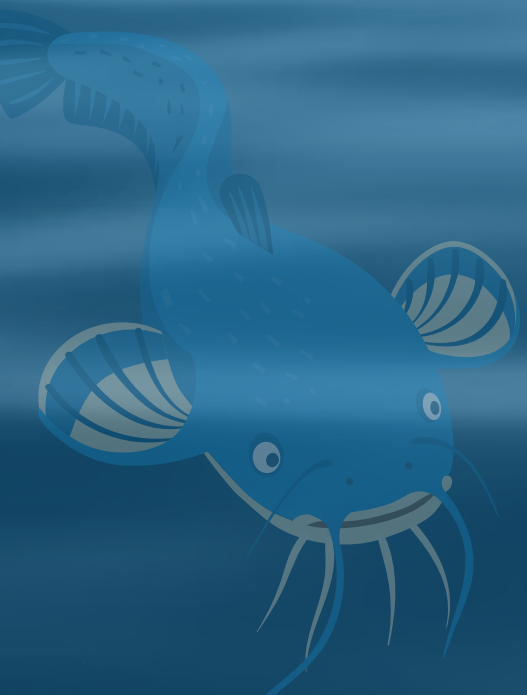
STORM WATER MANAGEMENT PROGRAM

2025 ANNUAL DISCHARGE MONITORING REPORT

THE CITY OF Fargo
FAR MORE



PREPARED BY
Peggy Amsbaugh
Engineer Tech. III

Introduction and Description

The 2025 Discharge Monitoring Report is given in a format in conjunction with the NDR04-0000 permit. Presented sequentially to follow the permit elements, the report begins with general requirements and progresses through the six Minimum Control Measures. Highlighted or example documentation is provided at the end of each section as appropriate. A growing number of resources are digital or linked to Auto-CAD/GIS, which is available for audit upon request.

The **Fargo MS4 Compliance Summary** is a matrix of Part V of the NDR04. This table illustrates compliance responses spanning each control measure and the MS4 Program overall in abridged exhibits. Please see each separate measure for topic specific criteria responses.

Evaluation and Assessment

Evaluation, assessment and effectiveness of goals, projects and BMPs is conducted annually. Fargo's MS4 Program meets compliance goals set locally and by the state NDR04 permit requirements. Results of these measures and recommended changes are consolidated on a summary sheet (MS4 Compliance Summary) at the end of this section.

MS4 Program Map

Fargo perpetually maintains a state-of-the-art geographic information system (GIS) and Auto-CAD mapping program of the complete infrastructure system (permit items IV.E.a-f). These platforms calculate all property areas and components of the municipal systems. This map is available for viewing at the office but is unavailable for outside access due to security concerns.

MS4 Operated Facilities

Fargo Wastewater and Solid Waste entities operate under separate storm water permits. Please contact each department for their specific permit requirements.

Pollution Assessment (Identified Pollutants)

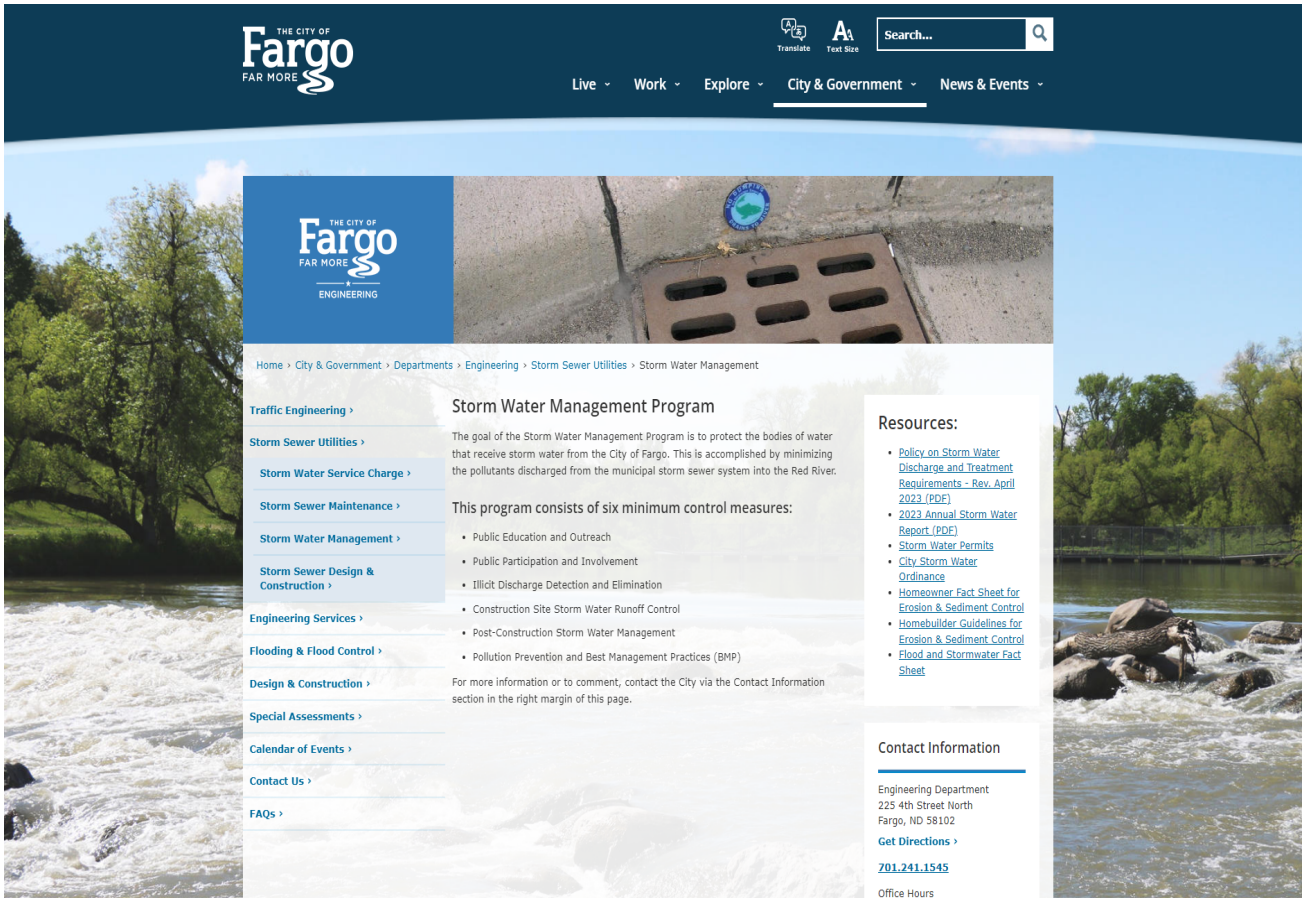
Fargo has identified pollutants and specifically lists them in the Storm water Ordinance (Chapter 37 of the City of Fargo Municipal Code). The ordinance lists obvious water degrading agents or practices, but it also states that any action or process that diminishes water quality is a violation. Stopping or reducing negative discharge is the goal of not only the regulation, it is the essence of the entire storm water program.

Reduction/removal of these pollutants is accomplished by structural (retention, detention ponds, grit chambers, etc.) and non-structural (prescribed discharge rates, compliance practices, etc.) BMPs.

Public Availability

This report is made available to the public online at: [The City of Fargo - Storm Water Management]

The MS4 program and related operational documents are available upon request during business hours.



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Fargo MS4 Compliance Summary

	(NDR04-V.c.1) Permit Status Compliance: BMP Assessment & Evaluation	(NDR04.V.c.2, 3) Measurable Goals Compliance, Progress, Completed	City of Fargo MS4 Compliance Summary	(NDR04-V.c.5) Future Planned Activities	(NDR04-V.c.6) Changes to BMP or Measurable Goals	(NDR04-V.c.7,8) Responsible Entity	(NDR04-V.c.9) Violations Issued	Reviewed	
MS4 Program Overall	Complies, BMPs adequate	All MCM Goals meet compliance and were completed.	Fargo's MS4 Program is effective in addressing & reducing non-compliant discharges.	Additional studies, new reporting capabilities may enhance or expand goals.	No changes are planned for 2025 beyond the studies.	Fargo Storm Sewer Utility	138 (Excludes Environmental Health and Wastewater Treatment Departments)	1-27-26	*See individual Minimum control Measures for detailed information and supporting documentation.*
MCM-1 & 2	Complies	Completed	Effective	Maintain As-is	No Changes	SSU		1-27-26	
MCM-3	Complies	Completed	Effective	Maintain As-is	No Changes	SSU		1-30-26	*Most information in the report is available online www.FargoND.gov/city-government/departments/engineering/storm-sewer-utilitie/stormwatermanagement*
MCM-4	Complies	Completed	Effective	Maintain As-is	No Changes	SSU		1-27-26	
MCM-5	Complies	Completed	Effective	Maintain As-is	No Changes	SSU		2-03-26	
MCM-6	Complies	Completed.	Effective	Maintain As-is	No Changes	SSU		2-03-26	*Please direct any questions/comments to stormwater@FargoND.gov*

MCM 1 & 2

Storm Water Education Program

Involvement
Outreach
Participation

MCM 1&2 Education, Outreach & Involvement

Audience	Pollutant (group)	Goals	Activities	Messages	Implementation/ Schedule	Entity	Performance Measures	Adjustment Method	Reviewed	Modification Recommendations
Construction	A, C, D	Acquired skill/behavior change	Problem-based learning • On-site evaluation • Classroom instruction	• Specific construction related • Use BMPs to reduce soil & trash migration • Contain chemicals/lubricants • Reduce other negative impacts	Annual, continuous during construction season	THE CITY OF Fargo FAR MORE	• Participation count • Permit/violation report • Complaint log • Staff referral • Maintenance record	• Yearly program review • Direct contact • Verbal interaction with partners, other agencies and facilitators	2/04/2026	Continue to improve annual spring Stormwater Conference
General Public	A, C	Awareness	Inquiry-based learning • Classroom instruction • River Keepers programming • Fact sheet/newsletter • Demonstrations • Billboard	• Your actions impact stormwater • Reduce water quality degrading practices • Report illicit (prohibited) discharges	Continuous, seasonal	Learn·Sustain·Enjoy RIVER KEEPERS	• Participation count • Permit/violation report • Complaint log • Staff referral • Maintenance record	• Yearly program review • Direct contact • Verbal interaction with partners, other agencies and facilitators	2/04/2026	Continue water quality device & retention ponds log and inspections
Municipal Operations	A, C, D	Acquired Skill	Project-based learning • Training video • Presentation	• Municipal operations impact stormwater • Water quality degrading observations • Report illicit (prohibited) discharges	Annual rotating basis, some departments may also provide in-house training	THE CITY OF Fargo FAR MORE	• Participation count • Permit/violation report • Complaint log • Staff referral • Maintenance record	• Yearly program review • Direct contact • Verbal interaction with partners, other agencies and facilitators	2/05/2026	Continue accurate reporting and recording between Public Works Superintendent and SSU staff

Minimum Control Measures 1 & 2

Fargo's Storm Water Education Program

In summary, the MS4 Permit Minimum Control Measures (MCM) 1 & 2 require the city to provide education, outreach, public participation and involvement opportunities. We must specifically address construction and post-construction pollution prevention, illicit discharges and methods to reduce negative discharges, while conducting our municipal operations. Additionally, we must develop a method to quantify our educational effectiveness and provide a method to adjust the programming.

Our education program integrates the requirements prescribed under these MCMs. Collectively, the Fargo Storm Water Education Program uses a "based" learning approach to educate, inform and involve people concerning Stormwater's impact on water quality. Although water quality is not a new concept today, polluting agents and practices might not be obvious in people's minds. Our program helps inform the public about water polluting practices and what they can do to reduce or eliminate them. Learning and participation is focused toward target audiences and utilizes a variety of activities, projects, methods and mediums to educate and inform people about storm water and water quality.

We have specifically designated construction, municipal maintenance operations and the "public" as our target audiences. The targets were selected based on perceived need, impact potential, MS4 requirements and the ability to deliver programming. Learning delivery to these segments is scheduled and consists of direct or implied, activities, projects or techniques. For instance, consider that soil migration is of primary concern at a construction site, yet it also occurs at a flower bed. Where a construction site has specific Best Management Practices (BMPs) that must be utilized, an implied concept of awareness (that soils migrate) may be adequate to the flower bed scenario. Education may be a simple billboard message (Inquiry Based) or specific technical training (Problem Based), depending on the audience or practice.

How we measure the education program's effectiveness is yet another challenge. Quantification is one method. We simply count people participating in training seminars, providing feedback or the number of projects delivered (fact sheet or other), violations issued, sediment or trash removed, etc. The following pages highlight our program's architecture, complete with illustration tables, graphics, images and examples of the actual materials utilized in the delivery of the program. The final section is focused on program performance measures (evaluation) and adjustment methodology.

Fargo's Storm Sewer Utility Staff

Our staff conducts related environmental education and outreach learning activities along with other City staff, core partners and related entities. The concept of water quality in stormwater discharge is the goal of the education, involvement and participation programming.

Facilitators

- The City of Fargo Storm Sewer Utility (SSU) is responsible for the Stormwater Program's administration.
- Contributors include City departments: Environmental Health, Solid Waste, Public Works and Wastewater Treatment.
- Fargo River Keepers is a core partner promoting stormwater/ecology education to the general public. Classroom instruction, lab activities and public involvement/participation projects comprise their basic curriculum.
- Other entities delivering similar educational programming include: Red River Basin Commission, local watershed districts, Cass County Soil Conservation, BIA of the Red River Valley and NASECA North Dakota.

BIA

CASS COUNTY SOIL CONSERVATION DISTRICT 701.282.2157

NASECA NORTH DAKOTA

Example of contribution by other facilitators

The City of Fargo recycling coordinator delivers programming themed toward the concept that recycling reduces environmental impact and promotes water quality.

Recycling Education

Pollutants and Best Management Practices

Fargo has identified pollutants and specifically lists them in Chapter 37 (Storm Water Ordinance). The ordinance lists obvious water degrading agents or practices but, it also implies that any action or process that diminishes water quality is a violation. Stopping or reducing negative discharge is the goal of not only the regulation, it is the essence of the entire storm water program.

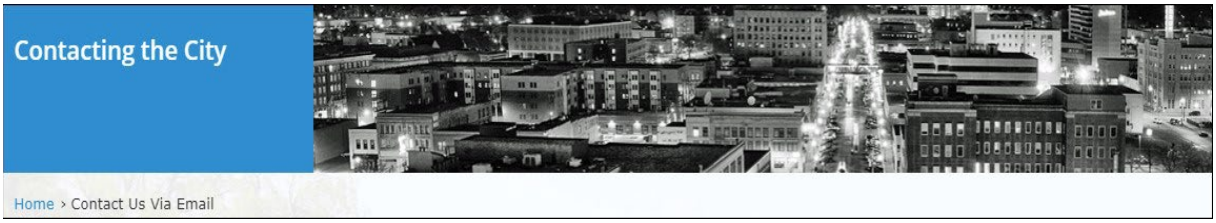
Knowing or identifying a pollutant is the first important aspect of our storm water program. The second most important item is simply stopping or reducing the effect of the pollutant before it reaches a storm sewer inlet and eventually the river. This stopping or reducing (whatever it might be) is called a Best Management Practice or BMP. It could be a mat or fiber roll between the street and a stripped construction site or stopping watering before any sediment/dirt from a flowerbed is carried into the street gutter.

Activities and Methods Used to Deliver our Program

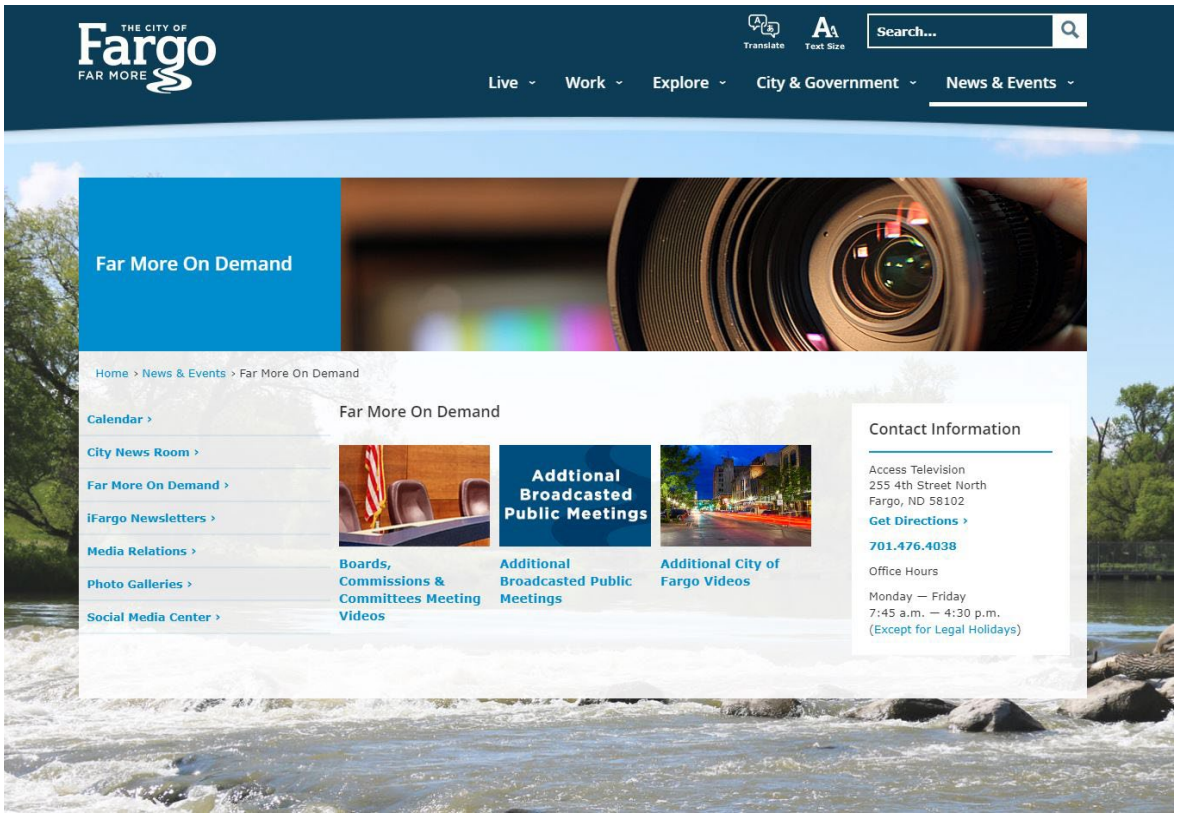
Mass Marketing

Digital Media

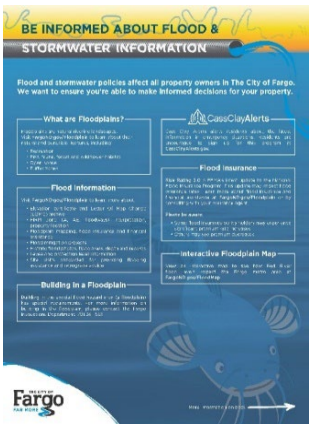
- Website www.FargoND.gov (Far More On Demand)
- Twitter
- Facebook

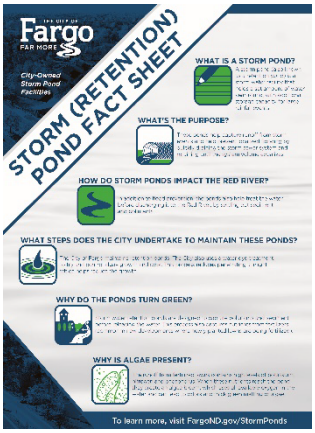


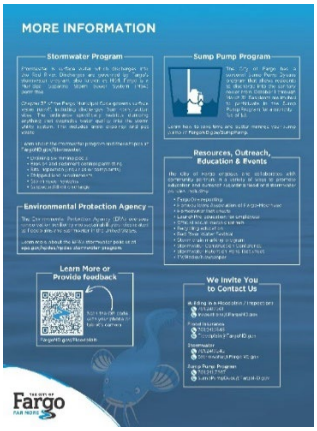
Far More On Demand



Direct Mail & Factsheets







Core Partners

River Keepers delivers water ecology education, and provides volunteer opportunities for the general public. Their mission is to advocate sustainable use of the Red River of the North, primarily within the Fargo-Moorhead area promoting a renewed vision. River Keepers is dedicated to educating our community by increasing local watershed knowledge through active engagement.

River Keepers Activities

Activities include the annual Red River Water Festival, backpack program, geocache, interpretive signs, storm drain marking program and river friendly house and yard management. Fargo SSU staff participates with River Keepers in various activities annually.

