

CONWAY VILLAGE FIRE DISTRICT
EMERGENCY COMMISSIONERS' MEETING
Thursday, February 24, 2022, 5:00 P.M.
Fire Station Meeting Room

Meeting was called to order at 5:00 P.M.

Commissioners present: Steve Bamsey, Mike Digregorio and Tom Bucu

Staff present: Superintendent Vallieres, Amy Snow Municipal Bookkeeper and Chief Solomon

Joining from the Town of Conway are Selectman Carl Thibodeau, Town Engineer Paul D., Town Manager Tom Holmes, and Selectman Steve Porter

The meeting began with discussion regarding dissolving the District. Regarding the IMA, Paul D. stated that he could see getting on the agenda for the town and changing the IMA from CVFD to the Town of Conway. Mr. Thibodeau asked if there were provisions for existing contracts to be carried forward? Paul D. answered that, that is his belief.

Discussion ensued around the many aspects of transferring CVFD to the Town of Conway. There will be public meetings in the future to further this discussion.

FIRECHIEF'S BUSINESS

The Chief provided information on the Drivers Training Program. There is a check list that must be completed to meet the National Fire Academy standards. Discussion ensued.

The Fire Department is still very, very busy.

SUPERINTEDEDENT'S BUSINESS

Bruno began with the refund request in the amount of \$4,735.47 for the previous owner of 73 East Side Road. **Mr. Bamsey made a motion to send Jessica Drawe a refund check in the amount of \$4,735.47 for over paid sewer. The motion was not seconded.**

The Town of Conway is owed \$293.86 for a betterment fee abatement. **Mr. Digregorio made the motion to abate \$293.86 for the town, seconded by Mr. Bamsey. Motion passed 3-0-0.**

Bruno then brought up a letter from the North Conway Water Precinct. (See attached.) Discussion ensued regarding the projects listed.

The Variable Frequency Drive quit at the Saco Pump Station and required a small repair.

ADMINISTRATIVE BUSINESS

Mr. Bamsey made a motion to ratify a., and b. Seconded by Mr. Digregorio.

- a. Ratify payroll manifest and sign checks for week ending 2/20/2022
- b. Ratify A/P Manifest dated 2/23/2022 and sign checks dated 2/25/2022

Discussion:

Retirement System payment, \$15,354.

Staples, Quick Books Pro – for the Chief.

Motion passed 3-0-0.

Mr. Bamsey made a motion to approve the chief's timesheet for week ending 2/20/2022, seconded by Mr. Digregorio. Motion passed 2-0-0.

Mr. Bamsey tabled the motion for the 2/17/2022 minutes as they had not been received.

The next meeting will be Thursday, March 3, 2022, at 5:00 p.m. in the Admin. Building.

There being no further business to come before the Board, meeting was adjourned without objection at 7:03 P.M.

Respectfully submitted,
Lisa Chisholm, Office Assistant



North Conway Water Precinct

PO Box 630 • 104 Sawmill Lane • North Conway, NH 03860
phone (603) 356-5382 • fax (603) 356-8827 • www.ncwpmh.org

Commissioners: John J. Santuccio, Chair • Suzanne Nelson, Vice Chair • Robert F. Porter
Superintendent: Jason N. Gagnon

February 9, 2022

Commissioners
Conway Village Fire District

Dear Commissioners,

North Conway Water Precinct is considering a number of important, large capital projects at the wastewater treatment plant. It is my belief that these projects are especially important to move forward with now given the high percentage of matching federal funding available. These projects were presented to the Precinct Commission for discussion and consideration on February 2, 2022 and will be discussed again at the bond hearing on March 2, 2022 at 7:00 PM at the Precinct offices located at 104 Sawmill Lane in North Conway. On the following pages are descriptions of the projects being considered for which CVFD would be a partner in cost sharing. If you have any questions about any of the projects, please do not hesitate to contact me directly.

Respectfully,

Jason Gagnon
Superintendent

This institution is an equal opportunity provider and employer.

