



Madison County Stormwater Management Efforts Progress Update

October 25, 2023



Project Updates

- Countywide Stormwater Management Program
- Funding Accomplishments
- Madison County EWP
- City of Canton Drainage
- Bear Creek Watershed Plan & Environmental Assessment



Funding Accomplishments *(Resulting from Action Plan)*

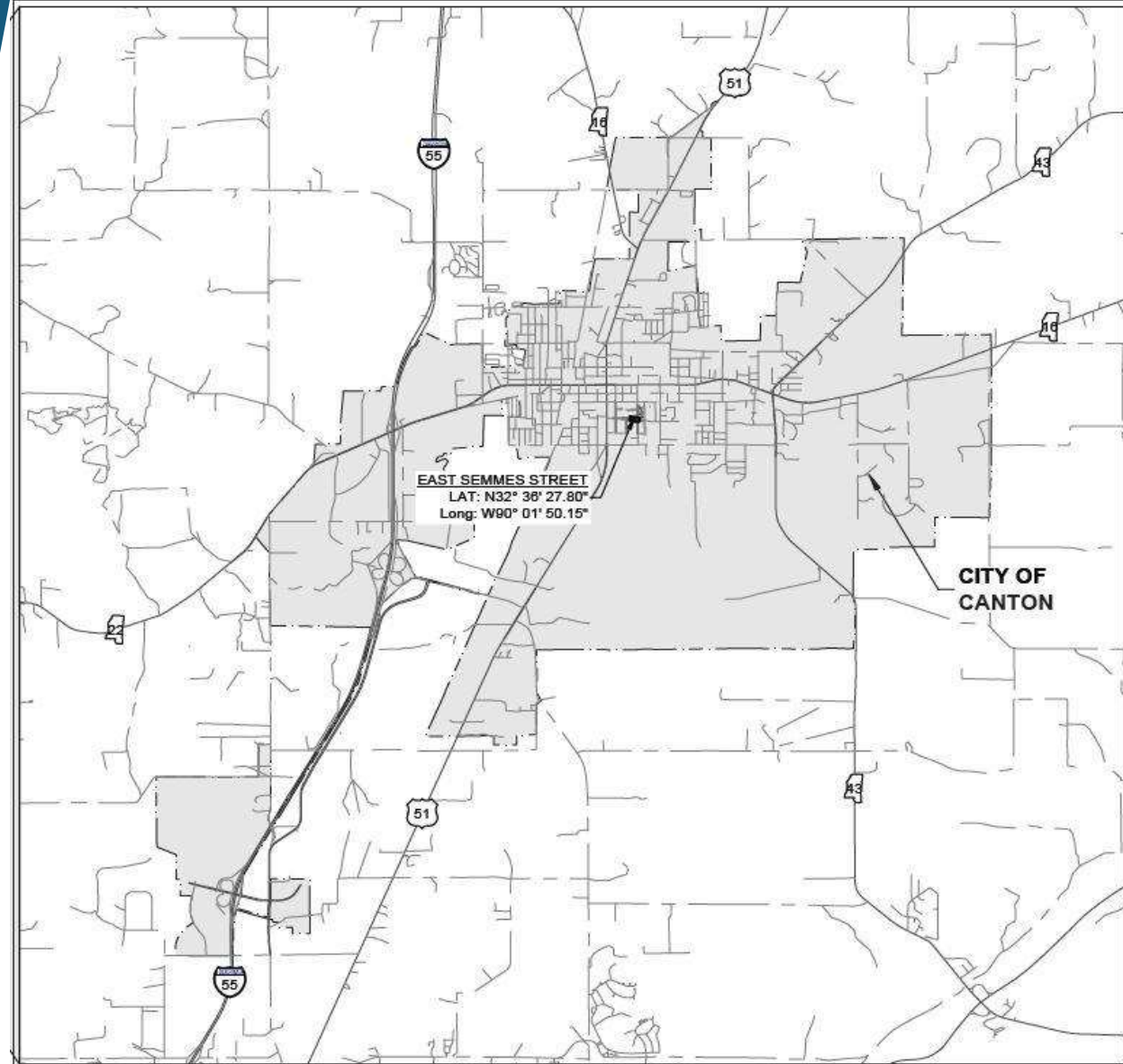
- Congressional Authorization
 - *Madison County Watershed Program*
 - *\$10 million through Corps of Engineers*
- NRCS Emergency Watershed Protection
 - *Following 2022 storm events*
 - *Cost-shared between Canton and County*
- State MCWI Grant
 - *City of Canton Drainage*
 - *Leveraging of ARPA funds*
- NRCS Watershed & Flood Prevention
 - *Bear Creek Watershed*
 - *Initial Allocation - \$23.5 million*



Madison County Emergency Watershed Protection (EWP)



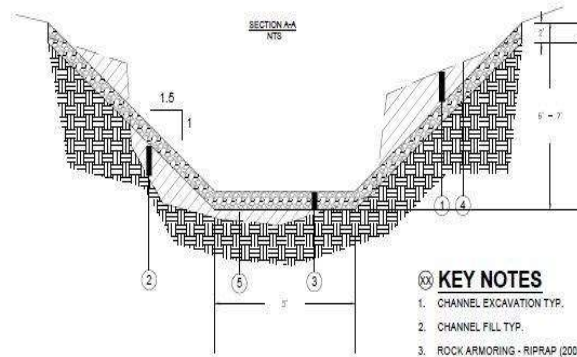
Madison County NRCS
EWP Project
East Semmes Street



