

**BRUNSWICK**



**SEWER DISTRICT**

**STRATEGIC PLAN  
2017 – 2026**

ADOPTED: August 18, 2016

BRUNSWICK SEWER DISTRICT

STRATEGIC PLAN

2017 – 2026

ADOPTED:

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Jennifer L. Nicholson, Treatment Operations Supervisor

Wesley D. Wharff, Collection Systems Supervisor

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## **Introduction**

This is the first Strategic Plan developed by the Brunswick Sewer District (the District). Earlier long-term planning had concentrated on specific facilities and programs of the District. This plan focuses on the organization as a whole, reflecting the District's revised mission, vision, and value statements as a public agency dedicated to a superior level of service.

This Strategic Plan serves as a framework for decision making outlining the specific goals, strategies and objectives we will pursue and includes the tactics, action items, milestones, tasks, and resource allocation needed to guide the District to success. This Strategic Plan articulates the Board of Trustee's Vision and Strategy for the District over the next ten years.

## **District Overview**

The Brunswick Sewer District (BSD) was created in 1947 as a quasi-municipal corporation *"for the purpose of providing and maintaining, within the territorial limits of the district, a sewer system for the collection, treatment and disposal of sewage."*<sup>1</sup> The District serves more than 4,000 customers in the mid-coast Maine community of Brunswick, and treats the municipal wastewater from the neighboring community of Topsham under an agreement with its sewer district (Topsham Sewer District). BSD owns and operates the sewage collection system and wastewater treatment facility within its territorial limits.

The District is governed by a five-member Board of Trustees appointed by the Brunswick Town Council. The Operations staff consist of three 'divisions', Treatment, Collection & Pumping, and Administration. The Treatment Division has a staff of five, including Treatment Operations Supervisor Jennifer L. Nicholson. The Collection & Pumping Division has a staff of six, including Supervisor Wesley D. Wharff. The Administrative Division has a staff of four, including Finance Manager Lorraine Caron, who is also a member of the senior staff consisting of Assistant General Manager Robert A. Pontau Jr., P.E. and General Manager Leonard Blanchette.

The primary treatment plant went online in 1967, the first municipal wastewater treatment plant on the Androscoggin River. The plant was upgraded in 1991 to add a secondary (biological) treatment process consisting of trickling filters. The next major Plant upgrade is in design now

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<sup>1</sup> The Charter of the Brunswick Sewer District, revised version 1982

with completion of the upgrade expected by late 2017. This is Phase 1 of a two-phased 20-year plan for the treatment facility and its operations.

The collection system includes some 65 miles of pipe and 19 pumping stations (a.k.a. lift stations). The collection systems staff also perform operations and maintenance (O&M) services for wastewater pumping and/or collection systems under agreements for the Town of Brunswick, the Topsham Sewer District, and the Midcoast Regional Redevelopment Authority. BSD has nearly \$30 Million in assets including a treatment plant, collection system, vehicles, equipment, and real estate. The District treats and discharges an average of 2,500,000 gallons of wastewater per day into the Androscoggin River.

