

UNIVERSITY OF NORTHERN IOWA

Municipal Separate Storm Sewer System 2018/2019 Report

Permit Number 07-09-0-04

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Prepared by:
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Introduction

The following is the Stormwater Annual Report for the University of Northern Iowa (UNI) prepared in accordance with Part III of the Municipal Separate Stormwater System (MS4) Permit Number 07-09-0-04. This report summarizes stormwater compliance activities within the boundaries of the University of Northern Iowa as identified in the permit.

1.0 Status of Implementing the Components of the Stormwater Pollution Prevention and Management Program.

The bullet points in 4.0 identify the required tasks for fiscal year 2018 that were completed as stated in Part II of the MS4 permit for the University of Northern Iowa. The tasks are based on six Best Management Practices (BMP's) listed in the MS4 permit. All required tasks for fiscal year 2018 were completed.

2.0 Status of compliance with any compliance schedule established by this Permit of any modifications to this permit.

The University of Northern Iowa fulfilled all schedule requirements as stated in Part II of the MS4 permit for the period of 8/1/18 to 07/31/19. No modifications of the permit were made within the reporting period.

3.0 A summary of all revisions to the approved management program.

No modifications of the permit were made within the reporting period.

4.0 A summary of the data, which is generated within the reporting period, includes narrative descriptions of storm water quality improvements or degradation.

- A storm water drain-stenciling program involves checking each of the storm water intakes to ensure the medallion remains in place and the stenciling information has been audited and has been found to need maintenance. A maintenance crew completed the relabeling of the intakes and all intakes locations have been collected using GPS and the data is stored in the campus GIS system.
 - The medallions used by the university are the same as those purchased by the City of Cedar Falls so contractors will readily recognize the storm water intakes.
 - All intakes have been mapped using GIS coordinates and have been added to the University GIS data base. We have added an attribute field in this system to track the labeling and will

continue to inventory and replace where missing. Those areas that were determined where a medallion cannot be affixed have been stenciled with the message “Drains to river”.

- The locations of the intakes and outflows had been mapped but we are using the current survey work to take that mapping information out of CAD and locating it in GIS. This system has been completed and the contractor is working on a functioning dashboard for technician use. This dashboard is complete and has been shared with the City of Cedar Falls.
- Completion of a major storm water project that handles the southwest side of campus. It included a nutrient reduction wetland on the corner of University and Hudson Road. This project was completed in conjunction with grant funding from Blackhawk Soil and Water Conservation District and The Nature Conservancy. There were some issues with the reseeded of the disturbed project soil and this has been corrected. All plant material seems to be in good order.
- Completed in the fall of 2017 the streambank stabilization project on a section of Dry Run Creek surrounding our pedestrian bridge on the south side of campus. Seeding and native plugs were withheld until the spring of the following seasons (2018). Monitoring of the work was employed to ensure that construction mitigated concerns of which it appears that the practice has been successful in stabilizing the banks.
- With the renovation of the Schindler Education Center a plaza renovation project was started in the spring of 2018. This project included the removal of a significant portion of impervious concrete and the installation of pervious paver BMPs and bio-cells. The project was completed in the fall of 2018 and inspected the spring of 2019. All pervious pavers appear to be functional.
- Hillside Courts demolition project began in the summer of 2018 and consists of the removal of 14 acres of housing units, parking lots and sidewalks. The remediation will consist of a prairie strip BMP next to Dry Run Creek and the installation of a pasture grass on the remainder. This project is still under construction in the summer of 2019 with all structures removed and contractors working on foundations and infrastructure. It is slated to be completed early in the fall of 2019.
- Union plaza pervious paver project began in the summer of 2018 and is replacing failing planting beds with a pervious paver BMP. Project is complete and BMP appear to be functioning as designed.
- A Spill Response and Prevention Plan was updated by Brown Engineering Company in April 2016 and the plan is located on the University Storm water website.
- With the Emerald Ash Borer confirmed on campus the grounds crew has been systematically removing Ash trees with significant decline. 85 Ash trees were removed in the fall of 2018 on the south half of campus and efforts were focused on treatment of ash specimen in the campus core. It appears the decline has continued in additional

perimeter ash and removal is planned for this fall 2019. We have also been planting 50 to 130 trees annually with emphasis on species diversity.

- Wetland plants installed during 2009 at the Wetland Demonstration Park located north of the UNI Dome parking lot continue to be monitored and collaboration continues with the City of Cedar Falls regarding that project. A joint prescribed burn was performed in the fall of 2016 with the City to refresh the wetland plants and control the invasive tree species. The City also had its forestry crew manually prune out some of the more aggressive clumps of trees.
- Fall of 2017, spring of 2018 and fall of 2018 the grounds shop was able to perform many prescribed prairie burns around the perimeter of campus.
- Signage providing information about naturalized areas and storm water practices installed on campus have been included in construction efforts. Many of these BMPs have been made possible with the partnership of the Dry Run Creek Watershed Improvement plan and funding received from grants associated with this organization. Specifically the WQI and 319 funds.
- Grounds staff continues to be involved in post-event clean-up of the turf and parking lots. The campus' Sustainability Director initiated student activities for recycling during outdoor events to reduce the amount of clean-up post event. The Student Garden has been a success and was maintained again this reporting year.

Future Environmental Sustainability Projects Planned

The university's Architect and Grounds department are developing a multi-year plan for future storm water quality improvement projects. Future projects planned for fiscal year 2019-2020 include: 1) continued paver replacement on central campus, 2) Completion of Hillside Courts demolition and restoration of the site with grasses and a prairie strip. 3) Installation of a pervious asphalt in the central Gilchrist parking lot.

5.0 An estimate of the previous fiscal year's expenditures for implementation of the management program and the budget for the current fiscal year.