Madison County NRCS
EWP Project
East Semmes Street



Madison County NRCS EWP Project East Semmes Street



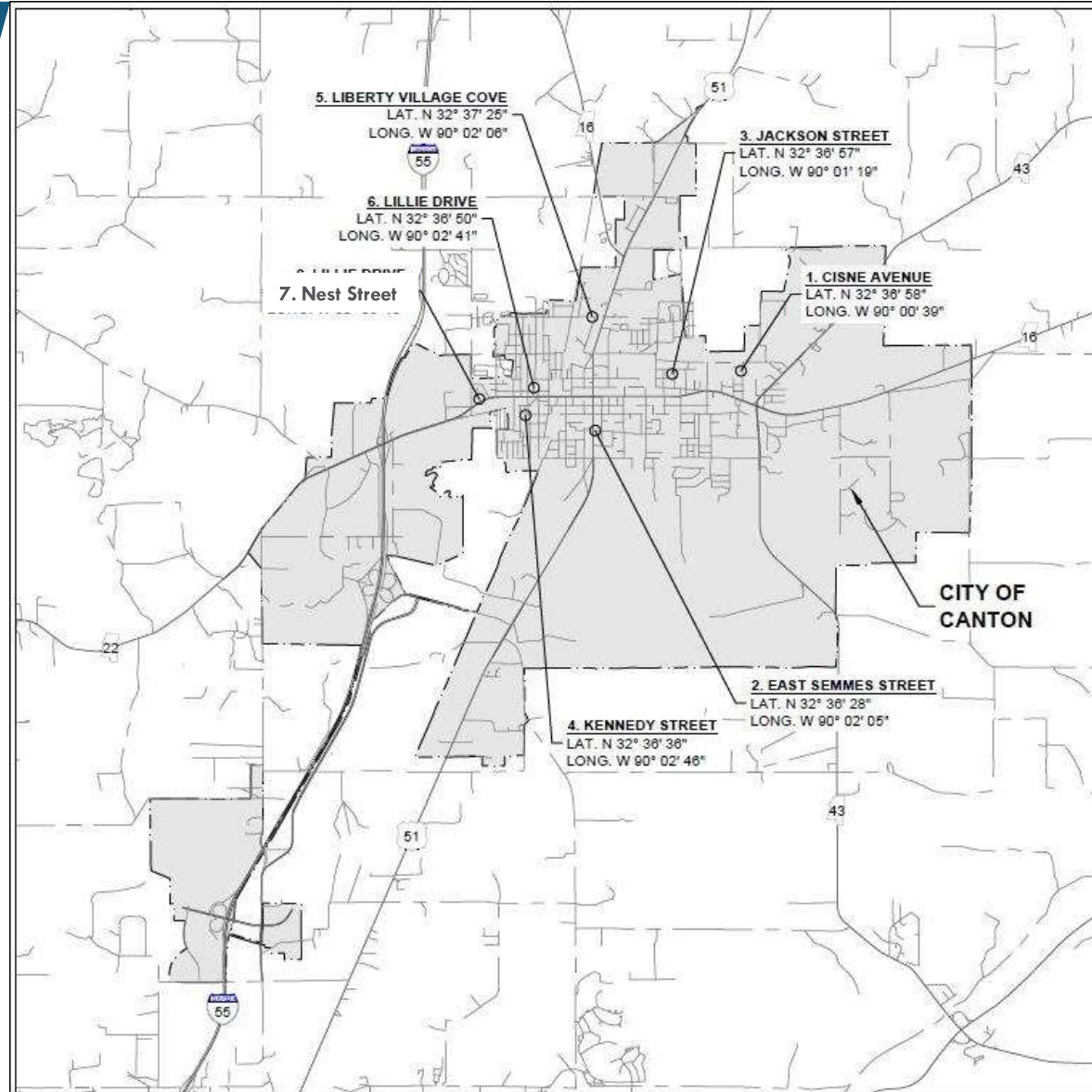
City of Canton Drainage

- State MCWI Grant Program
 - *City of Canton Drainage*
 - *Leveraging of ARPA funds*
 - *\$1.3 million*



