



WWTF Workshop October 28, 2025

LEWES BOARD OF PUBLIC WORKS

Agenda

Drivers for the Project

How'd we get here?

Potential Options

BPW Cost Comparison

Customer Impact Factors Influencing Our Evaluation

Next Steps

Public Comments

Thank you

Drivers for the Project

Environmental Risks

- Facility located in floodplain; vulnerable to extreme weather, flooding, and climate change
- Positioned only 6 ft above sea level
- Rising sea levels increase risk — projections show daily high-tide flooding by 2070

Rising Costs

- Increasing operations and maintenance expenses
- Annual percentage increases from Contracted Operator
- While the technology at BPW WWTF is effective, higher operational costs than other technologies

Staffing Challenges

- Limited contractor pool to operate MBR plant reduces competitiveness
- Difficulties attracting and retaining qualified operation personnel for this type of plant

Drivers for the Project (Continued)

Scale Limitations

- Small customer base limits cost-sharing via rates
- Major expenses drive significant rate increases
- Seasonality of demand

Regulatory & Compliance

- Increasingly strict environmental regulations increase costs
- Significant reporting and monitoring requirements

How'd we get here?

BPW held its first public meeting: March 31, 2022

- Contracted GHD in 2022 with Sussex County for WWTF study → results shared January 2023
- Ongoing dialogue through seven public workshops (2023–2025)

Sussex County approached BPW to discuss potential to tie into Wolfe Neck facility

- Sussex County is limited by spray irrigation at Wolfe Neck site
- Sussex County is at capacity and needs to build a new treatment facility

Summer 2023 – DNREC Phase 1 Archaeological Study, Wolfe Neck WWTF

- Phase 1 study conducted
- Results ruled out discharge to constructed wetlands and fixed-head forest irrigation.

BPW & Sussex County pursued a regional agreement with Rehoboth Beach (2024–2025)

- Proposed use of RB's ocean outfall and attended 10+ workshops on terms and finances
- RB Commissioners declined the regional agreement offer in Feb 2025
- Alternative options were then explored

Options

6 Options	Key Description	Cost
1. Existing WWTF Hardening	Strengthen BPW plant against sea level rise, flooding, power loss, etc.	\$30.5 million
2a. Relocation & Spray Irrigation/ RIBS	Build new plant with spray irrigation or infiltration beds	>\$156 million
2b. Relocation & Use Existing Outfall	New plant, keep existing outfall	>\$114 million
2c. Relocation & New Ocean Outfall	New Plant with new ocean outfall	>186.5 million
3a. Send Flow to Sussex County & Canal Existing Outfall	Send wastewater to SC plant; return treated flows to existing Lewes outfall; decommission current plant	\$40 million
3b. Send Flow to Sussex County with Constructed Wetland & relocated canal outfall	Send wastewater to SC; decommission current plant	\$40 million capped

Draft Agreement : Send Flow to Sussex County

BPW and Sussex County have been meeting to work out options and negotiate a draft agreement.

BPW's wastewater flow will be pumped to Sussex County's Wolfe Neck facility.

Two Lewes BPW pump stations will be reconfigured to pump to Wolfe Neck facility. The pump stations will be operated and maintained by Sussex County.

Wolfe Neck Facility will be upgraded for tertiary treatment to treat 4.0 mgd of wastewater

Treated effluent will be polished through a constructed wetlands, with final discharge to the Lewes-Rehoboth canal.

Draft Agreement: Send Flow to Sussex County

BPW Project Capital cost will be 20% of capital costs and are capped at \$40M, plus interest.