## District Service Area

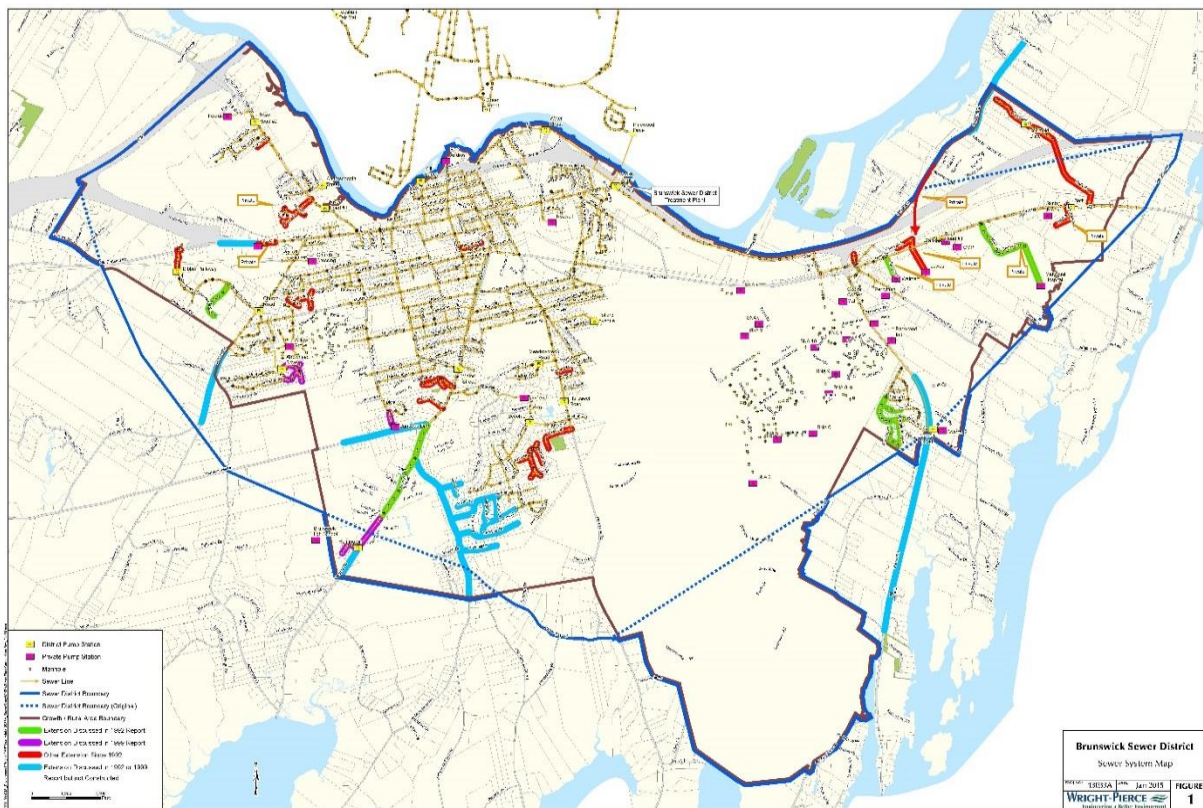


Figure 1-District Service Area Map

The District's service area encompasses approximately the inner one-third of the Town of Brunswick's geographical area, including the former Brunswick Naval Air Station which closed under the 2005 Base Realignment and Closure process. The former base, now known as Brunswick Landing, is undergoing redevelopment by the Midcoast Regional Redevelopment Authority.

## **Strategic Plan Development**

While the District's mission has not changed in over 50 years, in the summer of 2014 as part of the strategic plan development, the Trustees adopted formal Mission and Vision statements and helped define the core values leading to the Value Statement. The statements all revolve around protecting the environment in a fiscally responsible manner by maximizing and respecting our resources. This became the cornerstone for developing the strategic plan goals.

This Strategic Plan is designed to work in concert with other planning documents such as the 2012 Wastewater Treatment Plant Evaluation which developed a two-phased, twenty (20) year treatment facility master plan; and the 1992 Collection System Facilities Study which developed a twenty (20) and forty (40) year systems flow and expansion design, and the five (5) year revolving Capital Improvement Plan.

The General Manger initiated the process in 2013 with the Board of Trustees. The first workshop was conducted in August 2013. All of the workshops were advertised and the public was encouraged to attend and participate. The first workshop focused on a power-point presentation (Appendix #1) developed by the Assistant General Manager and staff outlining the process, objectives, five (5) strategic elements, and draft mission, vision and values statements as starting points for the Trustees consideration. Each strategic element included an objective and a strategy to meet the objective. These became the basis for the Board of Trustees to develop the Strategic Goals.

The strategic planning process included an internal and external analysis of the Strengths, Weaknesses, Opportunities, and Challenges analysis. The SWOC analysis, shown in figure 3, indicates that the District's greatest strengths are in personnel and reputation. Weaknesses include a deteriorating infrastructure, succession planning, and communications. Opportunities exist within resource utilization and technology. Challenges are from outside organizations and include new mandates and funding cuts.

## **Mission, Vision, and Value Statements**

**Mission:** To protect the health and environment of the communities we serve through wastewater collection and treatment in an environmentally responsible, efficient, and reliable manner.

**Vision:** We aspire to provide exceptional service through qualified Board and staff utilizing innovation and technology to be good environmental and fiscal stewards.

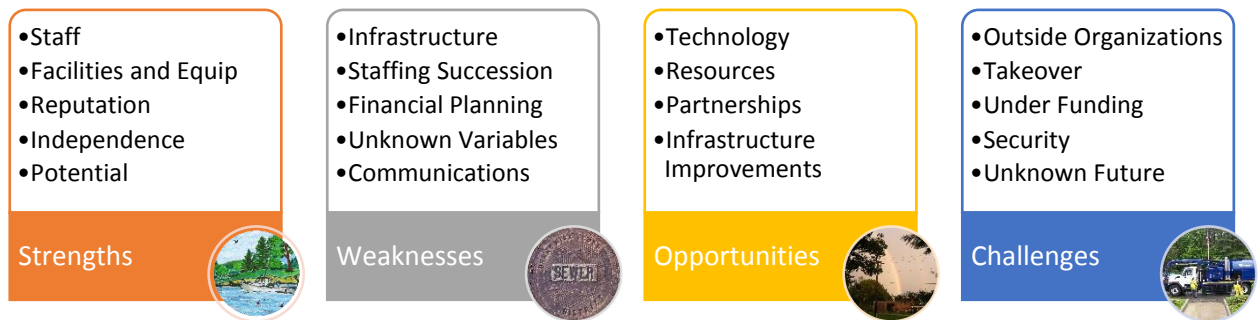
### **Values:**

- Employees
  - We believe our employees are our best asset. We encourage growth through continuing education and training. We foster a team environment through trust, respect, and communication.
- Customers
  - Customer satisfaction is achieved by providing quality services and fiscal responsibility at all times.
- Environment
  - We strive to be good stewards of the environment and our community by protecting our natural resources and exceeding our regulatory requirements.
- Excellence, Innovation, and Integrity
  - We strive for continuous improvement by utilizing the latest technology and a “can do” attitude.
  - All transactions and activities are conducted with honesty, fairness, dignity, and respect.

