

# Stream Work in Virginia Conservation Practice Standards

NRCS Engineering  
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# References for NRCS Stream Design

- National Engineering Manual (policy)
- Handbooks tell how to design something (how to)
- Practice Standards provide criteria for design (minimum and maximum design criteria)
- Specifications provide quality criteria for construction (how to build it, how it should look)
- Standardized Drawings (physical representation to meet all of the above when custom design is not required)

# National Conservation Practice Standards

- <http://www.nrcs.usda.gov/technical/Standards/nhcp.html>
- Not be used to plan, design or install a conservation practice. Instead...
- Use conservation practice standard developed by the state to insure that you meet all state and local criteria, which may be more restrictive than national criteria.
- If no state conservation practice standard is available in the eFOTG, contact the appropriate [State Office](#) (SCE or SRC) or your local [USDA Service Center](#).

# Virginia Conservation Practice Standards

- State Conservation practice standards are available through the [eFOTG \(Electronic Field Office Technical Guide\)](http://efotg.nrcs.usda.gov/treemenuFS.aspx).
- <http://efotg.nrcs.usda.gov/treemenuFS.aspx>

The screenshot shows the eFOTG Tree Menu website in Microsoft Internet Explorer. The browser address bar displays <http://efotg.nrcs.usda.gov/treemenuFS.aspx>. The website header includes the United States Department of Agriculture logo, NRCS Natural Resources Conservation Service, and the text "LOUISA COUNTY, VA eFOTG electronic Field Office Technical Guide".

The main content area features a search menu and a table of conservation practice standards. The table lists various standards with their respective IDs, titles, and dates. The table is as follows:

Residue Management, Mulch Till (Ac) (329B)	99	01/16/2001	10/19/2001
Residue Management, Mulch Till (AC) (329B)	39	09/28/2004	09/28/2004
Residue Management, No Till Strip Till - Job Sheet	142	01/16/2003	01/16/2003
Residue Management, No-Till & Strip Till (Ac) (329A)	106	04/19/2001	02/01/2001
Residue Management, No-Till and Strip Till (AC) (329A) Statement of Work	39	09/28/2004	09/28/2004
Residue Management, No-Till/Strip Till/Direct Seed	37	10/05/2006	10/05/2006
Residue Management, Seasonal (AC) (344) Statement of Work	38	09/28/2004	09/28/2004
Residue Use, Seasonal (Ac) (344)	102	12/15/2001	10/13/2001
Restoration and Management of Declining Habitats (Ac) (643) Standard	82	06/15/2001	04/19/2001
Restoration and Management of Declining Habitats (AC) (643) Statement of Work	33	09/28/2004	09/28/2004
Riparian Forest Buffer (AC) (391) Statement of Work	38	09/28/2004	09/28/2004
Riparian Forest Buffer (Ac) (391) Standard	112	12/15/2001	11/13/2001
Riparian Forest Buffer - Job Sheet	149	01/16/2003	01/16/2003
Riparian Herbaceous Cover (Ac) (390)	27	08/09/2006	08/09/2006
Riparian Herbaceous Cover (AC) (390) Statement of Work	31	09/28/2004	09/28/2004

The footer of the page contains links for NRCS, USDA, Accessibility Statement, USDA Privacy Policy, USDA Nondiscrimination Statement, and FOIA. The Windows taskbar at the bottom shows the Start button and several open applications, including Microsoft Outlook, Microsoft PowerPoint, and Internet Explorer, with the system clock displaying 8:18 AM.