- Project will be funded by a long-term municipal bond obtained by Sussex County

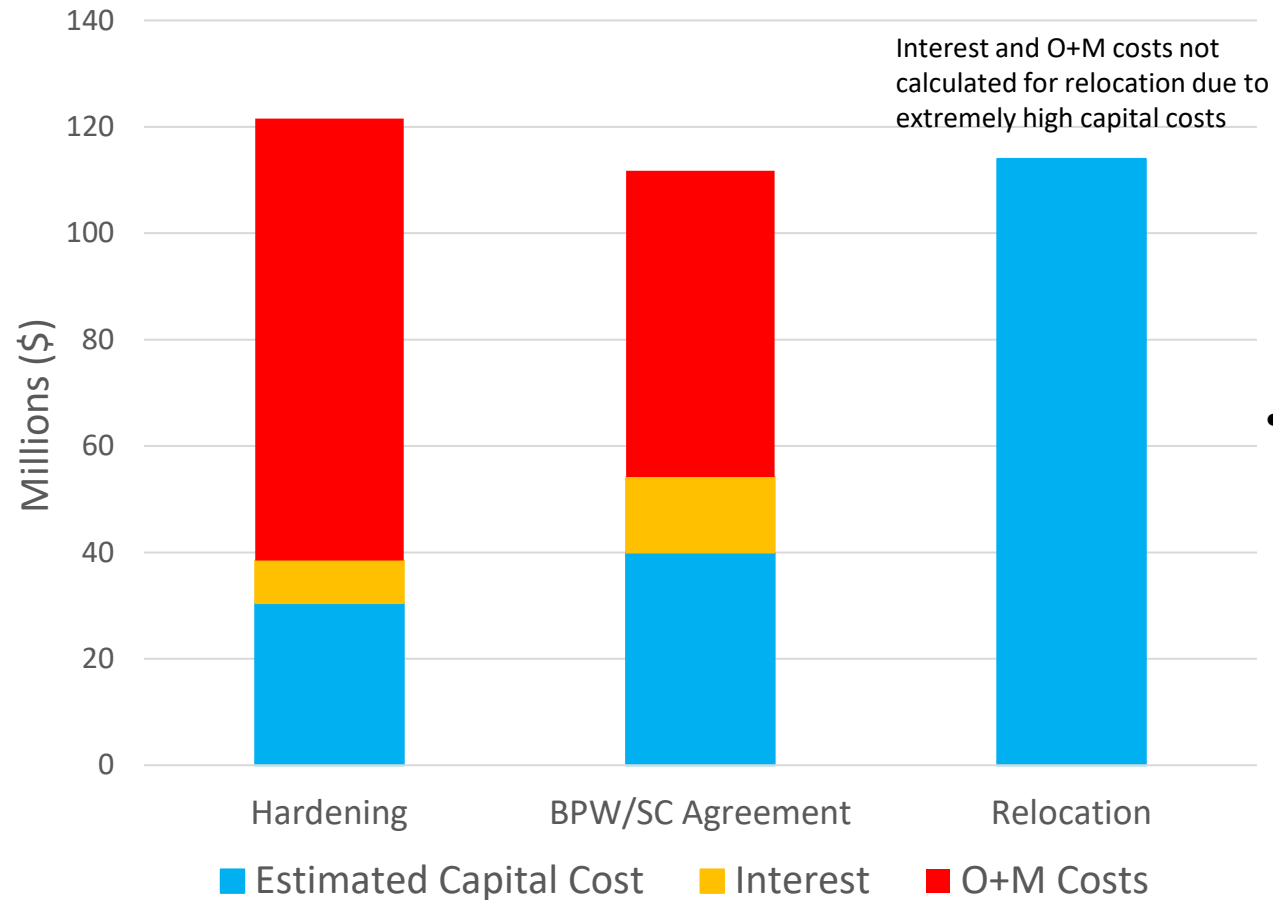
BPW will continue to own, operate and maintain the collection systems including piping, pump stations, and other relevant infrastructure.

BPW will continue to be the sole point for customer concerns, contact and billing.

BPW will continue to be solely responsible for setting customer rates.