The Red River Water Festival sponsored by River Keepers is a very popular annual ecology program for area fourth grade students. This learning event brings students to the river, where they learn and participate in water quality concepts. SSU staff participates with teaching and providing funding.

Committees

- Conservation
- Forestry Advisory

Feedback

Stormwater@FargoND.gov

Community Feedback

The opportunity to provide feedback on stormwater topics is communicated in various activities and projects. Community feedback is managed citywide on a unified basis through a number of portals including office visits, mail, telephone, website, email, Engage Fargo and FargoOne**.**

Performance Measures

How do we evaluate the effectiveness of our MCM 1 & 2 programming since quantification is so difficult to apply? Some of the methods are listed below, others must be intrinsically interpreted by staff. An increase of incident reports is directly related to the increase of awareness of these degrading pollutants.

- Counting (attendance, address mailings, contact log, complaint log, frequency of Learning opportunities, etc.)
- Feedback from electronic reporting portals (email, FargoOne, etc.)
- Inter-department communication (increased - trash, sweeping, pipe cleaning, etc.)
- 2025 awareness incident reports

Program Adjustments

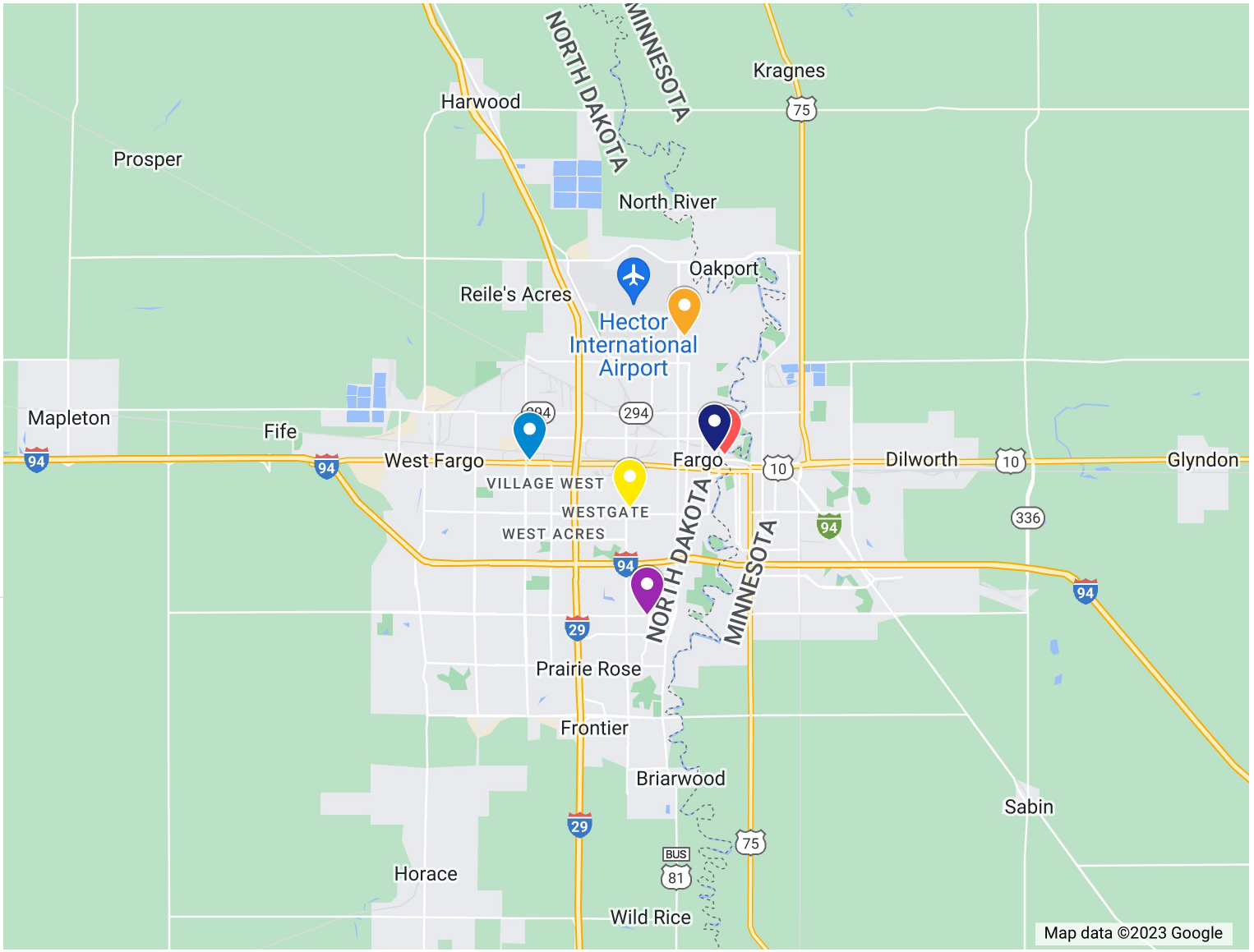
Annually (usually in the first two months of the year), all MCM programming is analyzed. Constructive input from the programs targeted sectors is evaluated by the Fargo Storm Sewer Utility staff. Changes (additions or deletions) are incorporated and carried out.

Current program is deemed adequate and no changes are recommended for 2026.
MCM 1 & 2 contributions will be maintained at the existing level.

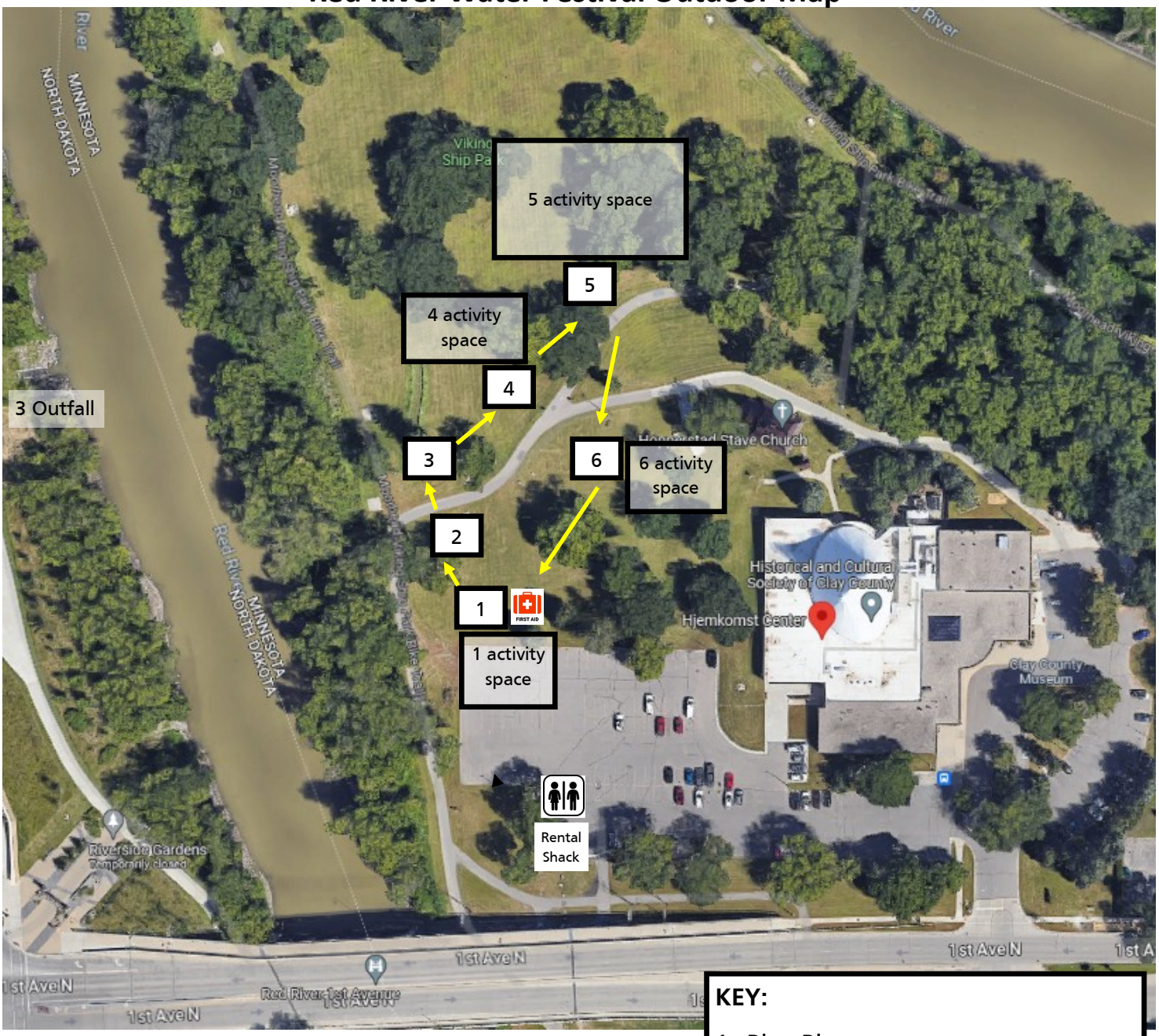
Public Involvement & Outreach Map - 2025

Legend

- Red River Water Festival
- Fargo City Hall
- River Keepers
- Fargo Cass Public Health
- Billboard Location
- HBA



Red River Water Festival Outdoor Map



KEY:

1—Blue River

2 —Trees the Water Keepers (position so the canopy does not cause a visibility hazard for bikers)

3 —River Crime Lab

4—Incredible Journey

5— Stream Sense

6—Invaders!

- Porta potty

PREPARATION

1. Discuss the program with your group. It is recommended that participants be at least 10 years old.
2. Select a date. The pavement must be dry and the weather must be above 50 degrees.
3. Choose a time frame you are available. Two hours is the recommended length.
4. Select a neighborhood to mark and a location to meet.
5. Figure out the number of participants.
6. Recruit supervisors. One supervisor is recommended for every 4-8 youth volunteers, depending on age.
7. Plan an alternative date in case of rain.
8. Contact River Keepers to set up the project, which includes supplies and training.

DAY OF PROJECT

- Review the following instructions with participants or scan the QR code to watch a training video.
- Put on safety vests.
- Break into groups. We suggest two people to mark the curb and two people to distribute door hangers. Theses tasks should be done simultaneosly, rather thatn doing one task and then going back to the other. This way, fi time runs out, both tasks will have ben completed.

CURB MARKING TEAM

1. Decide where to put the marker.
   - Surface must be flat, dry, and make contact with the whole marker.
   - The preferred placement is on top of the curb.

   - The second option is on the face of the curb.
   - If the curb is not possible, the street right next to the curb and storm drain is the last option.

   - Below is an example of how not to place a marker. Curb markers should fit flat against its surface and not be hanging over the edge. The marker pictured is starting to slide off the curb.

2. Sweep the area where the marker will be placed so its is free of any loose debris.
3. Peel backing paper off one side of the adhesive disk.
4. Place storm drain marker evenly on top of the adhesive disk.
5. Remove backing paper on other side of the adhesive disk.
6. Apply to cleaned area. It is important that the entire edge of the marker is sealed to the curb or street.
7. Step or place pressure on the storm drain marker to make sure the adhesive sticks.

DOOR HANGER TEAM

- Walk on sidewalks, stay off of the grass.
- Do NOT put door hangers in mailboxes.
- Place door hanger on the door that looks most used. Do NOT open the door.
- Do NOT leave a door hanger if it will blow away.

FOLLOW UP

- Indicate streets marked on maps provided.
- Document how many volunteers participated and how many hours were volunteered.
- Return maps and extra storm drain marking supplies.
- Congratulate yourselves...you deserve it!

RiverKeepersFM
fmriverkeepers
RiverKeepersofFM

riverkeepers.org
kimberly@riverkeepers.org
701.356.8915

OUR MISSION:
We are dedicated to connecting our community safely to the Red River of the North, through education, stewardship and engagement

WHAT IS A STORM DRAIN?

Storm drains are the grated openings in the street that collect water from rain and melting snow to minimize street flooding. As stormwater flows along streets, it collects trash, leaves, grass clippings, pet waste, car fuels, and other pollutants into storm drains. Pesticides, paints, antifreeze, motor oil, and other chemicals can end up in the storm drains when people dispose of them improperly. This is an illicit discharge and is against city ordinances.

WHAT IS THE PROBLEM?

Have you ever wondered where water goes after it 'disappears' into a storm drain? Stormwater in Fargo-Moorhead is not treated at a wastewater plant, but is discharged directly into the Red River or Sheyenne River through outfall pipes. Runoff carries contaminants and debris picked up along the way, polluting our surface and groundwater, which are often drinking water sources.

WHAT CAN YOU DO?

- Volunteer to mark storm drains to teach others about stormwater by contacting River Keepers.
  - Go out on your own with friends and family. Sign up at riverkeepers.org/volunteer.
  - Join our Monthly Volunteer Series: The first Thursday of the month in the evening we will be hosting one of our ongoing volunteer projects, including this program! River Keepers staff will train you in at the beginning. Check out the latest schedule here:
- Follow the No Dumping Drains to River message and do your park to help protect our water.

ADDITIONAL INFORMATION

riverkeepers.org
fargond.gov
cityofmoorhead.com
westfargond.gov

STORM DRAIN MARKING PROGRAM

A volunteer program to protect the Red River by linking human actions to pollution problems

THE CITY OF Fargo FAR MORE

MOORHEAD MINNESOTA

CITY OF WEST FARGO A CITY ON THE GROW

Learn · Sustain · Enjoy RIVER KEEPERS

2025 Fargo SDMP Report .XLSX

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Menus 100% View only

A1 Fargo

	A	B	C	D	E	F
1	**Fargo**					
2	**Date**	**Group Name**	**Location**	**# of Volunteers**	**Total Volunteer Hours**	**Storm Drains Marked**
3	CNX due to low signups 5/1	Monthly Volunteer Series	Near River Keepers	0	0	0
4	4/20/2025		Near Davies High School	3	6.5	30
5	5/12/2025		Near Fargo South High School	2	1.5	9
6	5/28/2025		Around River Drive S	8	20	30
7	5/28/2025	Juvenile Youth Court	North of Cass County Hwy 20	11	27.5	25
8	May and June		West of Lindenwood	2	13	113
9	6/18/2025	Buzz Lab	Near Plains Art Museum	19	38	40
10	7/10/2025		Near Pines Park	2	5.5	47
11	7/14/2025	Houston Engineering	NDSU	1	1	24
12	7/31/2025	Kraus Anderson Construction	Downtown Fargo near Woodrow Wilson School	4	6	91
13	9/9/2025	Cub Scout Troop	Near Nativity School	5	10	44
14	10/2/2025	Church of Jesus Christ of latter-Day Saints	Near Prairie Wood Golf Course	47	47	60
15	11/1/2025		Near Fargo Country Club and 13th Ave and 4th St S	1	10	65
16			**TOTALS**	**105**	**186**	**578**
17						

2025 Recycling Education

January - Recycling Reality Check on KFGO and Recycle Right Trivia on the Flag Radio (different topics each month) Letters and phone calls to all private haulers and roll off companies about keeping cardboard out of the landfill

February - Recycling Reality Check on KFGO and Recycle Right Trivia on the Flag Radio

March - Recycling Reality Check on KFGO and Recycle Right Trivia on the Flag Radio

April - Recycling Reality Check on KFGO and Recycle Right Trivia on the Flag Radio and Earth Day poster contest with 3rd graders at Jefferson Elementary, winning poster is on a recycling truck

May - Recycling Reality Check on KFGO and Recycle Right Trivia on the Flag Radio, we had a booth at Careers on Wheels and educated 700 students

June - Recycling Reality Check on KFGO and Recycle Right Trivia on the Flag Radio, we held a safety stand down at the Landfill educating drivers on landfill safety , and made videos about where to place the garbage and recycling bins to avoid damage to cars, mailboxes etc. that was shared on social media

July - Recycling Reality Check on KFGO and Recycle Right Trivia on the Flag Radio

August - Recycling Reality Check on KFGO and Recycle Right Trivia on the Flag Radio

September - Recycling Reality Check on KFGO and Recycle Right Trivia on the Flag Radio

October – Cans for Cash promotion with Minnkota Recycling and Recycling Reality Check on KFGO and Recycle Right Trivia on the Flag Radio

November – Recycling presentation at One Oak Place for 300 residents and Recycling Reality Check on KFGO and Recycle Right Trivia on the Flag Radio

December - Recycling Reality Check on KFGO and Recycle Right Trivia on the Flag Radio

MCM 3

Municipal Operations

Illicit Discharge Detection and Elimination (IDDE)

Standard Operating Procedure for IDDE

Staff assess the site situation and determines the best course of action. Staff's goal is to respond to a report of an illicit discharge in a timely manner, aid in its termination and enable remediation.

Field staff is trained how to spot an illicit discharge and report it for further investigation.

Site Investigation

Assess the situation –

- Visual inspection of the site.
  - If life or property is at immediate risk call 911
  - If it can be done safely, stop the source of the spill
  - Take pictures/notes: location, size, colors, odors, type of material, etc.
  - Make contact with property owner/manager and direct to mitigate.
  - Contact appropriate department that oversees segment

Contacts

- Fargo Fire Department 911 (non-emergency 241-1540)
- Environmental Health 476-6729
- Street Department 241-1453
- Waste Water Treatment Plant 241-1445

Enforcement

- Issue Notice of Violation or Administrative Order to the violating party
- City also may charge owner for contractor/department site clean -up
- Non-compliance or post mitigation effort may be referred to City Prosecutor

Report Log

Keep a log of illicit discharges, response and mitigation.

Post remediation inspection

Perform site inspection to ensure mediation/mitigation was conducted.

MCM 3 – Illicit Discharge Detection and Elimination (IDDE) Program

Degrading water quality (Illicit Discharge) by dumping substances or bypassing the sanitary system is illegal. The Red and Sheyenne Rivers are the source of the City's water supply, so protection of our drinking water is a critical mission. In response to that charge, the City has created a detection and elimination program commonly known in the storm water world as the IDDE Program.

Fargo's IDDE Program uses the same design as many other MS4 entities. Public education/ involvement/awareness along with training municipal staff are key components of the program. Specifically, the IDDE Program's focus is on the discovery, containment and elimination (mitigation) of water degrading practices. There are a number of rules and procedures available in the city to address non-conforming discharges.

In addition to State and Federal regulation, the Storm water Ordinance defines non-conforming and allowable discharge that can enter our storm sewer utility. Construction and land disturbing activities are addressed as, dumping any adverse substance in any form is a violation. Fargo's Storm Water Management Program under supervision of the Fargo City Engineer administers enforcement along with the full support of other city departments.

IDDE Spill Response

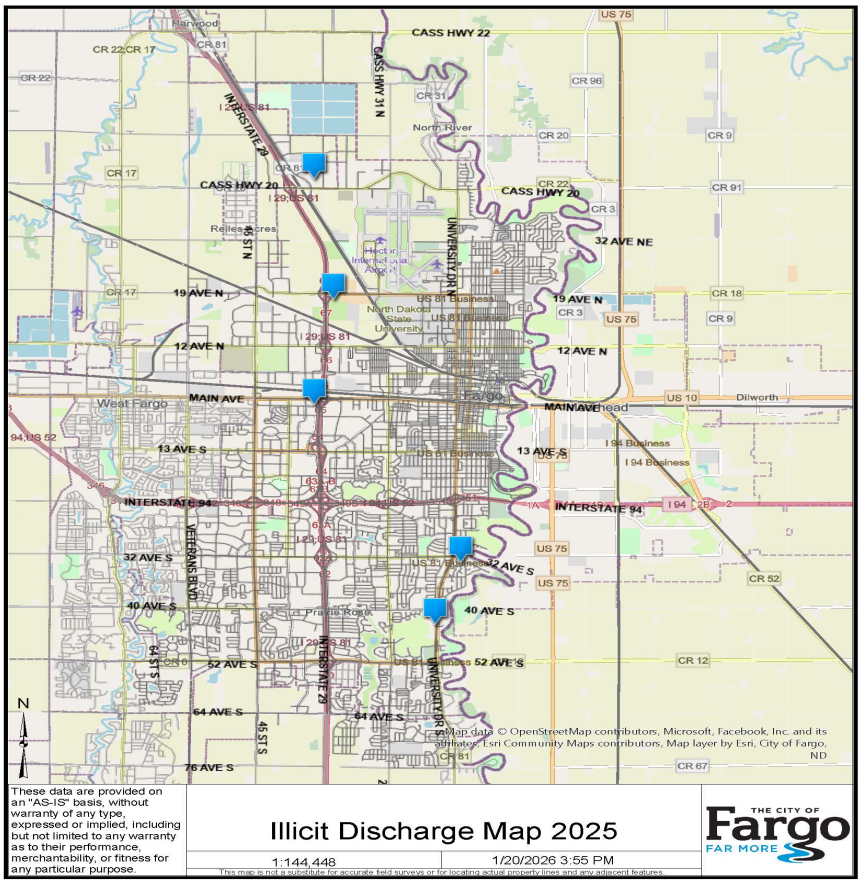
Illegal discharge reports

Illegal discharge reports communicated by other staff or the public follow the standard operating procedure format. Administration is by the department responsible for a particular operational

segment. For example, reports involving a restaurant dumping grease into the sewer or on the ground is referred to Fargo Cass Public Health – food inspection division. Suspect illegal non-functioning storm sewer connection or infiltration routes to public works for remedy or testing. All hazardous material exposure incidents are directed to the Fargo Fire Department's HAZMAT Team. Each of these departments would take the lead command of operations and the Storm Sewer Utility Department reverts to a support role.