The storm water management budget for fiscal year 2018 was funded by the Senior Vice President for Finance and Operations, the Facilities Management Department, the Environmental Health and Safety Office, applicable grants and the University's general education fund. Maintenance costs expended for maintaining storm water projects and initiatives included around \$1.2 million for labor and contracted services. Facilities Management staff continue to expand the information on the

stormwater initiatives through publishing BMP practices on the Facilities Management web site to provide educational information to the campus and surrounding communities.

6.0 A summary describing the number and nature of inspections, enforcement actions and public education programs conducted during the reporting period.

Inspections were conducted by Owner Construction Representatives and/or Facilities Management staff on all University of Northern Iowa's construction sites requiring an NPDES General Permit No. 2 to verify that contractors were following specified BMPs that had been approved in each construction site's pollution prevention plan. Areas of focus during inspections include proper placement and maintenance of silt collection fences, installation of gravel areas to collect soil from vehicle tires and proper sweeping of streets on which truck traffic traveled after leaving construction sites.

UNI has 6 current projects with active NPDES General No.2 permits.

1. West Campus Recreation Field Enhancement project (Permit No. IA-33595-33282)
2. Hillside Courts demolition project (Permit No. IA-33520-33203).
3. Steam Distribution System Replacement Phase 2A - Campbell to Towers (IDNR Permit No. 34700-34365).
4. Parking Lot Reconstruction 2019 (IDNR Permit No. 35083-34725),
5. Facilities Management North Parking Lot Reconstruction (IDNR Permit No. 35863-35521)
6. Tennis Court Removal permit (IDNR Permit No. IA-35864-35530)

The Storm Water Committee continues to meet and UNI student members are active participants. Information updates are periodically completed to remind members of the University Community about the importance of storm water management; updates are placed on the Facilities Management Grounds web site under the Storm Water Program heading.

A member of the UNI Facilities Management team serves on the Dry Run Creek Advisory board acting as a liaison for the University with the Blackhawk Soil and Water Conservation District Dry Run Creek Watershed Improvement Project.

UNI has an Office of Sustainability and a Sustainability Action Committee who as a part of their charter address water quality issues on campus, in Blackhawk County and across Iowa.

UNI faculty and staff have been involved in hands-on educational opportunities in conjunction with the Dry Run Creek watershed improvement program and Americorps. These programs have included the installation of 5 residential raingardens treating 37,000 gallons of rain water and the creation of a number of rain barrels. These events gathered over 100 volunteers.

The University's Reuse, Recycle Technology Transfer Center (RRTTC) led the 2017 UNI Earth Week Celebration, a week long, campus-wide event that provides various opportunities for students, faculty, staff and the general public to receive education on relevant topics, participate in local clubs and recreation and volunteer in service projects to clean up both main branches of the Dry Run creek that run through campus. The goal of the Earth Week celebration is to improve the local environment and the week culminated with an Earth Day Fair with a number of booths providing information to those who attended the events. The RRTTC develops and implements several environmental education outreach programs to serve various focus groups at the university and in the community.

UNI has a variety of educational resources relating to water quality, sustainability and the environment, including various educational and research centers on or around campus. These include, Tallgrass Prairie Center; Recycling and Reuse Technology Transfer Center; Center for Energy and Environmental Education and the Iowa Waste Reduction Center.

A UNI professor that has been partnering with the Dry Run Creek Black Hawk Soil and Water Conservation District for her 2018 class to have students design and create rain gardens in the Cedar Falls community.

In 2018 we toured Hawkeye Community College representatives on campus displaying our established BMPs. From this visit we entered into a joint grant application for WQI funds dollars to install additional BMPs on both campuses. This grant was awarded and is partially funding the Schindler Education Center plaza project.

Sustainable Landscaping: The University strives to put into practice the best use of our resources and time in creating a beautiful, clean, healthy and sustainable campus. UNI has established several areas of prairie plantings to avoid mowing expenses, including labor, equipment, fertilizer

and pesticides. UNI recycles leaves and branches accumulated from our campus maintenance practices. These materials are composted and then stagnant finished. Compost is utilized in landscape maintenance activities. UNI has been looking at alternative products to apply to turf areas on campus and has recently created a test plot for an organic fertilizer option. Trials of these materials are ongoing.

UNI dining centers work with Green RU in a pre-consumer and post-consumer composting project which has accounted for 317,000 lbs of food waste diversion in FY 2018. UNI grounds also partners with a remote dining center performing on campus composting of some pre-consumer waste which is added to the grounds green waste.

The Facilities Management Grounds unit is involved with enhancing water quality in the Dry Run Creek watershed in which UNI is located. The university has developed several bio-cells, bio-swales, pervious paving installations, green roofs and streambank restoration projects that reduce the environmental impact from storm water run-off from impermeable pavements and roofs and enhance the visual quality of the campus landscape.

Through the Office of the Provost, the university established a Certificate in Sustainability in collaboration with the Faculty Leadership in Sustainability Education Program that includes classes that focus on storm water.

7.0 Summary

This report summarizes required storm water compliance activities completed by the University of Northern Iowa for reporting year 2017/2018. The 2007 reporting year was the first year of compliance activity associated with MS4 Permit number 07-09-0-04 issued to the University of Northern Iowa by the Iowa Department of Natural Resources

All permit activities for the reporting year 2017/2018 permit period were completed on or before specified timelines. The University of Northern Iowa will continue to evaluate opportunities to improve storm water quality.

Individuals with questions, comments or concerns about storm water quality issues at the University of Northern Iowa should contact Brian Hadley, Assistant Director of Campus Services, 1801 West 31st Street, Cedar Falls, Iowa 50614-0003, phone (319)273-7653 or email to brian.hadley@uni.edu.