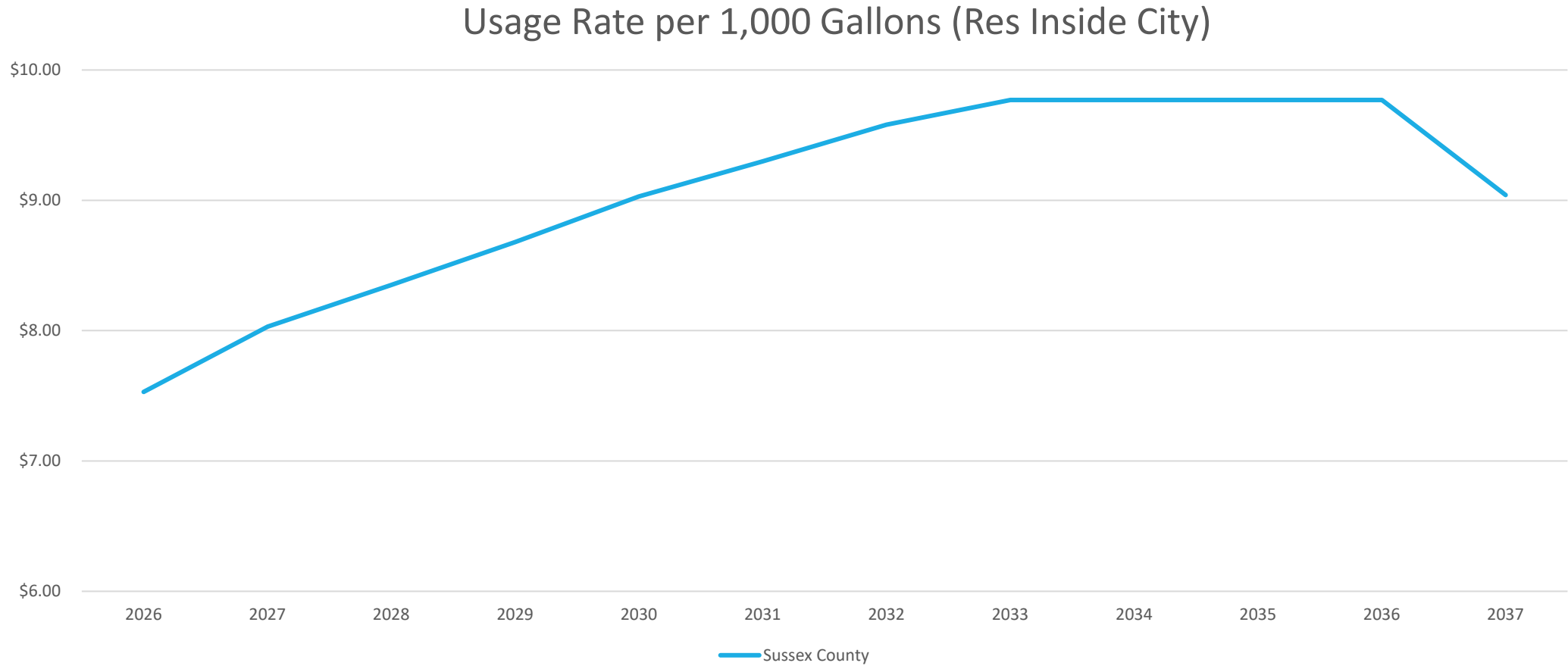
Sussex County will be responsible for the decommission of existing BPW plant and restoration of land to Greenfield Conditions.

