution Benefit Categories
 - Regional
 - Environmental/Water Quality
 - Ease of Implementation
 - Recreational/Educational Use
- Benefit/Cost Ratio

PROBLEM SOLVED CATEGORY		Chronic (≤2-Yr) Flooding	Frequent (>2≤15-Yr) Flooding	Infrequent (>15-Yr) Flooding	Total Points	
		Points per Category	No. Lots Affected	Points per Category	No. Lots Affected	Points per Category
Note: Problem points are awarded only for those problems solved by the proposed solution.						
1.0 STREAM	1.1. FLOODING					
	1.1.1. Structure Flooding					
	Habitable 1st floor, residential; includes spaces with mechanical equipment (1 lot per structure) Address:	300		150		25
	Basement (1 lot per structure) Address:	200		100		15
	Attached Garage (1 lot per structure) Address:	100		50		8
	Misc. structures including patio/decks, pools, sheds, tennis courts, detached garages, etc. (1 lot per structure) Address:	50		25		4
	Industrial, office, commercial and warehouse (1 lot per 2,500 sf of floor space flooded) Address:	300		150		25
	Yard Flooding (1 per lot) Address:	10		5		0
	1.1.2. Roadway Flooding (allocate 1 lot per 250' of roadway impacted & 2 lots per intersection impacted)					
	Emergency Access restricted (>12" water over only access route to habitable structure), pts per structure Address:	200		100		15
1.0 STREAM	1.2.1. Traffic obstruction (> 6" of water) on arterial street Address:	50		25		4
	Traffic obstruction (> 6" of water) on collector street Address:	25		12		2
	Traffic obstruction (> 6" of water) on local street Address:					
	3.0 REGIONAL					
	3.1. Reduction of flowrate leaving site	% reduction of peak flowrate:		Max points:	1000	
	3.2. Combines smaller projects into regional solution (see note)	No. Add'l Projects:		Points per Add'l Proj.:	50	
	4.0 ENVIRONMENTAL / WATER QUALITY					
	4.1. Addresses pollutants:	No. Units		Points per Unit		
	Bioswales	PER 100 LF		10		
	Forebays	AC		200		
	Wet Ponds	AC		100		
	Wetlands	AC		50		
	Biostabilization of banks (per bank)	PER 100 LF		10		
	Riffle Pool Complex	PER 100 LF		10		
	4.2. Eliminates combined sewer (per project)	EA		100		
	4.3. Eliminates inflow into sanitary system (1 each per basement flooded, yard vent overtopped, street inlet or driveway drain connected to sanitary/combined system, etc.)	EA		10		
	4.4. Preserves natural resource areas	No. Units		Points per Unit		
	Lakes, Wetlands, etc.	AC		30		
	Natural Corridor (min. 25ft width)	PER 100 LF		10		
	4.5. Conservation Easement	EA		20		



Prioritization Ranking System & Guidance Document

Based on MSD's ranking system

I&L made slight modifications for Creve Coeur including:

- Changing the lengths on item 1.2.3 to allow more points for critical road sections
- Expanding item 1.2.3 to more directly account for erosion threats to roadways and bridges
- Added 1.2.4 for threats to Natural Resources
- Modified 2.4 from Age to condition of existing system (pipes, culverts, etc.)
- Added 4.4 for preservation of Natural Resources
- Added 4.5 for Conservation Easements



Potential Projects

- City Project Criteria will determine what problem areas are eligible.
- Not every City identified issue will result in a City-funded project
- After the Watershed Management Plan is completed in January, new stormwater issues may develop. The City will then rank these newly identified issues using the same methodology, and these new issues may score higher than previously identified issues.
- Projects need to be approved by the Stormwater Committee and the City Council before receiving City funding. Being at the top of the ranking list alone does not guarantee the issue will be addressed by a City-funded solution.

Stormwater issue identified

Is this a public or private issue?

- Is this a private issue?
- If yes, then a solution is the owner's responsibility.

Public issues are scored with the Prioritization Ranking System

Scored issues are ranked highest to lowest

Highest scoring issues with estimated costs that fit into the CIP may become City-funded projects

The Stormwater Committee and then the City Council approves the project

How identified stormwater issues can become City-funded projects

Criteria for public funding consideration

If an identified issue checks one or more of the boxes, then the project might will be scored with the Prioritization Ranking System.

Is a stormwater issue public or private?

If one or more boxes are checked, then a publicly-funded solution might be considered

Would it be an unreasonable burden or unreasonably difficult for the homeowner to solve the issue?	☐ Check for yes
Does the stormwater issue threaten public or private structures?	☐ Check for yes
Does the stormwater issue threaten public or private roadways?	☐ Check for yes
Does the stormwater issue threaten public infrastructure or publicly-funded improvements?	☐ Check for yes
Is the issue caused by an undersized stormwater conveyance infrastructure?	☐ Check for yes
Does the proposed project address regional or systematic channel instability?	☐ Check for yes
Would a solution protect water quality or natural resources?	☐ Check for yes
Was the issue caused by altered upstream conditions?	☐ Check for yes
Was the issue caused by inadequate system design under previously less restrictive development or redevelopment regulations?	☐ Check for yes
Was the issue caused by inadequate maintenance of a public system?	☐ Check for yes
Will the project improve public safety?	☐ Check for yes
Has the stormwater issue been identified as a monitor project?	☐ Check for yes
Is the focus of the project utility work?	☐ Check for no
Does the work focus on privately-owned infrastructure?	☐ Check for no



Next Steps

- Complete Development of Project Criteria.
- Evaluate potential problem areas using the City's criteria for stormwater project eligibility.
- For each project, conceptual designs will be developed and the projects will be ranked using the prioritization ranking methodology.
- CIP planning software will be developed to assist the City in future planning and budgeting for projects.
- Open House #3 will present the identified Capital Improvement Projects! We hope you join us!



Watershed Management Plan *Project Websites*

<https://www.crevecoeurmo.gov/stormwater>

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STORMWATER

WATERSHED MANAGEMENT PLAN (2023)

The City is working with engineering firm Intuition & Logic to develop a citywide Watershed Management Plan to plan for future stormwater infrastructure improvements. This project is funded by the city's Parks and Stormwater Sales Tax, and will include several opportunities for public input including a questionnaire and a series of open houses.

What is a watershed? A watershed is like a bathtub. A bathtub has one drain, and, in a way, so does a watershed. A watershed is an area of land where water that doesn't evaporate or infiltrate into the ground will eventually find its way to one point. That point can be a creek, stream, river, lake, reservoir, or an ocean.

The City of Creve Coeur has two watersheds, Creve Coeur Creek and Deer Creek. The Creve Coeur Creek watershed is roughly the area west of I-270. The Deer Creek watershed is roughly the area east of I-270. You can learn more about watersheds at the [National Geographic website](#) or the [National Ocean Service \(NOAA\) website](#).

COMPLETE THE QUESTIONNAIRE!

Contact Us
Animal Control
Capital Improvement Program
Emerald Ash Borer
Landscaping Guide
Leaf Vacuuming & Limb Chipping
Pavement Maintenance Program



Watershed Management Plan

Project Websites

<https://ampm.mysocialpinpoint.com/creve-coeur-storm-water-master-plan#/>