## SWOC Analysis

BSD managers and supervisors met early in 2013 to perform a SWOC analysis. Figure 2 presents a summary of the managerial discussion and decisions.

Figure 2: SWOC analysis



The greatest strength of the District is the experienced staff. There has been no employee turnover at the District in the past four years. Employee satisfaction from competitive wages, excellent benefits, and a welcoming work environment have led to increased productivity. BSD must continue utilizing morale boosting policies.

Weaknesses include staff succession and aging infrastructure. Because staff turnover is low, there are no positions available. It is difficult to hire and train new employees. Because full-time positions are rare, the District must develop a formal intern process. Working with other districts and municipalities in the industry to create a pool of internships would benefit the BSD and the industry as a whole.

Aging infrastructure is the most difficult weakness to overcome. BSD owns and maintains over 63 miles of sewer pipe and 1100 manholes. For a 100-year capital replacement cycle, the District must replace 3,300 feet of pipe and 11 manholes per year. That does not include replacement of capital equipment or pump stations. For 2015 the district funded some \$400,000 for capital improvement equaling only 33% of the annual depreciation. To meet the capital funding demand, BSD must increase rates nearly 25% over the current rate to fund an additional \$800,000



annual capital expenditure. This increase is above and beyond the current annual increases enacted and proposed between 2015 and 2018 to fund the debt obligation expected from the current treatment plant upgrade project estimated at \$22,000,000. The base rate for metered use was \$4.68 per 100 cubic feet in 2014 and was increased to \$5.36 in 2015. It is proposed at \$5.95 for 2016. And projected to be \$6.49 for 2017 and \$7.07 for 2018. These increases will bring in the additional \$1,200,000 required to fund the annual debt payment for the \$22 million SRF loan.

The rate for 2019 is projected at \$7.25, with this incremental increase to help fund the capital improvement plan. To raise the additional \$800,000 a year to fund capital, the 2020 rate would probably need to be \$8.70 or have incremental annual increases over two or three years to bring it to the \$8.70 rate.

## **Strategic Elements**

Prior to the first workshop with the Trustees, staff developed a preliminary outline noting a process to use to develop the Plan and included five (5) strategic elements thought to be important for the Trustees to use as over-arching elements in developing the goals for the strategic plan. Strategic Elements represent the vital areas of the District's operation and management. These Strategic Elements are derived from the foundational Mission and Vision statements of the District. The Strategic Elements proposed were:

1. Treatment Plant
  - Objective: Efficiently treat and dispose of wastewater to meet the needs of our customers (current and future).
  - Strategy: Meet regulatory requirements through optimized operations, processes, and maintenance.
2. Collection System
  - Objective: Efficiently collect and transport our customer's wastewater.
  - Strategy: Plan for infrastructure improvements and utilize preventive/predictive maintenance to maximize infrastructure lifetime.
3. Administrative/Management
  - Objective: To ensure sound management of the District.

- Strategy: Create, update, and change policies and procedure to provide the GM and Staff with the direction and resources needed to successfully operate the District.

#### 4. Personnel/Organizational Management

- Objective: To employ an efficient, high quality, motivated workforce.
- Strategy: Utilize sound personnel policies and provide opportunities for professional development and personal growth while ensuring a workplace that is engaging and safe. Incorporate staff succession planning. Chart #3 notes that of the ten (10) higher level positions, seven (7) can be filled by current in-house staff.

##### Discussion: Succession Planning.

Chart #3 notes that of the ten (10) higher level positions, seven (7) can be filled by current in-house staff. The key for this Strategic Plan element is to continue with efforts to cross-train employees and to provide opportunities, both in-house and out-of-house, for training and educational improvements. The District's Educational Policy provided the major funding and incentive for the senior electro-mechanical technician to obtain an associate's degree, the assistant general manager to obtain a master of business administration degree, the treatment plant supervisor to pursue a business administration degree, and the accounting staff member to consider an associate degree in accounting. The focus has been to more technical training, and providing opportunities for at least one, and usually two, summer intern positions for college students. Incorporating additional technical positions at the District will require new positions and a redesign of the organization chart.

