

Hanover Park WRP's Goals and Objectives for 2020-2023

Goal – Prevent Nutrient Overloads in Soil at Fischer Farm

Objective

Reduce the levels of ammonia in monitoring wells at Fischer Farm to less than 10 milligrams per liter and explore solutions to reduce/eliminate the source.

Description

Ground Water Monitoring Well No. 7 has shown elevated levels of NH₃ for the past several years. Biosolids application has been halted on the associated Farm Field No. 7 and three temporary monitoring wells were installed during the Summer 2017 and analyzed bi-weekly for 1 year.

Measurability

Samples will be taken from groundwater monitoring wells. The water samples will be analyzed for NH₃ concentration and tabulated quarterly.

Affect to Biosolids Production

If the soil at Fischer Farm becomes overloaded we would have to stop land applying biosolids at this site.

Relevant EMS Outcomes

Environmental Performance
Quality Management Practices.

Action Plans

Samples taken from the temporary wells will be used to pinpoint the source of NH₃ and solutions will be explored to eliminate the source. Repairs to infrastructure may be needed, once source is determined.

Tracking Progress

Ground Water Monitoring wells and soil in each field will be sampled and tracked.

Permanent Monitoring Wells: Quarterly
Temporary Monitoring Wells: Weekly
Soil: Every 4 years: 2020, 2024, 2028

Responsible Person(s)

Hanover Park WRP Section 751 Managing Engineer
Hanover Park WRP Section 755 Engineering Technician V

Funds/Resources

M&R funds were utilized to drill 3 temporary wells. M&R resources are being used for sampling and analyzing the water from these wells.

Target Date

December 2023

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Goal – Maximize Digester Gas Usage

Objective

Improve digester gas capture and reuse for building and digester heat, prevent digester gas releases to the atmosphere, and reduce flaring, which will save money.

Description

In Spring/Summer 2018, we noticed a higher than average natural gas usage and found a leak in the gas pipe leading to the waste gas stack igniter. This line was replaced by in-house staff under Work Order No. 09C22978. New key port valves that supplement the boilers with natural gas were installed under Work Order Nos. 09C22992 and 09C22991. These key port valves will better regulate the use of supplemental natural gas. There is currently a PO in place with Walker Process Equipment to fine tune the existing boilers.

Measurability

Amount of natural gas purchased, the amount of digester gas produced and utilized for heat.
Baseline: 2014 - Purchased 147,704 therms of natural gas; produced 115,476 therms of digester gas; utilized 82,905 therms of digester gas.

Affect to Biosolids Production

Reducing the amount of natural gas which is purchased and increasing efficiency of digester gas utilized for heating the plant buildings and digesters.

Relevant EMS Outcomes

Environmental Performance
Quality Management Practices

Action Plans

Two future contracts have been identified to help achieve this goal. Engineering Contract 11-531-3M – Central Boiler Facility and Electrical Upgrades, which is now known as 19-542-3M. This contract will improve digester gas utilization and address potentially hazardous conditions in the Digester Complex. It is currently in the late design phase with an anticipated advertisement of Spring 2021. Engineering Contract 19-541-3P – Digester Rehabilitation is in the early design phase and will further our efforts to improve the capture of digester gas and utilize it more efficiently.

Tracking Progress

We will continue to track the digester and natural gas usage monthly through 2023. Digester gas produced/utilized and natural gas purchased will be submitted on quarterly status reports.

Responsible Person(s)

Hanover Park WRP Section 751 Managing Engineer
Hanover Park WRP Section 755 Engineering Technician V

Funds/Resources

Budgeted in the Engineering Department.



Environmental Management System for Biosolids

Target Date

December 2023

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Goal – Improve Odor Control Measures at the Treatment Plant

Objective

Install/modify odor control systems at three odor sources identified by the Planning Group from the M&R Department.

Description

Remedy three odor sources under Engineering Contract 17-844-3P:

- Replace the existing ozone air treatment system on the digester complex with a bio-trickling filter.
- Install covers on the aerated grit tanks, and treat the captured air with a bio-trickling filter.
- Install an activated carbon air treatment system on the coarse screen exhaust fan.

Measurability

The number and nature of odor complaints will be tracked. In order to comply with the specific and measurable criteria associated with the goal of Improving Odor Control Measures at the Hanover Park WRP, a goal of zero verified odor complaints attributed to plant processes will be set upon completion of Engineering Contract 17-844-3P – Furnish and Install Odor Control System at HPWRP, KWRP, and CWRP.

Affect to Biosolids Production

There will be no anticipated affect to biosolids production.

Relevant EMS Outcomes

Environmental Performance
Quality Management Practices

Action Plans

Contract 17-844-3P was awarded in Spring 2019 with plans to complete in 2021.

Tracking Progress

Track measurable goals through 2023

Responsible Person(s)

Hanover Park WRP Section 751 Managing Engineer
Hanover Park WRP Section 755 Engineering Technician V
Engineering Department Representative

Funds/Resources

Budgeted in the Construction Fund.

Target Date

December 2023