



west virginia department of environmental protection

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

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: October 19, 2022

Subject: Huntington Sanitary Board
Preliminary Application: IJDC No. 2022S-2246
Wastewater Treatment Plant Improvements Project
Package 2 of 4

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

3. Other remarks:

This project will upgrade the WWTP to handle the peak wet weather flow and replace all the existing equipment that has reached its useful life. This is package 2 of 4 that was submitted to address the upgrade of the WWTP.

This application should be tabled until the next Funding committee meeting to give the applicant time to reevaluate a new funding package.

Attachments: Technical Comments

Engineering Fees:

Estimated construction cost =	\$ 36,310,000.00
Consultant's design fee =	\$ 0.00
Consultant's total fee =	\$ 2,775,000.00
Design fee percentage =	0 %
Design fee per ASCE curve =	6.5 %
Total fee percentage =	7.6 %
Total fee per ASCE curve =	17.2 %

Preliminary Project Ratings:

1. Public Health Benefits	10
3. Compliance with Standards	10
5. O & M Capabilities	2
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: Huntington Sanitary Board
Preliminary Application **Project No.: 2022S-2246**
WWTP Package 2- Expand Activated Sludge System and Site Improvements
Cabell 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 primarily to eliminate the existing primary clarification and expand the activated sludge system at the existing Huntington Sanitary Board's WWTP. Major work will consist of the demolition of the secondary clarifier mechanisms, weir troughs, and aeration components; a new primary effluent control structure; modifying the existing activated sludge tanks; conversion of the eight (8) secondary clarifiers to activated sludge tanks with new baffles & equipment; replacing the blowers & aeration equipment; replace the electrical substation, a new supervisory control & data acquisition system; and various site improvements (yard piping, lighting, landscaping, etc.).

The cost per customer is **\$1,898**. Total estimated project cost is **\$39,500,000** (CWSRF Loan: **\$35,000,000 @ 0.5% for 35 years**; IJDC Loan: **\$1,000,000 @ 1.00% for 35 years**; CWSRF Sewer Overflow and Stormwater Reuse Municipal: **\$1,500,000**; and CWSRF Debt Forgiveness: **\$2,000,000**).

NEED FOR PROJECT:

The Preliminary Engineering Report indicates many of the treatment facilities at the Huntington Sanitary Board's (HUB) WWTP were originally designed and constructed in the late 1950s and early 1960s, with additional expansions and modifications occurring in recent decades. Many of the processes and equipment at the WWTP have surpassed their expected useful life, and are in need of replacement, modification, or rehabilitation.

CONCERNS:

None.

PERMITS:

A permit **will not be** required from the WV Bureau for Public Health.



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Harold D. Ward, Cabinet Secretary
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MEMORANDUM

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

FROM: Thomas Cazad, P.E., Engineer, DWWM

DATE: October 12, 2022

SUBJECT: Huntington Sanitary Board
Preliminary Application: IJDC No. 2022S-2246
Wastewater Treatment Plant (WWTP) Improvements Project
Package 2 of 4

RECOMMENDATION

The IJDC Application and Preliminary Engineering Report (PER), prepared by Strand Associates, Inc., for the above referenced project has been reviewed and is technically feasible.

PROJECT DESCRIPTION

The Huntington Sanitary Board (HSB) serves approximately 20,836 customers in the City of Huntington and the surrounding area, including customers served by the Towns of Ceredo and Kenova and the Northern Wayne, Spring Valley, and Pea Ridge Public Service Districts (PSDs). HSB operates a combined sewer system that conveys sewage to an activated sludge wastewater treatment plant (WWTP) rated for an average daily flow (ADF) of 17.0-million gallons per day (MGD). The combined sewer system contains 22 permitted combined sewer outfalls (CSOs) and is tied into the floodwall's pumping system as well. IJDC Applications 2022S-2245 through 2022S-2248 contain separate funding packages of HSB's proposed WWTP Improvements Project, including the construction of a new headworks building outfitted with three (3) fine mechanical screens and three vortex grit chambers, demolition of the existing primary clarifiers, expansion of the activated sludge process by converting the existing secondary clarifiers, construction of four (4) new clarifiers, remediation of the existing fly ash pond site, demolition of the existing chlorination and dechlorination facilities and replacement with new Ultraviolet (UV) disinfection facilities, construction of a new effluent pump station and non-potable water system, installation of three (3) centrifuges with sludge drying facilities, construction of a new administration building, electrical substation, SCADA, and all other necessary appurtenances.