City of Canton Drainage Improvement Projects

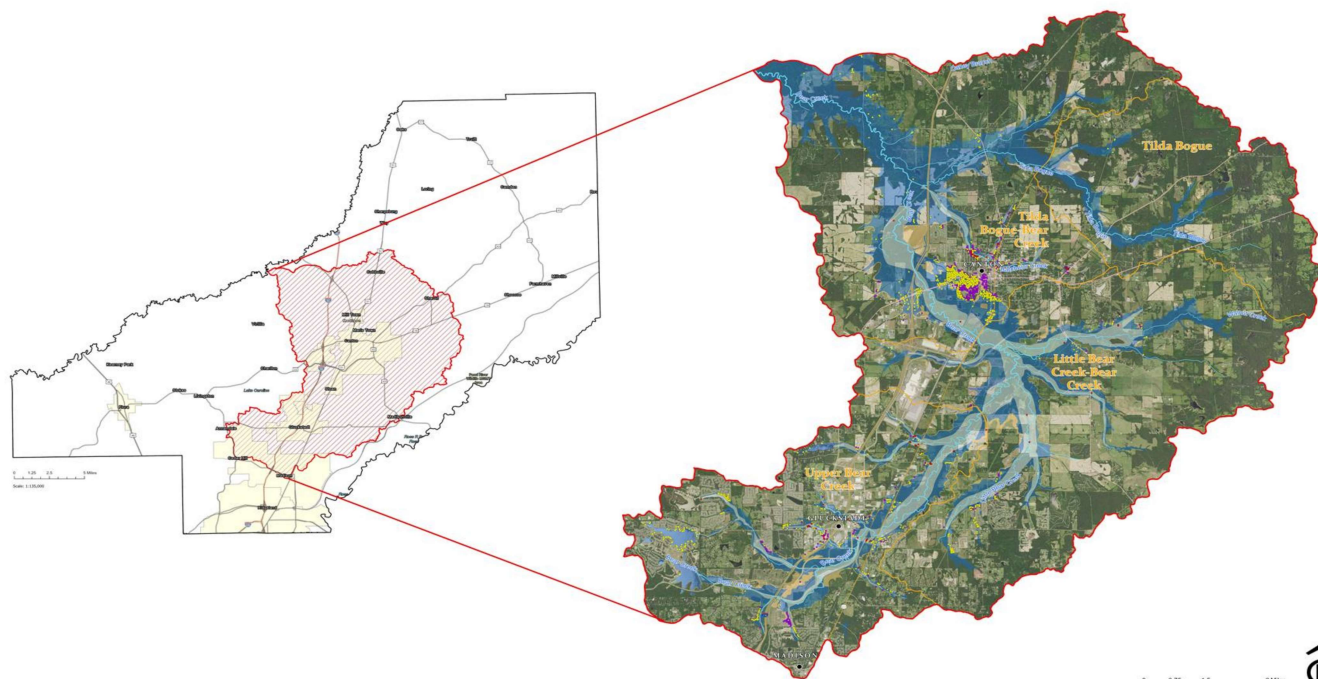
- Cisne Avenue
- East Semmes Street
- Jackson Street
- Kennedy Street
- Liberty Village Cove
- Lillie Drive
- Nest Street



