

DeKalb WIFIA Loan Project Description:

DeKalb County’s Priority Area Sewer Assessment & Rehabilitation Program (PASARP), which is a collection of repair and rehabilitation sub-projects or work packages, evolved out of the need to rehabilitate and repair an aging wastewater collection and treatment system which allowed sanitary sewer overflows (SSOs). As a result, the County entered into a Consent Decree in December 2011. The County identified areas within the system that required immediate attention (PASARP) and “non-essential areas” which is classified as the Ongoing Sewer Assessment & Rehabilitation Program (OSARP). Condition assessments were performed on approximately a third of DWM’s sewer system in the PASARP areas; e.g. 5 million linear feet of sewer and 27,000 manholes over a two-year period from January 2015 through December 2017. Hydraulic modeling, used to determine sewer capacity, is also being performed on essentially the entire system which includes approximately 12 million linear feet of sewer; 77,000 manholes; and 63 pump stations/force mains. It is estimated 15 to 30 percent of the components will need to receive rehabilitation or capacity upsizing. The PASARP rehabilitation work is shown on Exhibit 1.

The PASARP rehabilitation work was commenced under CIP 2010, line item 44, and will be complete as part of the proposed CIP 2021. The work described below will be completed through multiple work packages and various delivery methods, only a portion of which are included in the WIFIA loan.

Sewer Consent Decree related projects and costs recommended for inclusion in this \$265 Million WIFIA Loan, each at various phases of design/construction, include the following:

Table of Recommended Projects for Inclusion in WIFIA Loan¹

Project/Task	Project Cost in WIFIA Loan	Cost to be Reimbursed by WIFIA Loan	Status
Consent Decree (CD) Program Management Services (PMS) (Jacobs)	\$53.4M	\$26.2M	Contract underway since 2014
Capital Improvement Projects (CIP) PMS (AECOM)	\$12.3M	\$6.0M	Contract underway since 2015

Cooperative Agreement with Rockdale County for IPR Southeast	\$5.7M	\$2.8M	Construction ongoing since July 2019
Cooperative Agreement with Savannah for Insituform Technologies	\$14.9M	\$7.3M	Construction ongoing since October 2019
Gravity Sewer Rehabilitation and Replacement (GSRR) Contracts	\$61.3M	\$30.0M	BOC approved in July 2020
GSRR Construction Management (CM) Contracts	\$4.8M	\$2.4M	BOC approved in April 2020
Potential future GSRR 2 Contracts	\$31.5M	\$15.4M	Future procurement
Engineering Design Task Orders through Existing DWM Annual A/E Services Contract	\$0.9M	\$0.4M	Design is near completion for priority upsizing sewer projects
Briarcliff South	\$13.9M	\$6.8M	Construction underway
Briarcliff North	\$19.8M	\$9.7M	60% design underway
Trunk Sewer Upsize/Storage Design, Construction and CM Contracts	\$203.7M	\$99.8M	Future procurement
OSARP Tiered and Other Assessments	\$73.8M	\$36.2	Ongoing since 2019
OSARP Design, Construction and CM Contracts	\$45.0M	\$22.0M	Future procurement
Total	\$541M	\$265M	

Note: 1. The above table includes the projects that are expected to be funded through this loan. These projects, or others, will be as approved by the BOC.

Details about each of the above costs included in the WIFIA Loan are summarized below:

1) CD Program Management Services:

Commencing in 2014 and continuing through the present, Jacobs (formerly CH2M) conducts Program Management Services related to the CD Program. This includes a range of services and activities performed over the years in order to meet the County's requirements to achieve CD compliance.

2) CIP Program Management Services:

Commencing in 2015 and continuing through the present, AECOM conducts Program Management Services related to the CIP Program. This includes a range of services and activities performed over the years in order to develop and deliver the DWM's CIP Program. Only the portion of AECOM's funds associated with CD program activities (e.g. project development and delivery, etc.) are included in this WIFIA Loan scope.

3) Coop IPR Southeast

Through a Cooperative Agreement with Rockdale County, the County awarded this contract for sewer rehabilitation services for approximately 100,000 LF of sewer. The work started in July 2019 and is expected to continue through the end of 2020.

4) Coop Insituform

Through a Cooperative Agreement with the City of Savannah, the County awarded this contract for sewer rehabilitation services for approximately 140,000 LF of sewer. The work started in October 2019 and is expected to continue through the end of 2020.