Package 2 includes the elimination and demolition of the three (3) primary clarifiers, expansion of the activated sludge process by adding anoxic zones to the existing aeration basins and adding aeration to convert the existing final clarifiers to additional aeration basins, construction of a new electrical substation for power at the site with two (2) 7,500kVA transformers each sized for the entire WWTP load, and installation of six (6) transformers and three (3) MCCs at individual process buildings, a SCADA system, VFDs, RVSSs, lighting, data and physical security systems, fencing, lighting and HVAC improvements at existing and proposed buildings, and all necessary appurtenances.

The proposed total project cost of Package 2 is \$39,500,000, and the proposed funding scenario includes a CWSRF Principal Forgiveness Loan of \$2,000,000, a CWSRF Loan of \$35,000,000 at 0.5% interest for 35 years, a CWSRF Sewer Overflow and Stormwater Reuse Municipal Grant of \$1,500,000, and an IJDC District 3 Loan of \$1,000,000 at 0.5% for 35 years.

The current monthly rate for 3,400 gallons is \$28.29. The pending rates as part of the 2022S-2244 and 2022S-2245 projects are \$40.35 and \$42.05, respectively. The proposed rate is anticipated to increase to \$46.45 as part of Package 2.

NEED FOR PROJECT

The PER indicates that much of the existing equipment at the WWTP is either near or past the end of its useful life. The replacement of the existing 1-inch mechanical screens with ¼-inch screens will increase the amount of screenings, but also will reduce the need for clarification prior to the activated sludge process. Elimination of the primary clarifiers will streamline sludge handling and dewatering operations at the WWTP with one set of sludge characteristics for operators to manage. The replacement of the chlorination and dechlorination with UV will allow for a smaller footprint, reduce the cost of chemicals, and eliminate the storage of gaseous chlorine at the WWTP. Since the WWTP currently uses treated plant effluent from the chlorine contact tanks for its non-potable water, the non-potable water system will need to be replaced. The preliminary hydraulic model suggests that the new secondary clarifiers will add head loss to the system, necessitating a new effluent pump station. The PER indicates that sludge dewatering operations are currently underway 24 hours per day, 7 days per week and hauled to one of three (3) different landfills. With the proposed elimination of the primary clarifiers and the replacement of the belt filter presses with centrifuges and sludge drying facilities, the PER anticipates sludge operations can be reduced to 5 days per week.

DEFICIENCIES/COMMENTS

- Strand indicated to WVDEP that all four funding packages are anticipated to result in one construction contract. The Funding Committee should evaluate whether or not the proposed funding methodology is acceptable for applications 2022S-2245 through 2022S-2248.
- Should all four packages be combined, the following information would be pertinent:
 - Total Project Cost: \$ 144,200,000
 - Total Construction: \$ 123,300,000
 - Projected Customer Rate: \$55.25 (2.01% MHI)

- Design Fee: \$7,900,000; Design Fee Percentage: 6.4%
- Total Fee: \$19,000,000; Total Fee Percentage: 15.4%
- The application listed the MHI for Cabell County (\$41,472) instead of the City of Huntington (\$33,012). This memo reflects the MHI for the City.
- Discrepancies exist between the PER and the IJDC Application with respect to the design fee. This memo reflects the costs listed in the Application.
- A public meeting must be held to discuss the project, costs, and associated customer rates.
- The PER will need to be developed into the facilities plan that meets CWSRF requirements.