Bear Creek Watershed Plan & Environmental Assessment



This is the Bear Creek Watershed



Goals of the Watershed Plan



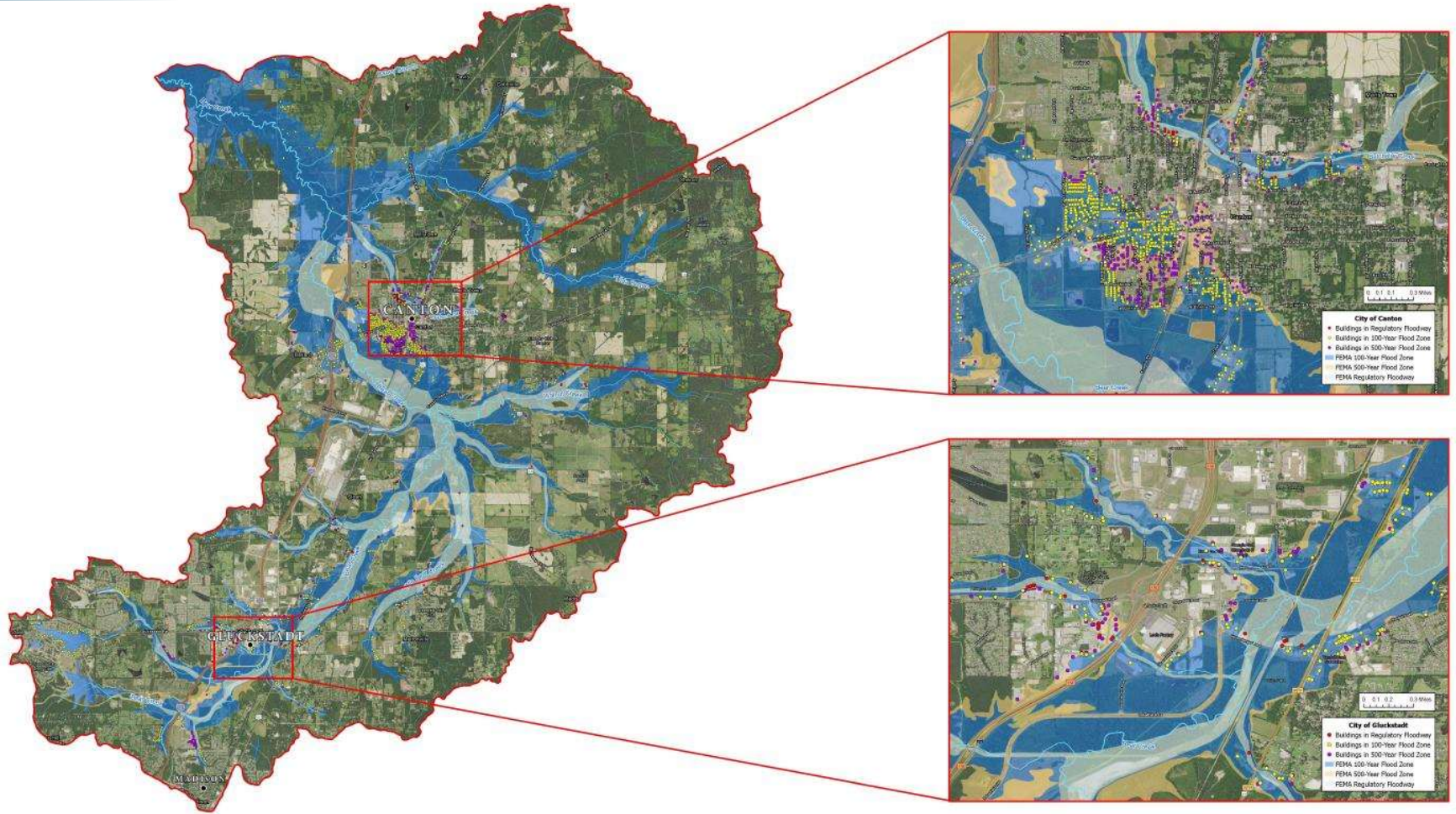
Flood Protection



Water Quality

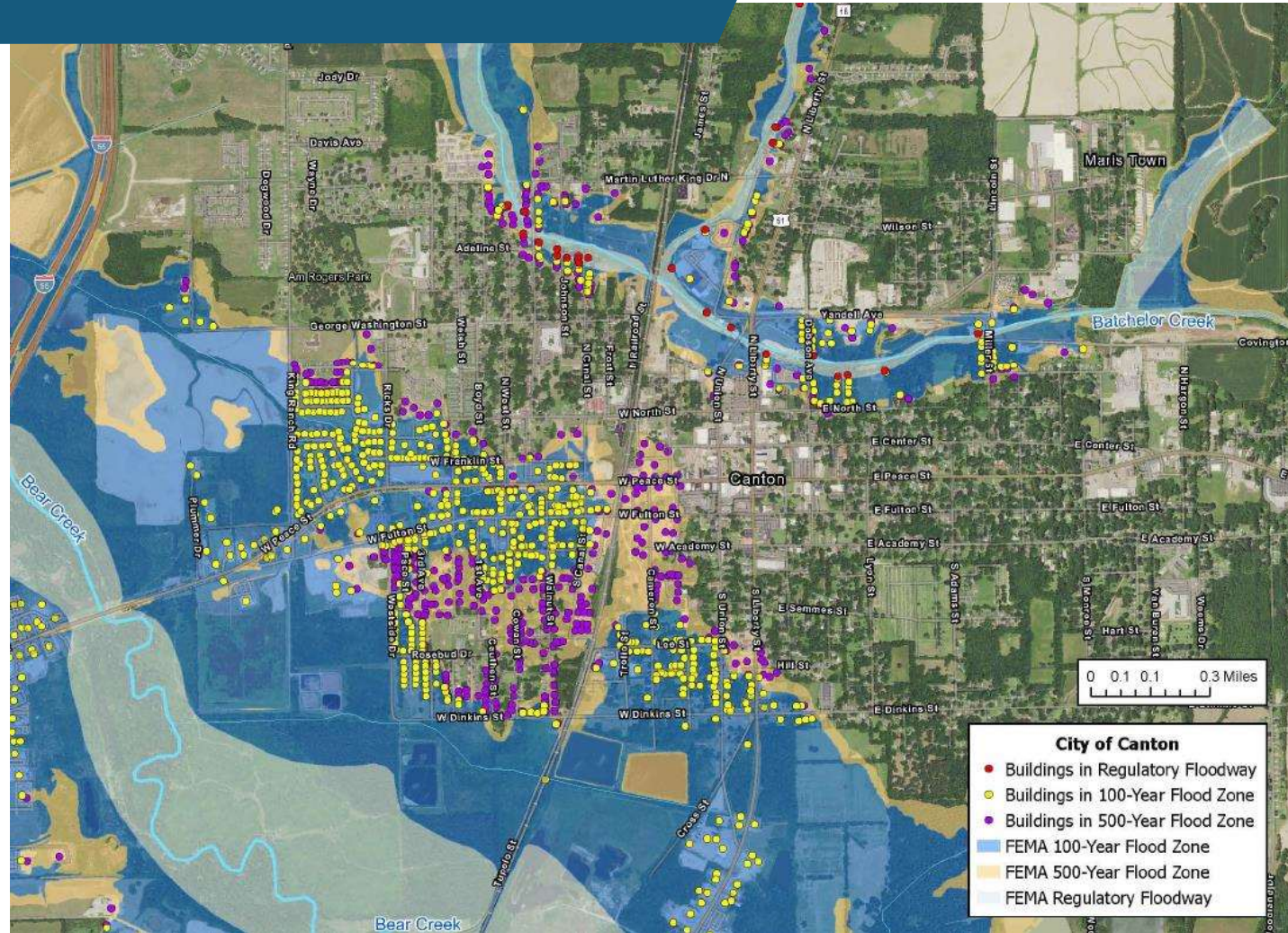


