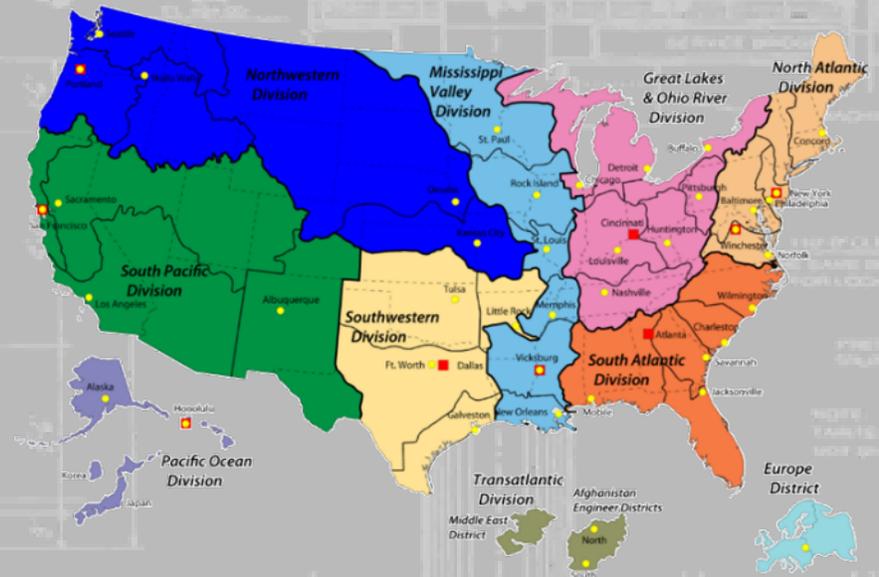


CAHOKIA HEIGHTS, IL TECHNICAL AND PROJECT ASSISTANCE

Shawn Sullivan & Ashley Rasnic
Project Management Division
St. Louis District



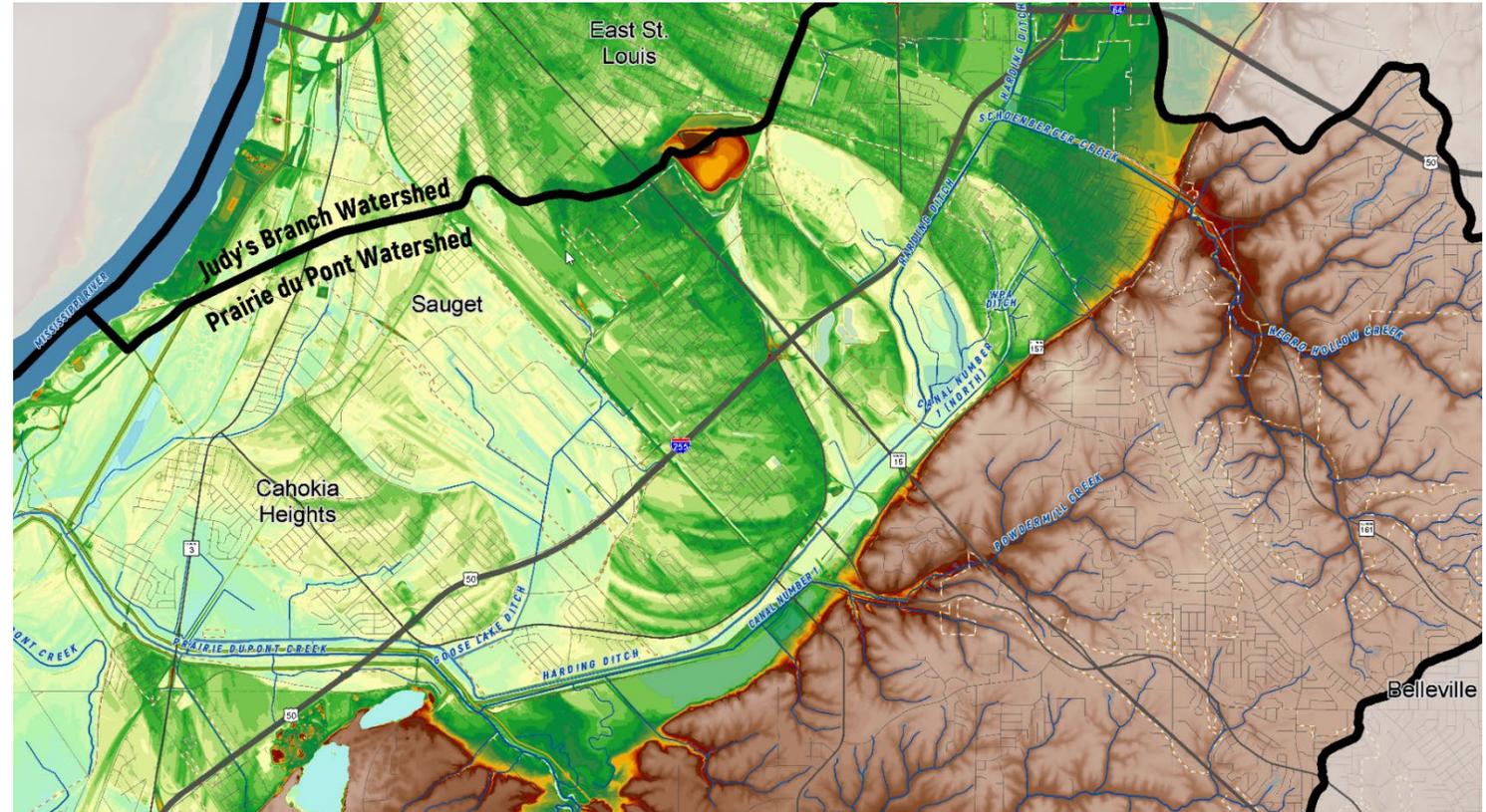
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Agenda