Illicit Discharge &Elimination Map – 2025

- I-29 & Main Ave
- 32 Ave S - LS 27
- 3720 44 Ave N
- I-29 & 19 Ave N
- Rose Coulee S Univ



Routine Municipal Operations

Non-conforming material is an everyday maintenance issue for Fargo's Public Works (FPW) operations group. Operational staff is the field staff, defined by job description directed toward maintenance tasks of the city. Department staff vary from garbage pickup to snowplow route operators who are out patrolling the city constantly. All staff are trained to report operational inconsistencies including illicit discharge due to spill or other circumstance.

Education, outreach and involvement

Education and outreach on this topic is conducted in concert with MCM 1 & 2. In all contact situations the perpetrator is appropriately educated concerning mitigation resolution along with any penalties assessed. Factsheets or violations are also used to educate the public and business operations on illegal dumping and other storm water conflict situations. Directed informational topic pieces like a fact sheet or letter is customarily sent to a geographic or similar group of people if a primary perpetrator cannot be identified. City staff is also trained for IDDE specific exposure in conjunction with MCM 6 (municipal maintenance operations).

Fargo IDDE Program Components

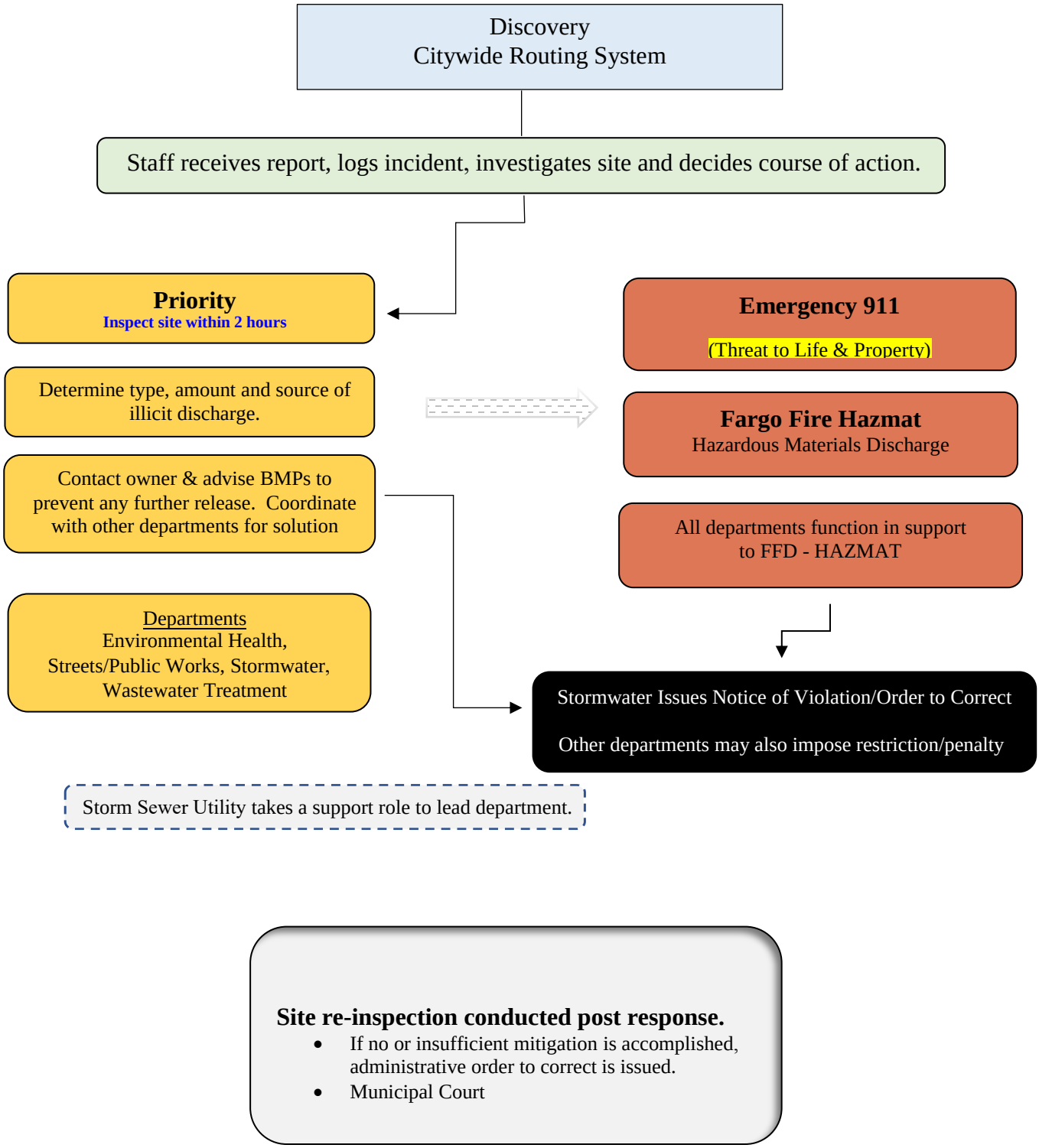
- CHAPTER 37 - STORM WATER MANAGEMENT | Code of Ordinances | Fargo, ND | Municode Library
- Illicit discharge detection & elimination standard operating procedure
- Illicit discharge detection & elimination Work Order
- Educational Support Material
- Notice of Violation
- Drainage Complaint Log

Quantification, Appropriateness and Program Recommendations

There are multiple incidents of illicit discharges reported annually to various departments. Each department mounted a suitable response and if appropriate performed necessary mitigation action to reduce future replication. Documentation of such incidents is perpetually maintained in department records. This system is highly functional, with no operational changes recommended.

Illicit Discharge Detection and Elimination (IDDE)

Standard Operating Procedure
(NDR04, Part IV.F.3b)
Typical procedures but others may apply.



Site re-inspection conducted post response.

- If no or insufficient mitigation is accomplished, administrative order to correct is issued.
- Municipal Court

Engineering Department
225 4th Street North
Fargo, ND 58102
Phone: 701.241.1545 | Fax: 701.241.8101
Email feng@FargoND.gov
www.FargoND.gov

MS4 Underground Tank Storage Policy

General Description

The classification, Underground Storage Tank (UST), also UST Systems is divided into two categories Regulated and Unregulated. USTs are normally associated with fueling (gas) stations, petroleum distributors or commercial/industrial operations and some residential sites. Locally the City of Fargo has three departments affiliated with USTs, fire, health and storm sewer. See description of departmental interaction below.

Regulated USTs are controlled by the State of North Dakota's Environmental Quality Division under their UST Program. NDCC Chapter 33-24-08 Technical standards and corrective actions requirements for owners and operators of underground storage tanks.

Unregulated UST remain under local observation with FFD having permit and location mapping authority, FCPH-EH assists in tank removal operations and health risk discoveries. The Storm Sewer Utility functions in a support role whenever a potential for release into the storm utility system.

Fargo Fire Department

- Permits installation, piping & inspects sites.
- Maintains UST database (location map)

Fargo Cass Public Health's Environmental Division

- Removal of buried tanks
- Records & forwards UST health risks to ND

Storm Sewer Utility (MS4)

- Cross-contamination into STS (with FFD, EH & PW)
- Discharge/Spills into STS
- Works in support of FFD & EH
- Most instances of release trigger the Illicit Discharge Detection and Elimination Program (IDDE) protocol (HazMat)

2025 Drainage Concerns Log

Date	Name	Address	Contact Method	Site Visit	Complaint/Question/Concern	Action Taken	Comments	City of Fargo Staff
6/30/2025	Earl Haugen	2569 Amber Valley Ct	Email: earl.haugen@live.com	y	Concerned about erosion/settlement towards drain and noxious weed growth (rear inlet fully enclosed by fences)	Responded via email that no concerns for erosion, recommended working w/ neighbors for weed control		MPM
7/2/2025	Mike Sandburg, Paul Mayland		Phone: Mike - (218) 849-6983, Paul - (701) 238-0826	Y	Drainage improvements - burying sump pump lines to existing FES	Recommended excavating just enough to cover sump pump lines as to not change elevation in stormwater retention area	Prairie View Estates	MPM & PLA
7/15/2025	Mark Stenehjem	1611 8th St S		N	No drainage path from back yard and N neighbor's garage has no gutters	Recommended pumping to street and discussing gutters with neighbor	Site visit/survey offered; owner not interested	CAG
7/17/2025	Denis Gigic	5420 18th St S	Phone: (701) 306-5505	Y	Sink hole adjacent to inlet in middle of rear year	Forwarded to PW to repair pipe connection inside structure and add black dirt to re-establish grade	Brett Lennox @ PW emailed 8/5/2025 to notify concrete was brought in grout structure from the inside	MPM
8/14/2025	Steven Boehning	3281 Timber Creek Circle S	701-541-5702	Y	Yard doesn't drain to the east toward the inlet	Jeremy Grandstrand will install stakes along property line to adjust for existing grades/landscaping	Jeremy Grandstrand was staking yard grades for 3287 Timber Creek Circle South and was contacted by the homeowner. Brent verified that did not receive a requst for yard grades on any of the adjacent properties and no one built per design elevations. Brent reconfigured grades to work to get close to or above 0.5% and Jeremy was to install stakes along the property line for the homeowner at #3281 to use to promote drainage. The property owners to the east have also restricted flow and I advised Mr Boehning to work with his neighbors using the stakes that Jeremy was to provide to achieve drainage.	RJH

THE CITY OF Fargo FAR MORE

Engineering Department
225 4th Street North
Fargo, ND 58102

Phone 701.241.1545
Fax 701.241.8101
stormwater@FargoND.gov

Notice of Storm Water Violation

Owner/Operator

Construction Site Address

Contact Fax #

Date/Time

Permit #

The Owner/Operator of this site shall correct the site's deficiencies listed below within **48 HOURS FROM DATE POSTED**

A re-inspection for site compliance will occur 48 hours after violation issuance[1].

CONFIRM RECEIPT IMMEDIATELY AT: stormwater@FargoND.gov or FAX: 701.241.8101

Site Deficiency Violations

- ☐ BMP's Not Placed or Maintained
- ☐ Grass Buffer Strip Compromised
- ☐ Illegal Temporary Entrance
- ☐ Illegal Discharge[2]
- ☐ Inlet Protection
- ☐ No ESC Permit
- ☐ Street Tracking[3]
- ☐ Other:

Corrective Action Required:

Additional Enforcement Action

1. If non-conforming conditions exist upon re-inspection, the owner, operator, or permit holder shall be subject to a re-inspection fee of $75/Visit (Residential)$150/Visit (Commercial/Retail) **Failure to correct may also result in prosecution under the Fargo Municipal Code (with penalty not to exceed $500.00).**
2. A live, illegal discharge is grounds for the immediate issuance of a ***Stop Work Order***.
3. Tracking onto City streets can, at any time, result in a citation and ***Summons to Appear*** under Section 11-0901 of the Fargo Municipal Code.

Re-Inspection Fee

Date & Fee

Date & Fee

Date Referred to City Attorney

Date Referred to State of ND

TOTAL

Owner/Operator: Sign & FAX to 701.241.8101

Issued By: Peggy Amsbaugh (701.367.4538)

Print Reset Save As

MCM 4

Municipal Operations

MCM 4 – Construction Site Program

The construction programs goal is to reduce pollutant discharge due to construction/development activity. Our program is administered principally by the Fargo Storm Sewer Utility Department (SSU) under the authority of the Fargo City Engineer and the Storm water Ordinance. The Engineering Department contributes significantly to the program with site plan review for both public and private commercial development and has overall responsibility for public sector construction.

Below is a description of the programs basic functions and methods of operation. Located at the end of this section are support documentation examples, evaluation and future consideration.

ESC Permitting System

All new building sites and land disturbing activities that have a potential to discharge sediment off a site are automatically issued an **Erosion and Sediment Control Permit** (ESC Permit) (37.0301). This process now begins at the inspections department when applying for a building permit. The purpose of the permit is to provide site identification, point of contact information and a formal record. The official "tracking" system (LAMA) is maintained daily by SSU staff. This system has archive capability with a search-by address/document number function; it covers both commercial and residential construction sites.

ESC Permit

Commercial permitted sites must also undergo the engineering department's site plan review process which contains a storm water review element.

Builders of one and two unit residential buildings are permitted but subscribe to the department's **Storm Water Guide** versus site plan submittal for commercial sites (37.0102). These construction sites are patrolled on a regular basis as determined by the storm water inspector for site conforming conditions. Discrepancy observation can be resolved with personnel on site or through the notice of violation procedure. (See patrol & enforcement)

Site plan review (submittal) "*One and two unit residential buildings are exempt"*

A construction site plan is required for development under Chapter 37. The ESC Permit application requires operators of commercial sites to submit a site plan (SWPPP) with all related BMPs and water quality & retention addressed including type and location on the site. The site plan review requirement is part of the Land Development Code (LDC) and includes identification of permanent storm water BMPs. Engineering evaluates all infrastructure connections and conflicting site conditions. Non-conforming scenarios are notated and the plans must be returned for correction. This site plan review ensures compliance with the LDC, storm water requirements of the North Dakota Department of Environmental Quality NDPDES construction permit (NDR11-0000), MS4 discharge permits and the City of Fargo Storm Water Ordinance.

Additionally, SSU staff reviews plan sheets prior to issuance of an ESC Permit. This review concentrates on the plan's **temporary physical placement** of BMPs including:

- **Conforming inlet protection**
- **Dewatering**
- **Perimeter control**
- **Stockpile locations**
- **Tracking management (egress/ingress)**
- **Unique BMP proposals**
- **Concrete and similar washout treatments (grindings and mortar)**

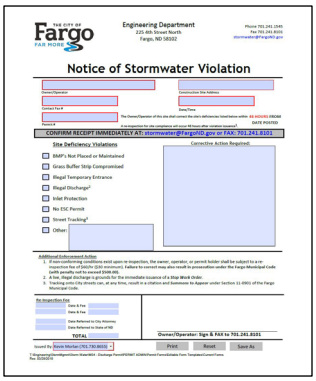
Commercial Compliance Inspection

Commercial sites undergo a SSU staff evaluation (on a percentage or complaint basis) once construction gets underway. Here the inspector compares the plan with the site condition and converses with the superintendent about any particular nuances associated with the site. The discussion also elaborates the need to document BMP site changes on the SWPPP.

Patrol and Enforcement

SSU staff uses the permit system for permit verification, developing compliance patrol routes and overall enforcement composition. Construction sites, patrolled on a rotating daily basis may be addressed via personal interaction with a site operator, phone call or issuance of a Notice of Violation (NOV)/Order to Correct. Infractions have a 48-hour correction period with the exception of a live discharge, which requires immediate response. Each site must conform to the criteria of the Storm Water Ordinance for construction site **condition/pollutants**: (refer to the statistical section of this MCM for annual and historical data).

- **BMPs**
- **ESC Permit**
- **Entrance**
- **Grass buffer**
- **Inlet protection**
- **Illegal Discharge (Illicit)**
- **Street tracking**
- **Other**


Fargo
Engineering Department
225 4th Street North
Fargo, ND 58102
Notice of Stormwater Violation
CONFIRM RECEIPT IMMEDIATELY AT: stormwater@FargoND.gov or FAX: 701.241.8101
Site Deficiency Violations
Corrective Action Required:
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Grass Buffer Strip Compromised
Illegal Temporary Entrance
Illegal Discharge
Inlet Protection
No ESC Permit
Street Tracking
Other
Owner/Operator: Sign & FAX to 701.241.8101
TOTAL
Print
Reset
Save As

Citizen Contact, Complaints and Contributions Log

Public contact is logged at several interface portals including: Fargo One, City Email Accounts, Facebook and Twitter which are each directed to appropriate departments. The digital media has its own historical tracking element and SSU maintains records in the department database. Public input is evaluated and topics of merit are communicated back to the site operator via comment or official infraction notice.

Written Procedures

The SSU department has established written procedures for site inspections, issuance of Notice of Violation (enforcement), site plan review and response to public input. Please refer to the supporting documentation at the end of this segment.

Stabilization Requirements

The requirement for construction stabilization is established by definition in the Stormwater Ordinance. Examples of the stabilization requirement are cited below. Please refer to the actual ordinance for more information.

- "**Temporary protection**" means short-term methods employed to prevent erosion. Examples of such protection are straw, mulch, erosion control blankets, wood chips, and erosion netting. 37.10203.50

- "**Stabilize**" means the exposed ground surface has been covered by appropriate materials such as mulch, staked sod, riprap, wood fiber blanket, or other material that prevents erosion from occurring. Grass seeding alone is not stabilization. 37.0102.39

- "**Stabilized**" means the exposed ground surface after it has been covered by sod, erosion control blanket, riprap, pavement or other material that prevents erosion. Simply sowing grass seed is not considered stabilization. Ground surfaces may be temporarily or permanently stabilized (also see Final Stabilization).

- "**Erosion control**" means methods employed to prevent erosion. Examples include soil stabilization practices, horizontal slope grading, temporary or permanent cover, and construction phasing.

- "**Sediment control**" means the methods employed to prevent sediment from leaving the development site. Examples of sediment control practices include, but are not limited to silt fences, sediment traps, earth dikes, drainage swales, check dams, sub-surface drains, pipe slope drains, storm drain inlet protection and temporary or permanent sediment basins. 37.0102.37

- "**Final stabilization**" means that disturbing activities at the site have been completed and a uniform perennial vegetative cover with a density of 70 percent of the native cover for unimproved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed. 37.10203.40

CONSTRUCTION INDUSTRY EDUCATION AND INFORMATION

The City of Fargo Storm water Program partners with the Building Industry Association of the RRV to develop rules, policy guidance and training. The association is comprised of commercial/residential builders, material, service suppliers and related businesses (developers, Realtors, etc.) SSU staff regularly contributes to the partnership with newsletter articles, presentations or submissions of new technology.

SSU also communicates directly with contractors via digital email links. Reminders, requirements and changes are communicated to an ever-changing roster of contractors. Email lists are compiled from the permit contact database to ensure effective information dissemination.

Fact sheets are used to convey storm water messaging to ancillary business such as lawn care, delivery firms, etc. The information presented may be specific or broad based, depending on the target audience.

Finally, staff conducts **specialty education presentations** upon request. Including preparatory and secondary classroom lectures, PowerPoint presentation and informational outreach.

See all the construction education related programming under MCM 1 & 2.

Cooperating Partners

The program also works via a cooperative agreement with NDSU (another MS4) for their construction erosion and sediment control permitting and enforcement programming. SSU staff verifies necessary permitting and enforces the same stormwater regulations on campus and throughout the entire city. Public Works monitors interface connections and maintenance issues between the two systems.

Statistical Data

A statistical dataset is maintained on the construction program. This report provides annual and previous years' data for trend analysis and program performance. A current copy of the report is included at the end of this segment.

MCM 4 Future Goals

SSU Staff partnered with the Building Industry Association of the RRV, NASECA, and the North Dakota DEQ providing a conference to educate local homebuilders and contractors on construction site runoff. The goal in 2026, is to continue to attract more interest from the private sector for this as an annual event in an effort to educate local builders and contractors right around the startup of a new construction season.

THE CITY OF Fargo FAR MORE

Construction Permit & Violation Report 2025

Fargo's NPDES construction site pollution control program (MCM 4) addresses potential pollution discharging from a construction or disturbed land site and has been in existence since 2006. The program concentrates on discharges due to water runoff, wind or vehicle tracking. Sediment, garbage, washout areas, dewatering, stockpiles and access are controlled. This year's annual report provides feedback on the effectiveness of our control measures.

PERMITS

In 2025 permits increased slightly from 2024. Storm Sewer Utility Staff conducted routine weekly inspections of construction sites with a number of vehicle track out infractions citywide. Many infractions are also addressed by phone for efficiency. BMPs still remain the largest infraction - see the violations section.