5) GSRR Construction and CM Contracts:

The primary construction contracts to be funded with this loan are the GSRR contracts which are task-order-based contract bid by DeKalb County in October 2019, awarded by DeKalb BOC in July 2020 and are currently in the contract execution phase. It is structured with a Section 1 bid for rehabilitation of sewers (lining and point repairs) and Section 2 bid which is replacement of sewers (open cut and pipebursting). Two contractors were awarded for each Section. Bid quantities for Section 1 are approximately 200,000 LF of lining and for Section 2 are approximately 63,500 LF of upsizing of sewer mains involving open cut and 8,200 LF of pipebursting. As noted, should remaining rehabilitation and priority sewer upsizing be required following completion of the GSRR contracts, an additional GSRR style contract may be required for bidding depending upon remaining footages within the CD requirements.

The CM Contracts specific to the above GSRR contract work were awarded by the BOC to two firms in April of 2020. Contract execution is underway for each.

6) Engineering Design Task Orders for Sewer Upsizing:

Through CD PMT assessments and sewer modeling activities, a number of priority upsizing projects were scoped in order to meet CD requirements. These projects required full engineering design conducted through DWM's existing on-call A/E services contracts. Over the course of the previous 2 years, designs have achieved near 100% on these priority upsizing projects. The design fees for the four A/E task orders are included within the scope of this loan. The construction will take place over the course of the next several years through the GSRR construction contract mentioned above.

7) Briarcliff Area Water Mains:

a) South phase - DeKalb County replaces ~8 miles of existing 60-100 year old water mains in the Briarcliff Road/North Decatur Road area of DeKalb County. The mains run along Briarcliff Road between Virginia Avenue Northeast and Clifton Road and within an adjacent residential area east of Briarcliff Road (see attached Exhibit 2). The purpose of the replacement is to address an area of low pressure and low flow within the system that is a result of aging infrastructure that is under capacity. The residential area is generally bounded on the west by Briarcliff Road, the east by Lullwater Drive, the north by Emory Road and the south by The by Way. Total footage of water mains that require replacement is approximately forty-five thousand (45,000) feet. Contractors will install an 8", 12" and 16" water main within the road right-of-way with a single lane closure in place as work progresses. The disturbed road area will be repaved following completion of installation of the new pipelines. The large majority of the existing pipe in the project area is 6" cast iron pipe. Proposed improvements provide increased capacity with new 8", 12", and 16" ductile iron pipe. This work is currently underway.

b) North phase - A second phase of the work to be constructed prior to a planned GDOT road project extends the main replacement from Clifton Road north along Briarcliff Rd to North Druid Hills Road (see attached Exhibit 3). This includes an additional ~9,000 LF of 12" and 24" water main installation. This work is currently under design with expected 100% drawings by ~October 2020.

8) Trunk Sewer Upsize/Storage Design, Construction and Construction Management Contracts:

DWM has identified and expects to continue to identify multiple high-priority locations along trunk sewers which require rehabilitation to address defects or require capacity improvements to address conveyance capacity deficiencies. For the purposes of this program, a trunk sewer is defined as a sewer collection pipeline of 24-inches or greater, with the majority of the affected trunk sewers likely to be between 30 inches and 66 inches in diameter. While substantial condition assessment of trunk sewers has been completed, additional assessment remains as DWM continues its OSARP. Defective trunk sewers and their associated manholes identified during assessment activities will be rehabilitated with repair measures including, but not limited to, point repairs, installation of liners, and complete asset replacement. In addition to ongoing condition assessment activities, the trunk sewers continue to be evaluated for existing and future projected capacity limitations based on flow data and DWM's dynamic hydraulic model. DWM has already identified substantial capacity improvement needs and anticipates that further capacity evaluations will identify additional trunk sewers in need of capacity improvement. Projects to improve trunk sewer capacity include, but are not limited to, replacement with larger diameter piping, installation of new parallel relief sewers, and installation of offline storage facilities.

9) OSARP Tiered and Other Assessments:

DWM began sewer assessment work across OSARP areas in 2019, and this assessment work will continue as an ongoing program (see Exhibit 4). Like the PASARP rehabilitation, the OSARP rehabilitation will consist of a mix of trenchless rehabilitation, open-cut replacement, point repairs, and manhole rehabilitation and lining of the sewer collection system in OSARP areas for sewer collection pipes 18 inches in diameter or less. Hydraulic modeling and CCTV inspections will identify areas that cannot be rehabilitated in-line and will require open-cut point repairs.

10) OSARP Design, Construction and Construction Management Contracts:

Similar to PASARP above, the areas that are identified during the OSARP assessment work that cannot be rehabilitated in-line that is not simple will require more substantial engineering, construction and construction management will be procured through these future contracts.