AERATION & SINGLE CAROUSEL CAPACITY UPGRADES

Project Background:

The WWTF has historically been operated using only one of two available treatment carousels at a time. As flows continue to increase at the WWTF, we are approaching the limit of capacity for a single carousel. Additionally, the seasonal nature of flows at the WWTF means that only during peak flows (summer tourism) are we approaching the need to operate two carousels at the same time. The current dual-carousel system is not set up to facilitate easily swapping between one- and two-carousel operation and doing so causes significant upset to the treatment process and weeks of dedicated labor from Precinct staff. This project seeks to investigate providing additional capacity within a single carousel through operational changes and equipment modifications.

Project Details:

Each Carousel currently uses one "rotor" to provide both mixing (moving the water through the system) and aeration (adding oxygen to facilitate microbes removing pollution). The west carousel was upgraded in 2012 to a higher efficiency system using the same mechanical rotor principals and supplemental aeration capacity (via submerged air diffusers) was added in hopes of increasing overall treatment capacity. The short of it is that while the mechanical rotor upgrades did provide energy savings and operational flexibility, the supplemental air portion does not work as designed and causes reverse water flow in parts of the treatment system.

This proposed project will look at upgrading, at a minimum, the east carousel with mixing and aeration systems that will provide operational flexibility, additional single-carousel capacity, and hopefully, additional energy savings. Also included is potential replacement of the WWTF backup generator, which is now 24 years old, non-compliant with current air emissions standards, and experiencing potential motor issues.

Project Phases:

- Capacity Study & Evaluation of Alternatives
This phase is already underway. Preliminary modeling results show there is likely as much as 50% more capacity available in a single carousel. Evaluation of replacement alternatives for the original backup generator for the WWTF is also included in this study. Evaluation of alternatives for upgrades is ongoing.
- Final Design & Construction
This phase would provide final design and construction of the recommended alternatives for the east carousel, as well as modifications to the west carousel to fix the issues with the 2012 upgrade if budget allows.

Project Funding

- Capacity Study & Evaluation of Alternatives
Funding for this phase from CRF has already been approved by the Commission. It is

This institution is an equal opportunity provider and employer.

included again in the Warrant Article so that the Precinct receives authority from voters to accept up to \$100,000 in Planning Grant funds through NHDES. The cost of this phase will not exceed the \$100,000 available through NHDES.

- Final Design & Construction

The estimated cost for this phase is \$3 Million. The Precinct submitted a pre-application for a Clean Water SRF loan/grant through NHDES in 2021. Given the current availability of federal funding, the Precinct will receive \$1,106,300 in ARPA grant and principal forgiveness *before* an additional 20% State Aid Grant. Depending on energy efficiency potential, an additional portion of the project up to \$200,000 may receive grant funding through NHDES Energy Efficiency Grant program. Replacement of the backup generator may also be eligible for a 50% federal grant independent of SRF funding.

Net project cost after anticipated grants and principal forgiveness should be in the \$1.5 million range, effectively netting the project 50% grant funding. CVFD project share estimated at 30% of net Precinct cost based on 2021 CVFD flows..

Estimated Financial Impact

Estimated Project Cost ~\$3,000,000

This project would be tax-funded. Assuming 20-year bond at 2.5% through SRF and based on current (2021) valuations, after receiving principal forgiveness and grant funds and accounting for CVFD's 30% share of the payment, the net tax impact is projected to be in the ballpark of \$0.09.

Recommendation

The Precinct should move forward with this project and approve borrowing on the 2022 Warrant. This additional single-carousel capacity will be incredibly valuable to the Precinct over the coming decades and it makes sense to take advantage of the available federal funding.

SLUDGE DRYER

Project Background:

The Precinct has long had a relationship with the Town of Conway regarding disposal of the sludge produced at the WWTF. In a nutshell, the Town takes the sludge from the WWTF at its landfill free of charge in exchange for the Precinct taking the landfill leachate free of charge.

Recent developments in PFAS legislation potentially threaten the Precinct's ability to accept leachate from the Town landfill. On top of that, the Town has had difficulty handling the volume of sludge produced as loadings at the WWTF have increased and on February 2, 2022, notified the Precinct that they can only accept 40% of our sludge over the course of the year. In short, there are several issues that may challenge the future of the "disposal swap" agreement.