#### 5. Financial Management

- Objective: Ensure short and long-term fiscal management of the District.
- Strategy: Utilize sound management to monitor revenues and expenses to maintain financial resources to fund current and planned operations, projects, and goals.

##### Discussion: Financial Plan.

Providing a sound financial plan in support of the District and its strategic plan is paramount to achieve the strategic plan goals envisioned in this report. As this strategic plan has been developed for a ten-year timeframe, the financial plan must also be for a ten-year term. A preliminary financial plan worksheet (Chart #2) has been developed to provide a baseline of the necessary annual

revenues required to fund not only the operations but also the goals stated herein.

The plan looks at revenues, expenses, capital, debt payments, and capital reserve funding for the years 2017 to 2026. The past practice of rate changes every 3 to 5 years is behind us. The current annual increases through 2018 are required to meet the annual repayment schedule for the \$22,000,000 Clean Water State Revolving Fund (CWSRF) loan of approximately \$1,280,000 beginning in 2018. Topsham Sewer District's (TSD) annual share is approximately \$188,000, meaning a net annual outlay by BSD of some \$1,100,000. Beyond 2018 smaller adjustments are noted to slowly increase the annual funding desired to fund our annual Capital Improvement Plan including Strategic Elements #1 and #2.

The Plan anticipates the potential takeover of the Brunswick Landing (BL) mainline sewer system sometime in 2017. As the basis for billing may revert from the master wastewater meter serving the Brunswick Landing property to the individual fresh water meters of each individual property in BL, an expected \$200,000 loss in annual revenue is factored beginning in 2018. Hence the reduction in capital expenditures for 2018 through 2022.

One bright spot in the revenue picture NOT factored in is the possibility, and a major goal of this Strategic Plan, of a combined Brunswick and Topsham Sewer District by the year 2023 (when current services agreement expires). Should that occur, the current annual billing revenues to TSD of some \$690,000 would go to the combined district. This would eliminate TSD's annual payment to BSD for treatment services and their share of the CWSRF loan of approximately \$328,000, but BSD (as the new B&TSD) would gross the remaining \$359,000.

#### Discussion: Funded Depreciation.

To develop a plan to increase rates to eventually meet the Charter requirement noted in Sec. 33, §6. *Charter, Sec. 33. Purpose of rates. Rates shall be so established as to provide sufficient revenue for the following purposes:*

*§6. Depreciation reserve. To create and maintain a funded depreciation reserve, with annual increments not to exceed annual depreciation.*

It appears the Charter notes this as a required aspect in determining the rate structure. "Rates shall be so established...". 'Shall' is mandatory, 'May' is permissive. With that as a directive, the goal is how to achieve a fully funded depreciation reserve. For our purpose, that amount would be somewhere near \$1.2 million. Based on our projected revenue for 2016 for Operating Revenues, minus TSD, it would mean an approximate 30% increase in rates from the projected 2018 rate of \$7.46/100 c.f., to obtain an additional \$700,000 per year by 2024. This assumes the current \$500,000 allotted for capital each year will remain.

On April 01, 2016 the District implemented the second of an expected multi-year (probably a four or five year) rate adjustment planned to increase the rates by some 53% from where they were in 2014 to fund the CWSRF loan payment. Then from 2020 through 2026 are smaller increases (average 4%/yr.) to help fund capital projects. The goal is to fund a depreciation reserve (capital reserve) to an annual limit of at least \$1.2M.

Chart #3 notes the Capital Improvement Plan (CIP) projected for the years 2017 through 2026.

## **Goals and Objectives**

The Strategic Plan is the document used to clearly articulate the objectives and goals of the Board of Trustees for implementation by management and staff. Based on the workshops held thus far, the following Goals and Objectives have been developed and prioritized as follows:

1. Goal: Increase customer base within the Growth Zone.  
Objective: a. Sewer existing developed residential areas.  
b. Seek additional Operations & Maintenance Agreements.  
c. Identify other revenue sources.
2. Goal: Work with the Town to implement the goals of the Town's 2008 Comprehensive Plan.  
Objective: Develop capitalization plan for sewer extensions.
3. Goal: Consider additional mission responsibilities.  
Objective: Identify additional revenue sources.
4. Goal: Include the reclassification of the Androscoggin River in all planning efforts.  
Objection: Determine impact (cost) to current and future projects.
5. Goal: Expansion of the District boundary (service area).  
Objective: Increased customer base.
6. Goal: Larger role in town-wide water quality planning/implementation.

Objective: Greater environmental stewardship role in town.

7. Goal: Effective Regionalization.

Objective: a. Combined Brunswick & Topsham Sewer District.

b. Work with regional wastewater departments/utilities.

c. Water/Wastewater Utility option

8. Goal: Charter Changes.

Objective: a. Requirement for connection to public sewer.

b. Authority for cost recovery assessment (sewer extensions).