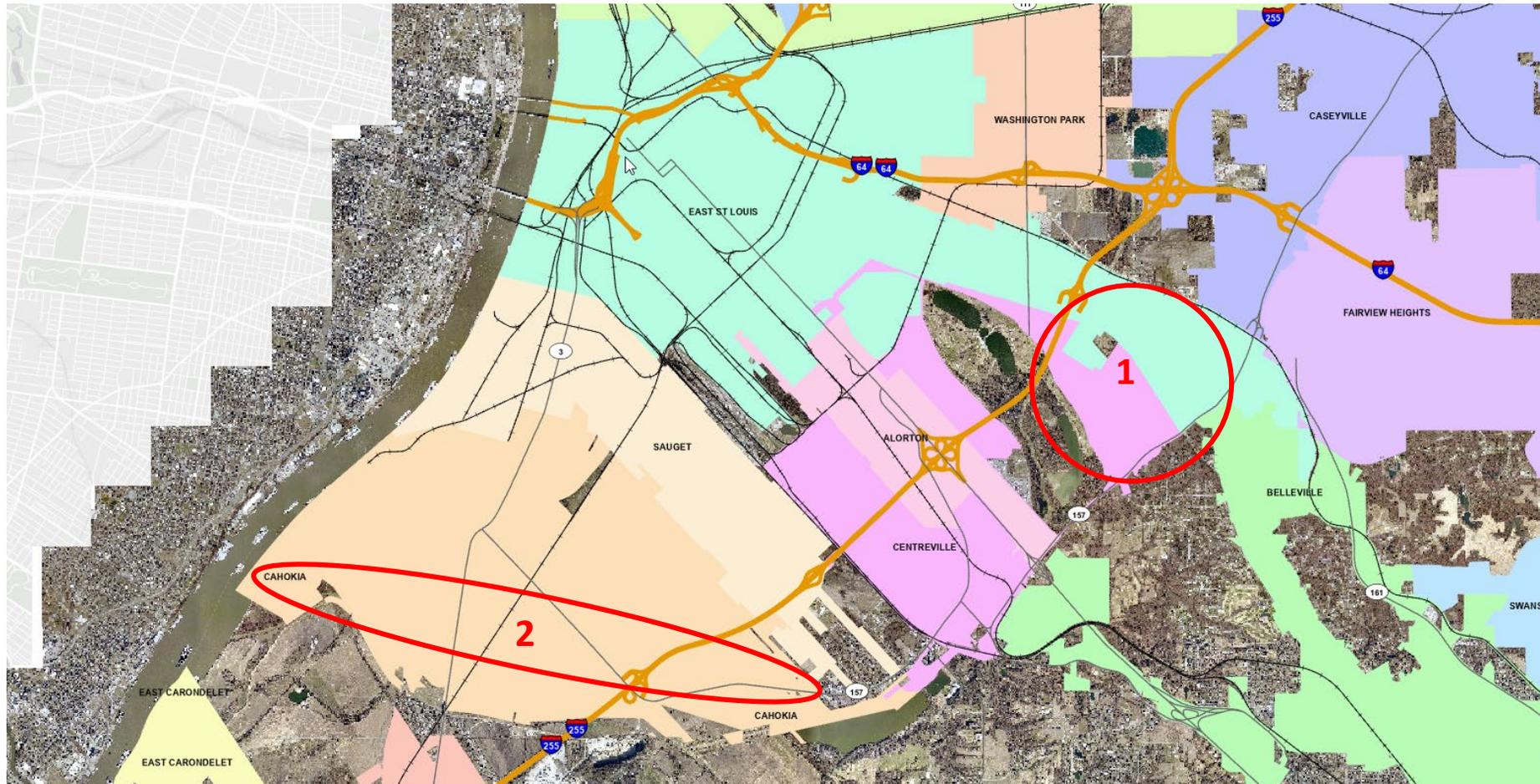
- USACE Assistance Overview
- Flood Hazard Analysis
- Wastewater Infrastructure Assistance
 - Program
 - Project Coordination
 - Process and Budgeting
 - Project Type and Location
 - What is CIPP
 - Schedule and Status