This institution is an equal opportunity provider and employer.

This disposal swap agreement has financially benefitted both the Town and the Precinct for many years since the cost of trucking and disposal for both sludge and leachate at other locations would add significant expense to both the Precinct's and Town's operating budgets. Using recent sludge disposal estimates received by other towns, the cost of disposal for the total quantity of sludge generated at the WWTF is estimated to be nearly \$400,000 (\$280K Precinct share, \$120K CVFD share) per year. The Town would also incur significant cost – likely in the same ballpark as sludge disposal - for leachate disposal if this arrangement went away.

Project Details:

This project aims to investigate the feasibility of adding a sludge dryer to the WWTF. There are a number of potential benefits to drying sludge on-site. Right now, our sludge averages around 20% solids. That means that 80% of our sludge is water. If we can remove most of this excess water:

- Drier sludge is much easier for the Town to handle at the landfill. Think about shoveling mud vs. shoveling sand – it's the same principle.
- By removing water, we reduce the volume and weight of sludge. This would likely allow us to continue disposing of all sludge at the Town landfill, this takes up less volume and benefits the Town in the long run by saving landfill capacity.
- If we need to dispose of sludge at an alternate location (as the Town recently informed us we must start doing for 60% of our sludge), using a sludge dryer essentially cuts the volume of sludge down to 20% of current volume. This reduces the number of times we need to haul sludge, reducing labor demands and trucking costs as well as ultimate disposal costs.
- The sludge dryer produces what's known as "Class A Biosolids". This is essentially what's in the bag when you buy Milorganite fertilizer at the hardware store. We may be able to dispose of biosolids at no cost to the Precinct in this case, even if we lose free access to the Town landfill, eliminating disposal costs.

Sludge Dryers also come with potential downsides:

- They are energy intensive and expensive to operate. Preliminary estimates put additional fuel use at about 600 – 700 gallons per week (No. 2 fuel oil). Most dryer installations make use of natural gas, but that's not an option here. We are looking into electric heat pump options to try and take advantage of solar production.
- Like any additional equipment of this scale, a dryer comes with additional O&M cost and labor demand.

The project will likely also require a building addition to house the sludge dryer and will require additional sludge storage facilities – those costs are included in the estimate below.

Project Phases:

This institution is an equal opportunity provider and employer.

- **Planning**
The initial planning phase is ongoing. There is still work to be done to explore alternatives and financial feasibility.
- **Preliminary Design**
The preliminary design phase would dig deeper into selecting a recommended alternative and providing preliminary design drawings. Verification of operational and financial feasibility would be key parts of this phase.
- **Final Design & Construction**
This phase will not be undertaken unless the results of the financial feasibility portion of the previous phases were favorable.

Project Funding

Estimated Project Cost: \$10,000,000

NH Clean Water SRF funding recommended. Estimated grant and principal forgiveness portion may be as high as 50% (30% principal forgiveness plus 20% SAG), plus eligibility for planning component with additional principal forgiveness up to \$100,000. Net project cost estimated around \$5 million. CVFD project share estimated at 30% of net Precinct cost. Overall project funding is a bit more complicated for this project, though, because the Town of Conway may be involved in the project to some degree, since sludge disposal at the Town landfill is tied to their leachate disposal at the WWTF. As the project advances, discussion will continue about potential cost sharing approaches. Currently, it would break down like this:

- Estimated debt payment on \$5M over 20 years @ 2.5% is ~ \$320K
- Annual O&M estimated at \$205K for a total annual cost of \$525K
- Precinct share is \$367.5K, CVFD share is \$157.5K.
- Potential Town contribution as well, to be investigated further as part of financial feasibility analysis.

Estimated Financial Impact

This project would be tax-funded (debt) and operating budget funded (O&M). Assuming 20-year bond at 2.5% through SRF and based on current (2021) valuations, after receiving principal forgiveness and grant funds and accounting for CVFD's 30% share, the Precinct's net tax impact would be in the neighborhood of \$0.30. Annual O&M costs added to the budget would be around \$143K after accounting for CVFD's 30% share. Both of those costs are without any Town contribution considered.