The Lama permitting system was implemented in 2019. The software creates a smooth process of tracking construction activity throughout the city. This system triggers an Erosion & Sediment Control permit at the inspections department during the approval process for a building permit. The system allows SSU personnel to track and manage our construction site runoff program with ease.

Permit Fees and Re-Inspection Fees have been modified for 2025. This is the first modification since the adoption of the original fee structure in 2006. Revenue generated from permit and associated fees remains but a small percentage of the program's total operating cost.

Permits	Issued	$ Revenue	Violations	$ Fees	Violations to Permits	Specific Infraction	Inspectors	$ Total Revenue
2025	281	$17,764	35	$150	12%	65	PLA/RA	$17,914
2024	259	$5,180	43	$0	17%	69	PLA/MR	$5,180
2023	332	$6,640	73	$0	22%	107	KJM/PLA	$6,640
2022	380	$7,600	138	$360	36%	206	KJM/ADZ	$7,960
2021	385	$7,700	159	$120	41%	203	KJM/WJM	$7,820
2020	403	$8,060	126	$120	31%	181	KJM	$8,180
2019	305	$6,100	266	$1,140	87%	337	KJM/SO	$7,240
2018	389	$8,894	246	$1,140	63%	323	KJM/DN	$10,034
2017	424	$9,345	263	$840	62%	313	KJM/BN	$10,185
2016	510	$11,717	278	$540	55%	367	KJM/JCL	$12,257
2015	496	$11,282	478	$2,640	96%	691	JP/TS/KM	$13,922
2014	434	$10,162	428	$3,240	99%	765	Josh P	$13,402
2013	585	$13,393	243	$1,740	42%	455	Josh P	$15,133
2012	458	$11,648	307	$1,740	67%	563	Josh P	$13,388
2011	395	$8,936	190	$572	48%	408	Josh/Mark	$9,508
2010	362	$7,917	229	$390	63%	463	Joe	$8,307
2009	362	$7,496	295	$300	81%	477	Craig	$7,796
2008	428	$10,785	304	$3,240	71%	575	Mike	$14,025
2007	489	$11,636	331	$2,880	68%	1,166	John	$14,516
2006	367	$7,460	36	-	10%	36	Steve	$7,460
2005	0	$0	0	-	0	0	0	-

Violations

Violations during 2025 remained consistent. Storm Sewer Utility staff continues working with the Home Builders, as well as Commercial Contractors. Active permitted sites throughout the construction season will be inspected in the upcoming 2026 Season. BMP as an infraction annually tops the list of infractions because it is a more ambiguous (catch-all) term. All infractions not specifically denoted independently are grouped into BMP.

There are several facets to the tracking issue including material delivery, staff (parking & tool off-load), construction equipment, etc. Compounding these elements is the ever shrinking lot sizes which muddles traditional construction practices (maneuverability).

Year	NOVs Issued	BMP	Grass Buffer	Illegal Entrance	Illegal Discharge	Inlet Protection	Permit	Tracking	Total
2025	35	20	5	3	5	2	1	17	53
2024	43	22	3	4	0	2	1	19	51
2023	73	30	2	4	1	18	0	32	87
2022	138	80	2	35	5	19	0	65	206
2021	159	89	2	25	6	10	0	65	197
2020	126	82	6	30	1	4	0	51	181
2019	266	213	10	47	2	17	9	34	337
2018	246	84	4	77	3	35	35	68	323
2017	263	131	32	19	4	20	19	83	313
2016	278	124	6	47	4	23	13	120	367
2015	478	330	2	62	2	27	47	175	691
2014	428	233	2	67	4	74	37	188	765
2013	243	123	24	76	14	22	67	71	455
2012	307	155	14	155	7	34	119	50	563
2011	190	110	11	51	2	32	44	125	408
2010	229	175	18	66	3	35	56	76	463
2009	295	175	16	93	2	43	38	64	477
2008	304	197	8	130	16	34	44	121	575
2007	351	291	152	340	8	38	178	65	1166
2006	36	-	-	-	-	-	-	-	36
2005	-	-	-	-	-	-	-	-	-

Profiling

Contractor	Permits	Violations	Leading Infractions	% Violations To Permit
Jordahl Custom Homes	71	6		8.5%
Thomsen Homes	47	10	BMP maintenance	21.3%
JN Contracting	16	2	Street Tracking	12.5%
Plecity-Kowalski	13	0	Illegal Entrance	0.0%
Heritage Homes	9	0		0.0%
Designer Homes	7	1		14.3%
Klein Custom Homes	6	0		0.0%
Krueger Construction	4	0		0.0%
Titan Homes	4	1		25.0%
	177	20		
Top 9 permit holders account for	55% of permits and 37% of all violations			

HOMEBUILDER GUIDELINES

FOR EROSION AND SEDIMENT CONTROL

Sites Disturbing Less Than One Acre

Homebuilders must reduce soil loss during home construction. This fact sheet provides general erosion and sediment control (ESC) and stabilization guidelines for homebuilding and other construction that disturb less than one acre.

Each site is different. Some lots can require additional or alternative controls. Check with local officials to make sure all ESC requirements are addressed. ESC devices must handle a two-year, 24-hour rain event. A two-year, 24-hour event ranges from 1.9 inches of rain in western North Dakota to 2.3 inches of rain in the eastern part of the state over a 24-hour period.

PERIMETER CONTROLS

Perimeter controls capture soil before it leaves the construction site. These types of controls include vegetative buffers, silt fences and fiber rolls.

Vegetative buffers consist of a strip of dense grass. One foot in buffer is used for every five feet of disturbed area that drains to it.

Silt fence and fiber rolls are examples of controls used to capture sediment. Controls of this type capture sediment by ponding water behind them. Ponding allows soil to settle out of the water. A rule of thumb for silt fence is to use a one linear foot of silt fence for every 100 square feet of unslope disturbed area.

INLET PROTECTION

Inlet protection devices keep soil out of the storm sewer system. They are a last line of control and must be used with other ESC and stabilization methods. Inlet protection devices need to be selected and installed so water can bypass the device if flooding is a concern.

STABILIZED SITE EXIT

A stabilized construction site exit reduces dirt tracked from the site. Vehicles and equipment must not exit the site from any other place, especially when wet soil conditions are present.

ROOF DRAINS

Rood drains need to be provided with adequate splash pads and/or downspouts extensions to prevent erosion from roof runoff.

THE CITY OF Fargo FAR MORE | ENGINEERING

Source: North Dakota Department of Environmental Quality

INSPECTIONS & HOUSEKEEPING

Inspect ESC devices every 14 calendar days and within 24 hours of 1/4 - inch rainfall.

Maintenance or repair should be completed following good housekeeping practices, which includes cleaning and maintain ESC devices, cleaning dirt off streets and picking up debris.

Clean sediment control devices such as silt fence, before sediment has reached half of the exposed height. Repair or replace the device if it is not functioning properly. Removal of sediment or device if it is not functioning properly. Removal of sediment or device repair/ replacement needs to be done within 24 hours of discovery or as soon as field conditions allow.

Clean out sediment traps and basins when the storage volume is reduced by half. This must be done with 72 hours or as soon as field conditions allow.

Remove dirt from streets by the end of the work day.

ESC and stabilization must be maintained at the site until there is 70 percent vegetative cover or the site is turned over to the homeowner.

TEMPORARY & PERMANENT COVER

Temporary cover is used to reduce erosion and should be applied to areas where construction activity has ceased and is not planned to resume for 14 days. Temporary soil stockpiles such as clean aggregate, demolished concrete and sand stockpiles are exempt. Temporary cover may be obtained by planting, mulching or using an erosion control blanket.

Permanent cover is any type of cover that will not be disturbed again by construction activities.

MATERIAL STORAGE

Stockpiled material cannot be placed in any stormwater conveyance system (e.g., curb and gutter, drainage ditch).

Sediment controls need to be placed between any stockpile and stormwater conveyance system. Stockpiled material should not be placed directly against any device.

Liquid or soluble materials (e.g., oil and paint) must be stored to prevent spills or leaks.

WASTE DISPOSAL

All construction debris must be placed in an appropriate container to prevent it from being carried away by wind or water. Dispose of all debris at any appropriate facility.

CONCRETE WASH WATER

Concrete wash water cannot be placed in or allowed to drain to any surface or groundwater or storm sewer system. Place concrete wash water in an appropriate collection system.

Source: North Dakota Department of Environmental Quality

THE CITY OF Fargo FAR MORE

ENGINEERING

FARGO CITY HALL
225 4th Street North
Fargo, ND 58102
Phone: 701.241.1545
FargoND.gov

MCM 5

Post Construction Program

MCM 5 – Post-Construction Stormwater Management

The City of Fargo has developed, implemented, and enforces a post-construction pollution reduction program for new and redevelopment projects within its jurisdiction. This includes projects that disturb one or more acres and smaller projects that are part of a larger common plan of development. These "specific requirements" meet or exceed state mandated levels outlined in Appendix 1 of the North Dakota MS4 Permit - NDR04.

Chapter 37 Stormwater Management (regulatory method)

The Stormwater Ordinance establishes criteria for the post-construction stormwater program. Our program sets specific control requirements for the runoff rate and water quality treatment per site, for all development projects including those less than one acre.

Program Outline

- Storm Policy sets specific stormwater guidelines and has computation tables
- Construction/development applications must submit site plans for review/approval with stormwater features: locations, volume and runoff calculations, BMP and maintenance issues.
- Project areas are evaluated on a per site basis under the site plan review process (see below).
- All previously undeveloped properties and subdivisions are required to provide a Storm Water Management Plan (plan) for the subject area.
- Submission and approval of the plan is required prior to plat approval.
- Failure to comply with the requirements of a site plan review results in a no build situation.

Site Plan Review Process

During the site plan review process, (a requirement set forth in the Land Development Code (LDC)) engineering evaluates all infrastructure connections and conflicting site conditions, including permanent storm water BMPs. Non-conforming scenarios are notated and the plan returned for correction. This site plan review ensures compliance with the LDC, storm water requirements of the North Dakota Department of Environmental Quality NDPDES construction permit (NDR11-0000) and MS4 discharge permits and the City of Fargo Storm Water Ordinance.

This process verifies the post construction aspect for permanent storm water treatment. Each site plan submittal is reviewed via a check-off list for conforming release rates, detention volumes, pipe sizing, etc. Permanent detention features allow options to applicants regarding detention by providing large-scale (regional) retention. A Storm Water Management Report prepared by a Professional Engineer registered in the state of North Dakota, indicating compliance with the discharge rate is required for all developments. Detention/retention volume requirements will be established by the discharge limitation.

Southwest Regional Pond

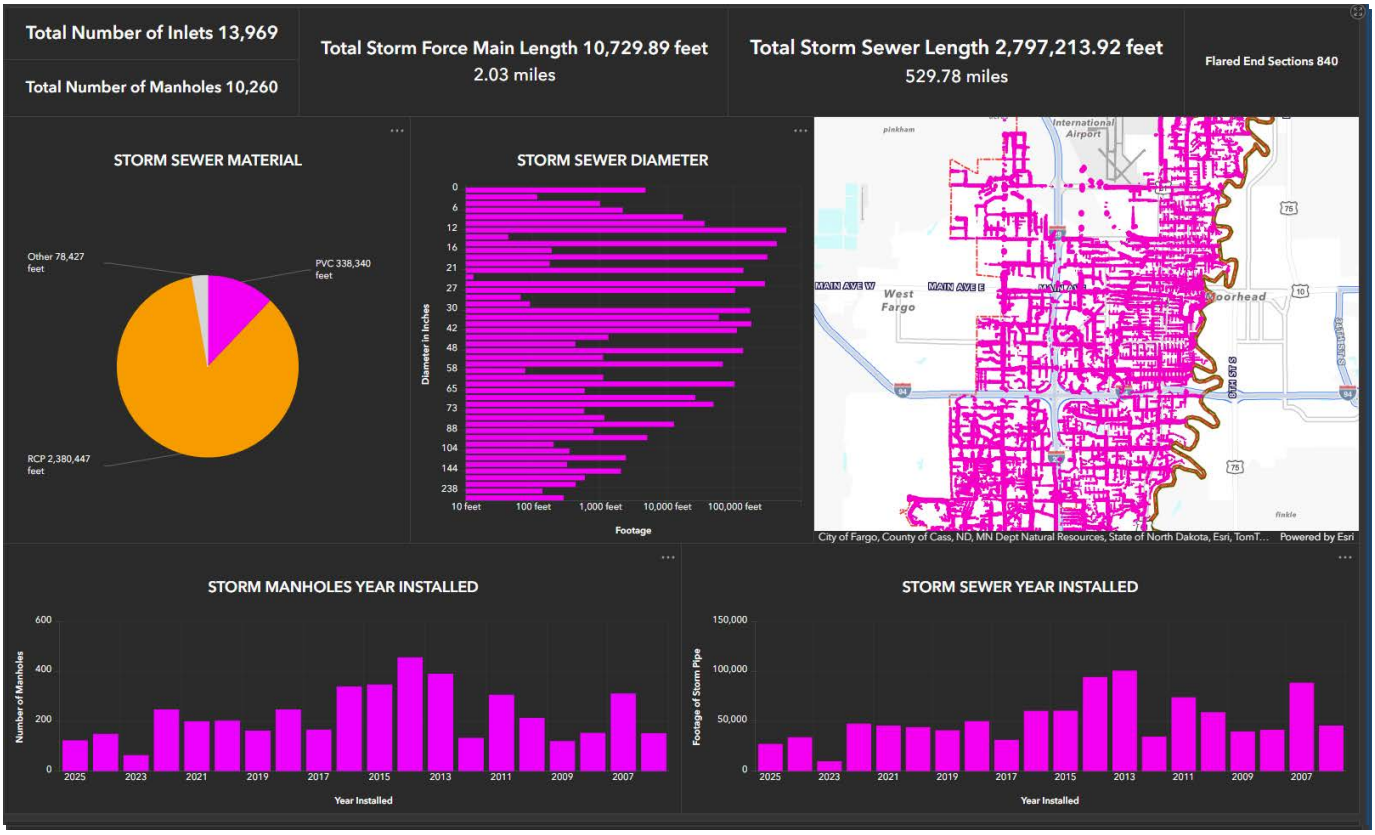
2. Downtown Mixed Use Zoning (DMU) Requirements

A modification to the storm water retention policy for the existing areas classified as within the downtown mixed use zoning district as of July 27, 2015 and approved by City Commission, this policy is as follows: Any development on a parcel one acre in size or larger within the DMU shall be allowed a maximum storm water runoff rate that is not greater than the existing conditions runoff rate from the parcel for the 2, 10 & 100 year, 24 hour synthetic rainfall events. No storm water retention will be required on the parcel unless necessary to maintain the runoff rate below the existing (pre-development) runoff rate. Lots under 1 acre are exempt from the retention requirements.

This change in policy does not affect the North Dakota Department of Health's water quality requirements. All development of any parcels within the DMU would still be required to follow, as applicable, these water quality requirements set by the Department of Health.

For parcels completing a zoning change to DMU after the effective date of July 27, 2015, property improvements will meet all storm water retention standards per the policy.

Summary of Storm Sewers in Use



Fargo Storm Sewer System

Area = 50 square miles

Storm Lift Stations = 82

Storm Sewer	Does the stormwater system connect to the City of Fargo system?	☐	Section 20-0608
	If not tied into the City system, is proper documentation for not connecting indicated?	☐	
	Is the pipe the correct size and type?	☐	Spec Section 1500
	is the pipe at the correct grade? Does it flow correctly?	☐	Spec Section 1500
	Are inlets and manholes appropriately located and spaced?	☐	Spec Section 1500
	Is Reinforced Concrete Pipe (RCP) used under pavement in the City Right-of-Way?	☐	
	If boring under the street - may use C900 pipe with adequate depth.	☐	
	Are pond outlet structures located outside the 10' Utility easement?	☐	Submittal
	Is there a note stating to call the Inspections Dept. for an inspection of the connection to the City storm system?	☐	
	Ensure storm sewer does not conflict with other underground utilities.	☐	Submittal
Grading	Is there a Grading Plan?	☐	Submittal
	Does the grading plan clearly indicate (arrows and/or elevations) where all site storm water flows?	☐	Submittal
	Is there a 0.5 foot elevation difference between the sidewalk and curb?	☐	Submittal
	Is the elevation 15 feet from structures at BFE or above (check pond slopes)?	☐	Submittal
	Are maximum recommended pond slopes (4:1) exceeded?	☐	Submittal
Storm water	Are HydroCAD (or similar) stormwater model results for the 2 and 100 year storm events included in the submittal?	☐	Submittal
	Does the project involve over 1,000 SF of parking lot?	☐	
	Is the project part of a previously approved larger stormwater plan?	☐	
	Does site imperviousness meet the approved plan parameters?	☐	
	Is on-site storm water detention required?	☐	Detention Policy
	Do detention volumes and discharge rates meet requirements? Check min. 4" orifice	☐	Detention Policy
	Is there a 24 -72 hour drawdown period for the 2 year event? Or, is there a "Defender" device?	☐	State water quality
ESC/SWPPP	Is there an Erosion and Sediment Control Plan?	☐	Submittal
	Does the Erosion and Sediment Control (ESC) plan include all necessary ESC measures?	☐	Submittal
	Does the Erosion and Sediment Control plan include all the appropriate and necessary details?	☐	Submittal
Paving	Is there a Paving Plan?	☐	Submittal
	Does the paving plan clearly indicate paving types and locations?	☐	Submittal
	Is street access appropriate for the pavement functional classification (arterial, collector, local)?	☐	Section 20-0702
	Do driveway widths, placement (spacing), and thickness meet requirements?	☐	
	Do patches match existing pavement sections?	☐	Submittal

City of Fargo
STORM PONDS PER ZONE

ZONE 1

- Pond = 7
- Storm Sewer Detention = 100
- Storm Sewer Retention = 33
- Underground Storm Storage = 7
- Bioretention Pond = 0
- Sanitary Pond = 6

Total = 153

ZONE 2

- Pond = 6
- Storm Sewer Detention = 117
- Storm Sewer Retention = 4
- Underground Storm Storage = 22
- Bioretention Pond = 0

Total = 149

ZONE 3

- Pond = 24
- Storm Sewer Detention = 65
- Storm Sewer Retention = 14
- Underground Storm Storage = 5
- Bioretention Pond = 0

Total = 108

ZONE 4

- Pond = 0
- Storm Sewer Detention = 114
- Storm Sewer Retention = 29
- Underground Storm Storage = 18
- Bioretention Pond = 1

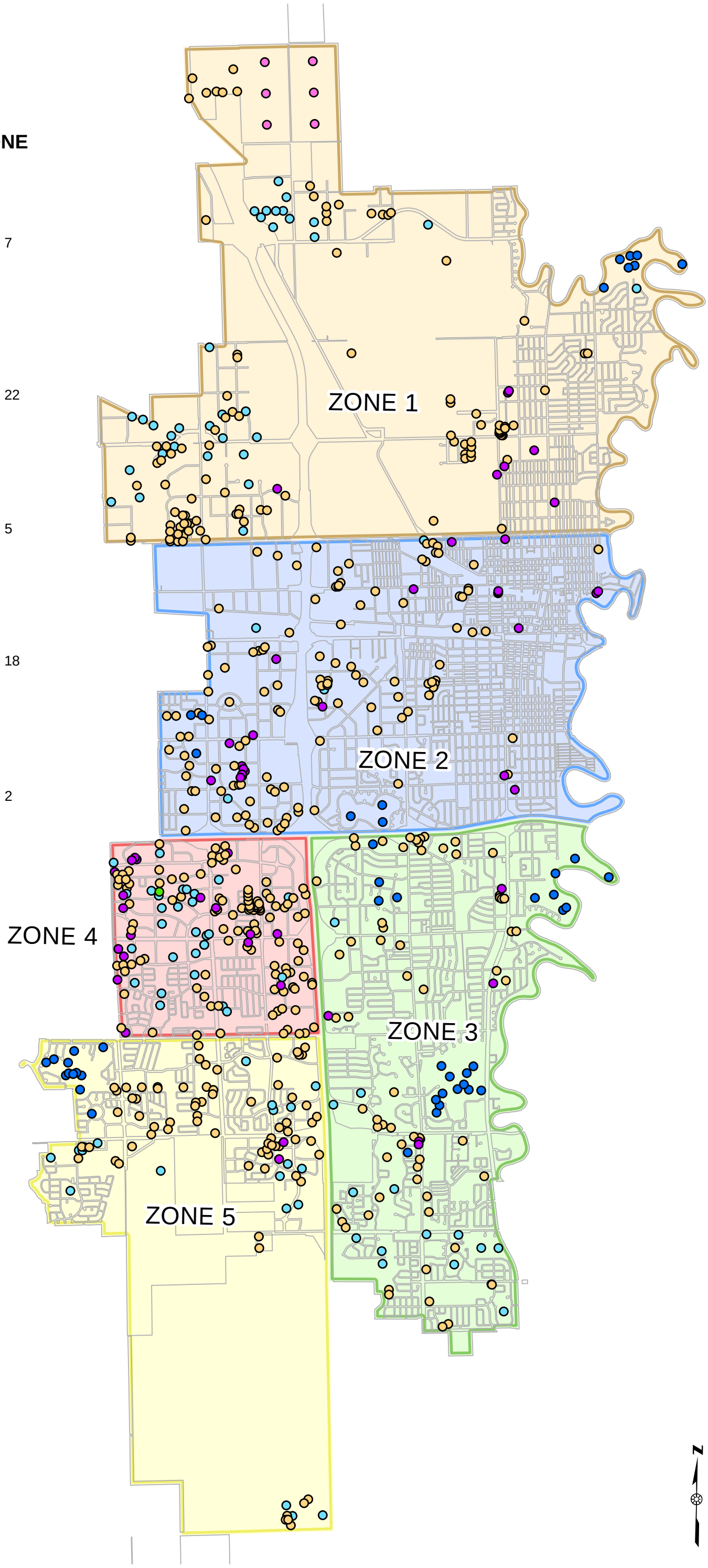
Total = 162

ZONE 5

- Pond = 12
- Storm Sewer Detention = 72
- Storm Sewer Retention = 19
- Underground Storm Storage = 2
- Bioretention Pond = 0

Total = 105

TOTAL PONDS = 677



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Standard Operating Procedure (SOPs) for Stormwater Pond Inspections

Procedure

At a minimum, 20% of all Stormwater ponds will be inspected each year on a rotating basis with all ponds inspected before the expiration of the NDR04-0000 MS4 Permit.