Problem Areas Identified

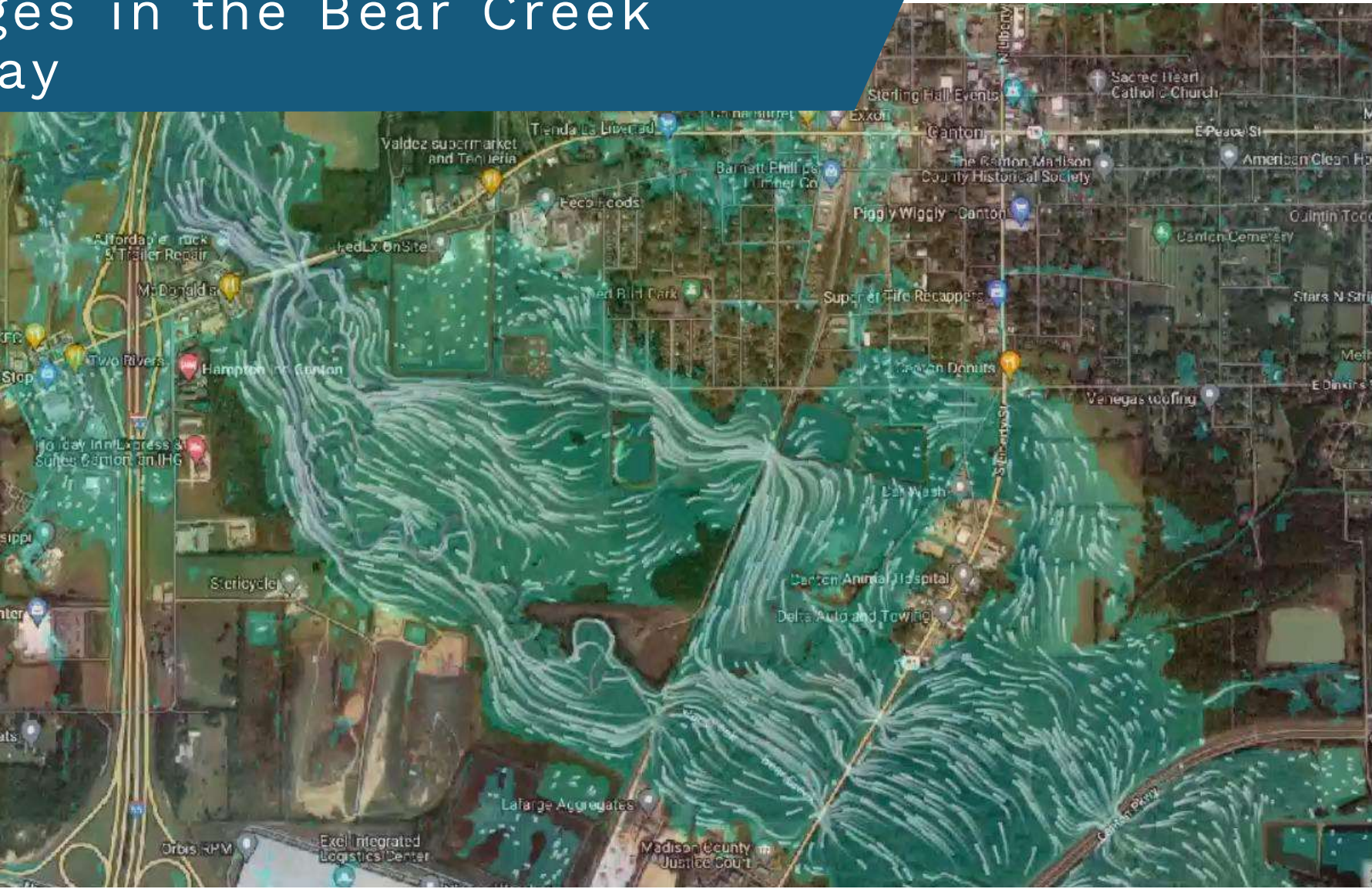


Structures in the Flood Hazard Area

- Bachelor Creek
- Hot Water Ditch
- Bear Creek



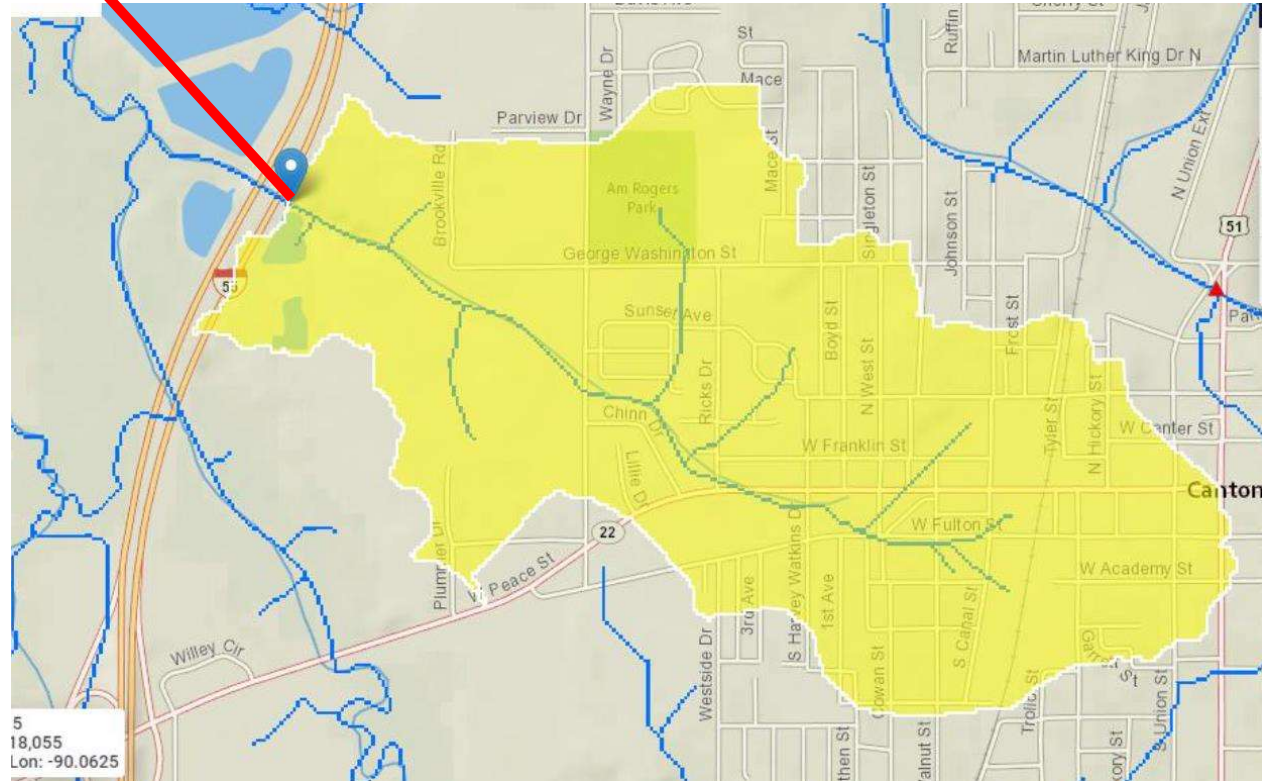
Blockages in the Bear Creek Floodway