Recommendation

Even though we are still in the project development phase and don't yet have a full understanding of the project economics, it makes sense to place this article on the 2022 Warrant for approval. NCWP will submit an SRF pre-application in June to get on the funding list while waiting for more data to come back from the planning phase. It is recommended we continue funding the planning costs in-house for the time being – they will be eligible for principal

This institution is an equal opportunity provider and employer.

forgiveness and grant reimbursement if we end up moving forward with the project. After continuing our due diligence over the next year, if the project economics prove unfavorable, we have the option of declining SRF funding – but we may never have the opportunity to get the large share of federal funding again if we miss out on it now.

SACO RIVER EROSION – PHASE II

Project Background:

The WWTF sits adjacent to the bank of the Saco River. Over decades, the Saco has been eroding its bank at the northern end of the WWTF property. The Precinct and NHDES have been working to identify risks to the WWTF and to develop/implement mitigation strategies to stop the riverbank erosion in this area. In 2021, the Precinct received \$75,000 in planning funds from NHDES to begin the investigation.

Project Details:

Historical aerial photography shows that the Saco River has consistently moved toward the northern end of the WWTF since 1939. In order to protect the infrastructure at the WWTF, a fluvial geomorphology consultant has been retained to survey and study the reach of the Saco River adjacent to the WWTF. Based upon the results of that initial study, alternatives will be evaluated to stop the migration of the Saco. Following public input, the preferred alternative will be selected and implemented.

Project Phases:

Phase I – River Study and Modeling

This first phase of the project is underway. Interfluve was retained by the Precinct to perform a full survey of the river near the WWTF and develop a hydraulic model of that reach. That model can be used to predict erosion and risk to infrastructure and to propose potential alternatives to mitigate erosion risk. We anticipate completion of this phase in Spring 2022.

Phase II – Feasibility Assessment and Preliminary Design

Interfluve will evaluate the design alternatives presented at the end of Phase I. This process will include additional subsurface investigation, additional modelling, a series of public meetings to provide feedback from all river users, and 75% project design. If approved, this phase would likely be completed in early 2023. Estimated Phase II cost ~ \$200,000.

Phase III Permitting and Final Design

After selection of the recommended alternative, permitting and final design will occur. If approved, this phase would likely be completed by fall 2023. Estimated Phase III cost ~ \$105,000

This institution is an equal opportunity provider and employer.

Phase IV – Construction of Chosen Alternative

The chosen alternative will be put out to bid for construction in winter 2023/2024 for construction in 2024. Estimated construction cost ~ \$7,500,000

Project Funding

Estimated Project Cost is \$7,805,000

Indications are that this project will score very well with CWSRF and receive funding through that program. It is estimated that as much as 50% may be covered by grant and principal forgiveness, and Phase II may also receive "planning grant" funds up to \$100,000. Using those assumptions, the estimated net cost to the Precinct will be in the ballpark of \$3.8 million. CVFD project share estimated at 30% of net Precinct cost. We will also be investigating the potential for FEMA "pre-disaster mitigation funds" to offset some of the project cost – if this project qualifies, the cost to the Precinct would be further offset.

Costs used in this estimate are based on recent projects of similar size and scope, but the alternative selected will greatly influence the final cost. Construction cost will be a key factor in selecting an alternative to move forward during Phase II.

Estimated Financial Impact

This project would be tax-funded. Using a 20-year SRF note at 2.5% and based on current (2021) valuations, after receiving principal forgiveness and grant funds and accounting for CVFD's 30% share, the net tax impact is projected to be around \$0.23.

Recommendation

The Precinct should move forward with this project and approve borrowing on the 2022 Warrant. This project directly impacts the long-term viability of the WWTF location, and frankly, there is no other place for the WWTF to move should the Saco continue eroding the riverbank in our direction. It is critical for the Precinct to take advantage of federal funds for a project of this scale and importance.

This institution is an equal opportunity provider and employer.