

## **Activity 120 Ditch Cleaning and Reshaping**

### Description

Activity 120 involves the cleaning and reshaping of ditches, by hand or mechanical means, to restore and maintain drainage. It Includes:

- Loading, hauling and disposing of excess material.
- Dipping ditches.
- Installing check dams to minimize erosion and drainage issues.
- Maintaining cutoff ditches.

### General Information

Refer to discussion in the General Instructions section preceding Activity 120 in this section of the *Maintenance Guide* for additional information including environmental and traffic control recommendations and other important considerations.

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.

If needed test material removed from ditches for substances that may be harmful to the environment. Ensure 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 as needed.

A “ditch” is a manmade conveyance feature constructed for drainage. With few exceptions, a ditch does not contain a stream or waters originating from a stream. A ditch may or may not contain fish and/or wetland vegetation. Refer to discussion on that determination in the *ODOT Routine Road Maintenance Water Quality and Habitat Guide Best Management Practices*. As discussed in that document, 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 *RES/RAZ Maps* and comply with all restrictions for work in those areas. Seek assistance from the District Manager and the Region Environmental Coordinator as needed.

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 water quality facilities under Activity 125.

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

Either remove delineators and other objects in the area to be maintained or take care to prevent damage to them. Most delineators removed from the shoulder can be re-used. Also take care to not damage culverts, sub-grade drain outflows, electrical junction boxes, and other objects in the work area.

Use care when working around signs. Do not cover break away sign bases with material. If adding material around sign posts, sign elevation may need to be adjusted to maintain correct breakaway height so it may be necessary to consult with the Sign Crew.

Remove any material that fills in around culverts or drainage facilities.

#### 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.
- Appropriate hand tools.
- 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 sediment.
- Water or broom to clean material from roadway.
- Seed, etc. to re-establish vegetation.
- Delineator posts, paddles and rivets if any are damaged during removal and replacement.

### Work Method

1. Implement appropriate traffic control.
2. Implement appropriate methods of erosion, sediment control, or pollutants and contaminants control.
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 cleaned. Expenditure Account type is Highway EA; use a sub job appropriate for the crew performing the work.

Use a sub job within the 800 series if the work involves bicycle path facilities. These sub jobs are assigned by the Maintenance Management System (MMS) Unit based on the type of work performed.

- Charge Activity 120 when cleaning or reshaping ditches.