



FORESTRY Leaflets

April 2018

Leaflet # WQ-1

North Carolina's *Forest Practice Guidelines Related to Water Quality* (FPGs): 02 NCAC 60C .0100 to .0209

The FPGs are statewide, mandatory narrative rule standards that were developed to assure that forestry activities are conducted in a manner that protects water quality. The FPGs are authorized by the North Carolina Sedimentation Pollution Control Act of 1973 (SPCA; N.C.G.S. 113A-52.01). The FPG standards must be in compliance in order for a forestry-related, land-disturbing activity to be exempt from the permitting and plan requirements of the SPCA. The N.C. Forest Service encourages the abundant use of forestry Best Management Practices (BMPs) as the primary method of complying with the FPGs. Refer to the N.C. Forestry BMP Manual, at <http://ncforestservice.gov>.

NOTE: Effective April 1, 2018 the FPGs were re-adopted with minor text revisions and clarifications. This Forestry Leaflet contains the most current text of the FPG rules. Discard all earlier versions of the FPG rules that you may have on file.

SECTION .0100 - GENERAL PROVISIONS

02 NCAC 60C .0101 INTRODUCTION AND PURPOSE

(a) The rules in this Subchapter establish performance standards for the protection of water quality during silvicultural activities. Persons shall adhere to the standards related to silvicultural land disturbing activities in order to retain the forestry exemption provided in G.S. 113A-52.1, the N.C. Sedimentation Pollution Control Act of 1973, as amended in 1989.

(b) Implementation of the rules in this Subchapter shall recognize that extreme and unusual weather may cause reasonable and otherwise adequate application of protective measures to fail. Where such measures fail and the resulting effect is not in compliance with a rule of this Subchapter, the responsible party(ies) shall implement corrective measures. The Forestry Best Management Practices Manual, developed and published by the North Carolina Forest Service Division, contains specifications for a variety of practices that may be used to meet the performance standards set forth in this Subchapter. Best Management Practices (BMPs) should be developed and selected to allow for the variation in weather, topography, soil, and vegetation expected for the site and season. This manual and the rules in this Subchapter may be obtained by contacting the, Assistant Commissioner, North Carolina Forest Service Division, Division Raleigh, North Carolina.

History Note: Authority G.S. 113A-52; 113A-52.01; 113A-52.1; 113A-61.1; 143-214.1; 143B-10; Eff. January 1, 1990; Transferred from 15A NCAC 01I .0101 Eff. April 1, 2014; Readopted Eff. April 1, 2018.

02 NCAC 60C .0102 DEFINITIONS

In addition to the terms defined in G.S. 113A-52, the following definitions shall apply throughout this Subchapter:

- (1) "Accelerated Erosion" means any increase over the rate of natural erosion, as a result of land-disturbing activities.
- (2) "Access Road" means a temporary or permanent access route upon which wheeled vehicles are intended to operate with repeated passes.
- (3) "Adverse Impact" as used for pesticides and fertilizers means actions that result in a violation of water quality rules of the Environmental Management Commission Sections 15A NCAC 02B .0200 - Classifications and Water Quality Standards Applicable to Surface Waters of North Carolina, 15A NCAC 02L .0200 - Classifications and Water Quality Standards (related to groundwater) and the N.C.

Pesticide Board Rule 02 NCAC 09L .1005 - Restricted Areas, which are incorporated by reference including subsequent amendments, and may be accessed free of charge at <http://reports.oah.state.nc.us/ncac.asp>.