- Pond Inventory
    - City of Fargo – 42 ponds
    - Fargo Park District – 52 ponds
    - Underground Storm Storage -- 53
    - Privately owned – 524 ponds
- The Storm Sewer Utilities Engineer shall manage a list of City-owned/private ponds.
- GIS will be updated when new ponds are constructed or modified.

Inspections

- Staff will visually inspect all of the ponds and end sections of the pipes draining into them at least once during a five year cycle of the NDR04-0000 MS4 Permit.
    - The goal is to inspect 20% of the drainage system each year.
    - All records shall be kept at T:\Engineering\StormMgmnt\Stormwater Management\MS4 - Discharge Permit\PERMIT ADMIN\Pond Inspections

Corrective Action

- Slope/Bank erosion
    - Depending on severity submit a work order to the Public Works Supervisor.
- Blocked or damaged infrastructure
    - Report to Public Works Supervisor with report for cleaning, repair or replacement needs as their schedule allows.

Standard Operating Procedure (SOPs) for Water Quality Device

Procedure

Inspect all water quality devices and underground storage systems at least once every two years on a rotating basis in compliance with the NDR04-0000 MS4 Permit.

- Water Quality Device inventory
  - City of Fargo – 5 WQ devices
  - Privately owned – 103 WQ devices
- The Storm Sewer Utilities Engineer shall manage a list of City-owned/private Water Quality Devices.
- Records of newly added Water Quality Devices will be updated via spreadsheet when they are constructed or modified.

Inspections

- Staff will visually inspect all Water Quality Devices at least once every two years on a rotating basis in compliance with the NDR04-0000 MS4 Permit.
  - The goal is to inspect 50% of structures each year
  - Inspections will consist of structural condition, inflow points, pollution capture functions, sediment levels
  - All records shall be kept at T:\Engineering\StormMgmnt\Stormwater Management\MS4 - Discharge Permit\PERMIT ADMIN\Private_WQ_Maintenance

Corrective Action

- Sediment Levels
  - Sediment levels will require cleaning/removal depending on the manufacturer's recommended O&M manual.
- Damaged infrastructure
  - Repair or replacement shall be required according to the manufacturer's recommended O&M manual.
  - All city owned water quality devices shall be maintained annually regardless of the manufacturer's recommended O&M manual

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City of Fargo

Policy on Stormwater Discharge and Treatment Requirements

April 2023 Update

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GENERAL STORMWATER REQUIREMENTS

Authority and Purpose

The City of Fargo operates a Municipal Separate Storm Sewer System (MS4) under authority of the North Dakota Department of Environmental Quality Permit NDR04-0000 (Discharge Permit), and City of Fargo Code of Ordinances, Chapters 17 and 37. In compliance with this authority, Fargo has developed this Policy on Stormwater Discharge and Treatment Requirements. This policy establishes standards for stormwater discharge rates and stormwater quality treatment for all development within the City of Fargo's jurisdiction.

Intent of the Policy

The intent of this policy is to provide guidance to those persons working with the City of Fargo **Stormwater Management Ordinance** and to establish uniform, simplified standards that work within the framework of the City's storm sewer infrastructure.

Target Audience

This policy is applicable to all development (Code of Ordinances, Chapter 37, Paragraph 37-0102 7.) under the jurisdiction of the City of Fargo.

Stormwater Management Plan

All previously undeveloped properties and subdivisions; re-plats of existing properties for purposes of development; or re-development of existing developed or un-developed lots one (1) acre in size or larger, or part of a larger common development that is one (1) acre in size or larger, shall provide a Stormwater Management Plan (plan) for the subject area.

Submission of a schematic stormwater management plan shall be included with submittal of the draft plat for approval. Submission and approval of the full stormwater management plan is required prior to construction plan approval. Stormwater management plan requirements are discussed in **Appendix A.**

Existing Parking Lot Stormwater Requirements

Stormwater management requirements for existing parking lots are outlined in **Appendix B**.

Stormwater Discharge Requirement/Limit

The maximum stormwater discharge rate as defined in **Appendix C** or **Appendix D** shall apply to the following categories:

1. Newly Platted Ag Conversion that is (1) one acre in size or larger or is part of a common development one acre in size or larger **(Appendix C)**.

2. Re-plat of currently platted parcel that is part of a common development that is one acre in size or larger and is currently undeveloped **(Appendix C)**.

3. Re-development of existing parcel that is one acre in size or larger, or is part of a common development that is one acre in size or larger **(Appendix D)**.

Water Quality Treatment

Water quality treatment is required for all new developments or re-plats one (1) acre in size or larger, common developments collectively one acre or larger, re-development sites one acre or larger, and on existing parking lots as outlined in **Appendix B**. Requirements for water quality treatment are specified in **Appendix E**.

Stormwater Detention, Retention, and Discharge Pond Design

Appendix F outlines the requirements for stormwater pond design.

Design Requirements within Special Zones

Appendix G covers the design parameters and coverage area for special design requirement areas, including areas that have been developed with regional drainage facilities, and the Downtown Mixed Use zoning area.

APPENDIX A

STORMWATER MANAGEMENT PLAN

1. The Stormwater Management Plan schematic preliminary drawing and final plan shall be prepared by a Professional Engineer registered in the State of North Dakota.

2. All newly platted Ag Conversion properties, new subdivisions within a larger common development, and infill projects within a larger platted development equal to or greater than 1 acre in size are required to have a stormwater management plan that includes those Best Management Practices (BMPs) required for the addition or subdivision to meet stormwater quality and quantity requirements. Approval of the regional stormwater management plan is considered part of the plat approval process.

3. Previously platted lots less than one acre in size, which are part of a larger common development, will be required to have a stormwater management plan when the lot is developed. This stormwater management plan shall analyze the impact this newly improved lot will have on the overall stormwater features of the common development. As a minimum, these lots shall drain to a common inlet that is connected to the City storm sewer system, while meeting the allowable release rate and water quality requirements.

4. Article 37-0201 of the City of Fargo Code of Ordinances states: “An owner must submit to the City Engineer a plan for stormwater management and control including detention and retention facilities. The plan shall be submitted, and approval obtained from the City Engineer prior to the owner (a) obtaining approval of an application for a plat, pursuant to Section 20-0907 of the Land Development Code of the City, or (b) engaging in any land disturbing activity.”

   The plan may include “in the discretion of the City Engineer, arrangements for further planning and implementation of permanent facilities for stormwater management and control by subsequent owners of the property being platted or by the current owner at a later time.” Delay in producing the stormwater plan will be considered when extenuating circumstances dictate but will generally not be allowed.

5. The stormwater management plan, at a minimum, shall consist of:

   a) A Stormwater Management Plan Report prepared using a stormwater modeling system that provides a modeling report similar in nature to HydroCad. The report shall document the assumptions, methodologies, and analysis used in arriving at the selected stormwater management solution. The report must be global, in that it looks at the entire area to be developed as well as any impacts to the site created by neighboring areas. The report shall be conceptual in nature and include:

1. A narrative describing the existing site conditions, proposed site conditions, types and locations of stormwater BMPs proposed to be used.

2. Model calculations for the post-development 2-, 10-, and 100-year storm events as identified under the most current NOAA Atlas precipitation data for Fargo.

3. Hydrographs depicting flows into and out of all detention/retention facilities and all flows into the City storm sewer system.

b) Conceptual plan drawings and topographic maps noting all items covered in the report.

1. A detailed drawing of the outlet structure indicating maximum water elevations for the 2-, 10-, and 100-year storms.

2. A written description of the proposed water quality treatment method.

c) Conceptual Operations and Maintenance (O&M) plan for the system, covering all requirements for keeping the system operating as designed.

The above-noted items shall be stamped and signed by a Professional Engineer registered in the State of North Dakota.

6. The plan may utilize regional or on-site detention/retention and water quality facilities; however, per the Fargo Comprehensive Plan, the City prefers to see stormwater facilities constructed as regional amenities whenever possible. A regional stormwater plan can use any combinations of BMPs, selected by the owner and their engineer, which enable the benefitting properties to meet the stormwater quantity and quality requirements. If a regional facility is used, the pond shall be located to facilitate capture of as much site stormwater as possible prior to discharging into the City stormwater system.

7. The submitted conceptual stormwater plan will be reviewed by the City's Engineering Department. The Engineering Department will evaluate the stormwater plan and communicate change requirements or recommendations to the owner and their engineer. Changes made to the stormwater plan prior to plat approval will be considered part of the original plan. If the plan is very complex, it may be brought before the City Commission for discussion and/or public comment prior to approval.

8. If a subdivided property is covered by a previously approved stormwater plan, the previously approved plan shall be reviewed to determine if the subdivided property is still in compliance. A letter from a North Dakota Registered Professional Engineer can accomplish this with City Engineer review and approval.

9. The approved plan will exist for the life of the subject property, including any changes approved by the City Engineering Department. The final approved plan will be included with the amenities plan.

10. The plan may require dedication of stormwater or access easements or additional right-of-way for the construction of stormwater conveyance and/or storage facilities.

11. The plan must ensure the subject area conforms to the site specific performance requirements noted in **Appendices B, C, D, and E** of this policy.

APPENDIX B

EXISTING PARKING LOT STORMWATER REQUIREMENTS

Current parking lots being maintained, repaired, replaced, or expanded shall comply with the requirements outlined in this Appendix and shall follow the following categories.

1. Application of these requirements and whether or not City storm sewer is available within a reasonable distance of the site shall be as determined by the City Engineer.

2. Parking lots that expand over time beyond the original grandfathered project may add enough impervious surface through surfacing or added buildings to trigger stormwater requirements.

3. Existing Parking Lot maintenance or repairs, including up to complete removal of asphalt or concrete surfacing, localized repair of gravel or subgrade, or surface treatments (spray coatings, chip/fog seals, crack sealing, striping), with no expansion of the current parking areas and result in no change in drainage, will be exempt from the stormwater requirements.

4. For existing parking lots that are (1) one acre to under (3) three acres and that involve full asphalt or concrete removal, or extensive gravel and subgrade modifications, or mill and overlays that result in modification of drainage patterns, the site shall be required to collect on-site stormwater into inlets, add a water quality device, and convey stormwater into the City stormwater system. A pre- versus post-development drainage study shall be done. If the post-construction flows are the same or less than the pre-construction flows, then no detention is required. If the post-construction flows are larger, then detention shall be required to mitigate the increase in flow only.

5. Existing parking lots (3) three acres or larger that involve full parking lot reconstruction (to include full pavement & base removal) shall be required to collect on-site stormwater in inlets and convey stormwater into the City storm sewer system, and shall comply with stormwater requirements contained in **Appendices C/D and E** for modeling, discharge rate control, and water quality for the existing parking lot being reconstructed and improved.

6. A pre-post stormwater model shall be accomplished for any site, one acre or larger, on which a building addition/expansion is triggering expansion of the parking lot(s). If the post-construction model results in a greater stormwater discharge rate than the pre-construction model during the 100-year event, discharge rate of the added volume shall meet City discharge rate requirements. If the new impervious area is over one acre, water quality requirements must also be met.

APPENDIX C

STORMWATER DISCHARGE REQUIREMENTS (NEWLY PLATTED DEVELOPMENT OR UNDEVELOPED EXISTING PLATS)

1. The discharge rate for stormwater discharging from any site, equal to or greater than 3 acres in size, into any drain system within City jurisdiction, shall be limited to 1 cfs/acre. For parcels between 1 and 3 acres, the maximum discharge shall be per the following table:

Parcel Size (Acres)	Release Rate (cfs)
1.0	2.00
1.1	2.05
1.2	2.10
1.3	2.15
1.4	2.20
1.5	2.25
1.6	2.30
1.7	2.35
1.8	2.40
1.9	2.45
2.0	2.50
2.1	2.55
2.2	2.60
2.3	2.65
2.4	2.70
2.5	2.75
2.6	2.80
2.7	2.85
2.8	2.90
2.9	2.95
3.0	3.00

This table shall apply to all projects covered under this policy except existing parking lots, which are addressed in **Appendix B**, and re-development of currently developed properties, which are addressed in **Appendix D**.

2. A stormwater report is required for all developments one acre in size or greater or if part of a larger common development that is one acre or larger. The report must comply with the requirements specified in **Appendix A**.

3. All sites except existing parking lots (as described in **Appendix B**) are required to comply with the State Water Quality Design Considerations. Water Quality Design Consideration information is included as **Appendix E** to this policy.

4. The discharge rate noted above will drive detention requirements for a particular site. Dry or wet ponds, oversized pipe, underground stormwater storage facilities, or other methods can be used to achieve required storage volumes.

   If a regional detention system, as opposed to site-specific ponds, is chosen for the development area, all water shall be routed to the regional pond prior to discharge into the City system. The original, conceptual stormwater plan (see **Appendix A**) must address the conveyance of stormwater from all parcels in the development to the regional detention facility and shall cover all details of operation and maintenance responsibilities.

   If the City of Fargo storm sewer system provides conveyance to the regional facility, the 1 cfs/acre criteria shall be used unless otherwise planned for. If the owner requires larger flows to the regional facility, this must be considered/negotiated during the development of the original regional stormwater plan and the original amenities plan (such as parallel storm sewer lines or open channel flow to existing ponds).

5. Discharge or overland flow of stormwater onto a neighboring property shall not be allowed unless included in the regional plan (see **Appendix A**) and facilitated through the designation of required easements, dedications, or other methods allowing such conveyance.

6. The State of North Dakota Water Quality standards must be met. The method of treatment shall be selected by the design engineer from the options presented in **Appendix E** or as approved by the City Engineer.

   Construction of rain gardens, grassy swales, and other methods of achieving water quality are encouraged and will be evaluated on a case-by-case basis.

7. Criteria for construction of regional detention facilities is discussed in **Appendix F**.

8. Each plan set submittal requiring retention/detention shall include a storm system table identifying:

   - Lot size (acreage and square feet)
   - % impervious area

- Required retention/detention volume (100-year storm event)
- Supplied retention/detention volume (100-year storm event)
- Water quality method being proposed, including manufacturer’s data
- Allowable release rate for 100-year event (cfs)
- Actual release rate for 100-year event (cfs)

APPENDIX D

RE-DEVELOPMENT OF CURRENTLY DEVELOPED PROPERTIES

1. For re-development of currently developed properties, Fargo has increased the allowable release rates to take into account expected existing impervious areas. It should be noted that increases in the release rates for 1 to 4 acre sites is greater than the rate increases for 4 to 8 acres. Fargo believes that re-developments of 4 to 8 acres have more latitude to accommodate stormwater runoff mitigation within the design. The stormwater discharge rate from any site, equal to or greater than 8 acres in size, into any drain system within City jurisdiction, shall be limited to 1 cfs/acre. For parcels between 1 and 8 acres, the maximum discharge shall be per the following table:

Parcel Size (acres)	Allowable Release Rate (cfs)
1	3
1.5	3.77
2	4.53
2.5	5.3
3	6.07
3.5	6.83
4	7.6
4.25	7.64
4.5	7.68
4.75	7.72
5	7.76
5.25	7.79
5.5	7.82
5.75	7.85
6	7.88
6.25	7.9
6.5	7.92
6.75	7.94
0.7	7.96
7.25	7.97
7.5	7.98
7.75	7.99
8	8

This table shall apply to all projects covered under this policy except existing parking lots, which are addressed in **Appendix B**, and newly platted development or existing undeveloped plats, which are addressed in **Appendix C**.

In no circumstance shall the allowable release rate from a re-development lot be greater than the pre-redevelopment release rate. The current condition of the lot shall be evaluated up to 5 years prior to re-development to determine existing impervious values for determining acceptable release rates.

2. A stormwater report is required for all developments one acre in size or greater or if part of a larger common development that is one acre or larger. The report must comply with the requirements specified in **Appendix A**.

3. All sites except existing parking lots (as described in **Appendix B**) are required to comply with the State Water Quality Design Considerations. Water Quality Design Consideration information is included as **Appendix E** to this policy.

4. The discharge rate noted above will drive detention requirements for a particular site. Dry or wet ponds, oversized pipe, underground stormwater storage facilities, or other methods can be used to achieve required storage volumes.

   If a regional detention system, as opposed to site-specific ponds, is chosen for the development area, all water shall be routed to the regional pond prior to discharge into the City system. The original, conceptual stormwater plan (see **Appendix A**) must address the conveyance of stormwater from all parcels in the development to the regional detention facility and shall cover all details of operation and maintenance responsibilities.

   If the City of Fargo storm sewer system provides conveyance to the regional facility, the 1 cfs/acre criteria shall be used unless otherwise planned for. If the owner requires larger flows to the regional facility, this must be considered/negotiated during the development of the original regional stormwater plan and the original amenities plan (such as parallel storm sewer lines or open channel flow to existing ponds).

5. Discharge or overland flow of stormwater onto a neighboring property shall not be allowed unless included in the regional plan (see **Appendix A**) and facilitated through the designation of required easements, dedications, or other methods allowing such conveyance.

6. The State of North Dakota Water Quality standards must be met. The method of treatment shall be selected by the design engineer from the options presented in **Appendix E** or as approved by the City Engineer.

Construction of rain gardens, grassy swales, and other methods of achieving water quality are encouraged and will be evaluated on a case-by-case basis.

7. Criteria for construction of regional detention facilities is discussed in **Appendix F**.

8. Each plan set submittal requiring retention/detention shall include a storm system table identifying:

   - Lot size (acreage and square feet)
   - % impervious area
   - Required retention/detention volume (100-year storm event)
   - Supplied retention/detention volume (100-year storm event)
   - Water quality method being proposed, including manufacturers' data
   - Allowable release rate for 100-year event (cfs)
   - Actual release rate for 100-year event (cfs)

APPENDIX E

MS4 WATER QUALITY DESIGN REQUIREMENTS

The following information is taken from page 29 of the current North Dakota NDR04-0000 MS4 Permit, dated April 1, 2021 and effective to March 31, 2026.

Water Quality

A water quality treatment system is required in developments as defined under **Appendices B, C, & D**. The system must meet the minimum standards specified below.

The post-construction controls outlined below are intended to manage water quality by reducing pollutants carried in the first flush of stormwater runoff.

The design considerations for treating a water quality volume for common post-construction controls are as follows:

Control	Water Quality Design Consideration
Wet Detention Ponds	Water Quality Volume (V_{wq}) **= 1800 ft^3 per impervious acre draining to the pond.** The drawdown time for the V_{wq} should be a minimum of 12 hours.
Dry Detention Ponds (w/Extended Detention)	Extended Detention / Water Quality Volume (V_{wqed}) = **1800 ft^3 per impervious acre draining to pond**. The drawdown time for the V_{wqed} should be a minimum of 24 hours and not more than 72 hours.
Infiltration	Water Quality Volume (V_{wq}) = 0.5 inches from impervious area. The volume captured in rain gardens, or passed through bio filters with under drains, would be grouped with infiltration for water quality treatment.
Flow-Through Treatment Devices	Size devices to treat the first 0.5 inches of runoff from impervious area.
Redevelopment / Retrofit	Incorporate water quality criteria by reducing impervious surface area and implementing controls to treat the first 0.5 inches of runoff from impervious areas.

