



City of East Grand Forks

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Public Works Department · 1001 2nd St NE · East Grand Forks, MN 56721

STORMWATER BMPs – POTABLE WATER LINE DISCHARGES

AFFECTED FACILITIES

These Best Management Practices (BMPs) apply to all municipal water utilities, fire hydrants, and potable water distribution systems.

BACKGROUND

Potable water is chlorinated. The discharge of chlorine to surface waters can damage aquatic life. New potable water lines are often flushed with water that is treated with a higher-than-normal dosage of chlorine. Discharge of this super-chlorinated water (greater than 5 mg/L) poses acute toxicity risk to aquatic environments. Operators need to understand the importance of ensuring that super-chlorinated water does not reach any surface water, without adequate dissipation or treatment to prevent harm to the environment. To a lesser degree, lower levels of chlorine (less than 5 mg/L) in distribution water can also adversely affect aquatic environments under certain conditions.

Discharges of potable water are a type of industrial activity with short-term infrequent discharges that with proper management are not expected to contain pollutants in concentrations that are toxic or in concentrations that would cause or contribute to a violation of a water quality standard. The typical pollutant of concern is total residual chlorine, however, depending on how the discharge occurs, total suspended solids and oil and grease may become pollutants of concern. These pollutants can be handled using de-chlorination techniques, filters, and other BMPs.

BEST MANAGEMENT PRACTICES

- Do not discharge super-chlorinated water to any storm drain, street, ditch or surface water.
- Super-chlorinated water may only be discharged after de-chlorination by aeration, retention, dissipation, or chemical treatment to “no measurable chlorine” content.
- The discharge of cleaning materials or chemicals is strictly prohibited and should be sent to the sanitary sewer, with permission of the local wastewater treatment facility, or otherwise collected and disposed of.
- The potable water shall not be used in any additional process. Processes include, but are not limited to, any type of washing, heat exchange, manufacturing, and hydrostatic testing of pipelines not associated with treated water distribution systems.
- The discharge shall be of potable water from a potable water distribution system, including tanks and storage facilities that are part of that system. This includes lines supplying potable source water to other systems, not separated by a backflow preventer; where free mixing with the potable system occurs

(e.g. fire suppression lines, irrigation lines, etc.). A system has been “maintained for potable water distribution use” when it will be or is currently delivering or storing potable water (i.e. existing systems).

- The discharge shall not cause erosion.
- The discharge shall not contain solid materials in concentrations that can settle to form bottom deposits detrimental to the beneficial uses of any surface waters or form floating debris, scum, or other surface materials.
- All discharges must comply with the lawful requirements of federal agencies, municipalities, counties, drainage districts, ditch owners, and other local agencies regarding any discharges to storm drain systems, conveyances, ditches or other water courses under their jurisdiction.
- The discharge must not contain any residual chlorine. The operator is responsible for determining what is necessary for removing chlorine from the discharge. If the discharge is to a ditch, chlorine content may be limited by the owner of the ditch. However, if the ditch returns flow to any surface water, it must not contain any residual chlorine at the point where it discharges to the surface water.
- For discharge to the ground, the water should not cause any toxicity to vegetation. When discharging, allow the water to drain slowly so that it soaks into the ground as much as possible.
- If discharge is to the sanitary sewer, contact the local wastewater treatment facility prior to discharge. System owners may grant blanket authorization to discharge to their systems. This must be done to ensure that the facility is able to accept the discharge. Not all facilities are able to accept such discharges. Note that additional restrictions or local guidelines may apply.
- Removal of any residual chlorine must be done for any direct discharge to surface waters or for any discharge to a storm sewer or conveyance where the chlorine will not dissipate prior to reaching surface water.
- De-chlorination, if necessary, may be achieved by allowing water to stand uncovered until no chlorine is detected, or by de-chlorination using a portable dechlorinator. Pay particular attention when handling super-chlorinated waters. A longer time is needed to dissipate chlorine from super-chlorinated waters.
- The discharge should be conducted to minimize the potential to pick up additional suspended solids. When possible, best management practices should be used to remove suspended solids or other debris. Examples of suspended solid removal practices include, but are not limited to check dams, filter bags, and inlet protection. These devices should be used and maintained in accordance with the manufacturers specifications.
- The discharge should be conducted to minimize the potential that it will not pick up any oil and grease. When possible, an absorbent oil pad, boom or similar device should be used to eliminate oil from the discharge.
- During emergency discharges such as water main breaks or when water mains must be flushed at high velocity and high volume due to a human health concern, shut the water down as soon as possible and implement BMPs to protect storm drains from the discharge or contaminants.

NEW CONSTRUCTION OR RENOVATION REQUIREMENTS

- None.

REQUIRED TRAINING

Train all current employees who perform potable water distribution system maintenance on these BMPs and on the Spill Clean-up BMP annually.

Train all new hires and job transferees who will conduct potable water distribution system maintenance on these BMPs and on the Spill Clean-up BMP before they are assigned to their new duties.

All contracts must stipulate that contracted employees are trained in these BMPs.

ADDITIONAL INFORMATION

Household Hazardous Waste can be disposed of at:

Polk County Environmental Services Transfer Station

320 Ingersoll Ave
Crookston, MN 56716
Monday - 7:00am to 7:00pm
Tuesday through Friday - 7:00am to 5:30pm

Used motor oil and other waste automotive fluids can be disposed of at:

Public Works Department

1001 Second St. N.E.
East Grand Forks, MN 56721
(218) 773-1313

To report an Illicit Discharge, clogged sewer or for answers to questions regarding these stormwater BMPs please contact:

Public Works Stormwater/Wastewater Department

1001 Second St. N.E.
East Grand Forks, MN 56721
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