- (4) "Best Management Practice" (BMP) means a practice, or combination of practices, that is determined to be an effective and practicable (including technological, economic, and institutional considerations) means of preventing or reducing the amount of pollution generated by nonpoint sources to a level compatible with water quality goals. The Best Management Practices may be found in the North Carolina Forestry Best Management Practices Manual to Protect Water Quality and is incorporated by reference including subsequent amendments and may be accessed free of charge at http://ncforestservice.gov/water_quality/bmp_manual.htm.
- (5) "Channel" means a natural water-carrying trough cut vertically into low areas of the land surface by erosive action of concentrated flowing water, a ditch, or canal excavated for the flow of water.
- (6) "Colloidal Particles" means fine grained materials, organic or inorganic, that are suspended such as clay particles.
- (7) "Ground Cover" means any natural vegetative growth, or other natural or manmade material that renders the soil surface stable against accelerated erosion.
- (8) "Groundwater" means phreatic water or subsurface water in the zone of saturation.
- (9) "Land-Disturbing Activity" means the same as defined in G.S. 113A-52.
- (10) "Log Deck" means a place where harvested trees or logs are gathered or staged in or near the forest for handling, sorting, merchandizing, temporary storage, or further transport.
- (11) "Mill Site" means any place where forest products are stored, altered, or processed.
- (12) "Permanently Stabilized" means the site is protected to the state at which no further accelerated erosion is expected to occur from the forestry-related, land-disturbing activities.
- (13) "Pesticides" means a chemical used to kill pests. The term includes insecticides, fungicides, herbicides, and rodenticides.
- (14) "Site Preparation" means a forest activity to prepare the site for reforestation.
- (15) "Skid Trail" means a temporary pathway used to drag or transport felled trees or logs or other woody material to a log deck or portable mill site.
- (16) "Stream" means a body of concentrated flowing water in a natural low area of the land surface.
 - (a) "Ephemeral stream" means a stream that flows only during and for short periods following precipitation and flows in low areas that may or may not have a well-defined channel.
 - (b) "Intermittent stream" means a stream that flows only during wet periods of the year (30-90 percent of the time) and flows in a continuous well-defined channel.
 - (c) "Perennial stream" means a stream that flows throughout a majority of the year (greater than 90 percent of the time) and flows in a well-defined channel.
- (17) "Streamside Management Zone (SMZ)" means an area along both sides of intermittent streams and perennial streams and along the margins of perennial waterbodies where extra precaution is used in carrying out forestry-related, land-disturbing activities in order to protect water quality.
- (18) "Visible Sediment" means solid particulate matter, both mineral and organic, which may be seen with the unaided eye that has been or is being transported by water, air, gravity, or ice from its site of origin. This does not include colloidal sized particles.
- (19) "Waterbody" means a natural or man-made basin that stores water, not including jurisdictional wetlands or beaver ponds.
- (20) "Working Days" means days exclusive of Saturdays and Sundays during which weather conditions or soil conditions permit land-disturbing activity to be undertaken.

History Note: Authority G.S. 113A-52; 113A-52.01; 113A-52.1;
Eff. January 1, 1990; Transferred from 15A NCAC 011.0102 Eff. April 1, 2014; Readopted Eff. April 1, 2018.

SECTION .0200 - PERFORMANCE STANDARDS

02 NCAC 60C .0201 STREAMSIDE MANAGEMENT ZONE

- (a) A streamside management zone (SMZ) shall be established and maintained along the margins of intermittent streams, perennial streams and perennial waterbodies. The SMZ shall confine visible sediment resulting from accelerated erosion.
- (b) Ground cover, or best management practices, within the SMZ shall restrain accelerated erosion.
- (c) Access roads, skid trails, except as provided in Rule .0203 of this Section, logging decks and mill sites shall be placed outside of SMZs. When barriers such as property lines or limiting land features prohibit the location of any of these outside of SMZs, they can be located within the SMZs. When located within SMZs, there shall be effective erosion control and sediment control structures or measures installed to restrain accelerated erosion and prevent visible sediment from entering intermittent streams, perennial streams or perennial waterbodies.

History Note: Authority G.S. 113A-52.1;
Eff. January 1, 1990; Transferred from 15A NCAC 011 .0201 Eff. April 1, 2014; Readopted Eff. April 1, 2018.

02 NCAC 60C .0202 PROHIBITION OF DEBRIS ENTERING STREAMS AND WATERBODIES

Stream obstruction and the impediment of stream flow or degradation of water quality shall be prevented by keeping soil and debris from forestry-related, land-disturbing activities out of intermittent streams, perennial streams and perennial waterbodies.

History Note: Authority G.S. 77-13; 77-14; 113A-52.1;
Eff. January 1, 1990; Transferred from 15A NCAC 011 .0202 Eff. April 1, 2014; Readopted Eff. April 1, 2018.

02 NCAC 60C .0203 ACCESS ROAD AND SKID TRAIL STREAM CROSSINGS

Access roads and skid trails that cross an intermittent stream, a perennial stream or a perennial waterbody shall be installed so as to minimize the amount of visible sediment that enters that stream or waterbody. These crossings shall be installed so that:

- (1) stream flow will not be obstructed or impeded;
- (2) no intermittent stream channel, perennial stream channel, or perennial waterbody shall be used as an access road or skid trail;
- (3) crossings are provided with effective structures or ground cover to protect the stream banks and stream channel from accelerated erosion;
- (4) crossings shall have sufficient water control devices to collect and divert surface flow from the access road or skid trail into undisturbed areas or other control structures to restrain accelerated erosion and prevent visible sediment from entering intermittent streams, perennial streams, and perennial waterbodies; and
- (5) ground cover, or best management practices, that prevent visible sediment from entering intermittent streams, perennial streams, and perennial waterbodies shall be provided within ten working days of initial disturbance and will be maintained until the site is permanently stabilized.

