CONSTRUCTED WATERCOURSE MAINTENANCE

Introduction

Drainage Improvement Districts (DIDs) can maintain constructed ditches without a Hydraulic Project Approval permit from the Washington Department of Fish and Wildlife. Nor is a permit from the Department of Army Corps of Engineers needed if the watercourse is determined to be “non-navigable”. However Best Management Practices (BMPs) must be implemented to avoid polluting downstream natural or modified watercourses. Informational Factsheet #18 Watercourse Classifications defines “constructed” and a DID’s map should have all watercourses color coded by classification.

Local Regulations

Whether wet or dry, if the constructed watercourse lies within a Whatcom County designated “Critical Area” or a “Critical Area Buffer”, a notification must be sent to the Whatcom County Technical Administrator at least 10 business days prior to beginning work. The written notification is valid for up to five years and should include:

- Type, timing, frequency and sequence of maintenance activity to be conducted.
- Type of equipment to be used (hand or mechanical).
- Manner in which the equipment will be used.
- Best management practices to be used.

Critical Areas include: Wetlands, Frequently Flooded Areas, Critical Aquifer Recharge Areas, Geologically Hazardous Areas, or Habitat Conservation Areas. Constructed watercourses in active agricultural land are generally not critical areas.

### Constructed Watercourse Maintenance BMPs

**General:**

1. Only remove material sufficient to keep the original ditch depth or to maintain a steady slope between culvert inverts. Excavating deeper will not improve drainage and may result in unstable banks and erosion.
2. Place excavated material in a location so that it cannot re-enter the watercourse.
3. Equipment used to complete drainage maintenance activities shall only operate from the top of the channel bank.
4. All equipment used on the site must be in good repair and be free of excess oil and grease.

**If the watercourse is Dry:**

5. Work can be done at any time.
6. Maintain the channel early enough in the year that vegetation may stabilize soils prior to the rainy season.
7. Install temporary Check Dams, Triangular Silt Dams, Silt Fence, Straw Wattles or other measures to prevent exposed sediments from moving once the rainy season has begun.

8. Maintain a 25 foot to 300 foot grass lined swale at the downstream end of the watercourse to filter out any released sediments when water flows.

If the watercourse is Wet:

9. Conduct maintenance activities during periods of lowest flow (August 1 to October 30th).

10. Dredge from upstream to downstream to allow vegetation in the channel to help filter and trap sediment.

11. Install a silt curtain or other means to block or filter the muddy water flowing downstream.

12. If fish in distress are observed, cease work and use Fish Protection techniques from Factsheet #15 in this series. Also contact your WDFW Area Habitat Biologist for assistance (see Agency and Organization Contacts, Factsheet #5).

13. Monitor closely for muddy water leaving the constructed watercourse. Muddy, sediment-laden water must not be allowed to enter natural or modified natural receiving waters downstream. **Before** this occurs, consider the following tips and refer to Factsheet #16 Water Quality Protection Measures for more guidance.

14. Pause the maintenance work frequently and allow suspended sediments to settle out.

15. Install temporary coffer dams, additional silt screens, bypass pumps, or other means to reduce the impact.

16. Remember, it is OK and expected that water in the constructed ditch you are maintaining will be muddy. But it’s not OK for that muddy water to be allowed to flow downstream and adversely impact other watercourses.

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**Cleaning Subsurface Drain Tiles**

Subsurface drain tiles may need to be maintained or flushed periodically due to the buildup of sediment or iron ochre.

To minimize impacts on the watercourses downstream when cleaning drain tiles consider the following:

- Install a control structure (or block the ditch downstream) to prevent sediment and iron ochre from moving into the receiving waters of a natural or modified watercourse.
- Install a sediment trap at the downstream end of the ditch to collect contaminated water. Pump the collected water into an area where it will not re-enter the ditch. Clean the sediment trap prior to opening the control structure and allowing flow to proceed downstream.
- More useful BMPs can be found in Factsheet #16, Water Quality Protection Measures.