




west virginia department of environmental protection

Division of Water and Waste Management
601 57th Street, SE
Charleston, WV 25304
Phone: 304-926-0495 / Fax: 304-926-0496

Austin Caperton, Cabinet Secretary
dep.wv.gov

MEMORANDUM

To: Marie Prezioso, Chair
Funding Committee
Infrastructure and Jobs Development Council

From:  Kathryn Emery, P. E.
Sewer Technical Review Committee

Date: August 22, 2019

Subject: Montgomery – Preliminary Application: 2019S-1783
Combined Sewer Separation project

-
1. This committee has reviewed the preliminary application and engineering report submitted for the above referenced project in accordance with Chapter 31, Article 15A. It has been determined that the proposed project is:
 - a. Consistent with the intent of the Infrastructure and Jobs Development Act and is the most cost-effective, environmentally sound alternative for solving the wastewater needs in this area.
 - b. Not consistent with the Act and may not be the most cost effective, environmentally sound alternative for solving the wastewater needs in this area.
 - c. Same as (a) above except that certain issues need to be addressed prior to design and construction as the attached comments indicate.

 2. Our recommendation is that:
 - a. The Funding Committee needs to review the proposed sources of funding to determine the best mix of grant and/or loan funds in accordance with applicable guidelines.
 - b. The Funding Committee should recommend that the Council approve the proposed project and its funding plan.

c. _____ The Funding Committee does not need to review the funding assumptions on this project because of deficiencies in the engineering report. The proposed project funding should be tabled until technical comments have been resolved.

d. _____ This project should be referred to the Consolidation Committee.

3. Other remarks:

The project proposes to separate the combined sewer system in three areas of downtown Montgomery. This is in accordance with Administrative Order #8445 and the proposed Long-Term Control Plan. The total project cost increased to \$1,848,431 during the review of alternatives over the last few months. The previously requested sources of a \$1,000,000 ARC Grant and an IJDC grant in the amount of \$279,560 do not reflect the increase. The City is requesting the Funding Committee find additional grant funds in the amount of \$568,871 to complete the recommended funding package.

Attachments: Technical Comments

Engineering Fees:

Estimated construction cost =	\$1,451,520		
Consultant's design fee =	\$116,122	Consultant's total fee =	\$174,182
Design fee percentage =	8.0%	Total fee percentage =	12.0%
Design fee per ASCE curve =	11.0%	Total fee per ASCE curve =	21.7%

Preliminary Project Ratings:

1. Public Health Benefits	10
3. Compliance with Standards	20
5. O & M Capabilities	3
6. Readiness to Proceed	0
8. Cost Effectiveness	0
10. Compliance with PSC Orders	0



STATE OF WEST VIRGINIA
DEPARTMENT OF HEALTH AND HUMAN RESOURCES
Bureau for Public Health
Office of Environmental Health Service

Bill J. Crouch
Cabinet Secretary

Catherine C. Slemp, MD, MPH
Commissioner & State Health Officer

MEMORANDUM

TO: Jason Billups, P.E.
DEP/Infrastructure Sewer Technical Review Committee

THROUGH: Patrick M. Murphy, PE, Director
Environmental Engineering Division *PM*

FROM: William S. Herold, Jr., P.E., Assistant Manager
I/CD/Environmental Engineering Division *WSH*

DATE: February 21, 2019

SUBJECT: City of Montgomery
Preliminary Application **Project No.: 2019S-1783**
Sanitary/Storm Systems Separation
Fayette County

RECOMMENDATION:

We have reviewed this preliminary application and recommend it be forwarded to the Funding Committee for review.

PROJECT SCOPE:

This preliminary application is to separate the sanitary and storm water systems in sections of the City of Montgomery. The project will consist of the installation of approximately 820 LF of 12" sewer line; 140 LF of 15", 1,320 LF of 18" and 800 LF of 24" storm water pipe; two (2) sanitary sewer manholes; nine (9) storm water manholes; and fourteen (14) inlets.

The cost per customer is **\$2,105**. Total estimated project cost is **\$1,279,560** (ARC Grant: **\$1,000,000**; and IJDC District 3 Grant: **\$279,560**).

NEED FOR PROJECT:

The Preliminary Engineering Report indicates the City of Montgomery's existing combined sanitary sewer/storm drainage system collection system results in numerous Combined Sewer Overflows (CSO's). DEP Administrative Order No. 8445 calls for the separation of the sanitary sewers and storm pipes and the development of a Long-Term Control Plan (LTCP) to eliminate the combined systems.