BPW Cost Comparison: Capital + 20 years O+M

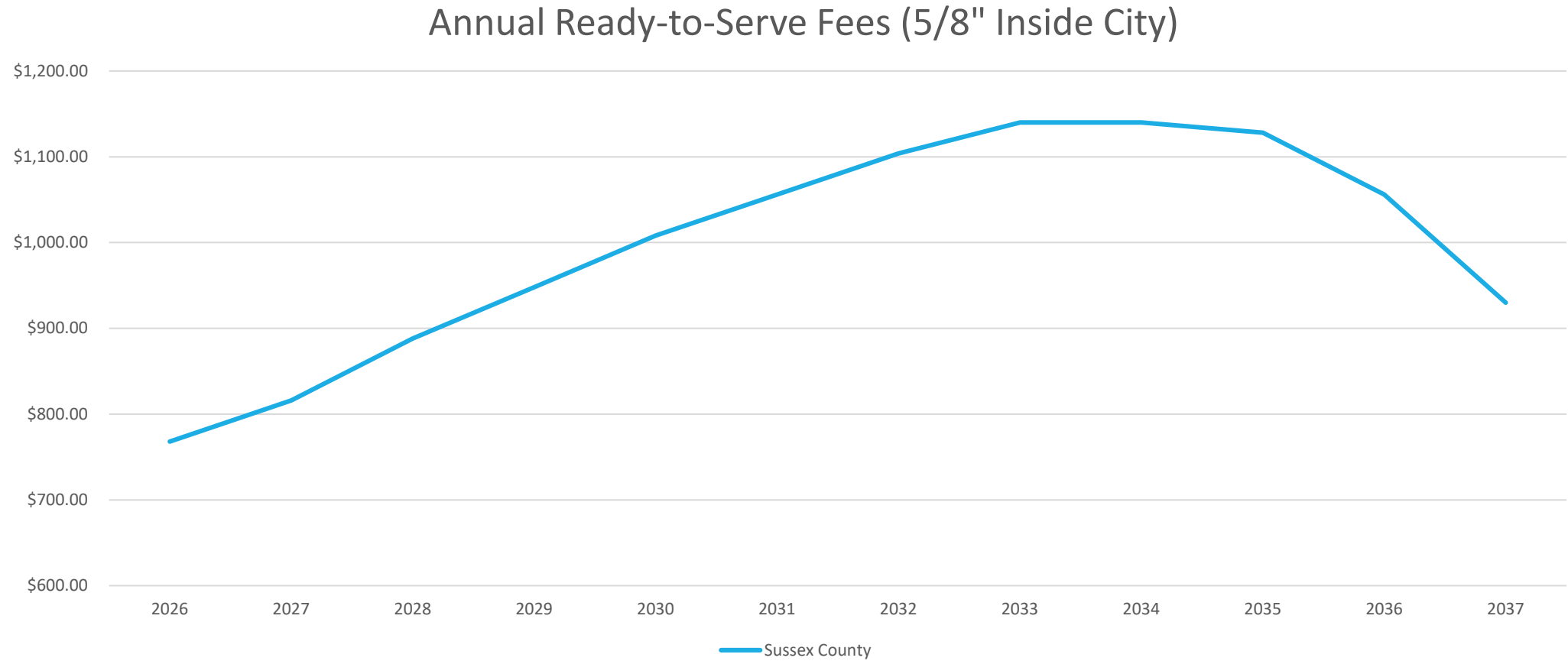


- Capital Costs:
 - Hardening: \$ 30,500,000
 - BPW/SC Agreement: \$ 40,000,000
 - Relocation: > \$ 114,000,000
- Interest (20-year loans)
 - Hardening: \$ 8,000,000
 - BPW/SC Agreement: \$ 14,200,000
- O+M Costs Over 20 years
 - Hardening: \$ 83,062,900
 - BPW/SC Agreement :\$ 57,528,060