Engineering Fees:

Estimated construction cost =	\$ 36,310,000.00
Consultant's design fee =	\$ 0.00
Consultant's total fee =	\$ 2,775,000.00
Design fee percentage =	0 %
Design fee per ASCE curve =	6.5 %
Total fee percentage =	7.6 %
Total fee per ASCE curve =	17.2 %

Preliminary Project Ratings:

Public Health Benefits	10
Compliance with Standards	10

Public Service Commission of West Virginia

201 Brooks Street, P.O. Box 812
Charleston, West Virginia 25323

Phone: (304) 340-0300
Fax: (304) 340-0325



October 5, 2022

Ms. Kathy Emery, P. E.
Office of Water Resources
Department of Environmental Protection
601 57th St.
Charleston, West Virginia 25304

Re: Public Service Commission Staff Review Comments
Application No. 2022S-2246
Huntington Sanitary Board
Infrastructure Preliminary Application

Dear Ms. Emery:

As requested, the Technical Staff of the Public Service Commission of West Virginia has completed its review of the above-referenced Infrastructure application. In light of the District's current financial condition, we are recommending the application be:

forwarded to the Funding Committee

forwarded to the Consolidation Committee

return to the Applicant

Please advise if you have any questions.

Sincerely,

Jonathan M. Fowler, P.E.
Engineering Division

JMF:vb

**PUBLIC SERVICE COMMISSION STAFF
TECHNICAL REVIEW**

DATE: October 4, 2022

PROJECT SPONSOR: HUNTINGTON SANITARY BOARD (HSB)

PROJECT SUMMARY: This project is the second of a series of five projects being proposed by the HSB. Phase 2 consists of the construction of further, significant WWTP improvements to include demolition and removal of certain clarification equipment, modification and construction of aeration systems, increasing activated sludge capacity, electrical upgrades, piping, yard work and all associated work. This project will ultimately improve the treatment processes at the existing wastewater treatment plant (WWTP) and increase the WWTP capacity while reducing O&M costs.

PROPOSED FUNDING:	CWSRF Debt Forgiveness	\$2,000,000
	CWSRF Sewer Overflow Grant	1,500,000
	CWSRF Loan .25%, .25% adm. fee, 35 yrs.	35,000,000
	IJDC Loan 1%, 35 yrs.	<u>1,000,000</u>
	Total	\$39,500,000

CURRENT RATES:	\$28.29	3,400 gallons
	\$31.50	4,000 gallons

PROPOSED RATES	\$46.45	3,400 gallons
	\$52.00	4,000 gallons

Application No. 2022S-2246

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

FINANCIAL: David L. Acord, II

1. Current rates (\$28.29 for 3,400 gallons) are below the rates attributable to 1.25% (\$34.39), 1.5% (\$41.27), 1.75% (\$48.14), and 2% (\$55.02) of the Median Household Income (MHI). Increasing current rates to 1.25%, 1.5%, 1.75%, and 2.0% of the MHI would provide additional revenues of \$4,732,998, \$10,071,448, \$15,409,897, and \$20,748,346 respectively.

2. Using Scenario 1, the preferred funding package consisting of CWSRF Debt Forgiveness of \$2,000,000, CWSRF Sewer Overflow Grant of \$1,500,000, a CWSRF Loan of \$35,000,000 at .25%, .25% Admin. Fee, for 35 years, and an IJDC Loan of \$1,000,000 at 1% for 35 years, proposed rates (\$46.45 for 3,400 gallons) will provide a cash flow surplus of \$3,013,104 and debt service coverage of 252.57%.
3. Using the Scenario 2 alternate loan package of \$39,500,000 (in uncommitted funds) at 5% for 40 years (paid back over 38 years), proposed rates (\$50.00 for 3,400 gallons) will provide a cash flow surplus of \$2,927,177 and debt service coverage of 214.84%.
4. Notes to Comments:
 - A. It should be noted that the project sponsor is pursuing five separate projects (2022S-2244, 2022S-2245, 2022S-2246, 2022S-2247, and 2022S-2248). This project is referred to as WWTP Improvements 2. NOTE: The City is proposing an increase in rates (\$46.45 for 3,400 gallons) for this particular project. The review of this project includes adjustments associated with WWTP 1.
 - B. Staff's detailed adjustments are listed on Attachment A for Scenario 1 (Preferred Funding Package), Attachment B for Scenario 2 (Loan Package), and Attachment C for Scenario 3 (Alternate Funding Package).
 - C. Staff prepared the attached Cash Flow Analysis utilizing information from the applicant's Rule 42 Exhibit submitted with the application.
 - D. Staff used the MHI for the City of Huntington of \$33,012 from the 2020 U.S. Census versus the MHI of \$41,472 that was listed in the application.
 - E. Staff has included a Scenario 3 analysis. Staff notes that the project sponsor is proposing a CWSRF Loan at .25%, .25% administrative fee, for 35 years. Since proposed target rates of \$46.45 (3,400 gallons) are greater than 1.5% (\$41.27) but less than 1.75% (\$48.14) of the MHI, the terms of this proposed CWSRF loan would typically be 1.75%, .25% administrative fee, for 30 years, for the preferred funding package. In addition, the project sponsor is also proposing an IJDC Loan of \$1,000,000 at 1% for 35 years. Since the proposed target rates are greater than 1.5% (\$41.27) but less than 2% (\$55.02) of the MHI, terms of the proposed IJDC Loan would typically be 2% for 30 years. If the preferred funding package is adjusted

