

Putting things in context:

Last night, the Sewer Department presented at the Select Board meeting. This was the first Asset Management Plan (Capital Project) update, with more regularly scheduled updates to follow. A project this large requires regular public status reports for everyone involved: the Board, the Commission, and the Citizens.

Goals and Objectives:

- Why this is a Town Problem?
- The History of Events.
- The Asset Management Plan (AMP).
- Understand the Budget process.
- How AMP costs impact rate calculations.
- Partnership Action Items.

Why this is a Town Problem?

The Sewer Department is a Town department, serviced by Town employees. There is an organization chart that demonstrates the reporting structure.

The Administrative Consent Order with Penalties (ACOP) is directed to the Town of Northfield, signed by the Town of Northfield. The Town of Northfield is listed as 'Respondent' throughout the Order.

Fines will be issued to the Town of Northfield. Whether we are or are not rate payers, we are responsible for the fines.

The capital project affects not only the Collection system, but the roads and sidewalks traversed by the infrastructure.

It affects everyone's ability to pay, and it affects over 30 businesses and public entities in town that we all rely on. See Newsletter Edition 003.

Consent Order <https://www.northfieldma.gov/sites/g/files/vyhli991/f/pages/acop-we-21-00010698.pdf>

Asset Management by the EPA. <https://www.epa.gov/dwcapacity/about-asset-management>

The History of Events.

- 52 years of deferred maintenance. Death by a thousand papercuts.
- 2016 – Chaos began. A rotating door on the Commission and the Plant.
- 2017 – More of the same.
- 2018 – Failed DEP Inspection 1. Prickett Engineering report is in progress.
- 2019 – Failed DEP Inspection 2. Mandated a rate move to EDU, Equivalent Dwelling Units. Bills cannot be produced. Prickett report concludes and is filed with the State.
- 2019 -2020 – Minimal movement or communication from Town to the DEP.
- 2020 – DEP issues the Town of Northfield a Notice of Noncompliance (aka a NON) as a result of violations and reduced communication/forward movement.
- May 2020 – Isaac Golding joins the plant as the Chief Operator.
- July 2020 – Isaac begins regular correspondence and DEP Technical Assistance.
- Aug-Nov 2020 – Isaac and DEP communicate and work on Technical Assistance. 1 employee is trying turn around decades of problems.
- April-May 2021 – **DEP issues the Consent order** to escalate the upcoming project and needs.

Genesis of Consistency and Team Building.

During the 2021 timeframe, there's a shift in personnel, skillsets, and problem solving.

2021 Spring and forward:

- Michele Turner signs on as Treasurer/Collector.
- Hill-town Accounting begins working with the Town.
- Tom Walker comes out of Sewer retirement and is elected to the Commission.
- End of 2021 - Karen Boudreau submits an email to join the Commission.

The work begins to stabilize the wonky budget math, the Consent order status, grant research, and getting to a better place. We all had similar questions that needed to be answered. The departmental walls came down and accuracy went up.

Understanding the Asset Management Plan 1.0 – The Collection System.

What is an AMP? The US Environmental Protection Agency (USEPA) definition: the “process water and sewer utilities can use to make sure that planned maintenance can be conducted and capital assets (pumps, motors, pipes, etc.) can be repaired, replaced, or upgraded on time and that there is enough money to pay for it.”

<https://www.epa.gov/compliance/asset-management-101-finding-financial-assistance-infrastructure-upgrades>

It is the intersection of Cost Accounting, Inventory Management, and Risk Assessment. The Risk metrics are based on a weighting calculation that measures Probability of Failure and Consequence of Failure.

- An AMP is a diagnosis.
- EPA: The opposite of Managing Assets is the “The Run to Failure mode”.
- Depreciation doesn’t measure Condition.
- **The Service Level from an AMP: "SMART"** (specific, measurable, attainable, realistic or relevant, and time bound). We will reference this later in the Newsletter.

If we plan a task end date that is 30 days after Grant funding opportunities, then the task is not attainable and not realistic because it is untimely.

Asset Management Plan vs Prickett Report. Total allocated = \$267,790

As of November 2023, the Enterprise fund has allocated in some portion, the following monies for analysis. Two reports tell us that we have an old Collection system and Plant.

- April 2019, \$121,000 to cover the cost of the Prickett Report from rates.
- Nov 2021, \$29,360 to activate Tighe&Bond to address the ACOP from rates.
- Nov 2022, \$117,430 T&B Asset Management creation, broken out accordingly:
 - \$70,458 Grant, \$34,642 ARPA, \$12,330 Employee/volunteer in-kind (rates in the form of salaries).