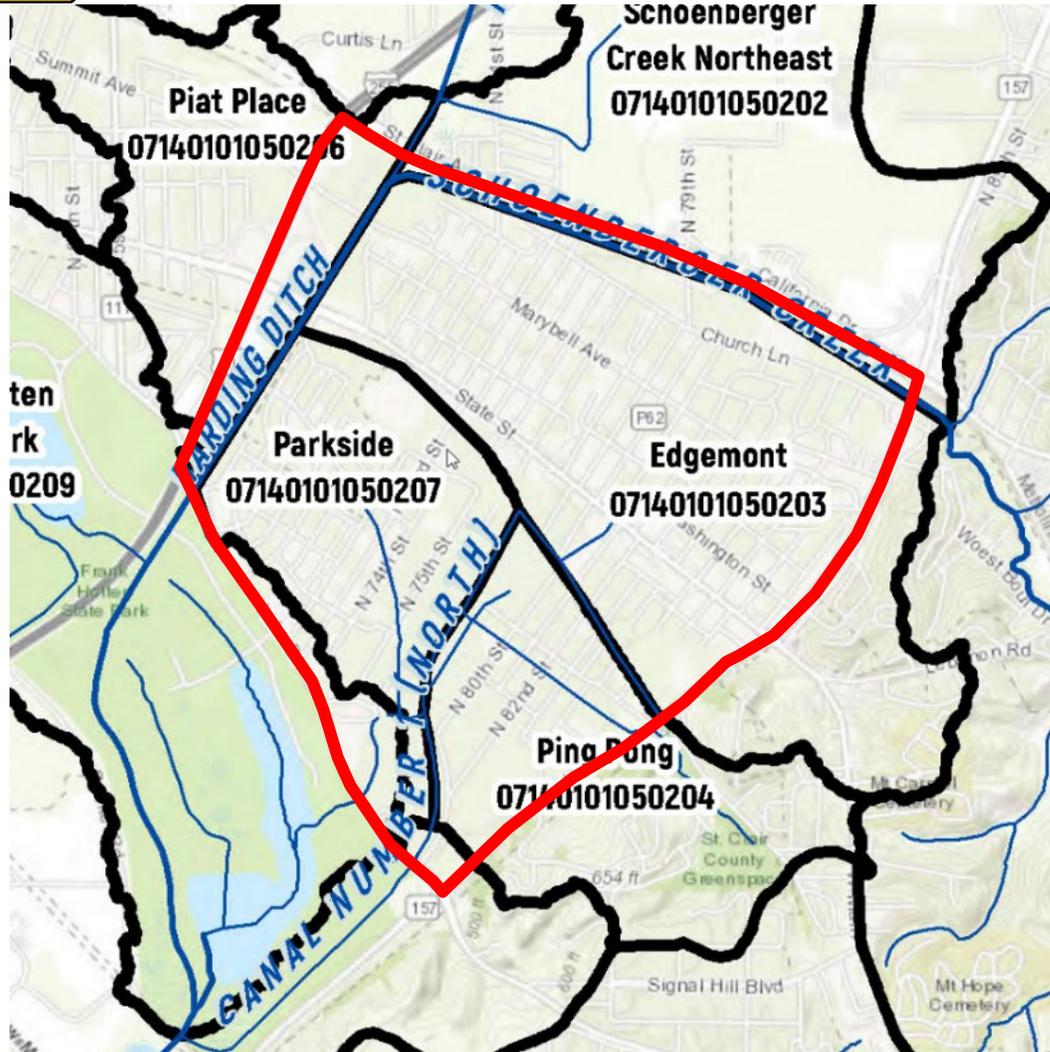
Technical and Project Assistance Overview

- Evaluating two areas under two separate authorities.
 - 1) Flood Hazard Analysis – Technical support to local government
 - 2) Wastewater Infrastructure Assistance – Project support to local government





Flood Hazard Analysis Study Area



- Floodplain Management Services – Special Study
- 100% Federal Cost
- Requested by City of Cahokia Heights January 2022
- Supported by City of East St. Louis May 2022

Requests for assistance under the FPMS program must be submitted by an appropriate representative of a non-Federal partner to the local USACE District and include the location and nature of the problem to be investigated.

- Federal Funds Received
- Initiated in Mid-July 2022
- 12 Month Schedule
- Final Report with Recommendations for Local Government Implementation.

