CITY OF PRESCOTT
PUBLIC WORKS COMMITTEE
MONDAY, AUGUST 22, 2022
5:00 PM
MUNICIPAL BUILDING
800 BORNER ST
PRESCOTT, WI 54021

1. Call to Order
2. Roll Call
3. Approve Minutes for June 27, 2022
4. EPA Pilot Study Request – Biological Treatment of Nitrates
5. Well #3 Treatment – Consideration of Well House Oversizing
6. Department of Transportation State Highway 35 & 10 Project Update
7. Public Comment
8. Other Business
9. Adjourn

NOTICE
ACCESS TO THE MUNICIPAL BUILDING FOR THE DISABLED IS AVAILABLE AT THE MAIN ENTRANCE.
ALL THOSE WITH SPECIAL NEEDS SHOULD CALL CITY HALL OFFICES (715-262-5544) IF ASSISTANCE IS REQUIRED

CITY OF PRESCOTT, WISCONSIN
JUNE 27, 2022, PUBLIC WORKS COMMITTEE MEETING MINUTES

Pursuant to due call and notice thereof, a meeting of the Parks and Public Property Committee was held, June 27, 2022, Municipal Building, 800 Borner Street, Prescott, WI 54021.

Call to Order: Committee Chair John Peterson called the meeting to order at 5:01 pm. Members present were John Peterson, Bailey Ruona and Maureen Otwell. City Administrator Matt Wolf and Public Works Director Mike Kinneman represented staff. Others in attendance were Council member Thomas Oss

1. **Approve Minutes for April 25, 2022.**

Otwell motioned to approve the minutes for April 25, 2022, Ruona seconded, motion passed without a negative voice vote. (3-to-0)

2. **Compost Site Hours**

City Administrator Wolf presented on the Compost Site hours extension. Discussion was had on extending the hours. The Committee discussed extension of the hours to Tuesdays from 4 pm – 7 pm versus leaving the site open 24/7. The main concerns with the extension to 24/7 is illegal dumping as other area compost sites have had the same issue.

Ruona motioned to extend the Compost Site hours to Tuesdays from 4 pm to 7 pm. Otwell seconded; motion passed without a negative vote. (3-to-0).

3. **Department of Transportation State Highway 35 & 10 Project Update**

City Administrator Wolf presented on the update from the Wisconsin Department of Transportation on STH 35 and USH 10 projects and the required maintenance agreements. The Committee discussed that currently there are no funds or safety equipment to take on the maintenance of a 4-lane highway. The Committee discussed the need for a safe pedestrian crossing as well across USH 10.

Ruona motioned to respond to the Wisconsin DOT that the City of Prescott will not sign the maintenance agreements until the conditions as laid out in the memo are addressed and that all correspondence should be done through email moving forward. Otwell seconded the motion. Motion passed without a negative vote (3-to-0).

4. **134 Monroe Street – Drainage Discussion**

Public Works Director Kinneman presented on the work that was done at 134 Monroe Street to solve the drainage issues that were occurring at the rear of the property. Committee members expressed appreciation for the work.

5. **Locust and Elm Street Reconstruction Discussion**

City Administrator Wolf presented on the request to adjust the street reconstruction schedule for Elm and Locust Street; moving Locust Street reconstruction to 2023 and Elm/Washington Street to 2024. This would allow the City to apply for additional grant opportunities for the Elm/Washington Street project in 2024. Administrator Wolf stated that if approved staff will work with Ehlers to develop a debt service plan for review by Council.

Ruona motioned to approve the new schedule for the Locust Street project in 2023 and the Elm Street/Washington Street project in 2024. Seconded by Otwell, motion passed unanimously 3-to-0.

6. Public Comments

None

7. Other Business

City Administrator Wolf discussed the Riverfront Project and the parking situation that will be discussed with the Parks and Public Property Committee this upcoming Wednesday, June 29.

Council member Oss stated that Leo's Landing customers are parking on the grass of the City's public property. City Administrator Wolf stated that he will discuss with the Police Department to see current rules for illegal parking.

8. Adjourn

Otwell/Peterson motioned to adjourn passed, without a negative voice vote at 5:46 pm

Respectfully Submitted,

Matt Wolf
City Administrator

To: Public Works Committee

From: Matt Wolf, City Administrator

Date: August 17, 2022

Subject: EPA Pilot Study Request

Background

The Environmental Protection Agency is developing a new biological treatment of nitrates. The EPA reached out to the Wisconsin DNR for possible water systems within the state to work with on a pilot study for the treatment and the DNR connected them with the City of Prescott. With our current well #3 offline due to nitrates, the pilot study would take place at well #4.