CONCERNS:

None.

PERMITS:

A permit will be required from the West Virginia Bureau for Public Health.



west virginia department of environmental protection

Division of Water and Waste Management
601 57th Street, SE
Charleston, WV 25304
Phone: 304-926-0495 / Fax: 304-926-0496

Austin Caperton, Cabinet Secretary
dep.wv.gov

MEMORANDUM

TO: Kathy Emery, P.E., Acting Director, DWWM

FROM: Jesse Rupe, Engineer Trainee, DWWM

DATE: August 14, 2019

SUBJECT: City of Montgomery – Separation of Combined Sanitary and Storm Sewer Systems
Preliminary Application: 2019S-1783

RECOMMENDATION

The IJDC Application and Preliminary Engineering Report for the above referenced project have been reviewed and is technically feasible.

PROJECT DESCRIPTION

This project will begin to achieve separation in the collection system by installing a combination of new sanitary sewer lines and storm sewer lines, in three areas of downtown Montgomery. This project will also assist the City in complying with Administrative Order #8445. In which the City needs to work towards reducing and eliminating Combined Sewer Overflow (CSO) events, in areas outlined in their most recent Long-Term Control Plan (LTCP).

The three areas of the project are, Gaines St. between Rt. 61 and the Railroad, Washington St. and Lee St. between 3rd Ave. and the river, and Early St., Jackson, St., and Jefferson St. between 3rd Ave. and the river. Construction improvements in these areas consist of the installation of 2,760 linear feet (LF) of sanitary sewer line, 18 sanitary manholes (MH), 2,276 LF of storm line, 33 storm drain inlets, and 2 storm MH's. With the completion of this project, one CSO (C005) will be eliminated, and two CSO's will be converted to dedicated storm water outfalls.

The total proposed project cost is \$1,848,430.91. The project cost increased during the evaluation of the alternative analysis, and the additional funding has not been included. The previous preferred funding scenario for this project was the use of an ARC Grant (\$1,000,000) and

an IJDC District 3 Grant (\$279,560). The current monthly rate for 3,400 Gallons is \$47.06 (2.28% MHI), and no rate increase is anticipated.

NEED FOR PROJECT

The City of Montgomery is currently under Administrative Order #8445 from the WVDEP to submit and comply with a Long-Term Control Plan (LTCP) that will eliminate CSOs within the downtown collection system. The combined sanitary and storm sewers introduce large amounts of inflow to the City's wastewater treatment plant (WWTP). When the hydraulic capacity of the WWTP, pump stations, or collection system is reached, untreated wastewater then discharges from the CSOs directly to the Kanawha River.

When evaluating alternatives for this project, the proposed improvements presented in the most recent LTCP submittal were evaluated as well as the selected alternative. While the improvements outlined in the LTCP did have a lower construction cost, the selected alternative will achieve more separation and remove a higher amount of infiltration and inflow (I/I). The most recent LTCP is currently being revised and should reflect the improvements of this project.

PERMITTING REQUIREMENTS

The City operates its wastewater collection and treatment system under its NPDES Permit #WV0020621. The changes to the collection system from this project could require permit modifications.

Construction activities with a disturbed area of one (1) acre or greater are required to register for the NPDES Storm Water Construction General Permit No. WV0115924, which was re-issued on February 9, 2019.

DEFICIENCIES/COMMENTS

- The revised PER did not indicate any funding sources. The increased project costs from evaluation of the alternative analysis creates a funding gap of \$568,870.91. The project engineer indicated that the City would prefer to seek additional grant funds. The funding committee should review possible funding scenarios.
- The PER did not discuss any existing debt that the City has incurred from previous projects.
- The PER will need to be developed into a facilities plan that meets CWSRF requirements if CWSRF is used.

Engineering Fees:

Estimated construction cost =	\$1,451,520.40
Consultant's design fee =	\$116,121.63
Consultant's total fee =	\$174,182.45
Design fee percentage =	8.0%
Design fee per ASCE curve =	11.0%
Total fee percentage =	12.0%
Total fee per ASCE curve =	21.7%

Preliminary Project Ratings:

Public Health Benefits: 10 points

Compliance with Standards: 20 points

**PUBLIC SERVICE COMMISSION STAFF
TECHNICAL REVIEW**

DATE: August 23, 2019

PROJECT SPONSOR: City of Montgomery Sanitary Board

PROPOSED SUMMARY: Separation of combined sanitary and storm sewer systems.