The water quality criteria apply to on-site or regional systems for post-construction stormwater management. The water quality considerations do not replace or substitute for water quantity or floodplain management requirements for development. The water quality features may be incorporated into the design of structures for flow control or water quality control may be achieved with separate features. Flow-through treatment devices

such as “Defenders™” shall provide a minimum of 80 percent removal of sediment with a particle size distribution equivalent to the standard OK-110 at a feed concentration of 300 mg/L. The treatment device design shall include a bypass for storm flows above the ½” rain event from the impervious area being served.

If it is impractical to meet the water quality criteria, alternative practices may be used (e.g., grassed swales, smaller ponds, or grit chambers). If a combination of practices is used, the water quality volume is accounted for on a percentage basis. Low impact development and/or green infrastructure practices may be used as an alternative to post-construction controls.

The selection and design of post-construction controls must consider clogging or obstructions, freeze-thaw cycles, effects on slope stability and groundwater, and the ability to effectively maintain the control. Design post-construction controls for ease of inspection and maintenance access (e.g., a stabilized access that allows equipment to enter a pond).

Recommended resources for planning and designing controls for urban stormwater runoff are found in the “North Dakota Stormwater Criteria Manual”: https://www.dot.nd.gov/manuals/design/designmanual/designmanual.htm

The property owner is responsible for operating and maintaining the water quality device in accordance with the manufacturer’s recommendations. The property owner shall maintain records of maintenance of the water quality device and shall prepare an annual inspection report. These records are to be maintained with the property owner and shall be made available to the City upon request.

APPENDIX F

STORMWATER DETENTION, RETENTION, AND DISCHARGE POND DESIGN

The following information shall apply to Standard Regional Pond Design.

Design Requirements

Pond design shall be in conformance with the current NDPDES permit.

Minimum pond design shall be for a 100-year storm event based upon the most recent NOAA Atlas 14 Point Precipitation Frequency Estimates data, and shall include one (1) foot freeboard. All design modeling shall be done using HydroCAD or equal commercially available modeling software that produces similar model reporting as HydroCAD. The designer shall provide to the City a drainage report signed by a ND Professional Engineer and shall provide an electronic copy of the complete design drainage model.

Drainage and pond modeling shall include 2-, 10-, and 100-year, 24-hour rainfall events as part of the analysis.

The pond design shall include a control outlet structure with emergency overflow design. The overflow structure shall include provisions to prevent overflows from affecting adjoining properties. The outflow and overflow structure shall be designed to prevent plugging, be easily accessible to maintenance personnel, and shall require minimal maintenance. Maximum outflow to a City storm sewer shall be as defined in **Appendices C and D**. The release rate may be less depending on measures needed to meet water quality standards as defined in **Appendix E**. However, the minimum outlet orifice size shall be 4 inches and shall have a screen ahead of the orifice to prevent plugging.

The pond drawdown time criteria is outlined in **Appendix E**.

Geometry

Pond design shall include 15 feet minimum of level ground from the top of back slope of the pond to the property line.

Dry Pond:

1. Slopes shall be 5:1 or flatter up to 15 foot of vertical depth, 6:1 or flatter if 15 foot of vertical depth or greater.

2. 1.5% grade in pond bottom to low flow channel and 0.4% grade from pond inlet to pond outlet with channel liner and 1% grade from pond inlet to pond outlet without channel liner.

3. Dry ponds do not require a safety bench and slope protection armoring if less than or equal to 10 feet deep. Dry ponds do require a safety bench and slope protection armoring if greater than 10 feet deep.

4. Dry ponds require a sloped pond bottom and an underdrain system sufficient to maintain a “dry” state.

Wet Pond:

1. Slopes shall be 6:1 or flatter up to 15 feet of depth. If the designer wishes the pond to be deeper than 15 feet, a geotechnical evaluation of the pond slope stability is required. If the pond backs up to residential homes or legal drains, a geotechnical evaluation of the pond slope stability is also required. The pond shall be designed with safety features such as edge plantings to deter entrance to ponds and a safety ledge or bench at pond perimeter one to two feet below normal water level and extend out 10 feet before continuing on slope.

2. Slope protection shall be installed to one foot below safety bench, or one foot above and one foot below normal water level, whichever is greater. The slope protection shall be riprap or turf reinforcement with seeding.

3. The remainder of exposed slopes shall be turf reinforced and seeded. Rip rap shall meet City of Fargo and NDDOT standards.

All pond aesthetic features such as shape, side slopes, and vegetation that are proposed shall be identified on the plans and match the land area requirements identified in the Zoning Ordinance and project development master plan.

City Ownership of Ponds

The City may take ownership of a stormwater pond that is designed according to the following criteria:

1. To qualify as a regional pond for purposes of City ownership and maintenance, the minimum pond size for a **dry pond shall be 7.5 acre-feet** with a minimum bottom width of 100 feet. The minimum pond size for a **wet pond shall be 15 acre-feet** with an average bottom width of 100 feet. However, the City will review on a case-by-case basis whether a pond qualifies as a regional pond for purposes of City maintenance if its size is smaller than the minimum size identified.

2. A City-owned regional pond should have sufficient right-of-way access for routine and special maintenance as determined by the City Engineer.

3. For ponds to be accepted by the City for maintenance and operation as a regional pond, the features in general shall not result in unusual and/or costly future operation and maintenance, as determined by the City Engineer. Bridges and box culverts, if required, shall meet the design criteria of the regulating authority and shall meet State and Federal safety standards.

4. No fountains or bubblers shall be allowed within City-owned regional wet ponds.

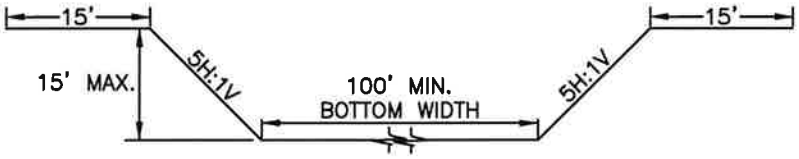
Alternative Design

Ditches, swales, and channels may be designed for a variety of capacities depending on the protection required. When ditches serve as a primary surface water collector in the upper part of a drainage basin, they shall be designed per NDCC 89-14-01 except that as a minimum, shall convey the 10-year storm event without ponding in the roadway or adjacent private property. The City Engineer will ultimately decide if ditches, swales, or channels are allowed in lieu of conventional underground piping.

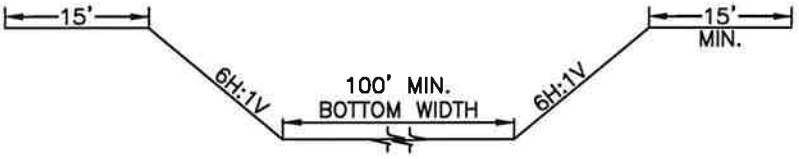
The City of Fargo Stormwater Service Charge policy identifies credits that may be achieved through building of detention or retention ponds larger than required as determined by this policy. Developers and designers are encouraged to familiarize themselves with the current Stormwater “Determination and Review Policy” for stormwater fees.

NOTES:

- 15' MAX. VERTICAL DEPTH
- MIN. POND SIZE = 7.5 ACRE/FEET
- MIN. 100' BOTTOM WIDTH
- MIN. 1' FREE BOARD FOR 100 YEAR EVENT
- NO BENCH REQUIRED



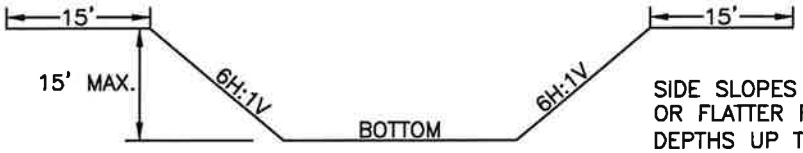
DRY POND
(15' MAX. VERTICAL DEPTH)



DRY POND
(GREATER THAN 15' VERTICAL DEPTH)

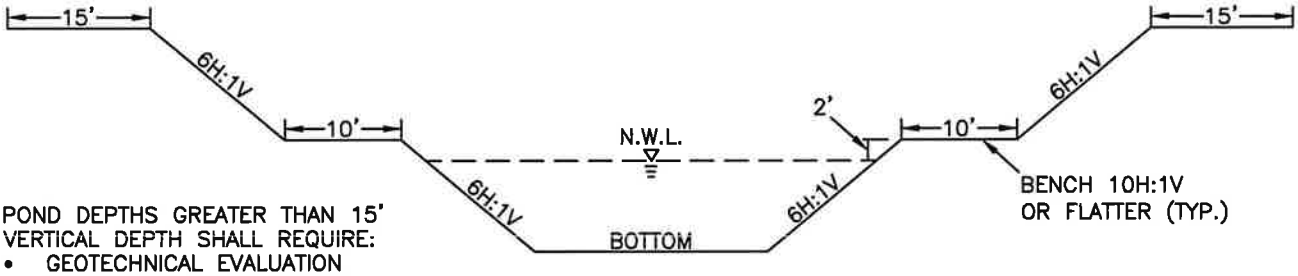
NOTE:
SIDE SLOPES DISPLAYED WITH 5X VERTICAL EXAGGERATION

THE CITY OF Fargo FAR MORE ENGINEERING DEPARTMENT	ORIGINAL: 2019	
	TYPICAL DRY STORM WATER POND DETAIL	
	APPROVED:	DATE:



SIDE SLOPES SHALL BE 6H:1V OR FLATTER FOR POND DEPTHS UP TO 15' VERTICAL

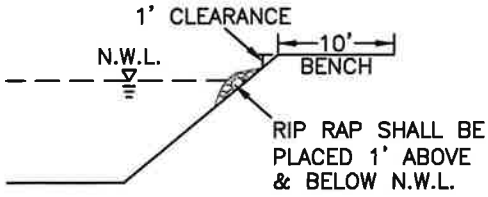
WET POND
(15' MAX. VERTICAL DEPTH)



POND DEPTHS GREATER THAN 15' VERTICAL DEPTH SHALL REQUIRE:
- GEOTECHNICAL EVALUATION
- SLOPE REINFORCEMENT

BENCH 10H:1V OR FLATTER (TYP.)

WET POND
(GREATER THAN 15' VERTICAL DEPTH)



TYPICAL RIP RAP PLACEMENT

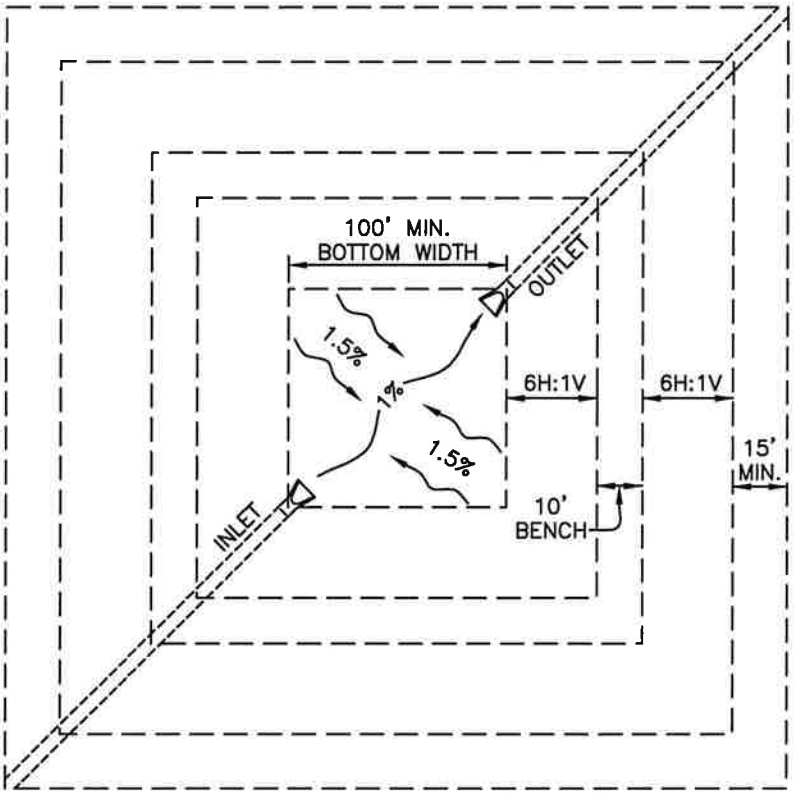
NOTE:
SIDE SLOPES DISPLAYED WITH 5X VERTICAL EXAGGERATION

THE CITY OF Fargo FAR MORE
ENGINEERING DEPARTMENT

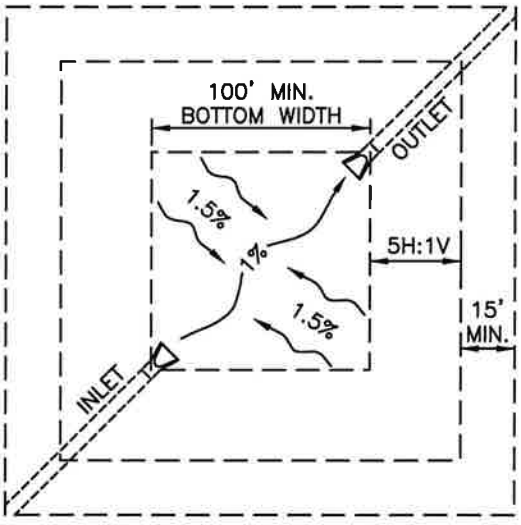
ORIGINAL: 2019

TYPICAL WET STORM WATER POND DETAILS

APPROVED: | DATE:



POND BOTTOM PLAN VIEW
(GREATER THAN 15' VERTICAL DEPTH)



POND BOTTOM PLAN VIEW
(15' MAX. VERTICAL DEPTH)

THE CITY OF Fargo FAR MORE
ENGINEERING DEPARTMENT

ORIGINAL: 2019

TYPICAL POND BOTTOM DETAIL

APPROVED: | DATE:

APPENDIX G

DESIGN REQUIREMENTS WITHIN SPECIAL ZONES

Southwest Metro Stormwater Design Parameters and Pond Coverage

The following information shall apply to the coverage area for the new Southwest Metro Stormwater Pond. Properties that develop in the area shown will have regional stormwater detention and stormwater quality coverage managed by the City of Fargo. Maps of the drainage boundaries and conceptual design are found in this Appendix.

Fargo has moved forward since 2021 to construct the Lift Station and the first phase of the Southwest Metro Stormwater Pond. Drainage ditches and storm sewer piping within public rights-of-way and easements are being installed as properties and streets develop. Interim measures may be necessary to be constructed while the larger system is being fully designed and developed, due to a proposed improvement parcel's location and distance from currently completed conveyance system components. This stormwater master planning will allow properties within the area outlined to build without meeting discharge and water quality requirements outlined in this Design Policy.

However, developing properties will need to be aware that the City of Fargo designs their street storm sewers for a 2-year rainfall event on local streets and 5-year rainfall event on arterial streets, and developing properties shall design their sites to account for the limited street conveyance of stormwater if not directly discharging to the conveyance ditch system or the pond.

Downtown Mixed Use Zoning (DMU) Requirements for Stormwater

A modification to the stormwater retention policy for the existing areas classified as within the Downtown Mixed Use zoning district as of July 27, 2015 is as follows: Any development on a parcel one acre in size or larger within the DMU shall be allowed a maximum stormwater runoff rate that is not greater than the existing condition's runoff rate from the parcel for the 2-, 10- & 100-year, 24-hour synthetic rainfall events. No stormwater retention will be required on the parcel unless necessary to maintain the runoff rate below the existing (pre-development) runoff rate. Lots under one acre are exempt from the retention requirements.

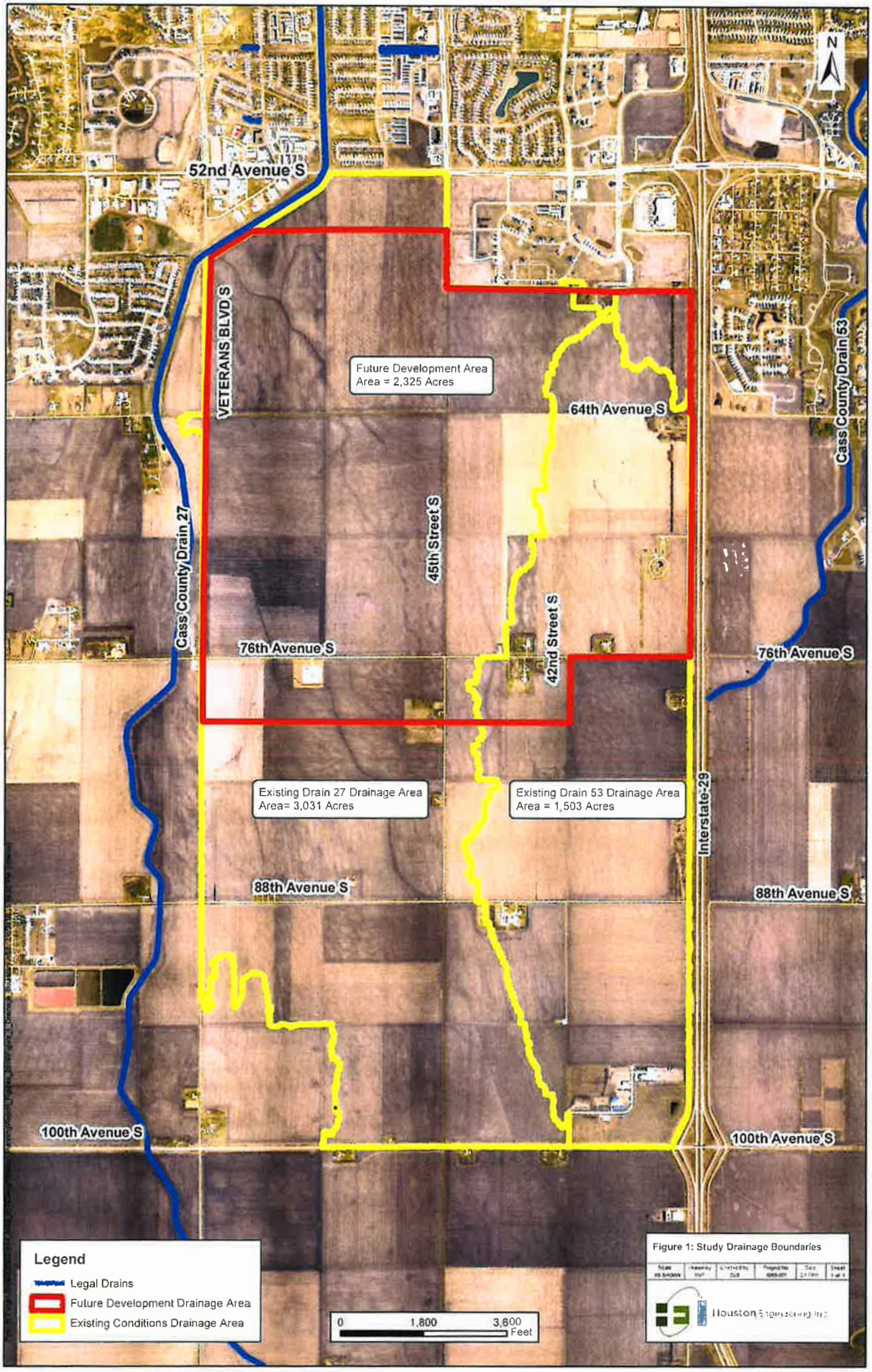
This modified policy does not affect the North Dakota Department of Environmental Quality's water quality requirements. Development of all parcels within the DMU are still required to follow, as applicable, the water quality requirements set by the DEQ.