for these changes, proposed target rates (\$46.45 for 3,400 gallons) would provide a cash flow surplus of \$2,491,165 and debt service coverage of 223.51%.

F. 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 include funding for the 1/8 cash working capital reserve. Staff accepted that amount in its analyses. However, this amount may be reviewed by the Commission in future filings in accordance with Public Service Commission General Order 183.11.

G. 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. Staff notes that the City is a political subdivision of the state and it has at least 4,500 customers and annual gross revenues of \$3 million or more. Therefore, in accordance with Senate Bill 234, effective June 12, 2015, the Commission has no jurisdiction regarding the City's rates pursuant to WV Code 24-2-4b. However, the Commission does have jurisdiction pursuant to WV Code 24-2-1 (b)(6) for the investigation and resolution of disputes involving political subdivisions of the state regarding inter-utility agreements, rates, fees and charges, service areas and contested utility combinations.

ENGINEERING: Jonathan M. Fowler, P.E.

1. This project will not require a Certificate of Convenience and Necessity from the PSC. (See financial comment "G", above.)
2. Scope: The Huntington Sanitary Board (Board) is proposing a series of five (5) major improvements projects for its current wastewater system in order to insure long term compliance with environmental regulations and to address operations and maintenance issues while reducing key O&M costs.

This project, known as the “*WWTP Improvements Package 2: Activated Sludge System Modifications and Site Work/Utilities*” will improve the treatment processes at the existing wastewater treatment plant (WWTP) and increase the WWTP capacity. The proposed project consists of the following elements: demolition of existing structures and components including: secondary clarifier mechanisms and weir troughs and aeration blowers, piping, and diffusers; construction of a primary effluent control structure; modification of the existing activated sludge tanks, including installation of new diffusers, piping, recycle pumps, and baffles; conversion of the eight secondary clarifiers to activated sludge tanks and installation of new baffles and equipment; installation of new blowers and aeration piping in the existing Blower Building; construction of a new mixed liquor splitter structure and flumes; replacement of the existing electrical substation; installation of a SCADA system; modifications to existing yard piping and installation of new yard piping; replacement or installation of new motor control centers, lighting, and instrumentation; replacement of interior and site lighting; replacement of gates, handrail, and grating on existing structures which will remain in service; miscellaneous site grading, landscaping, and paving work; miscellaneous plumbing work; miscellaneous heating, ventilation, and air conditioning work; and miscellaneous interior painting and finish work.

3. Customer Density: This project is an upgrade/improvement project; therefore, customer density will remain unchanged and was not calculated.
4. Cost per Customer: Based upon the estimated total project cost of \$39,500,000 and having approximately 21,000 (rounded) customers, the cost per customer will be approximately \$1,881(rounded). This is considered as acceptable based on the need-for and longevity-of the proposed facilities.
5. Project Feasibility: The project scope appears to be technically feasible and poses little technical risk.
6. Project Alternatives: The HSB WWTP has been extensively studied and a thorough engineering review has been prepared. (See “Wastewater Treatment Plant Master Plan” dated September 2022, prepared by Strand Associates.) Engineering Staff has no objections to the scope of work and opines that the work is needed to ensure the continued viability and efficiency of this facility.