Discussion

The EPA has supplied a write up on the proposed work to be completed, which is attached. The total area needed for the pilot is 10'x6', which Public Works staff has verified there is enough space to accommodate.

The setup, pictured below, would require .2 gallons per minute to be provided to the study off the main well #4 line. Staff was assured by the EPA that well #4 would not have to be taken offline to complete the pilot. Per the EPA objective:

> *This project aims to test in the field an innovative heterotrophic denitrification reactor that the U.S. EPA Office of Research and Development (ORD) has developed in the lab. The reactor uses nitrogen gas sparging to strip dissolved oxygen from the water and acetic acid to support biological reduction of nitrate (NO_3^-) to innocuous nitrogen gas (N_2). The primary advantage of biological treatment over ion exchange or reverse osmosis for nitrate removal is that it does not produce a concentrated waste stream.*

System Schematic and Photos

If the City approved the project the EPA would aim to install the equipment in Fall of 2022 and run the project for 9 months. If the pilot study had positive results the EPA would look to commence a full-scale version of the treatment. Daily samples would be taken based on training from the EPA to our Public Works staff. The EPA would provide the costs for sampling and would have the pilot shutoff overnight and on weekends.

Attachments

1. EPA – Nitrate Field Pilot Information

Field Pilot Study for the Biological Treatment of Nitrate

Overview/ Objective

- This project aims to test in the field an innovative heterotrophic denitrification reactor that the U.S. EPA Office of Research and Development (ORD) has developed in the lab. The reactor uses nitrogen gas sparging to strip dissolved oxygen from the water and acetic acid to support biological reduction of nitrate (NO_3^-) to innocuous nitrogen gas (N_2). The primary advantage of biological treatment over ion exchange or reverse osmosis for nitrate removal is that it does not produce a concentrated waste stream.
- Target install date Fall 2022 to run for 9 months

Responsibilities

EPA

- Furnish and install pilot reactor, appurtenant equipment, feed chemicals
  - Reactor consists of three (3) 5-ft tall, 3-in diameter PVC columns in series
  - 3 operating pumps, 1 backwash pump, and 2 chemical feed pumps
  - Nitrogen generator cabinet (32" x 16" x 11") with ½ horsepower compressor and 28-gallon storage tank with an N_2 pressure of 100 psi
  - Chemical feeds include acetic acid and orthophosphate
  - See schematic and photograph on pg. 3
- Train operator(s) on operation, sampling, and maintenance
- Provide water quality analyses (except pH, DO, and temperature, which are to be done on-site), sampling supplies, shipping costs
- Engage in regular communication and support

Water System

- Provide raw water (up to 0.2 gpm), indoor space (10 ft x 6 ft), electricity, and disposal to sewer daily operation and monitoring
  - Handling of < 5 gallons of 10% acetic acid
  - Wall space to secure 28-gallon pressurized N_2 gas storage tank
- Conduct daily operation and monitoring
  - Measure flow rates and headloss
  - Backwash 2-4× per week
  - Collect and ship samples to EPA Cincinnati 1× per week on Tuesdays
  - Estimate 0.5-1 hour/day
- Measure basic water quality analyses (pH, dissolved oxygen [DO], and temperature)
- The pilot may be shutoff overnight and on weekends

Standard Operating Procedures

Daily

- Check flow rates and adjust as needed. Record flow rates and headloss in daily log sheet
- Check N_2 gas and air flow rates. Record in daily log sheet
- Measure pH and dissolved oxygen (DO). Record in daily log sheet

