MINUTES
TOWN OF JUPITER ISLAND
TOWN COMMISSION MEETING
TUESDAY, APRIL 8, 2025

WHAT: Town Commission Public Workshop - Septic-to-Sewer
TIME: Tuesday, April 8, 2025 – 9:00 AM
PLACE: Town Hall Island Room – 2 Bridge Rd., Hobe Sound, FL
PRESENT: Present were Mayor Penny Townsend, Vice Mayor Anne Scott, and Commissioners Marshall Field, VI, Patricia Warner and Joseph Taddeo. Also present were Town Manager Robert Garlo, Town Clerk Kimberly Kogos, Town Attorney Thomas Baird and IT Director Bill Sutton.

CALL TO OREDER AND ROLL CALL

Mayor Towsend called to order at 9:03 a.m. The Pledge of Allegiance was recited.

COMMENTS AND INTRODUCTION

Mayor explained today as a workshop and the procedure

Stuart Trent introduced the project consulting team from Holtz Consulting Engineers and explained the purpose of the workshop.

1. Project Background Presentation*

Ms. Christine Miranda of Holtz Consulting provided a detailed overview of low-pressure sewer systems, and their function compared to traditional gravity-based systems. She explained that these systems use grinder pumps to create a slurry that is transported through small-diameter, pressurized pipes to a wastewater treatment facility. Most pipes would be installed using horizontal directional drilling, minimizing surface disruption. She displayed images of the installation process and noted the use of high-density polyethylene pipes with an estimated lifespan of over 70 years.
Ms. Miranda described how converting to a low-pressure system would remove the need for septic tanks and drain fields. The only visible components would be a flush-grade pumping unit and a wall-mounted control panel, which could be screened with landscaping. She emphasized that this frees up space on residential lots for other uses. She explained that this technology has existed for over 50 years and is used extensively by other utilities in the region.

A diagram was presented showing a typical installation. Ms. Miranda noted that the pumping units hold between 70 and 90 gallons and include duplex pump configurations for added reliability. These systems run on a 240-volt outlet. She described the system's operation, where wastewater flows from the home into a pumping unit and is then discharged under pressure. Valves prevent backflow, and the system is modeled to ensure sufficient flow and pressure even in areas with limited occupancy.

Commissioner Field asked about the number of homes needed to maintain pressure in low-occupancy areas like North Beach. Director Trent explained that design modeling accounts for these variations and that the goal is to maintain a flow rate of at least 2.2 feet per second to keep solids in suspension. He stated that flushing ports would be installed throughout the main line to allow the system to be flushed if necessary. He noted that while usage may drop during certain seasons, routine flushing would not be required unless operational issues arise.

Commissioner Field also asked about power outages and the feasibility of battery backups. Ms. Miranda

and Director Trent stated that the systems are low-power and could be supported by small generators. While battery backup is not commonly used due to power draw, they agreed to research the option further. Director Trent explained that SMRU has contingency plans in place, including portable generators and service rotations, to address outages and pump down units as needed.

Ms. Miranda noted that telemetry options are available and can be installed to alert utility staff in case of pump failure or power loss. She estimated the monthly electricity cost for the system at under $12. Sewer usage is capped at 10,000 gallons per month, with a fee of approximately $68. She reiterated the benefits of low-pressure systems, including lower construction costs, reduced environmental impact, and proven reliability.

Vice Mayor Scott raised broader questions about the environmental justification for the system. She asked whether inspections of existing septic systems could suffice, and if a broader environmental assessment—covering chemical use, hardscaping, and soil conditions—should be considered. She questioned whether sewer conversion is inevitable given state policy trends and asked about the location and size of the proposed lift station. Director Trent responded that the primary concern is not groundwater contamination but nutrient runoff into surface waters, which can lead to algal blooms. He noted that the proposed lift station would be located on Town Hall property.

Director Trent explained that while Jupiter Island is not currently included in a Basin Management Action Plan (BMAP), inclusion in the future could require a mandatory phase-out of septic systems over a 10-year period. He emphasized that the Island should have a plan in place to avoid being unprepared. He added that BMAP designations are determined by scientists at the South Florida Water Management District and the Florida Department of Environmental Protection.