# Conservation Practice Standards

- Definition
- Purpose
- Conditions where practice applies
- Criteria (mins and maxes for planning, designing, constructing, environmental reqs)
- Considerations (fish and wildlife, wetlands, social and safety aspects)
- Plans and Specifications (Construction, Design Data, Check Data)
- Operation and Maintenance

# Stream Work Conservation Practice Standards

- 322 – Channel Bank Vegetation SRC
- 500 – Obstruction Removal (VA) SCE
- 326 – Clearing and Snagging (VA) SCE
- 584 – Channel Stabilization (VA) SCE
- 582 – Open Channel (VA) SCE
- 580 – Streambank and Shoreline Protection (VA) SCE
- 395 – Stream Habitat Improvement and Management SRC
- 396 – Fish Passage SRC
- 391 - Riparian Forest Buffer (VA) SRC

# 322 Channel Bank Vegetation



1. Establish and maintain adequate **plants** to stabilize channel banks and adjacent areas.
2. **Reduce** erosion and sedimentation, **enhance** the environment through aesthetics and fish and wildlife habitat improvements.
3. Applies to channels, streams and ditches where **construction activities** destroyed existing vegetative cover.

# 500 Obstruction Removal



1. **Removal** and **disposal** of unwanted, unsightly or hazardous building, structures, vegetation, landscape features, trash and other material that **prevent or hinder installation of conservation practices** or present a hazard to their use and enjoyment.
2. Sites may be abandoned mine lands, construction sites, recreation areas, farms, ranches, and areas affected by **natural disasters**.

# 326 Clearing and Snagging



1. Removing logs, boulders, drifts, and other obstructions from a channel when the flow area of a channel is clogged and the stream flow is reduced. **Used primarily for emergency protection.**
2. Special attention is given to **restoring, maintaining, or improving** fish and wildlife values, aesthetics, shade trees, and other **natural resources** in the channel area.

# 584 Channel Stabilization



1. Using conservation **structures** to stabilize the channel of a stream.
2. A channel is considered **unstable** when changes in the channel bottom are on a **long term trend** toward aggradation or degradation.
3. Used in a stream channel that **cannot feasibly be controlled** by clearing obstructions, establishing vegetation, or installing upstream water control structures.

# 582 Open Channel



1. **Constructing or improving** a channel, either natural or artificial, in which water flows with a free surface.
2. Provide **discharge capacity** required for flood prevention, drainage, other authorized water management purposes, or any combination of these purposes.
3. Requires that **stability** requirements are met, and that all natural resources evaluated for **environmental impacts**.

# 580 Streambank & Shoreline Protection



Using **vegetation or structural** techniques to **stabilize and protect** banks of streams, lakes, estuaries, or excavated channels against **scour and erosion**.

# 580 Streambank & Shoreline Protection cont.....

The purpose (s) of this practice include the following:

1. Prevent loss of land mass
2. Prevent **damage** to utilities, roads, buildings, other facilities including conservation practices adjacent to the banks
3. Maintain the **capacity** of the channel
4. Control channel **meandering**
5. Reduce **sediment loads** causing downstream damage and pollution
6. Improve the stream for **recreation**
7. Improve the stream for **fish and wildlife**

# 391 Riparian Forest Buffer



1. Applies to areas of trees and/or shrubs located adjacent to permanent or intermittent **bodies of water** associated with ground water recharge.
2. Creates **shade** to lower water temperatures and improve habitat for aquatic animals.
3. Provides a source of **debris** necessary for aquatic organisms and wildlife.
4. Acts as a **buffer** to filter out pollutants that may adversely impact the water body, including shallow ground water.

# 395 Stream Habitat Improvement and Management



1. Maintain, improve or restore physical, chemical and biological function of a **stream and its associated riparian zone**, necessary for meeting the life history requirements of desired aquatic species.
2. Habitat improvements will be based on site-specific assessment of local hydrology, channel morphology, geomorphic setting, aquatic species, riparian and floodplain conditions, and any habitat limitations using the **NRCS Stream Visual Assessment Protocol** or comparable evaluation tool.

# 396 Fish Passage



1. Modification or removal of **barriers** that restrict or impede movement or migration of fish or other aquatic organisms.
2. Improve or provide upstream and downstream **passage** for fish and other aquatic organisms.