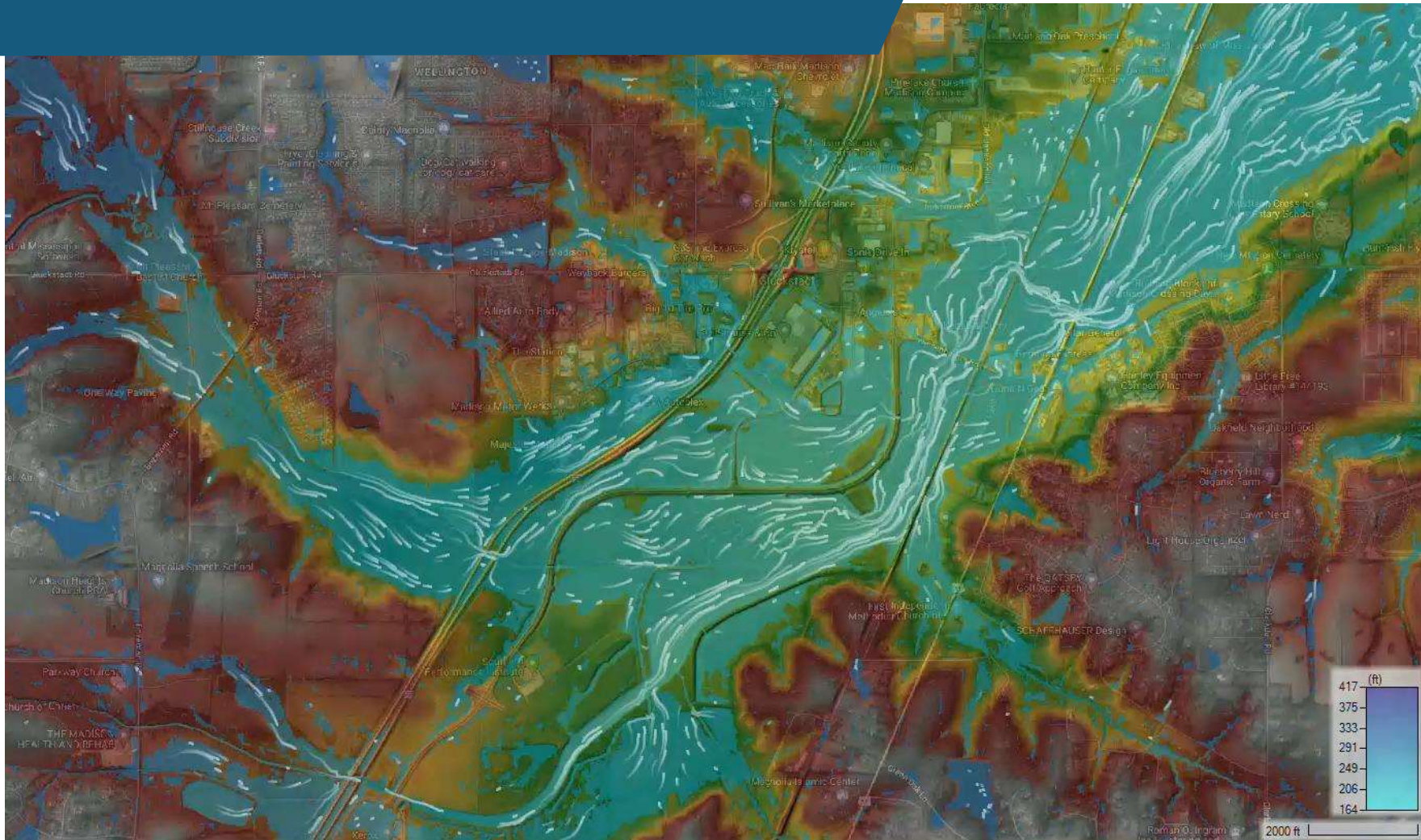
Restrictive Crossings – Hot Water Ditch



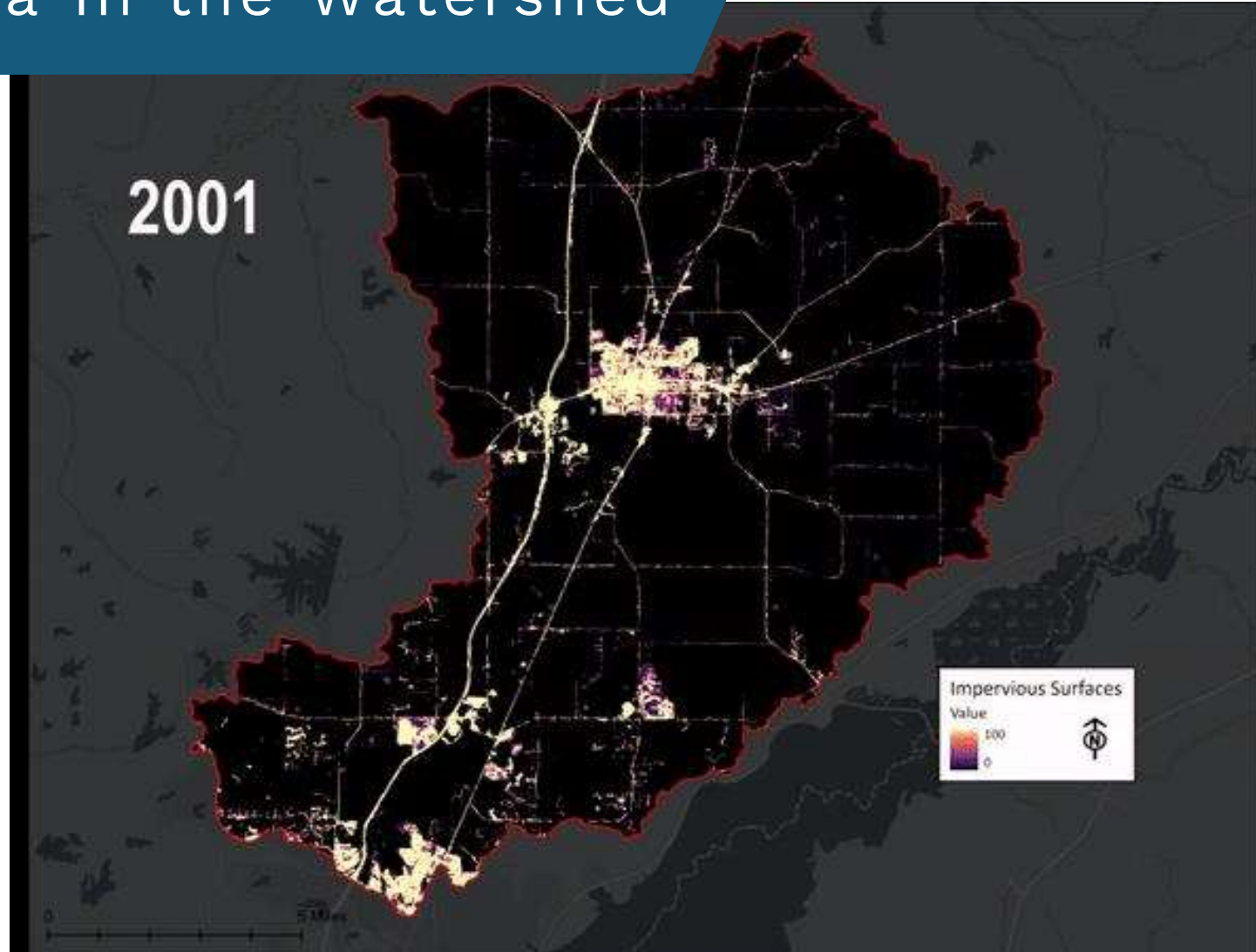
COUNTY



Alterations to Floodway – Upper Bear



Impervious Area in the Watershed



Possible Solutions to Reduce Flooding

Reduce the Flood Water

- Structural solutions
- Dams or Reservoirs
- Detention or Retention Ponds

Remove the Water Faster

- Upgrades to Existing Conditions
- Channel Stabilization
- Channel Widening or Straightening

