

TOWN of MAY
WASHINGTON COUNTY, MINNESOTA
OFFICIAL TOWN BOARD MINUTES
October 25, 2018

The Board of Supervisors of the Town of May convened a training/work session on Thursday, October 25, 2018 at the 201 Sewer Drain Field off 133rd Street North. Those present included: Board members John Adams, John Pazlar and Bill Voedisch; Town Treasurer Cheryl Bennett; Town Clerk Linda Tibbetts; Town Engineer Katie Koscielak; and Natural Systems Utilities Operations Supervisor, Shane Symmank. Mr. Voedisch called the session to order at 2:00 p.m.

Mr. Adams asked those present what they wanted to get out of the training; most commented a better understanding of the 201 sewer system. Most commented that they wanted a better understanding of the overall system. Mr. Symmank had a handout regarding basic 201 Sewer knowledge, a copy of which is attached to these minutes.

Highlights from the Work Session:

1. The five acre drain field needs to be mowed twice a year. The tall grass and vines should be removed around drain field panel box for safety. Discussed adding a roof to the panel box.
2. If there is an incident, Olson Sewer should be called.
3. Ms. Koscielak will be handing out updates to the 201 sewer manual in the future.
4. Change all the locks to Cat Locks where one key fits all. Shane working on getting an estimate to the board.
5. Add to the annual newsletter and/or yearly sewer bill:
 - a. Check valve installed near homes;
 - b. No decorating lift stations.
6. Discussed what Minnesota Pollution Control will opine regarding permit renewal. They might ask for a hydro study.
7. Discussed upgrading entire panel.
8. The board should discuss whether to start putting away more money in replacement fund for the cost of a nitrogen mitigation process. There might be grants available.
9. Discussed replacing the whirly tops with caps on vents in drain field.

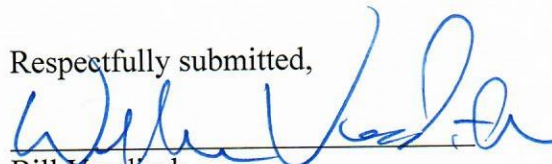
Mr. Adams moved, seconded by Mr. Pazlar, to adjourn the training/work session. Motion passed.

The training/work session adjourned at 3:19 p.m.

Attest,


Linda Tibbetts
Town Clerk

Respectfully submitted,


Bill Voedisch
Board Chair

Facility Description

The Carnelian Hills Community - May Township Facility (Facility) is located in the SE ¼ of Section 26, Township 31 North, Range 20 West, May Township, Washington County, Minnesota. This is a Class D Facility.

