

**Natural Resources Conservation Service
Conservation Practice Standard**

**CLEARING AND SNAGGING
(Ft.)
CODE 326**

DEFINITION

Removing snags, drifts, or other obstructions from a channel.

PURPOSE

To increase the flow capacity of a channel by improving its flow characteristics; to prevent bank erosion by eddies; to reduce the forming of bars; and to minimize blockages by debris and ice.

Special attention shall be given to restoring, maintaining, or improving landscape resources and habitat for fish and wildlife, where applicable.

CONDITION WHERE PRACTICE APPLIES

This practice applicable to any channel or floodway where the removal of trees, brush, and other obstructions is needed to accomplish one or more of the listed purposes. If clearing and snagging are likely to result in channel erosion, impairment to the landscape resource quality, or impairment to habitat for fish and wildlife, either the clearing and snagging shall not be done or practices to minimize such damages shall be applied concurrently with the clearing and snagging. This practice conducted on channels by the Natural Resources Conservation Service must follow policy contained in "Channel Modification Guideline" as published in the Federal Register.

CRITERIA

Clearing and snagging measures shall be planned, designed, and constructed to comply with all Federal, State, and local laws and regulations.

The capacity of the channel, both before and after improvement, shall be determined by use of Manning's Formula, using applicable values of the retardance factor "n", for both conditions. The value of "n" used to determine channel

capacity after improvement shall reflect the degree of maintenance expected in future years.

The area to be cleared and snagged shall include the perimeter of the channel, the flow area of the floodway, or both. Adjacent trees or other objects that may fall into the channel shall also be included. Clearing and snagging may be specified for other areas, including berms, for use as temporary disposal areas or travelways, or for planned conservation uses.

Channel stability shall not be impaired by clearing and snagging. The criteria for determining channel stability in open channels (582) shall be complied with. The effect of removing obstructions on downstream reaches shall be considered.

All areas disturbed during snag removal shall be restored by planting native vegetation where practical.

CONSIDERATIONS

Water quantity

- Possible downstream flooding.
- Effect of changed drawdown on bank stability.
- Effect of changed flow conditions on ground water recharge.

Water quality

- Effects of discharge on the flood plain and channel relative to erosion and sediment production, both during construction and after establishment.
- Effects sediment load, sediment-attached substances, organic loadings.
- Relationships between stream quality and aquifer quality where ground water recharge occurs.
- Temporary and long-term effects on visual quality of water and landscape.

Conservation practice standards are reviewed periodically and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.

- Effects on onsite and downstream water temperatures.
- Effects on threaten and endangered species and their habitat.

PLANS AND SPECIFICATIONS

Plans and specifications for clearing and snagging shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose.

Construction operations shall be carried out in a manner and sequence so that impacts on the environment will be minimized and held to acceptable limits.

All operations shall be carried out in a safe manner.

OPERATION AND MAINTENANCE

A maintenance program shall be established by the landowner/user to maintain channel capacity and vegetative cover. Items to consider are:

Where applicable, control grazing in the construction area during vegetative establishment and when soil conditions are wet.

Fertilize as needed to maintain a vigorous vegetative cover.

Promptly repair eroded areas.

Remove major silt and sediment accumulations in the channel cross-section as soon as practical, when the effects are causing significant bank erosion problems.

Re-establish vegetative cover immediately where scour erosion has removed established seeding.

Keep inlets to side drainage structures and channels open and armor if necessary.

Periodically inspect the area for signs of significant stream bank undermining or instability.