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west virginia department of environmental protection

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Division of Water and Waste Management  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
Phone: 304-926-0495 / Fax: 304-926-0463

Harold D. Ward, Cabinet Secretary  
dep.wv.gov

**MEMORANDUM**

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

**From:** Katheryn Emery, P. E.  
Sewer Technical Review Committee

**Date:** February 10, 2023

**Subject:** Town of Davy  
Preliminary Application: IJDC No. 2022S-2290  
Wastewater Collection and Treatment Project - Phase 1

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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.

Promoting a healthy environment.

- 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 the PSC comments have been resolved.
- d.  This project should be referred to the Consolidation Committee.

3. Other remarks:

The proposed project will be the first phase of a three phase project. This phase will serve the downtown area, Davy Hill, Left Fork of Davy Branch, Loop Seven Highway, and the first few residents at the start of Asco Hollow. A new WWTP will be constructed with this phase to treat the flow.

The proposed project funding should be tabled until the PSC comments have been resolved.

Attachments: Technical Comments

**Engineering Fees:**

Estimated construction cost =	\$ 7,135,000.00
Consultant's design fee =	\$ 328,000.00
Consultant's total fee =	\$ 1,020,000.00
Design fee percentage =	4.6 %
Design fee per ASCE curve =	6.7 %
Total fee percentage =	14.3 %
Total fee per ASCE curve =	17.5 %

**Preliminary Project Ratings:**

1. Public Health Benefits	20
3. Compliance with Standards	5
5. O & M Capabilities	0
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

Ayne Amjad, MD, MPH  
Commissioner & State Health Officer

**MEMORANDUM**

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

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

**DATE:** October 17, 2022

**SUBJECT:** Town of Davy  
Preliminary Application **Project No.: 2022S-2223**  
WWTP and Collection System  
McDowell County

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**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 install a new WWTP and collection system to serve the Town of Davy. The project will consist of the installation of approximately 43,250 LF of 8" sewer line; 301 manholes, approximately 6,200 LF of 3" and 6,840 LF of 4" force main; four (4) sewage lift stations; two (2) grinder pump stations; and one (1) WWTP consisting of 3-20,000 gallon settling tank, 1-25,000 equalization tank, 2-BioTank treatment plant trains, 2-nitri-dentrification process control & monitoring stations, 1-methanol storage & dosing system, 1-UV disinfection system.

The cost per customer is **\$154,788**. Total estimated project cost is **\$28,481,000** (CWSRF Loan: **\$631,000 @ 0.25% for 40 years**; AML Grant: **\$11,000,000**; ARC Grant: **\$1,800,000**; USDA Grant: **\$7,500,000**; CWSRF Debt Forgiveness: **\$2,000,000**; USCOE: **\$2,500,000**; IJDC District 3 Grant: **\$1,000,000**; SCBG: **\$2,000,000**; and McDowell County Commission Grant: **\$50,000**).

**NEED FOR PROJECT:**

The Preliminary Engineering Report indicates the Town of Davy does not have any Sewage collection and WWTP facilities.

**CONCERNS:**

None.

**PERMITS:**

A permit **will not be** required from the WV Bureau for Public Health, since CWSRF funding is proposed.



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## MEMORANDUM

**TO:** Katheryn Emery, P.E., Director, DWWM

**FROM:** Jesse Rupe, P.E., DWWM

**DATE:** February 2, 2023

**SUBJECT:** Town of Davy  
Preliminary Application: IJDC No. 2022S-2290  
Wastewater Collection and Treatment Project - Phase 1

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### RECOMMENDATION

The IJDC Application and Preliminary Engineering Report prepared by Thompson and Litton for the above referenced project has been reviewed and it is suggested that it be tabled to the next funding committee meeting so that the consultant has time to answer the PSC comments.

### PROJECT DESCRIPTION

The Town of Davy currently does not own a wastewater collection system or a wastewater treatment plant (WWTP). The Town currently provides water service to approximately 184 total customers in McDowell County, WV.

The proposed project will be the first phase of a three phase project that will provide sewer service to all 184 of the Town's current water customers. This project will consist of the construction of a wastewater collection system in Davy and provide sanitary sewer service to 95 total customers. The areas in Davy that will be served are the downtown area, Davy Hill, Left Fork of Davy Branch, Loop Seven Highway, and the first few residents at the start of Asco Hollow. The construction of the WWTP will consist of the installation of a 125,000 gallon per day (gpd) WWTP in Davy that will be sized to receive flows from all three project phases. WWTP construction will consist of the installation of three settling tanks, one equalization tank, two bio-tank treatment trains, ultraviolet (UV) disinfection, and all necessary appurtenances. Collection system construction will consist of the installation of approximately 12,400 linear feet (LF) of gravity sewer line, 100 manholes (MH), one grinder station, and all necessary appurtenances.