9. Goal: Keep up-to-date on Treatment Technologies.

Objective: a. Nutrient Reduction, Resource Recovery, Pharmaceuticals & Personal Care Products treatment, Energy recovery.

b. Future considerations (unknowns) – energy developer, drinking water standard.

10. Goal: Collection System Infrastructure Replacement.

Objective: a. Continue with Pipe and Pump Station upgrades/replacements.

b. Continued reduction of non-sanitary infiltration and inflow sources.

11. Goal: User Education

Objective: a. Specific Not-To-Flush materials.

b. Proper disposal of pharmaceuticals, non-dispersible flushables, fats/oils/grease.

c. Proper chemical use/disposal.

d. General water quality awareness.

The timelines for implementing the Objectives has been defined as:

- Short-Term: 1 to 2 years.

- Intermediate-Term: 3 to 6 years.
- Long-Term: 7 to 10 years.

The Brunswick Sewer District has eleven (11) major goals to accomplish in this plan. Chart 1 illustrates the estimated timeframes for each of the eleven goals.

## **Conclusion**

The Brunswick Sewer District (BSD) has served the community in a positive way for six decades. As the community grows and changes, the District must evolve to meet the needs of its customers. This strategic plan provides guidance and outlines clear objectives, action items, and milestones for BSD to grow over the next ten (10) years. By implementing this strategic plan, Brunswick Sewer District Trustees and Staff will continue to provide a reliable, efficient, effective, and necessary service to the community.

## CHART #1

BRUNSWICK SEWER DISTRICT  
 BOARD OF TRUSTEES  
 2016 - 2026 STRATEGIC PLAN  
 OBJECTIVES, GOALS AND SCHEDULE  
 August 18, 2016

Priority Ranking	STRATEGIC PLAN GOALS	STRATEGIC PLAN OBJECTIVES	SHORT TERM (1 - 2 Yrs.)	INTERMEDIATE TERM (3 to 6 Yrs.)	LONG TERM (7 to 10 Yrs.)
1.	Increase Customer Base (within Growth Zone)	a. Work with Town Zoning b. Sewer developed residential areas with District	Consider sewerage developed residential areas Survey residents to gauge desire for public sewer Conduct Cost/Benefit Analysis (assume traditional gravity sewer system)	Prepare design and construction plans Develop funding plan	Construct sewers/connect households
		c. Additional Operations & Maintenance Agreements	Privately owned systems Government owned systems (Groundwater Treatment Plant Operations)		
		d. Identify other revenue sources		LNG fueling station Carbon credit sales FOG (fats, oils, grease) collection/sales program	
2.	Work w/Town to Implement Goals of 2008 Comp Plan	Capitalization plan to fund sewer extensions Goal of expanding public sewer Encourage Cluster Development	a. Work with Town to Develop capitalization plan to fund sewer extensions b. Require connection to public sewer c. 2008 Comp Plan		
3.	Consider Additional Mission Responsibilities	Identify areas for additional revenue		a. Septic systems b. Non-point Source c. Pharmaceuticals	
4.	Include River Reclassification in planning	Determine impact to current and future planning for treatment processes	a. Check w/MDEP to: i. determine probability within planning period ii. Impact to discharge requirements b. Determine if any impact to Phase 1 TP Upgrade		
5.	Consider Expansion of District Boundary	Identify Opportunities Outside of Growth Zone		a. Increase customer base (e.g. Bay Bridge Estates) b. Increase income sources (on-site system management)	
6.1	Consider larger role in Town-wide water quality planning & implementation.	Public Awareness & Outreach (e. g. Source Reduction/Prevention) Improve water quality throughout Town and coordinate w/Town	a. Continue collaboration w/other entities to formalize more efficiencies		
7.	Consider Effective Regionalization	Improve efficiencies in services provided	Meet with regional entities to discuss/plan	Resolution of Topsham Sewer District Regional Treatment Services Agreement	Regionalized Sewer District
8.	Charter change considerations	Require new growth connection to public sewer * Authority for cost recovery assessment			
9.	Keep up-to-date on Treatment Process technologies	Nutrient Reduction Resource Recovery Pharmaceuticals and Personal Care Product treatment Energy Recovery	Review nutrient reduction technologies Review nutrient recovery technologies (e.g. phosphorus) Review enhancements to current treatment process re: P&PCP Review treatment process options for developing energy source(s)	Continue phosphorus & nitrogen effluent sampling/ testing Build Effluent Database	Review / research nutrient reduction/recovery technologies Prepare for MDEP reduction requirement
10.	Collection System Infrastructure Replacement	Continue with pipe and pump station upgrades/replacements	Expand Current 5 Year Plan to 20 year Plan	Fund \$350,000 to \$500,000 Annually	Fund \$500,000 to \$1,000,000 Annually
11.	User Education	Specific Not-to-Flush Materials and Proper disposal of pharmaceuticals, flushables, fats/oils/grease Proper chemical (pesticides/herbicides) use/disposal options General Water Quality Awareness	Use newsletter, bill inserts, local cable channel Public presentations to various locals groups		

\* Where feasible/practicable

## CHART #2

S:\STRATEGIC PLANNING\2016\Financial Plan\Financial Projection Worksheet-2017 to 2026-8.5x11.xlsx\Financial Worksheet 2016 - 2026

8/18/2016

Goal #1: Increase revenue by 2018 to have additional \$1.28M to pay annual CWSRF Loan payment.