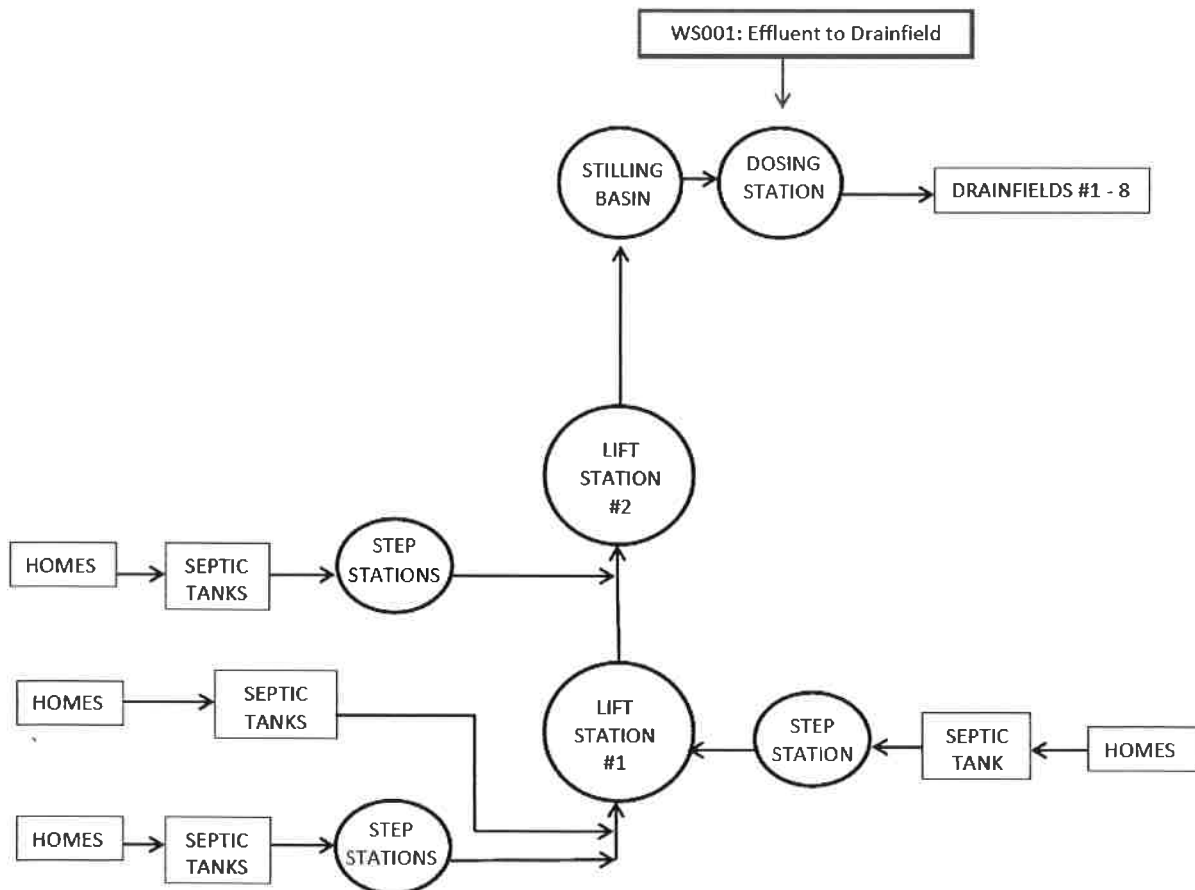
The collection system consists of 66 septic tanks, 55 STEP systems, 2,704 feet of 4-inch gravity sewer, approximately 12,000 feet of force main and two duplex main lift stations: 3,000 and 8,000 gallons.

The treatment portion of the system consists of a 6,000 gallon detention tank (stilling basin), an 8,000 gallon duplex dosing station and eight drainfield trench cells with a total area of 37,800 square feet. Six of the eight cells are resting at any one time on a one year rotation.

The Facility is designed to treat 33,420 gallons per day of domestic wastewater.

The Facility Flow diagram is shown below. The location of the Facility is shown on the "Topographic Map of Permitted Facility" on page 4. The location of designated monitoring stations is specified in "Summary of Stations" on page 5.

Facility Flow Diagram



NOTES:

1. ALL UTILITIES SHOWN ARE BASED ON RECORD DRAWINGS AND FIELD SURVEY. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

3. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AT ALL TIMES.

4. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND STRUCTURES.

5. THE CONTRACTOR SHALL MAINTAIN PROPER RECORDS OF ALL CONSTRUCTION ACTIVITIES.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND RESTORATION OF ALL ENVIRONMENTAL FEATURES.

7. THE CONTRACTOR SHALL MAINTAIN PROPER EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND RESTORATION OF ALL CULTURAL RESOURCES.

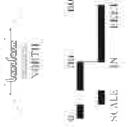
9. THE CONTRACTOR SHALL MAINTAIN PROPER SAFETY MEASURES THROUGHOUT CONSTRUCTION.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND RESTORATION OF ALL HISTORIC STRUCTURES.

UTILITY NOTES:

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- 10. THE CONTRACTOR SHALL MAINTAIN PROPER SAFETY MEASURES THROUGHOUT CONSTRUCTION.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND RESTORATION OF ALL HISTORIC STRUCTURES.