Commissioner Taddeo asked about other municipalities that had been mandated to convert. Director Trent noted that many areas within Martin County are already subject to BMAP regulations. Ms. Miranda agreed to provide results from a study conducted in Jupiter Inlet Colony comparing water quality before and after sewer conversion. Director Trent stated that while Jupiter Island's septic systems may be functioning well due to large lot sizes and careful maintenance, centralized sewer systems are more effective at reducing nutrient loads.

Director Trent noted that septic systems generally last 20 to 25 years and that replacement costs range from $25,000 to $30,000. He explained that the current connection policy allows existing homes with functioning septic systems to remain disconnected if a backbone network is installed, but new homes must connect. Once sewer is available, in-kind replacement of septic systems will not be allowed.

Director Trent presented preliminary cost estimates for a three-phase installation plan. The total cost of the backbone network is projected at over $18 million. Funding options include low-interest loans from the State Revolving Fund and potential DEP grants. Some backbone work may overlap with infrastructure improvements already planned by the county, potentially reducing costs. He emphasized the benefit of staging the project, with the North phase suggested as a logical starting point due to its elevation and vulnerability.

Director Trent shared sample connection cost estimates:
• 2,200 sq ft, 3-bedroom home: $14,220.20
• 4,000 sq ft, 4-bedroom home: $17,775.50
• 10,000 sq ft, 7-bedroom home: $31,491.40
He explained that connection costs include impact fees and equipment installation, and that prices are comparable to or lower than septic replacement. He noted that duplex systems offer increased reliability

and could be an option for residents who want additional security. Director Trent added that the utility is considering a higher-pressure pump model for early phases of the project and that a full report detailing the three-phase plan would be provided to the Commission.

Director Trent reiterated that the current discussion is exploratory and that no mandates are in place. He confirmed that the utility can offer site-specific assessments to any residents seeking detailed estimates and encouraged continued review of the conceptual plan in preparation for any future regulatory changes.

2. Breakout Session*

Breakout Sessions did not occur.

3. Questions and Discussion*

Jay Wilson, 22 Gomez Road, asked about maintenance and repairs following installation of the low-pressure sewer system. He requested information regarding the equipment warranty and asked who would be responsible for servicing the system. He inquired whether SMRU would be the first point of contact for homeowners experiencing issues and whether the utility would be obligated to perform service. He also asked, in the event the Commission proceeds with selling SMRU, whether the new entity would retain responsibility for servicing the systems on the Island.

In response, Director Trent stated that SMRU would own and operate the system and provide a one-year warranty through its contractor and vendors. He confirmed that service would be handled by SMRU with a typical two-hour response time and 24-hour monitoring. Telemetry options may be considered. He added that any future owner of SMRU would retain the service obligation. Homeowners would not be charged unless damage was caused by misuse, in which case repeat incidents could result in costs.

Resident Drew Ciraldo raised concerns about the scale and cost of the proposed sewer system, noting the Island's part-time population and recent roadwork. He questioned the need for construction and potential new taxes. He suggested exploring advanced septic systems with aerators and UV treatment, and proposed dye testing during peak season to identify failing systems. He also noted that fertilizer and pesticide runoff may pose a greater environmental risk than functioning septic systems. He expressed concern about power outages, stating generators would be necessary for continued use.

Director Trent explained that the larger duplex system would provide up to 250 gallons of storage, allowing approximately four days of capacity during a power outage which is ample time for SMRU to respond. He noted that portable generators can be connected directly to each unit, allowing a full pump-down in about five minutes, extending service time. He acknowledged the idea of dye testing as a useful method for detecting septic leaks but noted it would need to be contracted by homeowners, not managed by Town staff.

Commissioner Field noted that sewer hookups would be voluntary, while dye testing and septic upgrades would not. He emphasized the need to assess overall environmental impact, especially from runoff, and acknowledged that sewer systems are cleaner than septic. He supported building a reliable system and stated it is likely the Island will eventually face mandates, as seen in nearby areas.
Mayor Townsend asked about North Beach Road impacts during installation of backbone system.