Goal #2: Increase revenue after 2018 to ALSO fund \$1.2M annual depreciation fund (i.e. capital improvement plan).

(2), (3), etc. = Assumptions footnote references.

1.11                      1.11                      1.07                      1.04

		Budget	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
Fiscal Year:		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Rate:		\$ 5.95	\$ 6.66	\$ 7.46	\$ 7.99	\$ 8.31	\$ 8.64	\$ 8.98	\$ 9.34	\$ 9.72	\$ 10.10	\$ 10.51
per 100 cubic feet		11.0%	11.0%	11.0%	7.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
A. Operating Revenue: <sup>(2)</sup>	Residential	1,537,000	1,706,070	1,893,738	2,026,299	2,107,351	2,191,645	2,279,311	2,370,484	2,465,303	2,563,915	2,666,472
	Commercial	1,033,000	1,146,630	1,272,759	1,361,852	1,416,327	1,472,980	1,531,899	1,593,175	1,656,902	1,723,178	1,792,105
	Bruns. Landing <sup>(5)</sup>	408,000	306,000	203,796	218,062	226,784	235,856	245,290	255,101	265,305	275,918	286,954
		<b>2,978,000</b>	<b>3,158,700</b>	<b>3,370,293</b>	<b>3,606,214</b>	<b>3,750,462</b>	<b>3,900,481</b>	<b>4,056,500</b>	<b>4,218,760</b>	<b>4,387,510</b>	<b>4,563,011</b>	<b>4,745,531</b>
	Catch Basins/Roof Drains	19,000	21,090	23,410	25,049	26,051	27,093	28,176	29,303	30,475	31,694	32,962
	Septage	219,000	232,140	259,997	278,197	289,324	300,897	312,933	325,451	338,469	352,007	366,088
	Holding	35,000	38,850	43,124	46,142	47,988	49,907	51,904	53,980	56,139	58,385	60,720
	<b>Est. Y/E Operating Revenue</b>	<b>3,251,000</b>	<b>3,450,780</b>	<b>3,696,823</b>	<b>3,955,601</b>	<b>4,113,825</b>	<b>4,278,378</b>	<b>4,449,513</b>	<b>4,627,493</b>	<b>4,812,593</b>	<b>5,005,097</b>	<b>5,205,301</b>
	<b>Est. Annual Gain (Loss)</b>	<b>157,370</b>	<b>199,780</b>	<b>246,043</b>	<b>258,778</b>	<b>158,224</b>	<b>164,553</b>	<b>171,135</b>	<b>177,981</b>	<b>185,100</b>	<b>192,504</b>	<b>200,204</b>
	<b>Est. Cumulative Gain</b>	<b>To Fund CWSRF</b>	<b>\$ 429,804</b>	<b>\$ 629,584</b>	<b>\$ 875,627</b>	<b>\$ 1,134,405</b>	<b>\$ 1,292,629</b>	<b>\$ 1,292,629</b>	<b>\$ 1,292,629</b>	<b>\$ 1,292,629</b>	<b>\$ 1,292,629</b>	<b>\$ 1,292,629</b>
<b>Est. Cumulative Gain</b>	<b>To Fund Depreciation</b>					<b>\$ -</b>	<b>\$ 164,553</b>	<b>\$ 335,688</b>	<b>\$ 513,669</b>	<b>\$ 698,768</b>	<b>\$ 891,272</b>	<b>\$ 1,091,476</b>
			BL Takeover 1/2 Yr	BL Takeover								
<b>B. Additions to Revenue</b>		<b>2016</b>	<b>Estimate</b>	<b>Estimate</b>	<b>Estimate</b>	<b>Estimate</b>	<b>Estimate</b>	<b>Estimate</b>	<b>Estimate</b>	<b>Estimate</b>	<b>Estimate</b>	<b>Estimate</b>
TSD-Treatment Services <sup>(3)</sup>		\$ 121,000	\$ 128,260	\$ 133,390	\$ 134,724	\$ 136,072	\$ 137,432	\$ 138,807	\$ 140,195	\$ 142,999	\$ 144,429	\$ 148,761