LOCATION MAP



GOPHER STATE ONE CALL
 CALL BEFORE YOU DIG
 800-4-A-DIG, Mon-Fri 8:30 AM - 5:00 PM
 www.gopherstateonecall.org

MAY TOWNSHIP

May Township
 11000 10th Street, NW
 Minneapolis, MN 55412

DATE SHEET NO.

NO.	DATE	DESCRIPTION
1	12/30/04	ISSUED FOR RECORD

DESIGN HISTORY

NO.	DATE	DESCRIPTION
1	12/30/04	ISSUED FOR RECORD

PROJECT MANAGER

DATE: 12/30/04
 TIME: 10:00 AM
 PROJECT: SANITARY SEWER EXPANSION
 LOCATION: MAY TOWNSHIP, MN

Handwritten signature

RECORD DRAWINGS
 DECEMBER 30, 2004

PROJECT:
 SANITARY SEWER
 EXPANSION
 MAY TOWNSHIP, MN

LANDFORM
 TERRAPLUS PHILADELPHIA, PA
 3800 Walnut Street, Suite 200
 Philadelphia, PA 19104
 Tel: 215-381-1234
 Fax: 215-381-1235
 www.landform.com

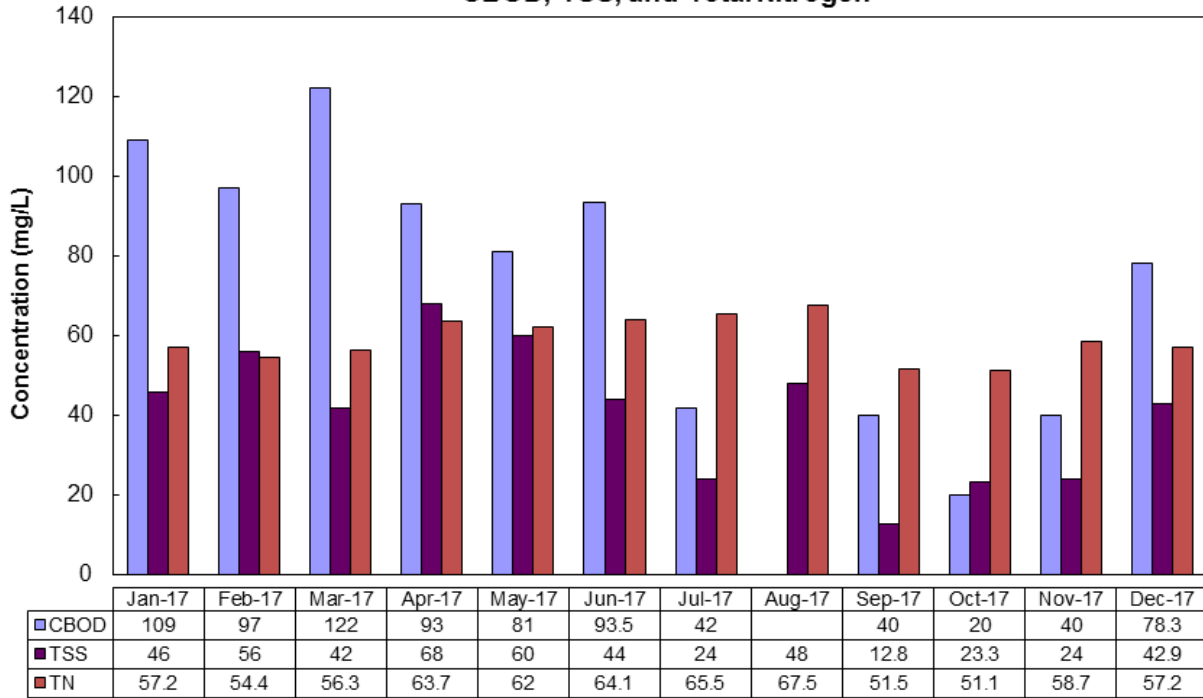
FILE NAME: 1100010.DWG
 PROJECT NO: 1100010

