



Natural Resources Conservation Service  
P.O. Box 2890  
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**September 17, 2010**

**National Handbook of Conservation Practices  
450 – VI  
Notice 152  
Amendment 10**

**Purpose.** This notice transmits new or revised National Conservation Practice Standards, along with an updated index, for insertion into the National Handbook of Conservation Practices (NHCP). In addition, notes are included to highlight key changes made to each document.

**Effective Date.** This notice is effective upon receipt.

**Explanation of Changes.** New or revised National Conservation Practice Standards, as follows:

**Above Ground, Multi Outlet Pipeline (Code 431).**—Rescission of this practice will be effective October 1, 2010. This practice has been incorporated into the Criteria and Considerations of Irrigation System, Surface and Subsurface (Code 443).

**Access Control (Code 472).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The public comments lacked technical merit. The date of the standard was changed.

**Animal Mortality Facility (Code 316).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. Design criteria were changed, based on the revision of practice code 367 – Roofs and Covers. Disposal pits (masonry, treated timber, and pre-cast concrete structures constructed in the ground with the bottom of the pit exposed to the soil) have been omitted from the standard since most State regulations no longer allow these types of structures, and they are not considered environmentally friendly.

**Atmospheric Resource Management (Code 370).**—Rescission of this practice will be effective October 1, 2010. Several practice standards will replace 370, including Air Filtration and Scrubbing (Code 371), Combustion System Improvement (Code 372), and Dust Control on Unpaved Roads and Surfaces (Code 373). Several interim standards also may be used.

**Channel Bank Vegetation (Code 322).**—Rescission of this practice will be effective October 1, 2010. The changes in both Critical Area Planting (Code 342) and Streambank and Shoreline Protection (Code 580) will formally delete the need for Channel Bank Vegetation (Code 322).

DIST: R, S, L, and National Center Directors

**Channel Bed Stabilization (Code 584).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The name was changed from Channel Stabilization for better description, and minor edits were made.

**Composting Facility (Code 317).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. An additional purpose for organic matter was added, based on comments received from specialty groups. Design criteria for composting facility roofs were changed, based on the revision of practice code 367 – Roofs and Covers.

**Conservation Cover (Code 327).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The code added pollinator habitat to the purpose of wildlife habitat, and added considerations for lighter seeding rates when wildlife and/or pollinators are a primary purpose.

**Cover Crop (Code 340).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The standard was revised by adding three additional considerations to address the use of cover crops to break pest cycles, recycle nutrients, and recommend the use of mixtures to support pollinator habitat.

**Critical Area Planting (Code 342).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The practice was revised to include a purpose to stabilize stream and channel banks and shorelines, and provided additional criteria to establish cover on the stream banks and shorelines. In addition, seeding and planting considerations were added to address pollinators and wildlife.

**Dust Control from Animal Activity on Open Lot Surfaces (Code 375).**—This standard was formally reviewed to include public comments received through the *Federal Register* review process. This is a new conservation practice standard.

**Early Successional Habitat Development/Management (Code 647).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. We clarified the definition and purpose to include providing habitat for all or part of a species' life cycle, added additional planting criteria, added a new requirement to use WinPST if using chemicals, added new criteria on the timing of management actions, and supplemented the references.

**Fence (Code 382).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The public comments lacked technical merit. The date of the standard was changed.

**Field Border (Code 386).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. Pollinator habitat was added to the wildlife habitat purpose and to the criteria, and other considerations were added to address pollinator habitat.

**Filter Strip (Code 393).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. Considerations were added to address opportunities to include plant species and additional filter strip width to support pollinator habitat.

**Firebreak (Code 394).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The term “pollinator” was added to the planning consideration that discusses wildlife

**Forest Slash Treatment (Code 384).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The term “pollinator” was added to general criteria and to the wildlife planning considerations. Practice standards referenced in the standard were updated to reflect their new names (e.g., “Access Control and Integrated Pest Management”). A slash treatment reference from Northern Arizona University was also added.

**Forest Stand Improvement (Code 666).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The term “pollinator” was added to the “Additional Criteria to Enhance Wildlife Habitat” section and to the “Considerations” section that discusses wildlife habitat. Reference to Early Successional Habitat Development/Management (Code 647) and Rare and Declining Habitats (Code 643) was also added to the Additional Criteria to Enhance Wildlife Habitat. The “Additional Considerations” section was added, discussing invasive/noxious weed control and wildlife/sustainability requirements when biomass is removed for energy use. A reference to Access Road (Code 560) was added to the “General Criteria” section.

**Grazing Land Mechanical Treatment (Code 548).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The “Criteria” section changed, referring to and adding prescribed grazing following treatment. Considerations were expanded and references were added.

