IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF ILLINOIS

UNITED STATES OF AMERICA,

and

THE STATE OF ILLINOIS,

Plaintiffs,

v.

CITY OF CAHOKIA HEIGHTS, ILLINOIS,

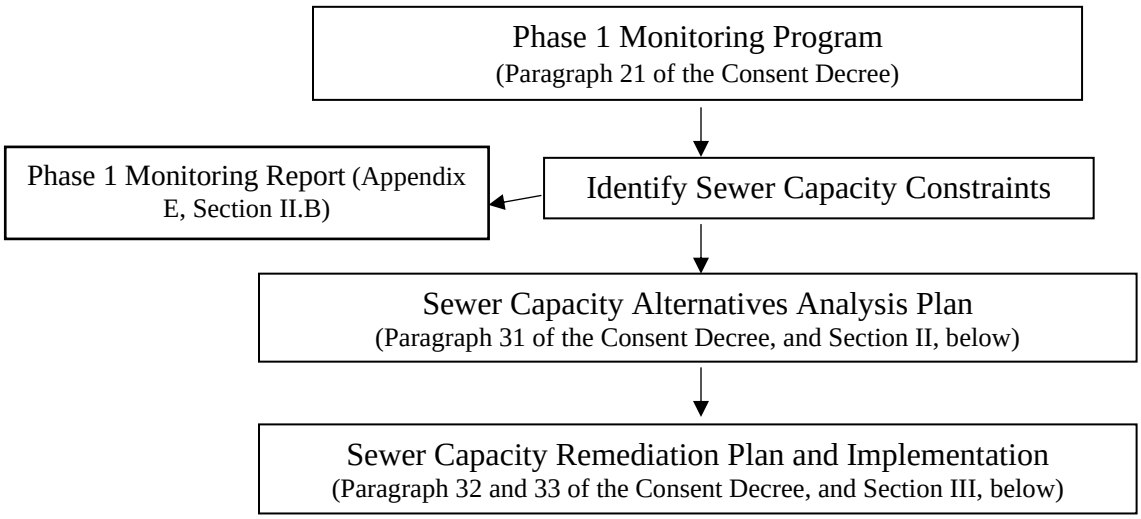
Defendant.

CONSENT DECREE

APPENDIX F

Appendix F
Sewer Capacity Alternatives Analysis and Remediation Program Requirements

I. This appendix details the process the City shall follow to implement the Sewer Capacity Alternatives Analysis and Remediation Program required under the Consent Decree. Terms appearing in this appendix retain the definitions assigned under the Consent Decree. The following is a narrative process tree that summarizes the steps the City shall follow to analyze Phase 2 Sewer Capacity Alternatives and develop Phase 2 Sewer Capacity Remediation Plan.



II. Sewer Capacity Alternatives Analysis Plan

A. The City shall describe the proposed engineering analyses and/or hydraulic modeling process, including model evaluation storms, to be used to evaluate potential remedial alternatives most likely to resolve any Sewer Capacity Constraints. Remediation alternatives to be considered include but are not limited to:

1. re-routing a portion of upstream wastewater flows;
2. reducing flows entering the Sewer System from customers;
3. reducing inflow and/or infiltration;
4. increasing conveyance capacity of the Sewer System;
5. installing upstream flow detention facilities;
6. continued monitoring of the location if appropriate; and/or,
7. implementing other engineering solutions.

B. The City shall use the engineering analyses and/or hydraulic modeling, pursuant to the EPA and IEPA approved Sewer Capacity Alternatives Analysis Plan, to determine which remediation projects are most likely to resolve the Sewer Capacity Constraints. The City shall apply the

engineering analyses, evaluation storms (if appropriate), and population growth projections through 2045 to determine appropriate asset sizing as needed for Sewer Capacity Constraints.

III. Sewer Capacity Remediation Plan and Implementation

A. For each remediation project selected through the Sewer Capacity Alternatives Analysis process, the City shall create a plan and schedule for implementing the remediation project. The City shall prioritize remediation projects and periodically evaluate these priorities by reviewing:

1. the severity of Sewer Capacity Constraints identified during inspections;
2. the frequency and history of capacity-related SSOs;
3. the pipe size, age, material, and maintenance history;
4. the relationship of Sewer Capacity Constraint areas of the Sewer System to growth-related improvements and/or condition related improvements; and
5. other criteria the City determines appropriate.

B. For each remediation project selected, the City shall also:

1. identify the project name, the existing Gravity Sewer Line or other facility that will be remediated, and the pertinent design information for that planned capacity project;
2. for projects involving parallel Gravity Sewer Lines or replacement Gravity Sewer Lines, list the pipe size, pipe length, and the hydraulic design criteria utilized for sizing, including the maximum percentage-full allowed in each Pipe Segment;
3. at a minimum, size all projects to accommodate peak wet-weather I/I and peak dry-weather flows generated by projected population growth through 2045;
4. coordinate the implementation of the capacity-related remedial measures solution with any condition rehabilitation projects, as needed;
5. allocate its budget to account for the planned remediation project;
6. prepare design documents for bidding and construction, as needed; and
7. prioritize the implementation of the remediation project based upon the risk and consequences of SSOs that could occur from the asset or group of assets in the Sewer System found to be deficient in capacity.

C. The City shall implement all remediation projects in accordance with the EPA and IEPA-approved Sewer Capacity Remediation Plan schedule.