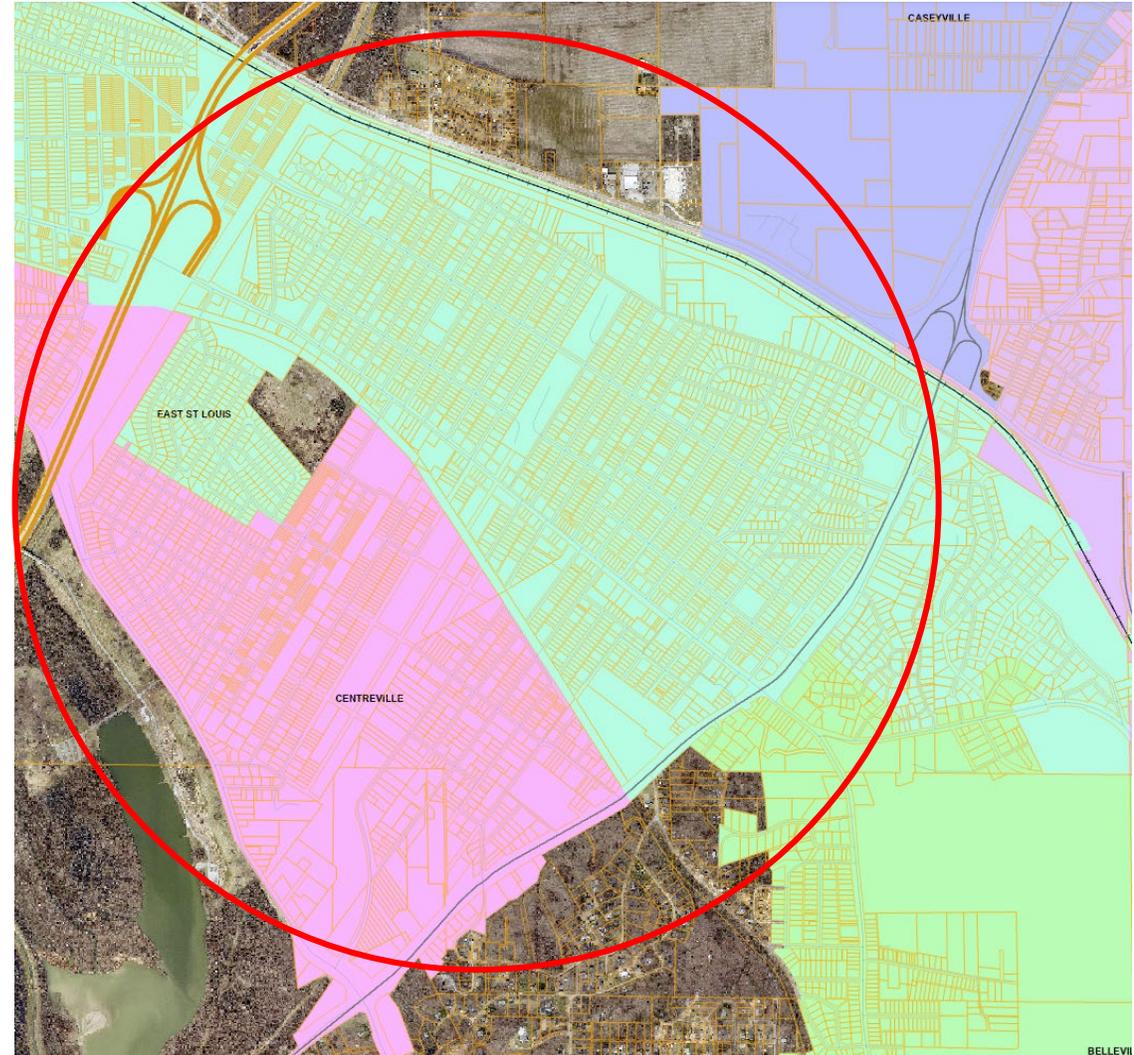


Flood Hazard Analysis

Project Schedule and Future Engagements



- **November 2022:** Complete Modeling and Public Coordination
- **March 2023:** Finalize Recommendations and Public Coordination
- **July 2023:** Report Finalized
- **August 2023:** Approved Report posted to public website