What’s the difference between the 2 reports?

Similarities	Differences
Both reports present costs as Opinion Costs.	Report Format.
The T&B AMP validated parts of the Prickett Report.	T&B report contains Risk Metrics and Timetable.
Both firms compiled data from field observations.	Rollout Costing Timetable to analyze.
Tighe&Bond cited sections from the Prickett report.	Additional granular details.
	2019 DPC – No consent order.
	Post 2019 T&B – Written to a consent order.

Stakeholder and Project Commitment.

The Select Board meeting of 11/7/2023 was the first in regular updates, perhaps 4-6 per year. With this kick-off review, the Leadership team has more information to absorb and commit to the project's importance. The Sewer Department tossed a volume of information at the Board. Future updates should be more specific and provide time for their important questions.

This was a good first interaction to team-build with the Board just like we have built forward with other town departments.

Impact as a measure of Project Commitment:

- Increasing transparency and accountability.
- Over 30 entities are impacted (Newsletter 003).
- Preventing fines.
- Providing knowledge across many departments.
- Increasing employee participation to be greater than 1-2 persons.
- Eliminating a Silo project going through 1 or 2 people. Silo projects always fail.
- Rates and bills are not inanimate objects. They are printed and handed to a human.
- This project needs professional engineers and project managers, no different from any other large project. The USDA requires this for any funding.
- The DEP requires weekly updates from the Sewer Commission. Regular updates to the Select Board and public are not optional.

Understand the budget process.

With assistance from Michele, Erin, and Beth, the pencil/paper process is now semi-automated. We can quickly and accurately produce a future budget.

And now it's the Select Boards turn.

The Sewer Dept/Comm cordially invites the Town's leadership & Select Board to set up an appointment and learn hands-on how the Town's 5th biggest budget is managed and analyzed. This invitation has been extended previously in recent years and the door is always open.

Understand how AMP costs impact rate calculations.

By investing about 20 minutes of learning time, understanding the rate setting process will be much more tangible.

Summary & In Discussion:

1. Tighe&Bond did the AMP, the Dickinson XC sewer analysis, the Staffing Analysis, Digital GIS mapping, and all the required manuals, etc. However, when completing the AMP, they did not add in Staffing increases. A project this large needs staff to implement it before it needs capital upgrades. You cannot do the upgrades without staff.
2. Begin with smart hiring. One full-time person cannot control a 52-year-old plant (big resource drain) and build forward 2 large projects (another resource drain).
3. We are discussing a 2nd Full time person as Assistant Chief Operator. The strategy is to fish from a different pond.
4. We will be seeking an office coordinator for 10-20 hours/week. All Chiefs and Supers have an Office Coordinator. Northfield needs to recognize this workload as part of the Town Sewer Department.

Rates Previously estimated.

The images below are excerpts from the 2019 DEP inspection reports and the Prickett (DPC) report.

Based on existing rates, the current EDU conversion rate is \$1,034 per year (DPC report). Northfield utilizes an enterprise fund for the WWTP operations.

4.4.1 Current Rate System

The Town utilizes an Enterprise Fund for its wastewater utility. The revenues for the Enterprise Fund are generated through a sewer user fee system based on the water consumption of each customer. The revenues are utilized for funding the annual operation and maintenance (O&M) costs of the wastewater utility as well as capital expenditures and debt service. A summary of the fiscal year budgets is provided in Table 4-5.

Table 4-5: Annual Wastewater Utility Budget (Pre-Projects)

Fiscal Year	Annual Budget	Average Annual Sewer Cost Per EDU	MHI (2010 Census)	Annual Costs (as a % MHI)
2018	\$369,093	\$1,034	\$70,606	1.46%
2019	\$296,304	\$1,243	\$70,606	1.76%

What are the Proposed rates from the Engineers?

Context: These rates include AMP 1.0 (Collection System) and futuristic AMP 2.0 (Plant Rehab). These rates first appear frightening and unrealistic. And apply the following question because this is how we approach large projects.

How do you eat an elephant? One bite at a time.

Above we speak to the acronym **SMART:** Specific, Measurable, Attainable, Realistic, and Time-Bound. **SMART** can be applied to Service Levels and to Projects.

When rates increase by 4 times in 5 years, that is:

- Not Attainable by the rate payors.
- It is not Realistic.
- It is not Time bound (trying to correct 52 years of problems in 5 years).

The rates do not consider Grant funding and Retained Earnings. The Commission is building team collaboration and support with the Town's leadership to apply for any and all Grants possible BEFORE we look at rate funding.