Director Trent referred to the electrical undergrounding project and stated that the sewer backbone system would be constructed similarly using directional boring services.

Director Trent explained that advanced septic systems have been used on the mainland but often failed to

remain reliable. He noted one homeowner who repeatedly replaced the system's control board before opting to connect to SMRU. While these systems offer improved treatment and can discharge through drip irrigation, they are still subject to removal under a BMAP phase-out and are not exempt from future regulatory requirements.

Resident Roger Griffin shared concerns about the cost and impact of the proposed system, noting his property is larger and more complex than average and may not fit a standard estimate. He questioned potential noise from grinder pumps near outdoor spaces and supported the idea of surveying residents. He acknowledged some neighbors support the project due to failing septic systems, while others may see it as an inconvenience.

Commissioner Field asked Director Trent for decibel levels.

Mr. Griffin and Commissioner Field discussed the need to address resident questions before any decisions are made. Commissioner Field stressed the importance of public input and clarified that the proposed sewer system would be voluntary, with the $18 million backbone dependent on outside funding. Mr. Griffin expressed concern over past community feedback being dismissed and asked whether the consultant would remain involved if the project moves forward.

Director Trent explained that the current consultant was hired for analysis and may not be the same firm used for engineering and design. He said Holtz Consulting would be a strong candidate, but the Town has several qualified firms, and the project is still in the study phase.

Mr. Griffin and Mayor Townsend discussed the importance of hearing both benefits and drawbacks of the system, with Mr. Griffin asking for a clear breakdown of potential issues. He also raised a question about how wastewater charges are calculated, sharing concerns about being billed for irrigation use.

Ms. Miranda responded to Mr. Griffin's request for drawbacks. She stated that the primary downside of low-pressure systems is their reliance on electricity, as each home has a mechanical pump requiring power. Unlike gravity systems, which store waste in pipes until reaching a lift station, low-pressure systems have smaller on-site capacity. However, she explained that generators can keep systems running during outages, and SMRU is responsible for pumping units down if needed. She added that Holtz Consulting was hired only for the study and may not necessarily serve as the design engineer for future phases.

Commissioner Field asked if different-sized lift station vessels were available. Ms. Miranda said standard sizes exist, but larger tanks can be used for added capacity, especially during outages. She noted duplex systems provide backup and suggested contacting other municipalities for insight. She added from personal experience that minimizing use during outages is key.

Mr. Griffin asked about placement of the system on the homesite. Ms. Miranda explained that the main backbone system would be installed within the right-of-way, with service laterals extending to each property. These laterals would then connect to the existing septic system. She noted that backbone pipes are typically installed about three feet deep, but the depth on private property depends on the home's plumbing and is regulated by the Florida Plumbing Code.

Commissioner Warner asked if the Jupiter Island Club is on sewer. Director Trent affirmed.

Director Trent explained that the Island has two existing pipe crossings that could support the sewer system—an eight-inch casing with a four-inch pipe serving the Jupiter Island Club and an unused

irrigation line that could be repurposed. A central lift station near the Club would serve the south and central areas, while a lift station near Town Hall would serve the north. He noted the Club is satisfied with its current system.

Resident Drew Ciraldo asked what happens with the septic system once the sewer system is hooked up. He also asked about a valve to the macerator during a storm. Additionally, if the system goes into disrepair, would residents be required to hook up to sewer?

Director Trent explained that if a septic tank is functioning, there would be no requirement to connect to the sewer. Once a tank is no longer in use, it must be pumped dry and filled with sand. He added that it would not be advisable to rely on the macerator system during a storm.

Resident Jay Wilson suggested site visits to other towns/municipalities that have converted.

4. Closing Remarks*

Mayor Townsend stated this is the very beginning stages of this inquiry and expressed appreciation for resident input.

Director Trent stated that he will provide a summary recap of the workshop at the upcoming Town Commission meeting and address as many questions as possible.

Mayor Townsend adjourned the meeting at 10:52 a.m.

Respectfully submitted,

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Kimberly Kogos, Town Clerk