

## **MAINTENANCE BRIDGE FLUSHING GUIDANCE**

### **MnDOT Office of Environmental Stewardship Environmental Investigation Unit**

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This guidance document is prepared by MnDOT personnel and is intended only for use on MnDOT projects, including partnership projects, and MnDOT Maintenance Operations.

The intent of this guidance document is to provide general procedural information for MnDOT personnel performing work on MnDOT right of way. Any optional procedures will be indicated in the document. Any deviation from procedures contained in this document must be discussed with Environmental Investigation Unit personnel prior to implementation.

This document should not be construed as a full description of all regulations pertaining to the subject matter. This guidance is for routine maintenance of bridge decks using no greater than 120 psi for flushing operations. It is not intended for power washing of new bridges or any pressurized water-based blasting using over 120 psi. It is also not intended for power washing operations meant to remove paint or other coatings, oils or grease, or corrosion from the surface. For pressure washing over 120 psi or use of cleaning chemicals or use of other abrasives, refer to MPCA guidance document Power washing and Other Water-based Blasting at: <https://www.pca.state.mn.us/sites/default/files/w-hw4-39b.pdf> Contact the Environmental Investigation Unit in the MnDOT Office of Environmental Stewardship for additional information or legal requirements.

#### **Subject: Bridge Flushing Guidance**

MnDOT bridge flushing maintenance operations produce material that is primarily sand and other assorted debris that will need to be collected. The

following guidance allows for beneficial reuse of the sand and proper management of associated debris. Under this guidance bridges will be flushed with a 1.5 inch fire hose that produces 90 to 120 psi using water without any additives such as soap or other chemical cleaning agents. If additives are needed, contact the Environmental Investigation Unit in the MnDOT Office of Environmental Stewardship for additional requirements. Flush water does not need to be collected for disposal if additives are not used.

### **Pre Flushing topside of Bridge Deck**

Collect material and debris from the bridge deck by mechanical and manual sweeping generally no more than 2 weeks prior to flushing operation. Place filter rolls around the drains or filter bags in the drains to prevent sediment from passing through. Manage the sweepings per the "Management of Street Sweepings" guidance document located at:

<http://www.dot.state.mn.us/environment/regulatematerials/guidance.html> to the street sweepings link.

### **Pre Flushing Underside of Bridge Deck**

Remove and manage trash and large debris prior to flushing underneath the bridge deck.

In accordance with MnDOT policy and in compliance with the Federal Migratory Bird Treaty Act, 50 CFR 21.41, the destruction of swallows and other protected birds will be avoided by conducting work outside of the nesting season (Sept. 1<sup>st</sup> to May 15<sup>th</sup>).

### **Flushing Sediment Collection**

In areas where sediment may settle after flushing operations, a reasonable effort will be made to collect this material and manage with street sweepings. When sediment is deposited in vegetation, blend the material thinly and evenly into the vegetated slope at a thickness which will allow grasses to grow (maximum allowable thickness of 1/2 to 3/4 inch).

### **Flush Water Source**

- **Use a municipal water source.**
- Best Practice: It is recommended by the DNR to have knowledge and make reasonable efforts to wash bridge outside of the work exclusion dates for protection of fish migration and spawning. Dates vary around the state, see page 3 of Chapter 1:  
[http://www.dnr.state.mn.us/waters/watermgmt\\_section/pwpermits/gp\\_2004\\_0001\\_manual.html](http://www.dnr.state.mn.us/waters/watermgmt_section/pwpermits/gp_2004_0001_manual.html)
- Use of surface water as flush water should be avoided. If there is no other alternative, the Minnesota Department of Natural Resources (DNR) has the following requirements:

- If pumping more than 10,000 gallons/day: Obtain an Appropriations permit (GP1997-0005),  
[http://www.dnr.state.mn.us/waters/watermgmt\\_section/appropriations/permits.html](http://www.dnr.state.mn.us/waters/watermgmt_section/appropriations/permits.html)
- If pumping any amount from waters Designated as infested with Aquatic Invasive Species (AIS): obtain an Infested Waters permit:  
<http://www.dnr.state.mn.us/invasives/ais/infested.html>
- Best Practices to prevent the spread of AIS:  
[http://files.dnr.state.mn.us/publications/ewr/invasives/ais/best\\_practices\\_for\\_prevention\\_ais.pdf](http://files.dnr.state.mn.us/publications/ewr/invasives/ais/best_practices_for_prevention_ais.pdf)

Contact the Environmental Investigation Unit for a full description of requirements prior to using surface water as flush water.

Please contact the Environmental Investigation Unit for further assistance.