2-4× per week

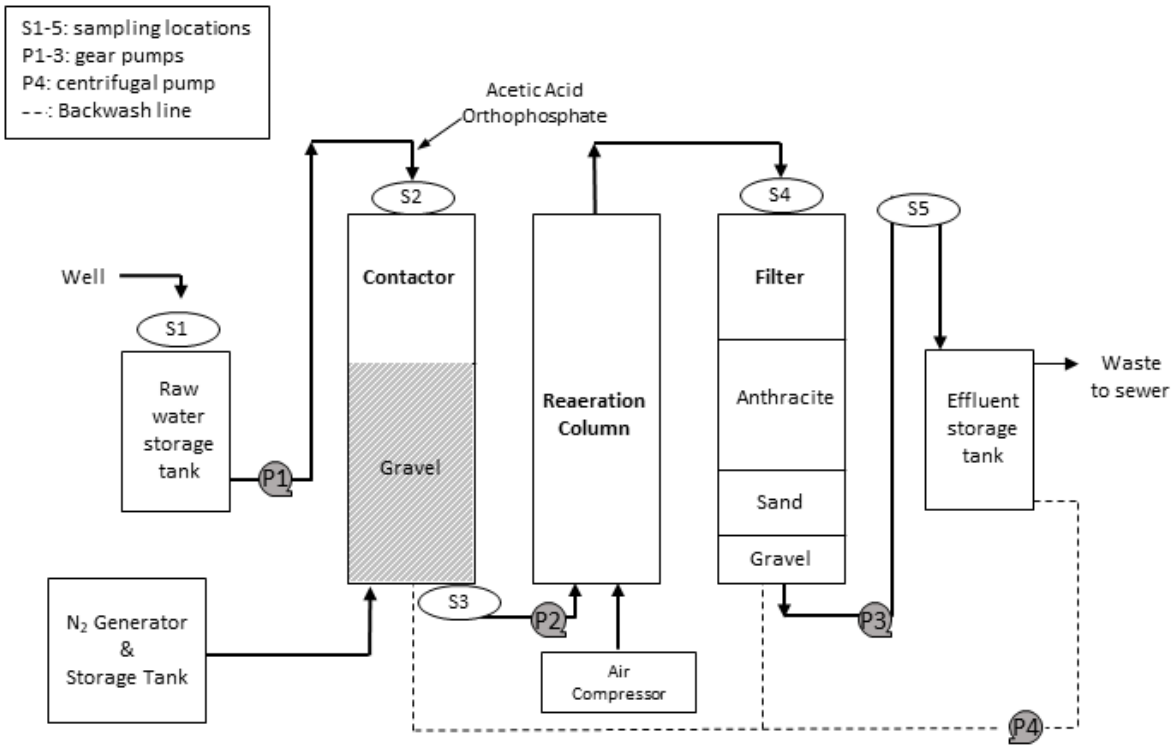
- Backwash the Contactor
- Backwash the Filter
- Backwashing takes 5-10 minutes

1× per week

- Collect samples from 5 locations: Raw, Contactor Influent, Contactor Effluent, Filter Influent, and Filter Effluent. Drop off cooler at FedEx to ship overnight to EPA Cincinnati
    - 250 mL for NH_3, NO_2^-, NO_3^-, PO_4^{3-}, and alkalinity
    - Filter 40 mL for dissolved organic carbon (DOC)
    - 60 mL for total metals
- Prepare fresh orthophosphate feed by adding water to the bottle with chemical provided
- Check filters in the N_2 generator. Dry with a Kimwipe if needed.
- Clean influent line with scrub brush and hot water to remove accumulated biofilm

Contact Information

ORD:	Asher Keithley, PhD	keithley.asher@epa.gov	513-569-7269
	Dan Williams	williams.daniel@epa.gov	513-498-2833
Region 5:	Andrea Porter	porter.andrea@epa.gov	312-886-4427



System Schematic and Photos

To: Public Works Committee

From: Matt Wolf, City Administrator

Date: August 18, 2022

Subject: Well #3 Oversizing Discussion

Background

The City of Prescott is currently undertaking the steps of installing a treatment option for well #3 to address high nitrates. CBS Squared has been hired to design the treatment at Well #3 and has provided a cost estimate of $1,241,919. A Safe Drinking Water Loan Application through the DNR has been submitted for financial assistance. The DNR has released a Project Priority List for 2022 and the Prescott well #3 treatment is currently ranked 11th on the project priority list for the program. However, the DNR has not yet released project funding approvals with the amount of principal forgiveness that will be awarded to each community.

Discussion

In discussing the project with CBS Squared the question was raised if the City would like to consider oversizing well #3 for future treatment options regarding potential need for increased treatment of nitrates or other potential chemical constituents that may need to be treated in the future. CBS Squared has provided a draft of what a site plan would look like for additional treatment using GAC treatment as an option. This would add an 18'x30' section to the well house for future expansion. No cost estimates have been prepared yet for oversizing.

Recommendation

Discuss if there is interest in oversizing well house #3 for future potential treatment options.

Attachments

1. Draft – Site Plan with Oversizing