7. Consolidation: There are no consolidation opportunities presented by this project. Staff notes that the Huntington WWTP currently provides sewage treatment for the City of Kenova, the City of Ceredo and the Northern Wayne PSD as a regional WWTP.
8. Inconsistencies: No fatal issues were noted.
9. Opportunities for cost savings: Looking at the entire series of five projects holistically as one undertaking indicates that certain soft-costs may present an opportunity for cost savings. For instance, the costs of engineering & technical services, project accounting, local counsel, bond counsel, PSC attorney services, project administration services and similar cost categories may possibly be procured at lower cost by procuring such services under master service agreements for all five projects. The utility should evaluate the potential for such savings as these projects move forward.
10. Operation and Maintenance (O&M) Expenses: The noted engineering study indicates that the proposed work will reduce annual O&M costs by approximately \$134,000 per year due to reduced power costs and enhanced operating efficiencies.
11. Engineering Agreement: The application includes information to determine apparent compliance with the salient requirements of West Virginia Code §5G-1-1, et seq. However, at the time of our review, a final selection as to the engineer-of-record has not yet been finalized. Total technical services (engineering) costs for the project are \$2,775,000 which is equal to 7.6% of the construction cost of \$36,310,000 (includes construction contingency).

<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:	1	<i>Pt.</i>
Compliance with PSC Orders:	0	<i>Pt.</i>

HUNTINGTON SANITARY BOARD
 CASH FLOW ANALYSIS
 YEAR ENDED: June 30, 2022
 APPLICATION NO: 2022S-2246
 October 4, 2022

**PREFERRED FUNDING PACKAGE
 SCENARIO 1**

	Rule 42 Going Level Per Application Before Project	Rule 42 Proforma Per Application with Project	Staff Adjustments	Per Staff Analysis
	1	2	3	4
	\$	\$	\$	\$
<u>AVAILABLE CASH</u>				
Operating Revenues	21,286,943	22,923,769	(1,724,853) (1)	21,198,916
Other Operating Revenue	670,581	670,581	-	670,581
SB 234 Annual Working Cash Collections			1,724,853 (2)	1,724,853
Interest Income & Other Misc.	16,246	16,246	-	16,246
Total Cash Available	21,973,770	23,610,596	-	23,610,596
<u>OPERATING DEDUCTIONS</u>				
Operating Expenses	13,513,553	13,798,828	45,800 (3)	13,844,628
Taxes	537,089	547,831	-	547,831
Total Cash Requirements Before Debt Service	14,050,642	14,346,659	45,800	14,392,459
Cash Available for Debt Service (A)	7,923,128	9,263,937	(45,800)	9,218,137
<u>DEBT SERVICE REQUIREMENTS</u>				
Principal & Interest (B)	2,570,129	3,695,412	(45,643) (4)	3,649,769
Other Debt	-	-	-	-
Reserve Account @ 10%	175,709	288,122	(4,449) (5)	283,673
Renewal & Replacement Fund (2.5%)	549,344	590,265	(43,528) (6)	546,737
Total Debt Service Requirement	3,295,182	4,573,799	(93,620)	4,480,180
SB 234 Cash Working Capital	1,689,194	1,724,853	-	1,724,853
Remaining Cash	2,938,752	2,965,285	47,820	3,013,104
Percent Coverage (A) / (B)	308.28%	250.69%		252.57%
Average rate for 3,400 gallons	\$ 42.05	\$ 46.45	\$ -	\$ 46.45
Average rate for 4,000 gallons	\$ 47.00	\$ 52.00	\$ -	\$ 52.00