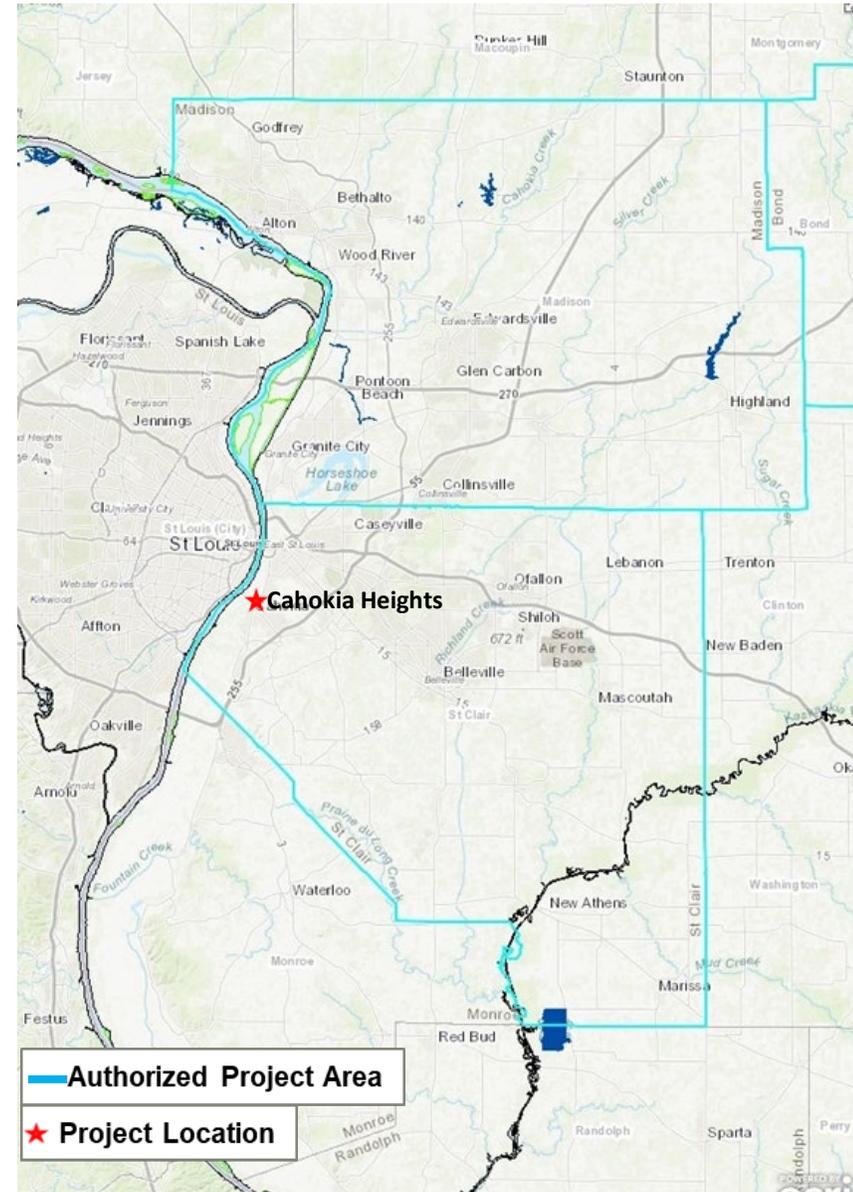




Section 219 Environmental Infrastructure Program



- Congressionally enacted authority under Section 219 of the Water Resources Development Act (WRDA) of 1992.
- Provides USACE with the ability to assist a city or county government with Drinking Water and/or Wastewater Infrastructure Improvements.
- Assistance may be in the form of design, construction, or design and construction.





Section 219 Project Coordination



- In January 2022, USACE held a meeting with the City, their engineer, and representatives from USEPA Region 5 to explain the Section 219 Program and general assistance parameters to help inform what type of assistance project USACE could support under this authority.
- The parameters given were:
 - Water or wastewater infrastructure focused,
 - Shovel ready,
 - Roughly \$3 Million in initial Federal funding support, and
 - Minimal real estate acquisition or utility relocation requirements.
- In March 2022, the City's Engineer informed USACE that the best opportunity would be to assist with cured-in-place-pipe (CIPP) lining of a large portion of the sanitary sewer trunkline in the city.
- In March 2022 USACE attended site visit with City's Engineer.
- In April 2022, USACE attended site visit with USEPA Region 5 Inspectors.
- In June 2022, USACE lead Interagency partnership meeting with Federal and State agencies for project review and concurrence.



Section 219

Process and Budgeting



- In March 2022, USACE - St. Louis District received Federal funding in the Infrastructure Investment and Jobs Act in the amount of \$25,000 to document a wastewater infrastructure assistance project requested by the City of Cahokia Heights, Illinois, with a Letter Report.
- The Letter Report defines:
 - Scope of Federal construction assistance,
 - Environmental compliance requirements for the proposed work,
 - Enables USACE to enter into a Project Partnership Agreement with the City, and
 - Establishes the implementation responsibilities between USACE and the City.
- While completing the Letter Report, we have also submitted a Federal budget request for construction implementation funding in the Federal fiscal year 2023 budget.
- Senator Durbin has supported this Federal budget request through the Community Directed Funding process found at <https://www.durbin.senate.gov/issues/fy-2023-earmark-disclosures>.
- Implementation of the wastewater infrastructure assistance project will depend on an appropriations bill being passed and allocation of funds to the project.