BPW Residential Customer Impact

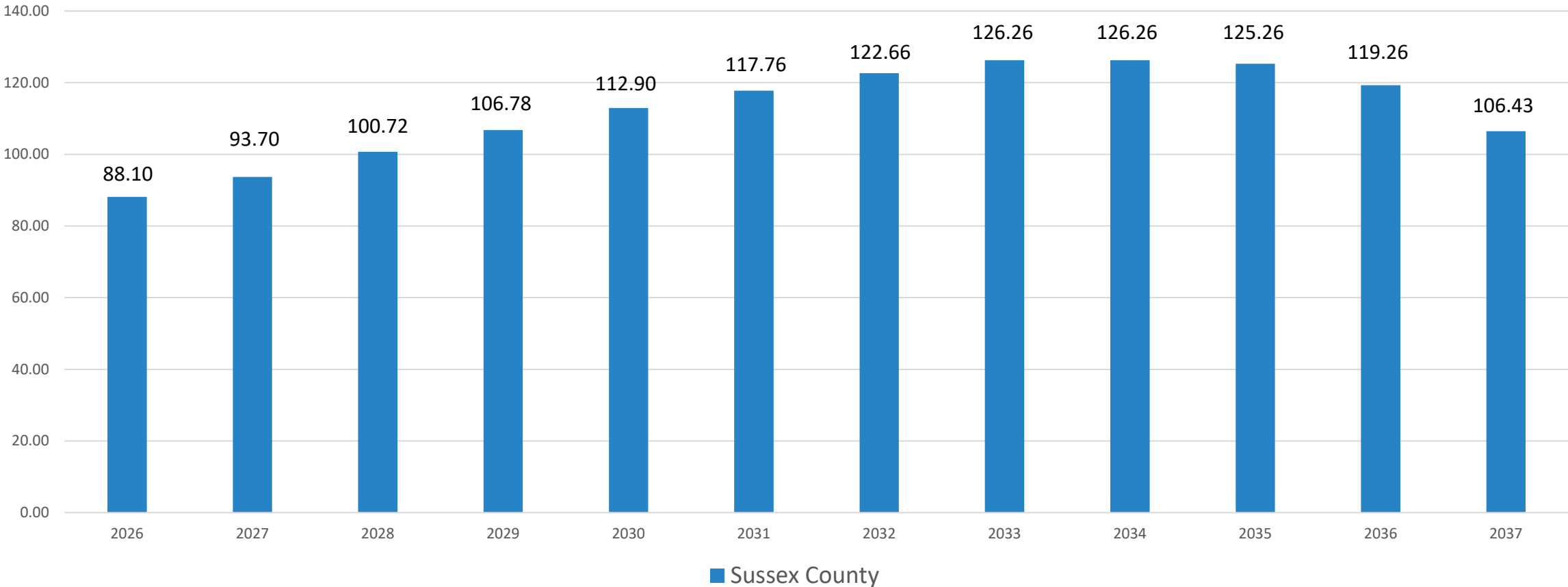


BPW Residential Customer Impact



BPW Residential Customer Impact

Monthly Bills (5/8" Inside City)



Factors Influencing Our Evaluation

Draft Agreement with Sussex County makes sense:



**Lowest Long-Term
Costs -**
Shared cost of operating



Specialized Expertise-
Dedicated staff manage
complex treatment and
compliance



**Infrastructure &
Reliability-**
Larger system can
handle upgrades,
emergencies, and
backups more efficiently



**Environment Risk and
Resiliency-**
Reduce flood and
wetland risks

Draft Agreement Key Terms Summary

Key Terms	Description
Scope of Work	Sussex County will complete capital improvements (including studies, designs, approvals, & construction) to Wolfe Neck facility to upgrade to annual average daily flow of 4.0 mgd and will accept and treat all wastewater discharge from Lewes BPW.
Transfer of Waste Load	Lewes BPW will transfer waste loads under NPDES permit upon approval of EPA and DNREC.
Greenfield Condition	Property is returned to an undeveloped condition, free of all buildings, foundations, footings, utilities, and other above ground and below ground improvements, as well as free of hazardous substances and debris.
Lewes BPW Continuing Responsibilities	BPW will be continue to own, operate and maintain the collection system, setting Lewes BPW customer rates.