HUNTINGTON SANITARY BOARD
 CASH FLOW ANALYSIS
 YEAR ENDED: June 30, 2022
 APPLICATION NO: 2022S-2246

Attachment A
 PREFERRED FUNDING PACKAGE
 SCENARIO 1

Staff Adjustments

<u>Adjustment Description</u>		\$	Increase <Decrease>
(1) Operating Revenues	Per Staff Analysis	21,198,916	(1,724,853)
	Per Application with Project	22,923,769	
Adjust revenues in accordance with PSC General Order 183.11.			
(2) SB 234 Annual Working Cash Collections	Per Staff Analysis	1,724,853	1,724,853
	Per Application with Project	-	
Account for SB 234 (2015) funding pursuant to PSC General Order 183.11.			
(3) Operating Expenses	Per Staff Analysis	13,844,628	45,800
	Per Application with Project	13,798,828	
To adjust for a .25% administrative fee associated with a \$35,000,000 CWSRF Loan for 35 yrs.			
(4) Principal & Interest	Per Staff Analysis	3,649,769	(45,643)
	Per Application with Project	3,695,412	
The difference in P&I is related to Staff's calculation of a CWSRF Loan of \$35,000,000 for 35 years at .25% and an IJDC Loan of \$1,000,000 at 1% for 35 yrs.			
(5) Reserve Account @ 10%	Per Staff Analysis	283,673	(4,449)
	Per Application with Project	288,122	
Staff assumed a 10% reserve on the new debt.			
(6) Renewal & Replacement Fund (2.5%)	Per Staff Analysis	546,737	(43,528)
	Per Application with Project	590,265	
Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.			

HUNTINGTON SANITARY BOARD
 CASH FLOW ANALYSIS
 YEAR ENDED: June 30, 2022
 APPLICATION NO: 2022S-2246
 October 4, 2022

LOAN PACKAGE
 SCENARIO 2

	Rule 42 Going Level Per Application Before Project	Rule 42 Proforma Per Application with Project	Staff Adjustments	Per Staff Analysis
	1	2	3	4
	\$	\$	\$	\$
AVAILABLE CASH				
Operating Revenues	21,286,943	24,212,556	(1,724,853) (1)	22,487,703
Other Operating Revenue	670,581	670,581	-	670,581
SB 234 Annual Working Cash Collections			1,724,853 (2)	1,724,853
Interest Income & Other Misc.	16,246	16,246	-	16,246
Total Cash Available	21,973,770	24,899,383	-	24,899,383
OPERATING DEDUCTIONS				
Operating Expenses	13,513,553	13,798,828	-	13,798,828
Taxes	537,089	547,831	-	547,831
Total Cash Requirements Before Debt Service	14,050,642	14,346,659	-	14,346,659
Cash Available for Debt Service (A)	7,923,128	10,552,724	-	10,552,724
DEBT SERVICE REQUIREMENTS				
Principal & Interest (B)	2,570,129	4,856,891	54,965 (3)	4,911,856
Other Debt	-	-	-	-
Reserve Account @ 10%	175,709	404,270	5,612 (4)	409,882
Renewal & Replacement Fund (2.5%)	549,344	622,485	(43,528) (5)	578,957
Total Debt Service Requirement	3,295,182	5,883,646	17,049	5,900,695
SB 234 Cash Working Capital	1,689,194	1,724,853	-	1,724,853
Remaining Cash	2,938,752	2,944,225	(17,049)	2,927,177
Percent Coverage (A) / (B)	308.28%	217.27%		214.84%
Average rate for 3,400 gallons	\$ 42.05	\$ 50.00	\$ -	\$ 50.00
Average rate for 4,000 gallons	\$ 47.00	\$ 55.89	\$ -	\$ 55.89

Staff Adjustments

<u>Adjustment Description</u>			\$	Increase <Decrease>
(1)	Operating Revenues	Per Staff Analysis	22,487,703	(1,724,853)
		Per Application with Project	24,212,556	
	Adjust revenues in accordance with PSC General Order 183.11.			
(2)	SB 234 Annual Working Cash Collections	Per Staff Analysis	1,724,853	1,724,853
		Per Application with Project	-	
	Account for SB 234 (2015) funding pursuant to PSC General Order 183.11.			
(3)	Principal & Interest	Per Staff Analysis	4,911,856	54,965
		Per Application with Project	4,856,891	
	The difference in P&I is related to Staff's calculation of a Loan of \$39,500,000 for 40 years (paid back over 38 yrs.) at 5%.			
(4)	Reserve Account @ 10%	Per Staff Analysis	409,882	5,612
		Per Application with Project	404,270	
	Staff assumed a 10% reserve on the new debt.			
(5)	Renewal & Replacement Fund (2.5%)	Per Staff Analysis	578,957	(43,528)
		Per Application with Project	622,485	
	Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.			