The rates include the AMP 1.0 Collection system and AMP 2.0 Plant rehab. The DEP has focused all of us on addressing the AMP 1.0 Collection system only at this time.

As you read the proposed rates, take a breath, and know that everyone is working on a more realistic approach.

Engineers' proposal. 30, 35,40, 50,10 % rate increases. Additional required staffing is not in these rates.

		FY24	FY25	FY26	FY27	FY28	FY29
NEW RATE	EDU	903.15	1176.50	1587.73	2222.82	3334.2435	3667.66785
% INC.		12.6%	30%	35%	40%	50%	10%
NEW RATE	FLAT	9000.00	11700.00	15795.00	22113.00	33169.50	36486.45
% INC.		12.5%	30%	35%	40%	50%	10%

Sewer Comm/Department Proposal.

Nothing is voted on at this time. The 2025 the rates will probably increase due to:

- Required staffing.
- CCTV of pipes not filmed.
- Work on easement and clearings.

AMP 2.0, the Plant, will be discussed during the FY25 budget process.

Per the DEP October 2023: "Focus on the Consent Order and the Collection System".

How do we contain and slow steep rates?

Money is Everywhere -well, not necessarily.

Fun with Facts is back!

- There are 15000+ small plants in the US.
- There are 2220 Wastewater Treatment plants in Massachusetts. They are all vying for the same pot of gold.
- The Grant and Loan application competition is steep.
- Mallory and Sewer Comm/Dept need Engineering services before we can even apply for grants.

The Sewer Dept/Comm is requesting a Grant and Loan schedule from Andrea and Mallory. We are not, nor will we ever be, Chief Financial officers, Chief Procurement officers, or Grant Directors.

Without a funding dashboard-timetable, (clearinghouse), we could plan for a task kick off of Sept. 1st, but a Grant or loan deadline is Aug. 1st. That task will fail due to a Silo approach and outside of time bounds (SMART).

Possible additional revenue streams being explored.

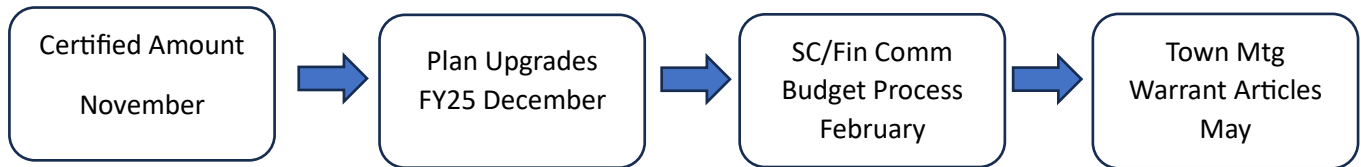
- Collection System Expansion.
- Allowing Septage to Northfield residents and businesses for favorable rates.
- Purchase electricity from a Solar farm during warm months and apply for a credit.
- Solar sell back with an updated plant.
- Professional Trainings held on site for small to midsize plants.
- Expense reduction with new equipment and processes.

Partnership Action Items:

- 1. **Funding Dashboard –** **Andrea and Mallory**
- 2. **Learning the Budget –** **Town Leadership (SB, TA, SC)**
- 3. **Schedule Regular Updates -** **Select Board, Sewer Department, Citizens.**
- 4. **Billing Adjustment (formerly Catch-up cycle) -** **Sewer Dept & Treasurer**

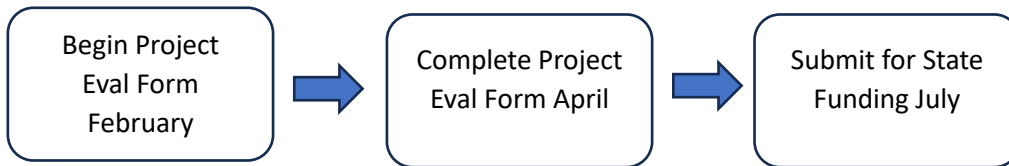
We are still cleaning up/fine tuning data and a few processes specifically prior to 2021. The chaos caused chaos with budget controls and data analysis. The correct professionals are actively working on this, and we are nearing completion.

- 5. **Retained Earnings Certification letter –** **Accountants and TA.**



- 6. **Sewer Dept Budget and Secured Funding (Ent Fund) for SRF Project Evaluation Form (PEF).**
Sewer Dept/Commission/Mallory/Engineers.

SRF does NOT fund Engineering Design.



- 7. **Sewer Dept Hiring -** **Sewer Dept, Sewer Commission, Finance Committee.**