CARLEIAN HILLS
 DRAINFIELD UTILITY PLAN

C4.1

8
 PART OF
 26-031-20-41-0010

**Carnelian Hills Community - May Township
CBOD, TSS, and Total Nitrogen**



2018 Maintenance, Repair, and Permit Considerations

1. As per Olson’s recommendations and quote, the valve vault splice box should be brought to grade and rewired. At this time, a determination can be made on whether or not valve five is also in need of replacement.
2. If the above is not completed, at a minimum valve five will need to be removed the pipe manually valved off to allow use of drainfield zones four, six, and eight.
3. Mowing in the drainfield and around facility components should continue to take place at least twice per year.

We trust this information meets your needs. If you have any questions regarding the report please feel free to contact me at 651.491.6772 or ssymmank@naturalsystemsutilities.com

Sincerely,

Natural Systems Utilities

Shane Symmank
Operations Supervisor



Understanding the Large Subsurface Sewage Treatment System Groundwater Nitrogen Policy

This fact sheet presents the Minnesota Pollution Control Agency's (MPCA) Large Subsurface Sewage Treatment System (LSTS) Groundwater Nitrogen Policy and provides general information on LSTS planning, design, permitting, construction, and operation.

Background

Subsurface, or soil, systems treat approximately one third of Minnesota's domestic wastewater (sewage). The treated effluent discharges directly to groundwater. Poorly designed systems pose potential environmental and human health risks due to pathogens and nitrogen compounds in the discharge.

However, when properly designed, installed, and operated, soil treatment technology has proven to be an effective option for domestic-strength wastewater.

Compared to some other types of wastewater treatment, subsurface systems offer flexibility in operation, and design; characteristics that make them a popular treatment alternative. Construction of these systems is on the rise statewide resulting in an increased demand for associated LSTS permits.

The MPCA Groundwater Nitrogen Policy provides a consistent technical basis for permitting decisions, as well as a means to ensure the best, reasonable protection of Minnesota's valuable groundwater resources.

Soil treatment systems are categorized by size with individual sewage treatment systems (ISTS) serving flows of 5,000 gallons per day or less, mid-sized sewage treatment systems (MSTS) serving flows between 5,001 and 10,000 gallons per day, and LSTS serving flows of 10,000 gallons per day or greater.

ISTS and MSTS are regulated by the local unit of government (i.e., city, township, or county). Due to the volume of wastewater treated by LSTS systems and the associated potential for environmental and health risks, Minnesota rules require the MPCA to regulate LSTS.

LSTS:

Large Subsurface Sewage Treatment System serving flows 10,000 gallons per day or greater

MSTS:

Mid-sized Sewage Treatment System serving flows between 5,001 and 10,000 gallons per day

ISTS:

Individual (on site) Sewage Treatment System serving flows of 5,000 gallons per day or less

Frequently asked questions

What is the LSTS Nitrogen Policy?

The discharge of LSTS facility effluent must result in a 10 milligrams per liter (mg/L) or less nitrogen concentration in groundwater at the property boundary or nearest receptor (i.e., drinking water well) whichever is closer. Each site specific wastewater treatment state disposal system permit will define how nitrogen is regulated.

How was this policy limit determined?

This policy is consistent with the health risk limits set by federal and state laws for groundwater (see 40 CFR part 141.51 and Minn. R. 4717.7500 subp. 68).

How does the policy affect LSTS projects and permits?

The environmental and human health goals of the policy are straightforward. However, application of the policy through the MPCA's permitting process is designed to be flexible. The permittee has two permitting options:

Permitting Option #1: Permittees selecting this option build treatment systems with pretreatment units designed to reduce nitrogen compounds in the wastewater. This option requires the LSTS to meet an end-of-pipe (EOP) limit of 10 mg/L total nitrogen (TN) measured as a calendar month average. The limit applies to wastewater **before** discharge to the drainfield or soil treatment portion of the system. This option generally does not require long-term groundwater monitoring.