Remove the Risks

- Property buy-out
- Relocation
- Floodplain restoration



Alternatives

Structural

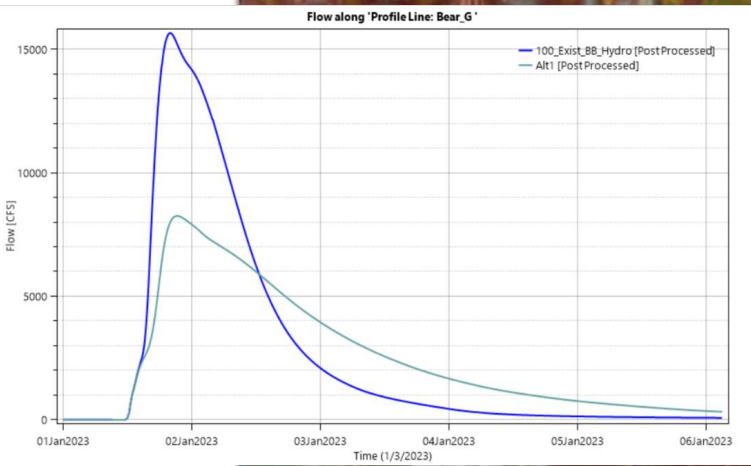
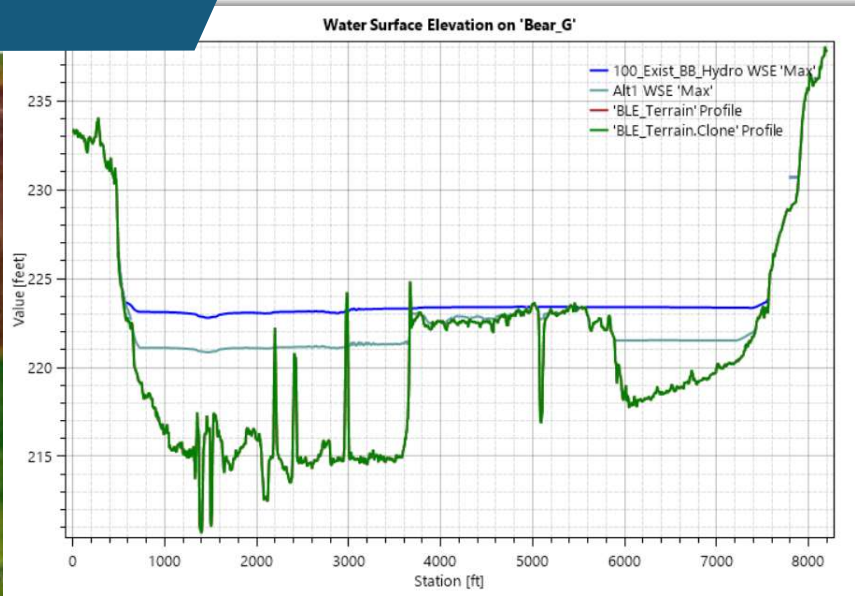
Flood control structures –
dams

Flood protection structures –
levees, floodwalls

Capacity enhancement –
channel modifications,
widening



Potential Structural Measures



Alternatives

Non-Structural

Watershed best management practices (BMPs) – cover crop, terracing, stream buffers

Flood buyout or easements – removing the flood hazard from the floodplain

Relocations – relocating flood-prone structures

Policy measures – floodplain development, land use

Preservation/Restoration – stormwater parks, wetland preserves, riparian zones



Potential Non-Structural Measures

Preservation and Restoration Area

- Reduce peak flows
- Preserve & restore wetlands
- Maintain natural, permeable ground cover
- Create public use & recreational areas



LEGEND

- 1.) BATH HOUSE / RESTROOMS
- 2.) BOARDWALK 10'
- 3.) BOAT LAUNCH NON-MOTORIZED
- 4.) CAMPING / PRIMITIVE
- 5.) CAMPING / RV
- 6.) CAMPING / TENTS
- 7.) CAMPING / TREE HOUSE CABINS
- 8.) CHANNEL
- 9.) CHANNEL STORAGE
- 10.) CONTROL STRUCTURE / WEIR
- 11.) DRIVEWAY
- 12.) ENTRANCE SIGN
- 13.) LAKE
- 14.) LITTORAL SHELF / AQUATIC PLANTING
- 15.) MAINTENANCE FACILITY
- 16.) MARSH RESTORATION
- 17.) MULTI-PURPOSE TRAIL 10' with interpretive signage and seating areas.
- 18.) PARK OFFICE with event rental, meeting rooms, rain garden and restrooms.
- 19.) PARK ROAD
- 20.) PHOTO BLINDS
- 21.) PICNIC GROUNDS with playground, restrooms and shelter.
- 22.) PIER
- 23.) PUBLIC PARKING with bioswales and permeable pavement.
- 24.) RECREATIONAL AREA with corn hole, dog park, game tables, pickleball, playground and shelters.
- 25.) RECREATIONAL AREA with event garden/plaza, festival grounds, food court, frisbee golf, group pavilions, multi-purpose fields and parking.
- 26.) SHELTER
- 27.) ZIP LINE COURSE



BEAR CREEK
 W A T E R S H E D P R E S E R V E

20231025

Potential Non-Structural Measures

Preservation and Restoration Areas



Potential Non-Structural Measures

SITE AMENITIES, FEATURES & PROGRAMMING EXAMPLES



Primitive Camping



Tent Camping



Recreational Vehicle (RV) Camping



Tree House Cabin Camping



Stormwater Management & Retention Plantings



Littoral Shelf / Aquatic Plantings



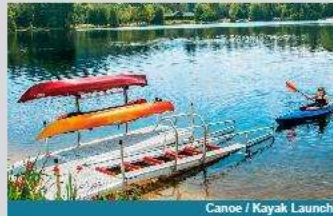
Raingarden



Bioswale



Water Bike



Canoe / Kayak Launch



Canoeing



Fishing



Picnic Shelter



Large Group Picnic Area



Family Picnic Area



Multi-purpose Trail & Seating Areas



BEAR CREEK
WATERSHED PRESERVE



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