HUNTINGTON SANITARY BOARD
 CASH FLOW ANALYSIS
 YEAR ENDED: June 30, 2022
 APPLICATION NO: 2022S-2246
 October 4, 2022

**PREFERRED FUNDING PACKAGE
 SCENARIO 3**

	Rule 42 Going Level Per Application Before Project	Rule 42 Proforma Per Application with Project	Staff Adjustments	Per Staff Analysis
	1	2	3	4
	\$	\$	\$	\$
<u>AVAILABLE CASH</u>				
Operating Revenues	21,286,943	22,923,769	(1,724,853) (1)	21,198,916
Other Operating Revenue	670,581	670,581	-	670,581
SB 234 Annual Working Cash Collections			1,724,853 (2)	1,724,853
Interest Income & Other Misc.	16,246	16,246	-	16,246
Total Cash Available	21,973,770	23,610,596	-	23,610,596
<u>OPERATING DEDUCTIONS</u>				
Operating Expenses	13,513,553	13,798,828	45,733 (3)	13,844,561
Taxes	537,089	547,831	-	547,831
Total Cash Requirements Before Debt Service	14,050,642	14,346,659	45,733	14,392,392
Cash Available for Debt Service (A)	7,923,128	9,263,937	(45,733)	9,218,204
<u>DEBT SERVICE REQUIREMENTS</u>				
Principal & Interest (B)	2,570,129	3,695,412	428,908 (4)	4,124,320
Other Debt	-	-	-	-
Reserve Account @ 10%	175,709	288,122	43,006 (5)	331,128
Renewal & Replacement Fund (2.5%)	549,344	590,265	(43,528) (6)	546,737
Total Debt Service Requirement	3,295,182	4,573,799	428,386	5,002,186
SB 234 Cash Working Capital	1,689,194	1,724,853	-	1,724,853
Remaining Cash	2,938,752	2,965,285	(474,119)	2,491,165
Percent Coverage (A) / (B)	308.28%	250.69%		223.51%
Average rate for 3,400 gallons	\$ 42.05	\$ 46.45	\$ -	\$ 46.45
Average rate for 4,000 gallons	\$ 47.00	\$ 52.00	\$ -	\$ 52.00

Staff Adjustments

<u>Adjustment Description</u>		\$	Increase <Decrease>
(1) Operating Revenues	Per Staff Analysis Per Application with Project	21,198,916 22,923,769	(1,724,853)
Adjust revenues in accordance with PSC General Order 183.11.			
(2) SB 234 Annual Working Cash Collections	Per Staff Analysis Per Application with Project	1,724,853 -	1,724,853
Account for SB 234 (2015) funding pursuant to PSC General Order 183.11.			
(3) Operating Expenses	Per Staff Analysis Per Application with Project	13,844,561 13,798,828	45,733
To adjust for a .25% administrative fee associated with a \$35,000,000 CWSRF Loan for 30 yrs.			
(4) Principal & Interest	Per Staff Analysis Per Application with Project	4,124,320 3,695,412	428,908
The difference in P&I is related to Staff's calculation of a CWSRF Loan of \$35,000,000 for 30 years at 1.75% and an IJDC Loan of \$1,000,000 at 2% for 30 yrs.			
(5) Reserve Account @ 10%	Per Staff Analysis Per Application with Project	331,128 288,122	43,006
Staff assumed a 10% reserve on the new debt.			
(6) Renewal & Replacement Fund (2.5%)	Per Staff Analysis Per Application with Project	546,737 590,265	(43,528)
Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.			