PROPOSED FUNDING: IJDC District 3 Grant	\$279,560
ARC Grant	<u>\$1,000,000</u>
Total	<u>\$1,279,560</u>

CURRENT AND PROPOSED RATES:	\$47.06	3,400 Gallons
	\$55.36	4,000 Gallons

Application No. 2019S-1783

RECOMMENDATION: forward to the Funding Committee.
 forward to the Consolidation Committee.
 return to the Applicant.

FINANCIAL: Stephen Edens

1. Current rates (\$47.06 for 3,400 gallons) are above the rates attributable to 1.25 % (\$25.75), 1.5% (\$30.90), 1.75% (\$36.04), and 2.0% (\$41.19) of the Median Household Income.
2. Using Scenario 1, the preferred funding package consisting of an IJDC District 3 grant of \$279,560, and an ARC grant of \$1,000,000, proposed rates (\$47.06 for 3,400 gallons) will provide a cash flow surplus of \$99,631 and debt service coverage of 156.45%.
3. Using the Scenario 2 alternate loan package of \$1,279,560 (in uncommitted funds) at 5% for 40 years (paid back over 38 years), proposed rates (\$47.06 for 3,400 gallons) will provide a cash flow surplus of \$16,188 and debt service coverage of 114.86%. An additional .11% (for a total of \$47.11 for 3,400 gallons) increase in proposed rates will be required in order to provide a cash flow surplus of \$16,592 and debt service coverage of 115.00%.

NOTES TO COMMENTS:

- A. Staff's detailed adjustments are listed on Attachment A for Scenario 1 (Preferred Funding Package) and Attachment B for Scenario 2 (Loan Package).
- B. The Applicant included a Maximum Rate Cash Flow Analysis with the application, using proposed rates of \$47.06 for 3,400 gallons. Staff used this data as its basis of analysis for Scenario 2.
- C. Senate Bill 234, effective June 12, 2015, required water and sewer utilities that are political subdivisions of the state to maintain a cash working capital reserve in an amount of no less than one-eighth (1/8) of actual annual operation and maintenance expenses. It should be noted that the cash flows provided by the project sponsor do not include funding for the 1/8 cash working capital reserve. The project sponsor would need to have non-restricted funds available to meet the 1/8 requirement, otherwise, they may need to take steps to fund this reserve. This 1/8 requirement, along with any steps taken to fund this reserve, may be evaluated by the Commission in future filings.
- D. More detailed justification including a Rule 42 exhibit will be required when filing for a Certificate of Convenience and Necessity.
- E. Senate Bill 234 (2015) required, pursuant to WV Code 24-2-4b (b), that municipally operated utilities shall consider a reasonable plant-in-service depreciation expense for rates and charges. The project sponsor should take this into consideration when preparing its Rule 42. Municipals that do not provide for a reasonable depreciation expense risk delays in Certificate of Convenience and Necessity filings if rates are determined to not be sufficient.
- F. The City should carefully evaluate its revenue requirements before passing a rate ordinance in order to ensure that rates are sufficient to provide a reasonable surplus and meet coverage requirements. Calculations to support the revenue projections should also be provided.

ENGINEERING: J. M. Fowler, P.E.

1. This project will require a Certificate of Convenience and Necessity from the PSC. The project sponsor should reference this application number on the PSC's Form No. 4 when its application is filed at the Commission given the requirement of West Virginia Code 24-2-11 (c) and (e). Staff notes that an affirmative determination of need for the project must be established in a Certificate filing at the PSC.

2. Owing to numerous technical matters, Staff defers further Engineering Review to the WV DEP at this time. A more detailed technical review will be accomplished during the processing of any Certificate application.

<i>Preliminary Project Ranking</i>		
O & M Capabilities		
Performance Measures:	1	<i>Pt.</i>
Asset Management:	1	<i>Pt.</i>
Environmental Management:	1	<i>Pt.</i>
Readiness to Proceed:	0	<i>Pt.</i>
Cost Effectiveness:	0	<i>Pt.</i>
Compliance with PSC Orders:	0	<i>Pt.</i>