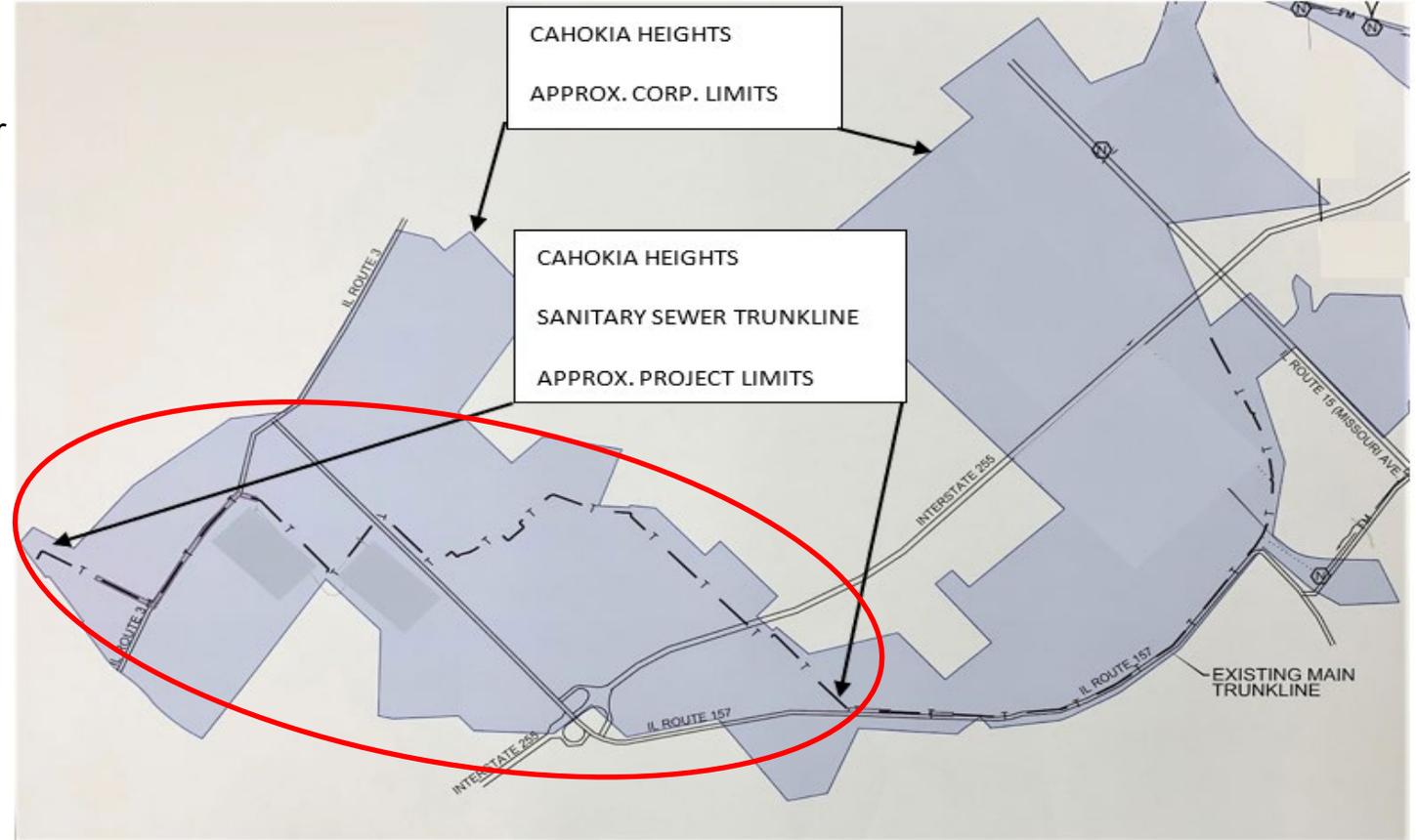


Section 219



Project Type and Location

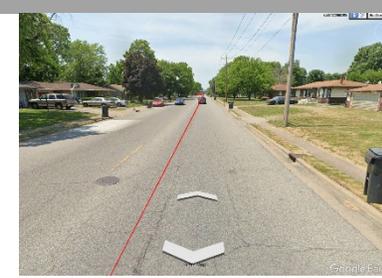
- City requested USACE assistance with a cured-in-place-pipe (CIPP) lining of the sanitary sewer trunkline.
- Trunkline is the main conduit that carries all wastewater from any home or business to the Levin Drive Pump Station for transfer to the American Bottoms Wastewater Treatment Plant in Sauget, IL for processing.
- Trunkline is a critical part of the sanitary sewer infrastructure.
- Trunkline failure would be a total failure of the sanitary sewer collection and transport network in the city.
- The City has recently secured \$21M in State announced funding to address sanitary sewer rehabilitation and replacement.
- These components include the rehabilitation or replacement of lift stations, CIPP and slip lining.
- Collectively these improvements will:
 - Eliminate sanitary sewer overflows,
 - Reduce or eliminate system surcharging,
 - Eliminate sanitary sewer service backups,
 - Reduce operation and maintenance cost,
 - Meet level of service expected by the community and increase reliability of the sanitary sewer service.