Permitting Option #2: Permittees selecting this option construct treatment systems that utilize groundwater and precipitation dilution to meet the 10 mg/L nitrate-nitrogen limit at the property boundary or nearest receptor, whichever is closer. For this option, a complete hydrogeologic assessment is required prior to installation of the LSTS. Based on the results of the assessment, an EOP calendar month average limit may be set above 10 mg/L TN. A groundwater monitoring well network may also be required to monitor the effectiveness of the EOP limit.

How long does it take to get an LSTS permit?

The MPCA attempts to issue permits as quickly as possible. For less complex systems, the goal is to issue the permit within 90 days from the date the permit application is determined to be complete. The evaluation often includes review of submitted soils information, system siting, groundwater mounding analysis, nitrogen removal capabilities, and pathogen treatment capabilities of the proposed system. More complex systems, such as those opting to meet the nitrogen limit at the property boundary, require a more detailed hydrogeologic study and take significantly more review and permitting time.

What if high nitrate concentrations (>10 mg/L) exist in upgradient groundwater?

LSTS permittees are required to treat only the wastewater generated by that facility. Permittees are not responsible for cleaning up a previously impacted site.

Under Permitting Option #1, pre-existing groundwater conditions are not a factor since the end of pipe limit is already established at 10 mg/L TN and will not change.

Under Permitting Option #2, the pre-existing groundwater conditions are determined through actual groundwater sampling prior to construction of the LSTS. Based on sampling results, one of the following two conditions must be met:

- If upgradient nitrate levels are equal to or greater than 10 mg/L, the groundwater modeling results, which are used to establish the EOP limit, must indicate that the predicted nitrate concentrations in down-gradient wells will be equal to or less than 10 mg/L if/when the upgradient nitrate concentrations were ever to decrease in the future. Required up and down-gradient groundwater monitoring must continue to demonstrate that the LSTS effluent does not cause the groundwater to exceed upgradient concentrations (if greater than 10 mg/L) or 10 mg/L if nitrate concentrations decline in up-gradient groundwater to 10 mg/L or less. At a minimum MPCA will re-evaluate EOP limits during permit re-issuance to verify compliance with permit limits and this policy.

When should the MPCA be contacted regarding a proposed new LSTS?

Contact the MPCA as soon as possible. Most permittees/project consultants do not involve the MPCA soon enough. A number of factors, such as siting and soils, significantly affect the type and placement of an LSTS. Early involvement by the MPCA can reduce design approval and permitting time.

Is a previously permitted LSTS subject to this policy?

This nitrogen policy was first developed in May 2004. Future permitting of LSTS which were in existence prior to this time will be handled on a case-by-case basis. The goal is to ultimately have all LSTS meet the intent of this Nitrogen Policy. Existing LSTS determined by the MPCA to represent significant potential or actual harm to the environment or human health may be required to modify or upgrade immediately.

Additional LSTS guidance

A number of resources are available to assist with LSTS design, construction, permitting, and operation.

- The MPCA website: <http://www.pca.state.mn.us/0agxb2d>. University of Minnesota Extension website: <http://septic.umn.edu/>

Applicable rules and regulations

- Minn. R. 7080 - Permitting Requirements
- Minn. Stat. § 115.07 and Minn. R. 7001.1030 - MPCA Permitting Authority
- Minn. R. 7060.0400, 0500 and 0600 - Use and Protection of Minnesota's Underground Waters
- Code of Federal Regulations (40 CFR part 141.51) - Federal Health Risk Standards for Ground Waters
- Minn. R. 4717.7500, subp. 68 - Minnesota Department of Health, Health Risk Standards for Ground Water