TSD-Share CWSRF Loan <sup>(4)</sup>		\$ 25,045	\$ 33,892	\$ 188,000	\$ 188,000	\$ 188,000	\$ 188,000	\$ 188,000	\$ 188,000	\$ 188,000	\$ 188,000	\$ 188,000
Non-Operating Revenue <sup>(6),(9)</sup>		\$ 187,000	\$ 188,870	\$ 190,759	\$ 192,666	\$ 194,593	\$ 196,539	\$ 198,504	\$ 200,489	\$ 202,494	\$ 204,519	\$ 206,564
Entrance Charge <sup>(11)</sup>		\$ 24,000	\$ 25,200	\$ 26,460	\$ 27,783	\$ 29,172	\$ 30,631	\$ 32,162	\$ 33,770	\$ 35,459	\$ 37,232	\$ 39,093
<b>Total:</b>		<b>\$ 357,045</b>	<b>\$ 376,222</b>	<b>\$ 538,609</b>	<b>\$ 543,174</b>	<b>\$ 547,837</b>	<b>\$ 552,602</b>	<b>\$ 557,473</b>	<b>\$ 562,454</b>	<b>\$ 568,952</b>	<b>\$ 574,180</b>	<b>\$ 582,419</b>
<b>Est. Total Revenue (A + B):</b>		<b>\$ 3,608,045</b>	<b>\$ 3,827,002</b>	<b>\$ 4,235,432</b>	<b>\$ 4,498,774</b>	<b>\$ 4,661,662</b>	<b>\$ 4,830,980</b>	<b>\$ 5,006,986</b>	<b>\$ 5,189,948</b>	<b>\$ 5,381,545</b>	<b>\$ 5,579,277</b>	<b>\$ 5,787,720</b>
(\$ gain over prior yr)		\$ 180,200	\$ 218,957	\$ 408,430	\$ 263,342	\$ 162,887	\$ 169,318	\$ 176,006	\$ 182,962	\$ 191,597	\$ 197,732	\$ 208,444
<b>C. Offsets to Revenue</b>												
Operating Expenses <sup>(7)</sup>		\$ (2,615,000)	\$ (2,693,450)	\$ (2,693,450)	\$ (2,774,254)	\$ (2,857,481)	\$ (2,943,206)	\$ (3,031,502)	\$ (3,122,447)	\$ (3,216,120)	\$ (3,312,604)	\$ (3,411,982)
Capital (from Revenues)		\$ (519,800)	\$ (520,000)	\$ (95,000)	\$ (130,000)	\$ (285,000)	\$ (370,000)	\$ (485,000)	\$ (530,000)	\$ (750,000)	\$ (830,000)	\$ (1,045,000)
Debt Service		\$ (333,700)	\$ (394,000)	\$ (1,443,100)	\$ (1,443,100)	\$ (1,443,100)	\$ (1,443,100)	\$ (1,387,100)	\$ (1,387,100)	\$ (1,387,100)	\$ (1,387,100)	\$ (1,280,100)
Debt Reserve		\$ 75,200	\$ (214,000)	\$ (150,000)	\$ (150,000)	\$ (75,000)	\$ (75,000)	\$ (100,000)	\$ (150,000)	\$ (25,000)	\$ (50,000)	\$ (50,000)
<b>Total Expenditures:</b>		<b>\$ (3,393,300)</b>	<b>\$ (3,821,450)</b>	<b>\$ (4,231,550)</b>	<b>\$ (4,497,354)</b>	<b>\$ (4,660,581)</b>	<b>\$ (4,831,306)</b>	<b>\$ (5,003,602)</b>	<b>\$ (5,189,547)</b>	<b>\$ (5,378,220)</b>	<b>\$ (5,579,704)</b>	<b>\$ (5,787,082)</b>
Debt Reserve (12/31/15) <sup>(10)</sup>		\$391,000	\$315,800	\$529,800	\$679,800	\$754,800	\$829,800	\$929,800	\$1,079,800	\$1,104,800	\$1,154,800	\$1,204,800
<b>D. Est. Net Annual Income</b>		<b>\$ 214,745</b>	<b>\$ 5,552</b>	<b>\$ 3,882</b>	<b>\$ 1,421</b>	<b>\$ 1,080</b>	<b>\$ (326)</b>	<b>\$ 3,384</b>	<b>\$ 401</b>	<b>\$ 3,325</b>	<b>\$ (427)</b>	<b>\$ 638</b>
		Interest only on \$22M Loan [171k]	Interest only on \$22M Loan [231k]	1st Annual P&I on \$22M Loan [1.28M]			Final Loan payment Admin Bldg. [56k]				Final Loan payment for 2005 CWSRF [107k]	