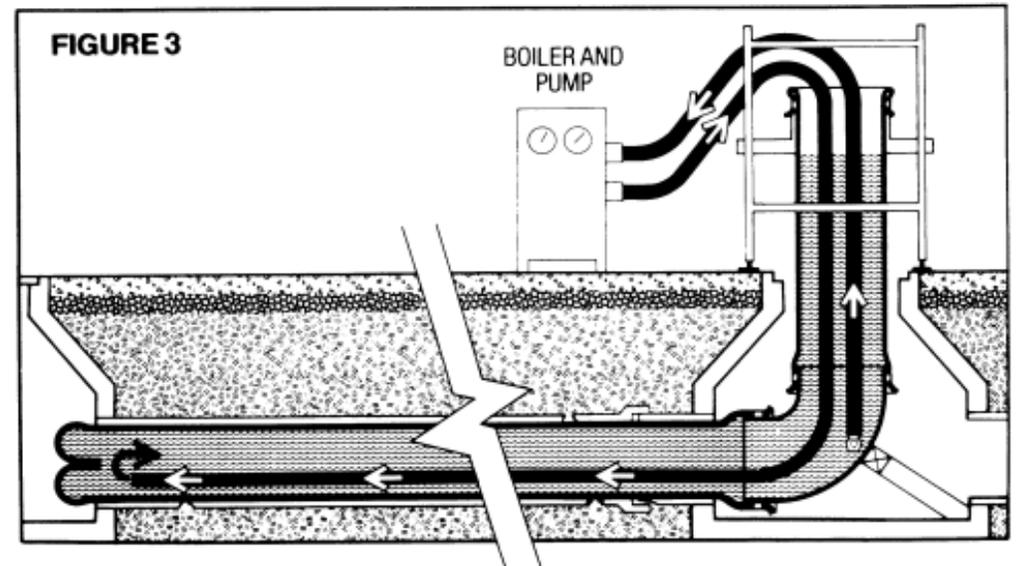
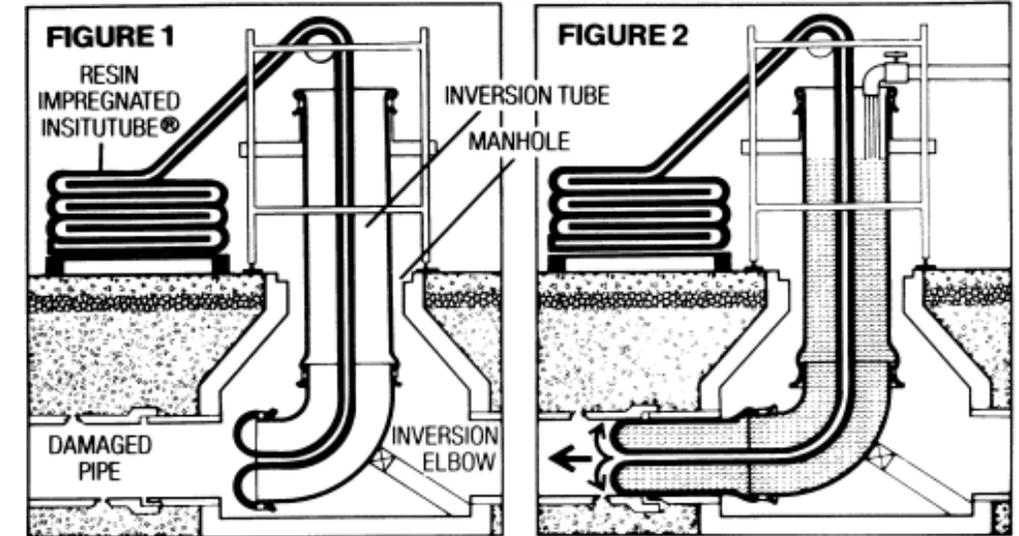


Section 219

Cured-In-Place Pipe “Lining Project”



- CIPP is a trenchless sewer rehabilitation method that does not involve labor-intensive dig and replacement of the existing trunk sewer line.
- The lining material consists of a flexible fabric liner, coated with a thermosetting resin, inserted into the existing sewer line and cured to form a new hardened liner.
- The liner is inserted into the existing pipe through an existing manhole. The fabric tube holds the resin in place until the tube is inserted in the pipe and is ready to be cured.
- Commonly manufactured resins include unsaturated polyester, vinyl ester, and epoxy, with each having distinct chemical resistance to domestic wastewater (per USEPA Fact Sheet)
- The thermosetting resin material bonds with the existing pipe materials to form a tight seal.
- Applied by an inversion-in-place method using either water or air pressure to force the tube through the pipe and turn the tube inside out. The inversion presses the resin-coated tube against the walls of the existing pipe.
- Heat is then circulated through the tube to cure the resin to form a strong bond between the tube and the existing pipe.
- This method eliminates defects in the sewer line such as cracks, offset joints, and structurally deficient segments.