The proposed total cost for this project is \$8,639,000 and the Town intends to pursue a \$1,000,000 IJDC Grant, a \$2,000,000 CWSRF Debt Forgiveness Loan, a \$2,000,000 CDBG Grant, a \$3,000,000 ARC Grant, a \$589,000.00 Congressional Earmark Grant, and a \$50,000 McDowell County Commission Grant.

The proposed monthly rate for 3,400 gallons is \$50.05 (2.09 % MHI).

### **NEED FOR PROJECT**

There is no public wastewater system in the Town of Davy. Currently wastewater is treated in individual septic tanks, directly discharged, or straight piped to the area streams. Many of the individual septic systems are in a state of disrepair and do not function properly. Several of the house lots are also too small to provide an adequate septic system. The current situation poses health hazards to the residents and continues to degrade the water quality in the Tug Fork River and other area streams.

### **DEFICIENCIES/COMMENTS**

- It is recommended that the construction contingency amount be increased to 15% during this stage of the project.
- The funding scenario in the PER and application do not match. The funding included in the memo is from the PER.
- The proposed user rate in the PER and application do not match. The user rate in the application allows the Town to qualify for better funding terms. The user rate should be confirmed. The user rate included in the memo used the application.
- The PER will need to be developed into a facilities plan that meets CWSRF requirements if CWSRF is used.

#### **Engineering Fees:**

Estimated construction cost =	\$ 7,135,000.00
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Consultant's total fee =	\$ 1,020,000.00
Design fee percentage =	4.6 %
Design fee per ASCE curve =	6.7 %
Total fee percentage =	14.3 %
Total fee per ASCE curve =	17.5 %

#### **Preliminary Project Ratings:**

Public Health Benefits:	20
Compliance with Standards:	5



Billups, Jason S &lt;jason.s.billups@wv.gov&gt;

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**Davy, IJDC 2022S-2290**

1 message

**Fowler, Jonathan** <jfowler@psc.state.wv.us>

Tue, Feb 7, 2023 at 3:53 PM

To: Wayne Morgan &lt;wmorgan@wvwd.org&gt;, "Emery, Katheryn D" &lt;katheryn.d.emery@wv.gov&gt;, "Jason Billups (Jason.S.Billups@wv.gov)" &lt;Jason.S.Billups@wv.gov&gt;

Cc: "Acord, David" &lt;DAcord@psc.state.wv.us&gt;, "Ellars, Jim" &lt;JEllars@psc.state.wv.us&gt;

Wayne, Kathy and Jason,

On Davy, we have the following issues. (Note that the annual revenue/rate calculations are simplified just to illustrate the issues.)

**FIRST, Revenue Shortfall.**

- The PER shows O&M of \$85,110. However, the report states that this amount is for both Step 1 and Step 2.

Step 1 will have only 95 customers per PER. In the PER, a rate of \$45/month/3,400 gallon is proposed. This rate would only generate \$51,300 in annual revenues.

- In the IJDC Preliminary Application, O&M costs are shown at \$81,697 and the anticipated user rate is shown at \$50.05/month/3,400 gallons. This rate would only generate \$57,057 in annual revenues at 95 customers.

Project is not even close to being self-supporting under these circumstances.

**SECOND – Rule 42 Deficiencies/Errors**

- Cash Flow shows annual revenues of \$111,554 and sales revenues of \$109,905. To generate this sales figure from 95 customers would require an average (simplified) rate of about \$96.41 per month – this is just not affordable.
- Revenue calculations in the R42 are based on 183 customers (at R42, p.13), which seems to be the total for both Step 1 plus Step 2 combined. NOT just the 95 customers to be served in

## Step 1.

- O&M Costs in the R42 are apparently also for both Step 1 plus Step 2. No O&M estimates are provided anywhere (R42 or PER) for only Step 1 operations alone.
- Project cost in the R42 are shown at \$8.669 million which seems to be for both Step 1 and Step 2 – based on context.
- The PER and the R42 are not coordinated.

Thus the O&M costs, the project costs, the number of customers and likely some other figures are not consistent. It is essentially useless to us as they stand. We cannot prepare any meaningful review at this time and suggest that this application be returned or tabled.

Regards,

Jonathan