Draft Agreement Key Terms Summary

Key Terms	Description
Lewes BPW flow Capacity purchased	Annual Average daily flow of 0.8 mgd (20% of total flow). Total capital cost of project is estimated at \$200 million. Lewes BPW share is capped at \$40 million.
Funding Sources and Schedule of Payment	Sussex County will secure funding through a municipal bond for the total cost of the project. Lewes BPW will reimburse their portion (20%) begin making payments after approval of municipal bond. In first quarter, Lewes BPW will reimburse Sussex County for costs actually incurred to date, not exceed \$3 million. The balance, including interest, will be paid per the terms of the bond.
Operation, Maintenance, and Replacement Cost-Sharing	Lewes BPW will reimburse Sussex County not to exceed, 25% for the first 5 years and 20% for the OM+R.

Draft Agreement Key Terms Summary

Key Terms	Description
Sewage Flow Measurement	Magnetic flow meters will be installed at PS 4 & 8 to record flow. Any unmetered flow will be calculated by multiplying the number of EDUs connected to the County Sewer system by 250 gallons per day, per EDU.
Responsibility for Future Upgrades	Lewes BPW responsibility is limited to our proportionate share (20%) of the upgrades that are necessary for permit compliance. Both parties will mutually agree on timing and terms.
Cooperation, Communication and Information Sharing	Lewes BPW President and County Administrator and relevant staff shall meet quarterly. Records will be made available upon request by both parties. The County will provide Lewes BPW copies of daily monitoring reports submitted to DNREC and a monthly data summary concerning operations at Wolfe Neck facility.

Next Steps

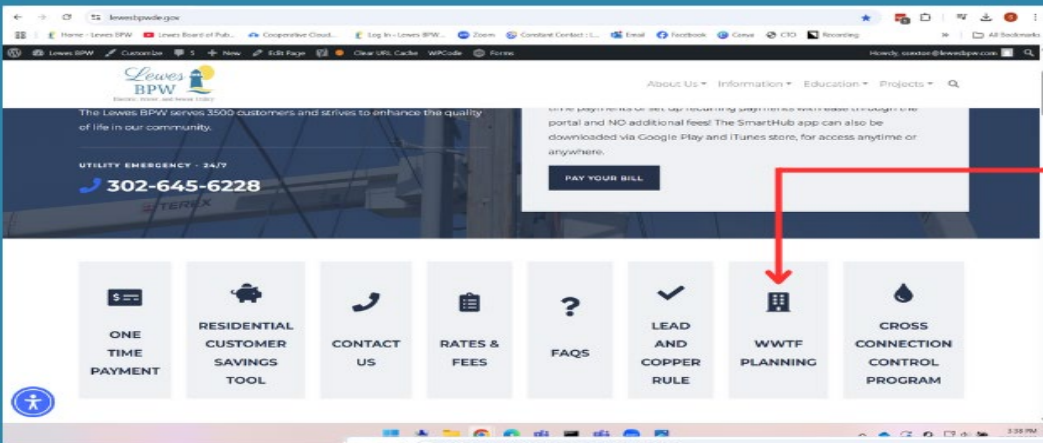
We will receive, review and consider public input from this Workshop and other submitted public comment. We will continue to have this item as a discussion topic and to receive public input at our monthly Board meetings.

Written public comment is encouraged and may be sent through the Lewes BPW website, mailed or dropped off at the BPW office.

The BPW will review and evaluate comments.

The draft agreement will be posted prior to the December 10th Board Meeting.