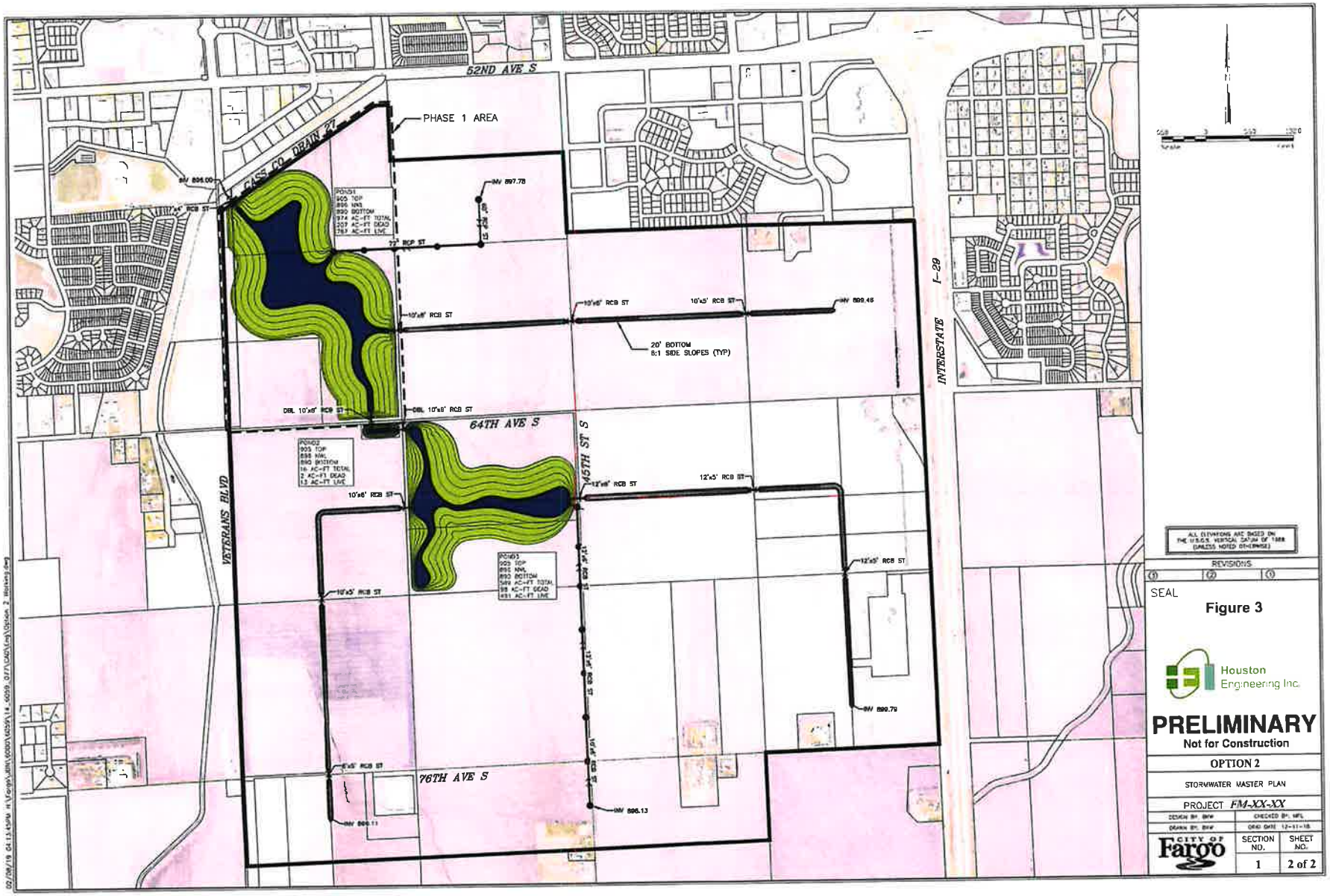
For parcels completing a zoning change to DMU after the effective date of July 27, 2015, property improvements shall meet all stormwater detention and water quality standards per the policy.

New Developments with Regional Detention and Special Release Rates

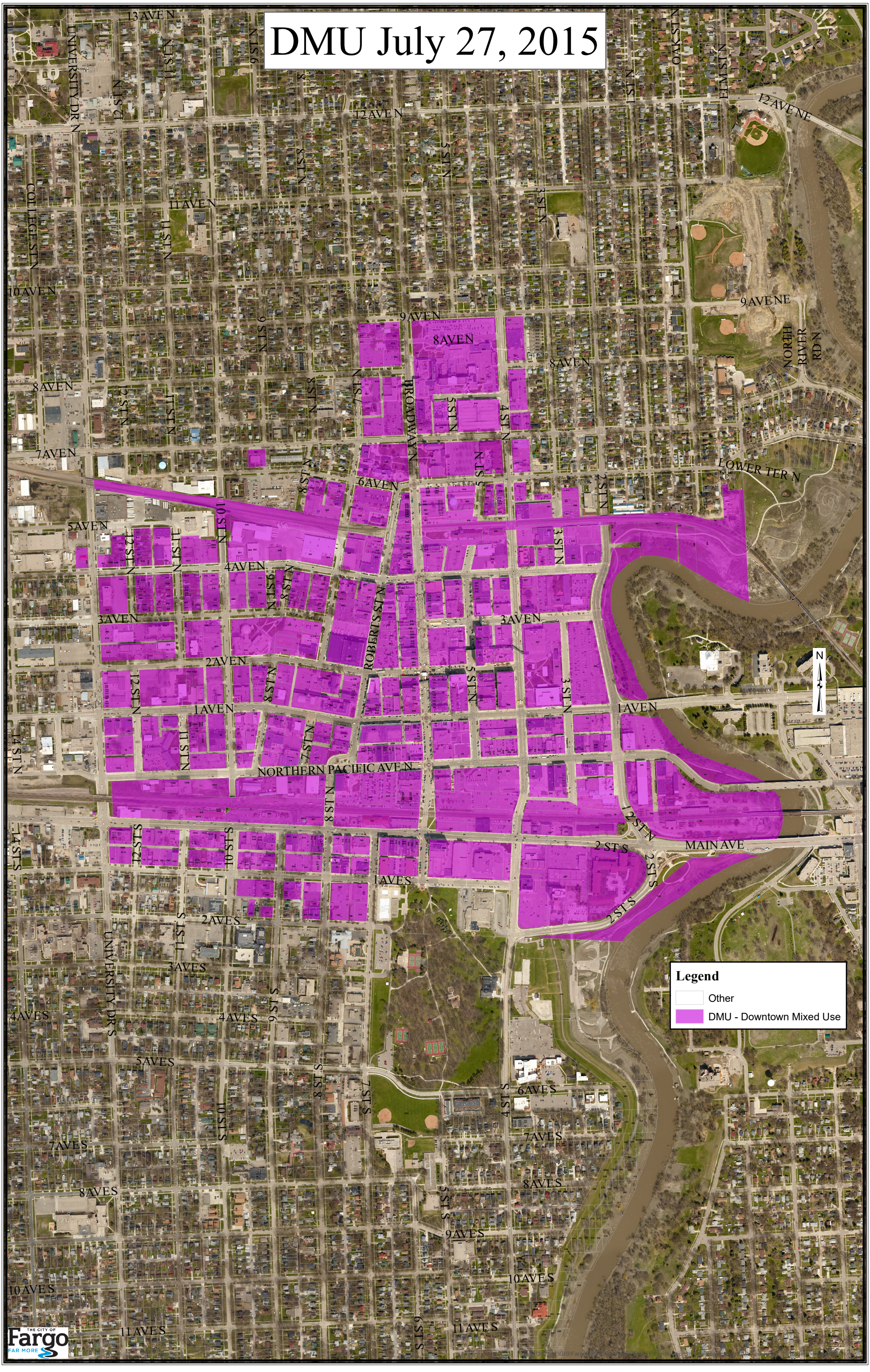
This section applies to new developments with Site Amenities Plans or Developer's Agreements that provide for regional detention, water quality, and design release rates that differ from the normal requirements covered in this design policy.

The most recent and complete record of these special design areas is available on the City of Fargo public GIS site. The GIS layer to be displayed is "StormPolicyDesignDeviations" with the modified design requirements notated within the differentiated areas.


N
52nd Avenue S
VETERANS BLVD S
Future Development Area
Area = 2,325 Acres
64th Avenue S
Cass County Drain 53
Cass County Drain 27
45th Street S
42nd Street S
76th Avenue S
76th Avenue S
Existing Drain 27 Drainage Area
Area= 3,031 Acres
Existing Drain 53 Drainage Area
Area = 1,503 Acres
Interstate-29
88th Avenue S
88th Avenue S
100th Avenue S
100th Avenue S
Legend
Legal Drains
Future Development Drainage Area
Existing Conditions Drainage Area
0
1,800
3,600
Feet
Figure 1: Study Drainage Boundaries
Houston Engineering Inc.


52ND AVE S
PHASE 1 AREA
CASS CO DRAIN 27
INV 895.00
INV 897.78
POND1
905 TOP
895 NWL
890 BOTTOM
374 AC-FT TOTAL
207 AC-FT DEAD
167 AC-FT LIVE
72" RCP ST
INTERSTATE
I-29
10'x8' RCB ST
10'x5' RCB ST
INV 899.46
20' BOTTOM
8:1 SIDE SLOPES (TYP)
DBL 10'x8' RCB ST
64TH AVE S
POND2
905 TOP
895 NWL
890 BOTTOM
16 AC-FT TOTAL
2 AC-FT DEAD
13 AC-FT LIVE
VETERANS BLVD
45TH ST S
12'x8' RCB ST
12'x5' RCB ST
POND3
905 TOP
895 NWL
890 BOTTOM
599 AC-FT TOTAL
98 AC-FT DEAD
491 AC-FT LIVE
INV 899.79
76TH AVE S
INV 896.13
ALL ELEVATIONS ARE BASED ON THE U.S.G.S. VERTICAL DATUM OF 1988 (UNLESS NOTED OTHERWISE)
REVISIONS
SEAL
Figure 3
Houston Engineering Inc.
PRELIMINARY
Not for Construction
OPTION 2
STORMWATER MASTER PLAN
PROJECT FM-XX-XX
CITY OF Fargo
SECTION NO. 1
SHEET NO. 2 of 2

DMU July 27, 2015



Control	Water Quality Design Consideration
Wet Detention Ponds	Water Quality Volume (Vwq) = 1800 cu-ft per impervious acre draining to the pond. The drawdown time for the Vwq should be a minimum of 12 hours.
Dry Detention Ponds (w/Extended Detention)	Extended Detention / Water Quality Volume (Vwqed) = 1800 cu-ft per impervious acre draining to pond. The drawdown time for the Vwqed should be a minimum of 24 hours and not more than 72 hours.
Infiltration	Water Quality Volume (Vwq) = 0.5 inches from impervious area. The volume captured in rain gardens, or passed through biofilters with under drains, would be grouped with infiltration for water quality treatment.
Flow-Through Treatment Devices	Size devices to treat the first 0.5 inches of runoff from impervious area.
Redevelopment / Retrofit	Incorporate water quality criteria by reducing impervious surface area and implementing controls to treat the first 0.5 inches of runoff from impervious areas.

MCM 6

Municipal Operations

Public Works Maintenance Operations

All Public stormwater features are inspected on a rotational basis annually for function, maintenance or repair by the public works/engineering departments. Those inspections resulting in major repair are forwarded to the engineering department for evaluation. Ponds and basins are inspected during maintenance activities, lined channels are cleaned and inspected annually, outfalls (and lift stations) are inspected both fall and spring.

Drain Cleaning

This department also conducts a street sweeping program on a continuous basis during non-winter months. Salt storage/fueling operations are covered and not exposed to precipitation. Salt application management continues to use technology to minimize usage. See specific MS4 requirement comments below.

Training

Stormwater training is provided to appropriate city departments and their staff on a rotating basis. SSU curriculum compliments existing department training with a stormwater validation. Most departments have their own unique training for tasks on discipline specific topics that become uniformed operational standards. Recognize, respond and report are common themes in municipal operations. Remarkably, much of their "operational" training is stormwater connected. Some examples of the "common interface" are highlighted below along with SSU educational programming for the significant operational areas of the city.

Conveying the notion "include sound stormwater practice" into
Our everyday operations is beneficial to us all.

Operations, lDDE Training and Awareness

The storm water "illicit discharge" is not a new concept to operations. Maintenance operations has traditionally focused on prevention and response to incidents that detract from facility design or function standards. Below are examples of operational scenarios that are also storm water Best Management Practice (BMP):

- If a vehicle crashed into a drainage ditch, staff discovers it, communicates the incident to a supervisor and it gets removed (under an operational directive). Cleanup is a typical duty of operations, but it is also part of the stormwater concept of IDDE. Emphasizing the need to reduce the discharge of fluids and other contaminants from such situations personifies the stormwater educational goal.
- Non-conforming sewer connections, discharges, etc., discovery, awareness, and remediation is a routine operational task. Stormwater training merely serves as a reminder to continue good operational drill because it doubles as good stormwater practice.
- Material spills training in a department's safety protocol also has a direct correlation to stormwater. Protect the employee, pairs as a stormwater BMP by the training emphasis to follow manufacturer's instructions on the use of maintenance chemicals (mixing and application).

Mowing Operations

The SOP requires that grass clippings be discharged back onto turf areas and kept out of streets, gutters, storm drains, and other MS4 conveyance structures. This practice is implemented to minimize organic debris entering the storm sewer system, prevent obstruction of drainage infrastructure, and reduce nutrient transport to receiving waters.

Snow Removal Operations

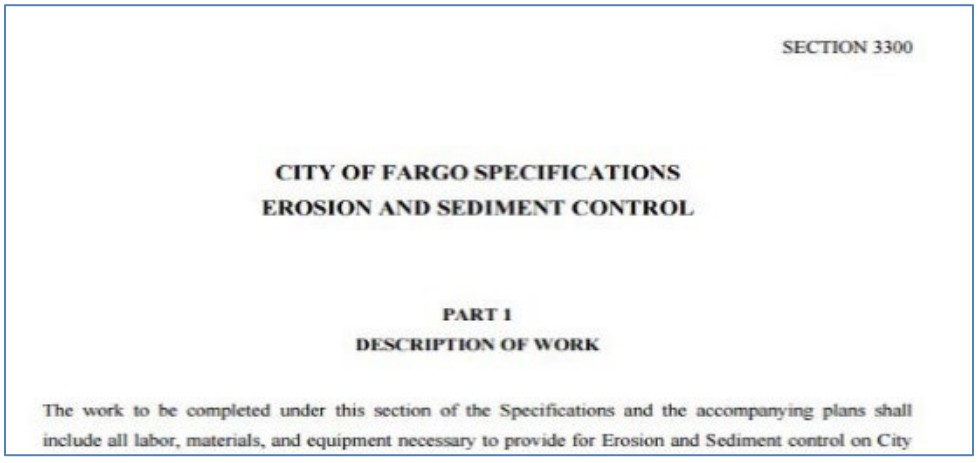
Snow removal occurs on a 24/7 basis following prescribed procedures and routes. Snow is hauled to an approved dump site citywide (Mapped). These snow dump sites all have adequate grass buffers that function as BMPs and are inspected twice each season (fall & spring). Department training on the most efficient routes, dumpsite perimeter control and area limits, the stormwater education aspect is also fulfilled.

Snow Dump Inspections 2025

Location	Date	Time	Stormwater Conveyance	Report of Findings (condition of site)	Action to be taken	Additional Comments
12 Ave/55 St N	Spring 2025		City Storm Sewer System	Good	Dry out/clean debris	Limited Snow season
12 Ave/55 St N	10/2/2025	9:46 AM	City Storm Sewer System	Very Good	None	None
6251 36 St S	Spring 2025		City Storm Sewer System	Very Good	dry out clean debris	Site is also stockpiling asphault millings
6251 36 St S	9/29/2025	11:12 AM	City Storm Sewer System	Very Good	None	None
3837 38 St S			City Storm Sewer System			Not Used
3837 38 St S			City Storm Sewer System			Not Used
3 Ave N & 45 St N	4/21/2025	1:45 PM	City Storm Sewer System	Fair	dry out clean debris/Regrade to ensure proper drainage	This site was used to store crushed granite for the summer.
3 Ave N & 45 St N	10/2/2025	9:40 AM	City Storm Sewer System	Good	None	None
5400 63 St S	Spring		County Drain #27	Very Good	None	This site isnt used as often yet. Snow pile is gone.
5400 63 St S	Fall		County Drain #27	Very Good	None	None
4000 36 Ave S	Spring		City Storm sewer system			Not used in 2025
4000 36 Ave S	Fall		City Storm sewer system			Not used in 2025
64 Ave N/45 St N	Spring					Future Use
64 Ave N/45 St N	Fall					Future Use

Land Disturbing Activity

Land disturbing activity abides by Section 3300 of the City of Fargo Standard Specification criteria for stormwater management and erosion control.



SECTION 3300

CITY OF FARGO SPECIFICATIONS
EROSION AND SEDIMENT CONTROL

PART 1
DESCRIPTION OF WORK

The work to be completed under this section of the Specifications and the accompanying plans shall include all labor, materials, and equipment necessary to provide for Erosion and Sediment control on City

Storm Sewer Conveyance Maintenance Operations

Storm sewer maintenance continues perpetually on a rotational or as required basis. The supervisor schedules inspections and directs maintenance work orders. Public works maintenance platform includes inspection (camera), minor repairs, surface sweeping, pipe jetting, mowing, open channel sediment removal and prescribed lift station O & M work.

Roadway Maintenance Operations

Roadway maintenance activities consist of a sweeping program and minor repairs (mill/seal, mud jacking, pothole, etc.)

Standard Operating Procedures, Guides and Policies (Written)

See written procedure examples for maintenance at the end of this section.

Sweeping Report 2025

Zone	Date	Tons
1	4/16/2025	32
	5/1/2025	37
	6/3/2025	38
	6/17/2025	16
	7/1/2025	15
	7/11/2025	18
	8/1/2025	14
	8/26/2025	7
	10/1/2025	37
	10/14/2025	6
	10/22/2025	7
	10/29/2025	7
	10/31/2025	3
	11/14/2025	5
	Total	**242**

2	4/11/2025	35
	5/6/2025	8
	5/23/2025	22
	6/11/2025	6
	6/26/2025	15
	7/10/2025	11
	7/29/2025	5
	8/22/2025	9
	10/3/2025	20
	10/9/2025	6
	10/17/2025	4
	10/24/2025	4
	10/31/2025	4
	11/10/2025	6
	11/20/2025	8
	Total	**163**

3	4/10/2025	38
	5/6/2025	12
	5/22/2025	15
	6/10/2025	15
	6/24/2025	18
	7/10/2025	6
	7/28/2025	5
	8/20/2025	9
	9/30/2025	16
	10/9/2025	12
	10/16/2025	5
	10/23/2025	3
	10/30/2025	3
	11/18/2025	4
	Total	**160**

4	3/13/2025	44
	4/15/2025	5
	4/30/2025	4
	5/30/2025	5
	6/12/2025	3
	6/27/2025	2
	7/16/2025	2
	8/5/2025	1
	9/5/2025	2
	9/19/2025	1
	10/8/2025	2
	10/22/2025	2
	10/31/2025	2
	11/14/2025	1
	11/19/2025	4
	Total	**80**

5	4/10/2025	15
	4/30/2025	22
	6/4/2025	12
	6/26/2025	10
	7/22/2025	22
	8/19/2025	12
	9/25/2025	15
	10/8/2025	9
	10/16/2025	10
	10/22/2025	2
	11/14/2025	1
	Total	**130**

6	3/26/2025	70
	4/23/2025	43
	6/25/2025	56
	7/16/2025	47
	8/8/2025	48
	10/7/2025	34
	Total	**298**

7	3/19/2025	114
	4/17/2025	48
	5/8/2025	20
	6/5/2025	26
	7/1/2025	27
	7/25/2025	10
	8/15/2025	5
	9/24/2025	13
	10/15/2025	15
	Total	**278**

8	3/28/2028	88
	4/23/2024	20
	5/19/2025	31
	6/5/2025	18
	6/17/2025	7
	7/11/2025	6
	7/23/2025	14
	8/26/2025	8
	9/19/2025	16
	10/2/2025	15
	10/14/2025	6
	10/21/2025	4
	10/28/2025	4
	11/4/2025	8
	11/14/2025	10
	Total	**255**

9	4/9/2025	18
	4/25/2025	23
	5/22/2025	22
	6/12/2025	8
	6/20/2025	13
	7/11/2025	11
	8/5/2025	5
	8/29/2025	9
	9/23/2025	13
	10/6/2025	14
	10/16/2025	5
	10/23/2025	5
	10/30/2025	7
	11/4/2025	8
	11/14/2025	15
	Total	**175**

10	3/28/2025	10
	4/25/2025	9
	5/22/2025	35
	6/5/2025	3
	6/17/2025	8
	7/11/2025	9
	7/24/2025	11
	8/28/2025	8
	9/19/2025	5
	10/3/2025	10
	10/14/2025	2
	10/22/2025	4
	10/29/2025	2
	11/4/2025	2
	11/13/2025	3
	Total	**121**

11	4/21/2025	69
	5/1/2025	28
	6/3/2025	18
	6/16/2025	15
	7/21/2025	25
	8/6/2025	16
	9/18/2025	6
	11/20/2025	2
	Total	**179**

12	4/22/2025	72
	5/1/2025	18
	6/4/2025	21
	7/18/2025	15
	8/15/2025	18
	9/18/2025	12
	11/21/2025	3
	Total	**159**

