

Activity 120 Ditch Cleaning and Reshaping

Description

Activity 120 involves the machine cleaning and reshaping of ditches, including loading, hauling, and disposing of excess material.

General Instructions

Perform this activity to provide and maintain drainage to:

- Allow adequate drainage of surface water and runoff.
- Prevent water damage to the roadway structure.
- Minimize restrictions to and allow adequate movement of drainage water.
- Protect the rights of others, regarding the flow, direction, or diversion of water.

This activity may include the removal of vegetation or other obstacles that restrict adequate flow and the removal or reshaping of soil to re-establish the channel and flowline.

Perform this activity to maintain ditches at the level allowed by the performance budget and as described in the *Desired Conditions of Maintenance Features on State Highways*.

A “ditch” is a drainage facility, typically parallel to the road, which carries storm water runoff draining from the roadway facility and adjacent properties. It is not a channelized stream or normally a fish-bearing stream. Refer to discussion on that determination in the *ODOT Routine Road Maintenance Water Quality and Habitat Guide Best Management Practices* and the *ODOT Emergency/Urgency Maintenance Best Management Practices User's Guide*. As discussed in those documents, ODOT does not normally need a permit for this work unless the work expands the ditch or the ditch provides fish passage.

Irrigation ditches may be located on ODOT property either by agreement or resulting from prior existence. Normally, the irrigation ditch owner is responsible to maintain and operate the irrigation ditch. The Transportation Maintenance Manager should be familiar with agreements and ownership of such facilities to determine responsibilities for maintenance.

Work under this activity may involve areas that contain endangered species. Refer to the *Resource Area Maps* and comply with all restrictions for work in those areas. Seek assistance from the District Manager and the Region Environmental Coordinator as needed.

Take care to not contaminate shoulder or other aggregate materials with soil or other inappropriate material.

If the drainage facility nearly always carries water, if it contains or supports fish or fish resources, or if it supports fish passage, perform maintenance and repairs under Activity 124.

Maintain cut-off ditches, located at the top of excavation slopes or on benches in excavated areas and that are used to channel surface water away from the excavation slope, under Activity 129.

Maintain wetlands and other water quality facilities under Activity 125.

Refer to Activity 160 or 162 for maintenance or repair of drainage at bridges.

Controlling Erosion, Sedimentation, and Pollutants or Contaminants

Plan and implement methods to control erosion, sedimentation, and pollutants or contaminants, including those discussed in the Control of Erosion, Sedimentation, and Pollutants or Contaminants section of this Guide and the *ODOT Routine Road Maintenance Water Quality and Habitat Guide Best Management Practices*.

As appropriate, implement and maintain devices and processes including those described in the *Field Manual for Erosion and Sediment Control*.

If needed, test removed material for materials that may be harmful to the environment. Assure that waste or excess material is disposed of in an appropriate location. Seek guidance and assistance from the District Manager and the Region Environmental Coordinator.

Temporary Protection and Direction of Traffic

Plan, implement, and maintain traffic control as addressed in the *Traffic Control on State Highways for Short Term Work Zones* handbook.

Equipment

Equipment includes:

- Grader,
- Trucks for hauling removed material (number will depend on haul distance and production rate),
- Backhoe or loader to gather and load removed material, and/or
- Broom or other device to clean roadway.

A large backhoe, excavator, or Grade-All may be used to remove the material and load it instead of the grader and backhoe or loader, especially for transverse cleaning of ditches.

Materials

Materials include:

- Devices to control erosion and sedimentation.
- Water or broom to clean material from roadway.
- Seed, etc. to re-establish vegetation.

Work Method

1. Implement appropriate traffic control.
2. Implement appropriate measures to control erosion and sedimentation.
3. Remove material from ditch to restore adequate flow and to re-establish a uniform flow line.
4. Remove excess material and properly shape other material.
5. If appropriate, re-establish grass or other vegetation in affected areas.
6. Clean the roadway surface.
7. Remove traffic control.
8. Dispose of excess material in an appropriate location.

Measurement of Accomplishment, Expenditure Account, and Charge Activity

Measurement is ditch miles (kilometers) cleaned. Expenditure Account type is Highway EA. Designate a subjob of 800 if the work involves bicycle path facilities.

- Charge TEAMS Activity 120 when longitudinally cleaning ditches.
- Charge TEAMS Activity 350 when cleaning or reshaping ditches to maintain or restore fish passage.
- Charge TEAMS Activity 520 when transversely cleaning ditches.