**ASSUMPTIONS:**

1. Analyses based on 2016 Budget Year.
2. Assumes no growth in additional customers.
3. It is tough to predict TSD's treatment services revenue. While their % of total flow appears to be slowly increasing, as we reduce the Plant's operating / capital cost, TSD's actual cost declines.  
Assumes a 1% annual growth in TSD revenue. And new Agreement 2024 forward.
4. Revenue: TSD's annual share of the 2015 CWSRF loan payments is regarded as revenue.
5. Brunswick Landing: Assumes takeover of system by mid 2017 reducing revenue by 25%. For 2018 assumes full takeover with 1/2 revenue of 2016.
6. Non-Operating Revenue: Assumes a 1% annual growth.
7. Operating Expenses: Assumes a 3% annual growth except for 2018.
8. Unlike Balance sheet, this worksheet does not deal with Depreciation - based only on 'cash-in / cash-out'.
9. Non-Operating Revenue does not include any entrance charge revenue.
10. Includes an annual debt service payment to the Debt Reserve account to reach the goal of 1 yr's annual debt payment (approx. \$1.4M)
11. Entrance Charge assumes a 5% per year growth rate.



CHART #3

**10-YEAR PROJECTED CAPITAL IMPROVEMENT PLAN**

<b>YEAR:</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>10 YR Total</b>
<b>Annual Amount Available For CIP*</b>	\$ (520,000)	\$ (95,000)	\$ (130,000)	\$ (285,000)	\$ (370,000)	\$ (485,000)	\$ (530,000)	\$ (750,000)	\$ (830,000)	\$ (1,045,000)	\$ (5,040,000)

<b>Capital Improvement Plan 2017-2026 (3)</b>											<b>Category Total</b>
Vehicle Replacements (1)	\$ 35,000				\$ 35,000	\$ 65,000	\$ 30,000	\$ 300,000	\$ 100,000	\$ 125,000	\$ 690,000
Wheeled Equipment	\$ 12,000			\$ 12,000			\$ 14,000		\$ 55,000	\$ 12,000	\$ 105,000
Process Tanks Upkeep									\$ 70,000		\$ 70,000
Process Equipment										\$ 200,000	\$ 200,000
Pump Station power generators		\$ 35,000	\$ 35,000			\$ 35,000					\$ 105,000
Pump Station Upgrades	\$ 225,000				\$ 225,000	\$ 275,000	\$ 235,000	\$ 225,000	\$ 225,000	\$ 250,000	\$ 1,660,000
Pipe Inspection/Pipe Lining Equip					\$ 60,000					\$ 120,000	\$ 180,000
By-Pass Pump (8 inch)					\$ 50,000					\$ 12,000	\$ 62,000
Building Upgrades									\$ 12,000		\$ 12,000
Pipe Replacements (2)	\$ 250,000	\$ 60,000	\$ 95,000	\$ 275,000		\$ 125,000	\$ 250,000	\$ 250,000	\$ 370,000	\$ 350,000	\$ 2,025,000
<b>Annual Total:</b>	<b>\$ 522,000</b>	<b>\$ 95,000</b>	<b>\$ 130,000</b>	<b>\$ 287,000</b>	<b>\$ 370,000</b>	<b>\$ 500,000</b>	<b>\$ 529,000</b>	<b>\$ 775,000</b>	<b>\$ 832,000</b>	<b>\$ 1,069,000</b>	<b>\$ 5,109,000</b>
											10 YR CIP

\* Reference Chart #2, Strategic Plan

(1) Assumes 10 year life for vehicles, some years have multiple replacements.

(2) Assumes a 10-year distribution of \$2.4 million est. cost to replace 9,200 lf of pipe.

(3) Annual CIP projects adjusted to match annual funding available.

**NOTES:**

A. Capital proposed for pump station upgrades totaled \$3,850,000. Estimate 10 year funding available at \$1,660,000.

B. Total pipe replacement estimated at \$2,404,000. 10 year plan proposes to fund \$2,000,000.

C. Total Vehicle replacement for 10 year period is \$685,000. Fundable during this 10 year CIP.

D. Wheeled Equipment replacement estimated at \$251,000. Expect to fund \$105,000 in this 10 year CIP.

## CHART #4

Succession Planning  
Brunswick Sewer District  
as of August 18, 2016

### In House Position Replacement Options

<u>Positions</u>	<u>Potential In-House Successor</u>	<u>Estimated Time-Frame (yrs.)</u>	<u>Potential Successor</u>
General Manager (GM)	Y	4	AGM
Assistant General Manager (AGM)	N	4	?
Finance Manager (FM)	Y	6 - 7	Accountant
Accountant	N	6 - 7	?
Treatment Operations Supervisor (TOS)	Y	20	SO-TP
Collection System Supervisor (CSS)	Y	5 - 6	SO-CS or SEMT
Lab Technician (LT)	Y	Current	TPO (in training)
Senior Operator -TP (SO-TP)	y	20	TPO/CSO
Senior Operator CS (SO-CS)	Y	5 - 6	CSO/TPO
Senior Elec-Mechanical Technician (SEMT)	N	5-6 / or 20	
Treatment Plant Operators (TPO)	N		Applicants
Collection System Operators (CSO)	N		Applicants