13	4/10/2025	51
	4/25/2025	5
	5/23/2025	10
	6/10/2025	8
	6/20/2025	3
	7/15/2025	19
	8/5/2025	5
	9/4/2025	12
	9/25/2025	5
	10/8/2025	10
	10/17/2025	1
	10/27/2025	3
	10/31/2025	7
	11/5/2025	3
	11/17/2025	1
	Total	**143**

14	4/9/2025	6
	4/25/2025	5
	5/23/2025	12
	6/10/2025	11
	6/20/2025	5
	7/11/2025	5
	8/5/2025	3
	9/3/2025	4
	9/23/2025	6
	10/9/2025	6
	10/16/2025	2
	10/24/2025	2
	10/30/2025	2
	11/17/2025	1
	Total	**70**

Zone	Date	Tons
15	4/11/2025	34
	4/25/2025	5
	5/27/2025	16
	6/11/2025	12
	6/23/2025	17
	7/15/2025	12
	8/5/2025	7
	9/9/2025	10
	9/29/2025	18
	10/9/2025	5
	10/20/2025	4
	10/27/2025	2
	10/31/2025	3
	11/6/2025	4
	11/17/2025	2
	Total	**151**

16	4/8/2025	33
	4/25/2025	10
	5/29/2025	9
	6/17/2025	5
	7/16/2025	9
	8/12/2025	6
	9/10/2025	17
	9/29/2025	6
	10/9/2025	2
	10/20/2025	2
	11/18/2025	2
	Total	**101**

17	4/15/2025	69
	4/30/2025	19
	6/2/2025	5
	6/13/2025	8
	7/17/2025	21
	8/13/2025	14
	9/16/2025	14
	10/10/2025	15
	11/20/2025	3
	Total	**168**

1P	3/11/2025	49
	3/20/2025	99
	3/28/2025	15
	4/22/2025	4
	5/13/2025	3
	7/2/2025	5
	7/11/2025	3
	8/1/2025	2
	9/5/2025	5
	10/13/2025	2
	11/24/2025	22
	Total	**209**

2P	3/14/2025	35
	3/27/2025	29
	5/19/2025	5
	7/8/2025	4
	Total	**73**

3P	3/17/2025	30
	3/28/2025	39
	5/19/2025	4
	7/9/2025	2
	Total	**75**

Final Total 3228

DRAIN CLEANING 2025

Drain Location	Date Cleaned	#of Loads	Total Weight in Ton's	WO#
Drain #10	7/29/2025-8/13/2025	7	55	53536
Drain #3	8/1/2025-8/12/2025	14	123	53428
Drain #40	8/11/2025-8/20/2025	10	108	53625
Osgood	8/28/2025	1	8	53647
Amber Valley PKWY & 51st St S.	8/22/2025	1	7	53622
Amber Valley PKWY & 55th St S.	8/27/2025	1	8	53621
41st St & 30th Ave S. (SW & NE)	7/23/2025	1	3	53624
23rd Ave & 26th St S.	8/22/2025	1	4	53429
North Oaks	7/31/2025	1	1.5	53332
Drain #27 (Ulteig ENG.)	8/25/2025	5	25	53646
34th St North OF 7th Ave N.	7/24/2025	1	1	53342
Action 7th Ave & 36th St N.	7/24/2025	1	1	53196
Pepsi Drain	7/23/2025	1	3	53216
48th St & 15th Ave S. (Scheel's)	7/23/2025	1	3	53330
Aggregate Dr.	7/23/2025	1	1	53201
Big Top Bingo Pond	8/22/2025	1	3	53200
Luther Ford Holding Pond	8/21/2025	1	5	53430
4495 53rd St S. West Side	8/28/2025	1	2	53623
Drain #40 (Fisheye)	8/27/2025	4	34	53355
25th St S. 6700 BLK (East Side Davies)	8/28/2025	1	3	53431
Roers Holding Pond	7/28/2025	1	1	53328
Oxbow Drain	8/25/2025	4	23	54678
	TOTAL	**49**	**422.5**	

small bucket

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identity: Salt Brine with AMP®
Chemical Name: Sodium chloride solution plus proprietary salt brine enhancer.

Recommended use of the chemical and restrictions on use: Road anti-icing and de-icing**.**

Manufacturer: EnviroTech Services, Inc.
910 54th Avenue Suite 230
Greeley, CO 80634
Telephone: (970) 346-3900

Emergency Phone: **CHEMTREC: (800) 424-9300**
SDS Date of Preparation: 7/18/2017

2. HAZARDS IDENTIFICATION

GHS Classification:

Physical	Health	Environment
Not Hazardous	Not Hazardous	Not Hazardous

GHS Label Elements:
None Required

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Amount
AMP® Proprietary Enhancer	Proprietary	5 - 25%
Sodium Chloride	7791-18-6	15-22%
Magnesium Chloride	7786-30-3	0.5-3.25%
Calcium Chloride	10043-52-4	0.4-2%
Water	7732-18-5	Balance

The exact concentration of is customer dependent.
The exact concentration of the AMP Enhancer is being withheld as a trade secret.

4. FIRST AID MEASURES

Eye: Flush victim's eyes with water while holding the eyelids apart. Get medical attention if irritation occurs and persists.
Skin: Wash skin thoroughly with soap and water. Get medical attention if irritation develops. Remove and launder clothing before reuse.
Ingestion: Do not induce vomiting unless directed to do so by a medical professional. Rinse mouth with water and give one glass of water to drink. Do not give liquids to an unconscious person. Get medical attention if symptoms develop.
Inhalation: If symptoms occur, remove victim to fresh air. If breathing is difficult or irritation persists, get medical attention.
Most important Symptoms: May cause slight eye irritation. Dust may cause slight respiratory tract irritation.
Indication of immediate medical attention/special treatment: Immediate medical attention is not required.

5. FIRE FIGHTING MEASURES

Suitable (and Unsuitable) Extinguishing Media: Use media appropriate for surrounding fire. Cool fire exposed containers and structures with water.
Specific hazards arising from the chemical: Thermal decomposition may yield chloride gas, oxides of carbon and sodium, and other harmful or irritating chemicals.
Special Protective Equipment and Precautions for Fire-Fighting Instructions: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Aqueous solutions may cause surfaces to be extremely slippery and cause a slip hazard.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures: Wear appropriate protective clothing as described in Section 8. Wash thoroughly after handling.

Methods and Materials for Containment and Cleaning Up: Sweep up material and collect in a suitable container for disposal. Flush spill area with water. Report releases as required by local, state, and federal authorities.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with the eyes, skin, and clothing. Avoid breathing dusts. Wear protective clothing and equipment as described in Section 8. Wash thoroughly with soap and water after handling. Keep containers closed when not in use.

Conditions for Safe Storage, Including Any Incompatibilities: Store in a cool, dry, well-ventilated area away from incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

AMP	None Established
Sodium Chloride	None Established

Engineering Controls: Use with adequate general ventilation to minimize exposures.
Respiratory Protection: In operations where exposure levels are excessive, a NIOSH approved respirator with dust cartridges or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.
Skin Protection: Wear impervious gloves such as rubber or neoprene if needed to avoid prolonged skin contact.
Eye Protection: Safety glasses recommended.
Other: Long-sleeved clothing and long pants recommended to avoid prolonged skin contact. Suitable washing facilities should be available in the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance And Odor: Clear, colorless liquid. No odor.

Physical State: Liquid	**Specific Gravity:** 1.15-1.25
Vapor Density: Not determined	**Initial Boiling Point/Range:** Not established
Solubility In Water: >90% at 20°C	**Vapor Pressure:** Not determined
Relative Density: Not determined	**Evaporation Rate:** Not determined
Melting/Freezing Point: Not determined	**pH:** 6-9
VOC Content: Not determined	**Octanol/Water Coefficient:** Not determined
Solubility (other): Not determined	**Decomposition Temperature:** Not determined
Viscosity: <100cP at 20°C	**Flammability (solid, gas):** Not flammable
Flashpoint: Not applicable	**Autoignition Temperature:** Not determined
Flammable Limits: LEL: Not determined	**UEL:** Not determined

10. STABILITY AND REACTIVITY

Reactivity: Not normally reactive.
Chemical Stability: Stable under normal storage and handling conditions.
Possibility of Hazardous Reactions: None known.
Conditions to Avoid: None known.
Incompatible Materials: Strong oxidizing agents, concentrated acids, and some metals.
Hazardous Decomposition Products: When heated to decomposition emits carbon and sodium oxides, hydrogen chloride, halogenated compounds, and chlorine gas.

11. TOXICOLOGICAL INFORMATION

HEALTH HAZARDS:
Ingestion: Ingestion may cause slight irritation.
Inhalation: Inhalation may cause slight irritation of the nose, throat, and upper respiratory tract.
Eye: May cause slight irritation.
Skin: May cause slight irritation on prolonged or repeated contact.
Sensitization: This material is not known to cause sensitization.
Chronic: None known.
Carcinogenicity: None of the components is listed as a carcinogen or suspected carcinogen by IARC, NTP, or OSHA.
Germ Cell Mutagenicity: None currently known.
Reproductive Toxicity: None currently known.

Numerical Measures of Toxicity:
No toxicity data available

12. ECOLOGICAL INFORMATION

Ecotoxicity: Product: Fathead minnow NOEC: 3.00 g/L; Ceriodaphnia dubia NOEC: 3.00 g/L; Selanastrum growth NOEC: 0.03 g/L
Persistence and Degradability: Biodegradation is not applicable to inorganic substances.
Bioaccumulative Potential: No data available
Mobility in Soil: No data available
Other Adverse Effects: None known

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state, and federal environmental regulations.

14. TRANSPORT INFORMATION

DOT Hazardous Materials Description:
Proper Shipping Name: Not regulated
UN Number: None
Hazard Class/Packing Group: None
Labels Required: None

15. REGULATORY INFORMATION

CERCLA: This product is not subject to CERCLA release reporting. Many states have more stringent release reporting requirements. Report spills required under federal, state, and local regulations.

SARA Hazard Category (311/312): Refer to Section 2 for OSHA Hazard Classification.

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements under SARA Title III, Section 313 (40 CFR 372): None

EPA TSCA Inventory: All of the ingredients in this product are listed on the EPA TSCA Inventory.

CANADA:
This product has been classified under the CPR and this SDS discloses information elements required by the CPR.
Canadian CEPA: All the components of this product are listed on the Canadian DSL.
Canadian WHMIS Classification: Not classified as dangerous.

16. OTHER INFORMATION

NFPA Rating:	Health = 0	Flammability = 0	Instability = 0
HMIS Rating:	Health = 1	Flammability = 0	Physical Hazard = 0

SDS Revision History:
5/15/2014: New SDS
4/23/2015: Reviewed, no changes needed
4/12/2016: Reviewed, no changes needed
7/18/2017: Reviewed, added Ecotoxicity information

Disclaimer: *This Safety Data Sheet (SDS) is provided in response to customer requests to address the safe handling of the product. All statements, technical information and recommendations contained herein are the best of our knowledge, reliable and accurate. This SDS is not intended to make any representation as to how the product will perform when used for its intended purpose by a user. In that regards the product is sold "AS IS" and nothing in this SDS should be deemed to be a representation or warranty of any injury, loss, or damage, of any kind or nature, which are sustained by or arise from the use of the product. Nothing in this SDS is intended to be a representation or warranty by the manufacturer of the accuracy, safety, or usefulness for any purpose of any technical information, materials, techniques, or practices.*

The information contained in this Safety Data Sheet is, to the best of our knowledge, accurate and reliable. This information should be provided to all individuals handling this product. Federal, state, and local regulations should be followed when handling this product.

Mowing Maintenance

Receive work order assignment from supervisor.

Organize performance / safety equipment, load maintenance materials and deploy.

Direct clipping discharges back onto lawn and away from storm water conveyances.

Follow manufacturer's instructions for all chemical use.

Record any required end of task reports.

Procedure date _____

Supervisor _____

Storm Water Pollutants

As defined by City of Fargo Code of Ordinances Chapter 37-0102.33 (Stormwater Ordinance)

Group	Examples
Dumping (A)	• Debris • Grass Clippings • Vegetative Materials • Rocks • Earth Fill • Concrete Chunks • Metal • Tree Branches • Other Construction Materials
Disposal/Misuse (C)	<u>Chemicals:</u> <u>Petroleum Based Products:</u> • Fertilizers • Herbicides • Gasoline/Fuels • Oil • Pesticides • Solvents • Paints
Sediment (D)	<u>Migration To:</u> • City Streets • Private Properties • Failure to Remove Sediment • Stormwater Conveyance System Tracked by Construction Traffic

Outfall Inspection Procedure

Receive work order assignment from supervisor.

Organize performance/safety equipment and deploy to field.

Perform inspections as directed by the supervisor / Outfall Inspection Form:

- Ensure personal safety
- Complete check-off list and/or comment on irregularities
- Maintain trash rack
- Take a minimum of one digital photo
- Observe up/down stream conditions
- Mark and cordon-off all confirmed or suspect pipe separation locations to a safe level
- Maintain wet well (clean, pump, etc.)
- If Illicit Discharge is observed, follow IDDE Procedure
- Submit completed forms to supervisor
- Maintenance required tracking sheet delivered to engineering for repairs

Trace-back (suspect flow, IDDE, aggregate materials, etc.,) as directed by supervisor

- Isolate location via ascending manhole inspection
- Use direct method (smoke, dye, etc.) to detect origination/source
- Contain, stop discharge and notify owner/occupant to attain conformance
- Obtain/restore compliance

Procedure implementation/revision date _____

Supervisor _____

Park & Course Maintenance

Be aware of and minimize water runoff (discharge) into the storm sewer system. Use Best Management Practices (BMPs) to prevent or minimize the identified pollutants (below) from entering the storm sewer system.

Storm Water Pollutants				
As defined by City of Fargo Code of Ordinances Chapter 37-0102.33 (Storm Water Ordinance)				
Group	Examples			
Dumping	• Debris • Rocks • Metal	• Grass Clippings • Earth Fill • Tree Branches	• Vegetative Materials • Concrete Chunks • Other Construction Materials	
Disposal/Misuse	<u>Chemicals:</u> • Fertilizers • Pesticides	• Herbicides	<u>Petroleum Based Products:</u> • Gasoline/Fuels • Solvents	• Oil • Paints
Sediment	<u>Migration To:</u> • City Streets • Storm Water Conveyance System	• Private Properties	• Failure to Remove Sediment Tracked by Construction Traffic	

Receive work order assignment from supervisor.

<u>Read and follow manufacturer's instructions</u> on mixing and application for all fertilizer, herbicide and pesticide maintenance operations. Discus any concerns with supervisor including post operation cleaning and container disposal.

Organize performance / safety equipment, load maintenance materials and deploy.

Record any required end of task reports.

Procedure date _____

Supervisor _____

Roadway Maintenance Procedure

Receive work order assignment from supervisor.

Organize performance / safety equipment, load maintenance materials and deploy.

Record any required end of task reports.

Procedure date _____

Supervisor _____

Snow Dump Inspections 2025

Location	Date	Time	Stormwater Conveyance	Report of Findings (condition of site)	Action to be taken	Additional Comments
12 Ave/55 St N	Spring 2025		City Storm Sewer System	Good	Dry out/clean debris	Limited Snow season
12 Ave/55 St N	10/2/2025	9:46 AM	City Storm Sewer System	Very Good	None	None
6251 36 St S	Spring 2025		City Storm Sewer System	Very Good	dry out clean debris	Site is also stockpiling asphault millings
6251 36 St S	9/29/2025	11:12 AM	City Storm Sewer System	Very Good	None	None
3837 38 St S			City Storm Sewer System			Not Used
3837 38 St S			City Storm Sewer System			Not Used
3 Ave N & 45 St N	4/21/2025	1:45 PM	City Storm Sewer System	Fair	dry out clean debris/Regrade to ensure proper drainage	This site was used to store crushed granite for the summer.
3 Ave N & 45 St N	10/2/2025	9:40 AM	City Storm Sewer System	Good	None	None
5400 63 St S	Spring		County Drain #27	Very Good	None	This site isnt used as often yet. Snow pile is gone.
5400 63 St S	Fall		County Drain #27	Very Good	None	None
4000 36 Ave S	Spring		City Storm sewer system			Not used in 2025
4000 36 Ave S	Fall		City Storm sewer system			Not used in 2025
64 Ave N/45 St N	Spring					Future Use
64 Ave N/45 St N	Fall					Future Use

FARGO CASS PUBLIC HEALTH - EH SERVICES STATS 2025													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total YTD
Complaints													
Air	0	0	0	0	0	0	0	0	0	0	0	0	0
Animals/Insects	0	0	0	0	0	0	0	0	0	0	0	0	0
Aquatic Facilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Food Complaints	2	0	0	0	0	0	0	1	3	0	0	0	6
Garbage	0	0	0	0	0	0	0	0	0	0	0	0	0
Junk/Debris	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	4	6	14	7	7	2	1	4	3	1	3	0	52
Public/Private Drinking Water	0	0	0	0	2	0	0	0	1	0	0	0	3
Tall Grass/Weeds/Stagnant Water	0	0	0	2	11	259	196	202	57	7	5	0	46
Violations Received	6	6	14	9	125	261	197	207	63			0	904
Complaints Received	6	6	14	9	124	261	197	206	63			0	902
Inspections/Consultations													
Aquatic Facilities Inspections	3	3	11	5	14	23	14	14	16	19	9	16	147
Aquatic Facilities Consultations	9	6		6	7	17	9		3	1		3	102
Aquatic Facilities Re-check Inspections	0	0	0	0	0	0	0	0	0	0	0	0	0
Aquatic Facilities Re-check Consultations	0	0	0	0	0	0	0	0	0	0	0	0	0
Aquatic Facility Testing Inspections	0	0	0	0	0	0	0	0	0	0	0	0	0
Aquatic Facility Testing Consultations	0	1	0	0	0	0	0	0	0	0	0	0	1
Body Art Inspections	4	9	9	1	5	6	17	5	16	5	9	6	145
Body Art Consultations	64	36	2	3	152	15	2	31	19	35	41	55	516
Childcare Inspections	0	0	0	0	0	0	0	0	0	0	0	0	0
Childcare Consultations	0	0	0	0	0	0	0	0	0	0	0	0	0
Food/Bar Inspections	122	133	159	150	114	230	130	192	226	207	127	194	19 4
Food/Bar Consultations	199	13	7	22	30	17	4	60	31	39	65	147	634
Grocery/Meat/Bakeries Inspections	10	14	17	25	11	25	21	12	17	33	15	26	226
Grocery/Meat/Bakeries Consultations	0	0	0	0	0	0	0	0	0	0	0	0	0
Hoarding Inspections	0	0	0	0	0	0	0	0	0	0	0	0	0
Hoarding Consultations	0	0	0	0	0	0	0	0	0	0	0	0	0
Lodging Inspections	3	1		4	9	3	1	2	12		5	27	3
Lodging Consultations	0	2	0	2	0	0	23	4	3		15	5	62
Miscellaneous Inspections	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Consultations	0	0	0	0	0	0	0	0	0	0	0	0	0
Mobile Home Parks Inspections	0	0	0	6	0	0	0	0	0	0	0	0	6
Mobile Home Parks Consultations	0	0	0	0	0	0	0	0	0	0	0	0	0
Nuisance Complaints Inspections	0	2	0	0	0	0	7	0	0	0	11	0	20
Nuisance Complaints Consultations	0	0	0	0	0	0	11	0	0	0	0	0	11
Pet Store Inspections	0	0	1	0	0	0	2	0	3	1	2	6	15
Pet Store Consultations	7	0	0	0	0	0	0	0	0	0	0	0	7
Septic Permits/Evaluations Inspections	2	0	0	6	12	14	12	17	25	41	72	11	212
Septic Permits/Evaluations Consultations	25	0	0	33	57	66	4	41	74	12	155	36	663
Tanning Inspections	0	4	2	0	0		0	0	0	1	0	1	16
Tanning Consultations	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Inspections	144	166	207	197	21	309	204	242	315	315	250	2 7	2 54
Total Consultations	47	1 0	301	345	494	315	241	275	235	335	44	295	3942
Samples Collected													
Air	0	0	0	0	0	0	0	0	0	0	0	0	0

Aquatic Facilities	0	0	0	0	0	0	0	0	0	1	0	0	1
Aquatic Facilities Biological Samples	2	4	6	4	4		2	4	2		7		59
Aquatic Facility Testing	237	233	243	247	222	262	246	246	212	214	23	23	2 3
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0
Soft Serve Testing	0	0	0	0	0	0	0	0	0	0	0	0	0