History Note: Authority G.S. 77-13; 77-14; 113A-52.1;
Eff. January 1, 1990; Transferred from 15A NCAC 011 .0203 Eff. April 1, 2014; Readopted Eff. April 1, 2018.

02 NCAC 60C .0204 ACCESS ROAD ENTRANCES

A forest access road entrance that intersects a paved road shall be installed and maintained to prevent visible sediment or other debris from being deposited onto the paved road to the extent that the visible sediment or other debris would enter an intermittent stream, a perennial stream, or a perennial waterbody.

History Note: Authority G.S. 113A-52.1; 136-92.1;
Eff. January 1, 1990; Transferred from 15A NCAC 011 .0204 Eff. April 1, 2014; Readopted Eff. April 1, 2018.

02 NCAC 60C .0205 PROHIBITION / WASTE ENTERING STREAMS / WATERBODIES / GROUNDWATER

Measures shall be taken to prevent equipment servicing waste, petroleum, fertilizers, or other chemical waste from entering streams, perennial waterbodies, and groundwater that results in a violation of a water quality standard of the Environmental Management Commission in Sections 15A NCAC 02B .0200 - Classifications and Water Quality Standards Applicable to Surface Waters of North Carolina, and 15A NCAC 02L .0200 - Classifications and Water Quality Standards (related to groundwater).

History Note: Authority G.S. 113A-52.1; 143-214.1;
Eff. January 1, 1990; Transferred from 15A NCAC 01I .0205 Eff. April 1, 2014; Readopted Eff. April 1, 2018.

02 NCAC 60C .0206 PESTICIDE APPLICATION

Application of pesticides shall be limited to those labeled for that intended use, shall be used in accordance with labeling and rules adopted by the N.C. Pesticide Board as set forth in 02 NCAC 09L .1005, Restricted Areas, and applied in a manner to prevent adverse impacts on water quality.

History Note: Authority G.S. 113A-52.1; 143-214.1; 143-458;
Eff. January 1, 1990; Transferred from 15A NCAC 01I .0206 Eff. April 1, 2014; Readopted Eff. April 1, 2018.

02 NCAC 60C .0207 FERTILIZER APPLICATION

When used, fertilizers shall be applied in a manner to prevent adverse impacts on water quality.

History Note: Authority G.S. 113A-52.1; 143-214.1;
Eff. January 1, 1990; Transferred from 15A NCAC 01I .0207 Eff. April 1, 2014; Readopted Eff. April 1, 2018.

02 NCAC 60C .0208 PERENNIAL STREAM TEMPERATURE

Shade within SMZs associated with natural perennial streams shall be retained to protect those streams from temperature fluctuations that result in a violation of a water quality standard of the Environmental Management Commission as contained in Rule 15A NCAC 02B .0211 - Fresh Surface Water Classifications and Standards which is incorporated by reference including subsequent amendments, and may be accessed free of charge at:

<http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20b/15a%20ncac%2002b%20.0211.html>

History Note: Authority G.S. 113A-52.1; 143-214.1;
Eff. January 1, 1990; Transferred from 15A NCAC 01I .0208 Eff. April 1, 2014; Readopted Eff. April 1, 2018.

02 NCAC 60C .0209 REHABILITATION OF PROJECT SITE

Areas on the project site that have the potential for accelerated erosion to cause visible sediment to enter an intermittent stream, a perennial stream, or a perennial waterbody, shall be provided with ground cover or best management practices of adequate sedimentation control within 30 working days after ceasing any phase of an operation or beginning a period of inactivity. Sedimentation control measures or ground cover shall be required for any area that is contributing or has contributed visible sediment into an intermittent stream, a perennial stream, or a perennial waterbody, regardless of when the visible sedimentation occurred as a result of the forestry-related, land-disturbing activity. Treatment and maintenance of those areas shall be sufficient to restrain accelerated erosion and prevent visible sediment from entering intermittent streams, perennial streams, and perennial waterbodies until the site is permanently stabilized.

History Note: Authority G.S. 113A-52.1;
Eff. January 1, 1990; Transferred from 15A NCAC 01I .0209 Eff. April 1, 2014; Readopted Eff. April 1, 2018.



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