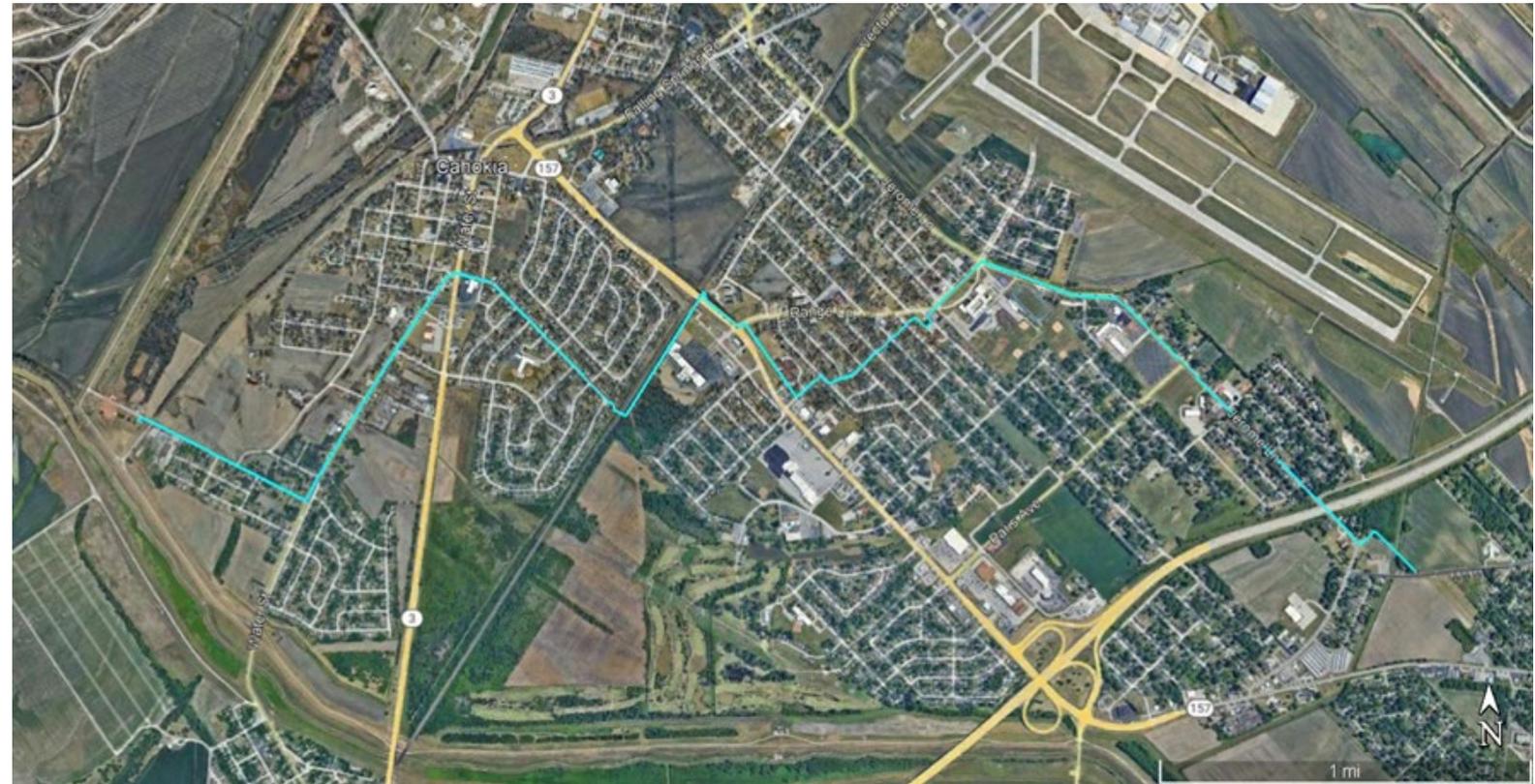
Section 219



Letter Report Schedule and Status

- ✓ March 2022: Submit FY23 Work Plan package for project construction
- June* – November 2022: Document proposed project within Letter Report; Obtain Approval
- March 2023: Anticipated Receipt of FY23 funding for project construction
- July 2023: Execute Cost Share Agreement with City
- November 2023: Contract Award
- December 2023: Construction Start

** Public Review is complete. Letter Report projected to be submitted for higher Major Subordinate Command review and approval by end of August.*





Section 219



Implementation Responsibilities

- The proposed project will be cost-shared between Federal appropriations and the City. The Federal share of the project cost is 75% and the City must contribute at least 25% of the total project costs.
- The City, through their civil engineer Hurst-Rosche, Inc., will finalize plans and specifications for the proposed project and provide them to the Corps for review and implementation.
- Plans and specifications for work to be performed will be formatted into Corps standards and a Biddability, Constructability, Operability, Environmental and Sustainability (BCOES) review will be conducted.
- USACE will advertise and award a competitive contract after execution of the Project Partnership Agreement.
- USACE will perform quality assurance, manage all contract administration actions, and coordinate construction inspection activities during construction.
- After construction is complete, the City is responsible for future Operation, Maintenance, Repair, Rehabilitation and Replacement.



FOR MORE INFORMATION



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