BPW Public Comment Portal

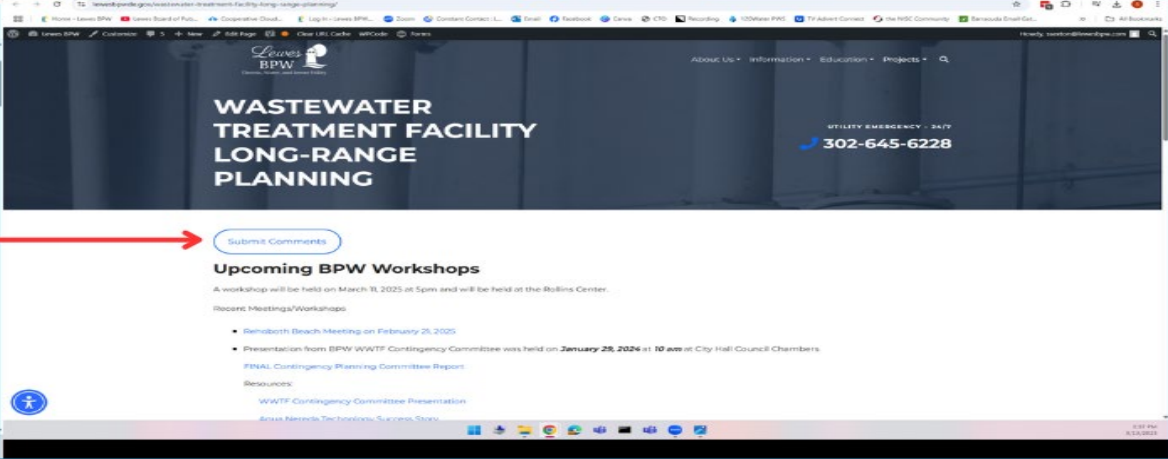


The screenshot shows the Lewes BPW homepage. At the top, there is a navigation bar with links for 'About Us', 'Information', 'Education', and 'Projects'. Below this, a banner features the Lewes BPW logo and a 'PAY YOUR BILL' button. A red arrow points from the 'PAY YOUR BILL' button to the 'WWTF PLANNING' button in the main menu.

Lewes BPW Homepage

UTILITY EMERGENCY - 24/7
302-645-6228

ONE TIME PAYMENT
RESIDENTIAL CUSTOMER SAVINGS TOOL
CONTACT US
RATES & FEES
FAQS
LEAD AND COPPER RULE
WWTF PLANNING
CROSS CONNECTION CONTROL PROGRAM



The screenshot shows the 'WASTEWATER TREATMENT FACILITY LONG-RANGE PLANNING' page. The page has a dark header with the title and a utility emergency number. Below the header, there is a 'Submit Comments' button. A red arrow points from the 'Submit Comments' button to the 'Submit Comments' button.

Submit Comments

WASTEWATER TREATMENT FACILITY LONG-RANGE PLANNING

UTILITY EMERGENCY - 24/7
302-645-6228

[Submit Comments](#)

Upcoming BPW Workshops

A workshop will be held on March 18, 2025 at 5pm and will be held at the Rollins Center.

Recent Meetings/Workshops

- Rehoboth Beach Meeting on February 26, 2025
- Presentation from BPW WWTF Contingency Committee was held on January 25, 2024 at 10 am at City Hall Council Chambers.

[FINAL Contingency Planning Committee Report](#)

Resources:

- WWTF Contingency Committee Presentation
- Access Records On Function, Success, Share

Public Comments

Thank you

Thank you!



Appendix- Supporting Data & Details

Appendix A- Existing WWTF Hardening

Appendix B- Relocation of WWTF

Appendix A: Existing WWTF Hardening

The construction cost of this option has increased from an estimate of \$23M to over \$30.5M

- Based on inflation and rising costs of materials and construction

While it is intended to protect from projected Sea Level Rise, it will not protect the plant from Coastal storms, which are getting stronger and more frequent

- The approach includes constructing a berm, but access may not always be possible

It would require the BPW to continue to operate the plant

- O+M cost is projected to be higher than going with Sussex County

It is technically more challenging since it requires maintaining the operation of the plant while major construction is going on

Appendix B:

Relocation of Plant

Construction Costs in 2023 dollars was estimated at \$114 million

- Actual costs today would be higher due to rising equipment and land prices, new transmission lines and reconfiguration
- Updates to pump stations would significantly add to cost

BPW would still be in wastewater treatment business

- O+M costs would be more expensive than a combined effort with Sussex County
- Still have the staffing challenges

We are limited by the appropriate land available in our area