**Hedgerow Planting (Code 422).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The purpose was broadened for aquatic organisms and expanded to add habitat for terrestrial species, specifically pollinators. Criteria were added for pollinator habitat. References were also added.

**Irrigation Canal or Lateral (Code 320).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The “Purpose” section was revised, and references were added.

**Irrigation Land Leveling (Code 464).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The “Purpose” section was revised and the “Considerations” section was expanded.

**Irrigation System, Surface and Subsurface (Code 443).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. Changes included the following: removed the No. unit; incorporated criteria and considerations for Multi-Outlet Pipelines, thus eliminating the need for NRCS Conservation Practice Standard Above Ground, Multi Outlet Pipeline (Code 431); expanded “Considerations” section; and added “References” section.

**Karst Sinkhole Treatment (Code 527).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The practice name was changed from Sinkhole and Sinkhole Area Treatment. Practice does not apply to sinkholes with nonkarst origins (structural failures due to piping, etc.), and minor edits were made.

**Lined Waterway or Outlet (Code 468).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. Changes to the standard include the following: revision in the range in Manning’s roughness, and references cited in the criteria section; expansion of the “Considerations” section to include fish and wildlife and soil bioengineering, etc.; and more comprehensive guidance on what should be included in the “Plans and Specifications” section.

**Monitoring Well (Code 353).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. References to American Society for Testing Materials standards were updated, and minor edits were made.

**On-Farm Equipment Efficiency Improvement (Code 374).**—This standard was formally reviewed to include public comments received through the *Federal Register* review process. This is a new conservation practice standard.

**Pond Sealing or Lining, Bentonite Sealant (Code 521C).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The standard was revised to better match the changes to our technical guidance document, National Engineering Handbook Series, Part 651, Agricultural Waste Management Field Handbook (AWMFH), Chapter 10, Appendix 10D.

**Pond Sealing or Lining, Compacted Clay Treatment (Code 521D).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The standard was revised to better match the changes to our technical guidance document, National Engineering Handbook Series, Part 651, AWMFH, Chapter 10, Appendix 10D.

**Pond Sealing or Lining, Soil Dispersant (Code 521B).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The standard was revised to better match the changes to our technical guidance document, National Engineering Handbook Series, Part 651, AWMFH, Chapter 10, Appendix 10D.

**Prescribed Burning (Code 338).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The “Considerations” section added pollinators.

**Prescribed Grazing (Code 528).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The public comments lacked technical merit. The date of the standard was changed.

**Restoration and Management of Rare and Declining Habitats (Code 643).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. We clarified the purpose; added to criteria control of invasive animal species; added the following considerations: landscape influence, disturbance regimes, climate change, project size, and an associated practice list; and made minor edits for clarity.

**Riparian Herbaceous Cover (Code 390).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The public comments lacked technical merit. The date of the standard was changed.

**Rock Barrier (Code 555).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The “Considerations” section was expanded to consider the vegetation response and effects on microhabitats for wildlife and pollinators.

**Roofs and Covers (Code 367).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. Changes to the standard include changing the name from Waste Facility Cover to Roofs and Covers, and adding additional purpose and criteria for reducing greenhouse gas emissions and odor reduction. Additional criteria for biogas control, utilization, and safety were incorporated into the standard. New criteria for design of roofs and covers have been incorporated into this standard and referenced in Animal Mortality Facility (Code 316) and Composting Facility (Code 317) for use consistency.

**Salinity and Sodic Soil Management (Code 610).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. Updates clarified the “Conditions Where Practice Applies” and “General Criteria Applicable to All Purposes” sections. Separate sections were added for criteria applicable to irrigated lands and to nonirrigated Lands. We expanded the sections for Criteria to Reduce Problems of Crusting, Permeability or Soil Structure on Sodium-Affected Soils, and to Saline Seeps and their Recharge Areas. The “Considerations” section was expanded, detailed requirements were added for “Plans and Specifications,” the “Operation and Maintenance” section was deleted, and the “References” section was reduced.

**Shallow Water Development and Management (Code 646).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The public comments lacked technical merit. The date of the standard was changed.

**Stormwater Runoff Control (Code 570).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The title was changed from Runoff Management System. The definition was changed to reflect the new title and the broader scope of the practice. The purpose was rewritten to include erosion and sedimentation, water quality, and water quantity.

**Streambank and Shoreline Protection (Code 580).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The reference to 322 was removed and replaced with a reference to 342.

**Stream Crossing (Code 578).**—This standard was formally reviewed to include public comments received through the *Federal Register* review process. Upon further review, the comments did not have technical merit. Only the date was updated.

**Stream Habitat Improvement and Management (Code 395).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. “Stream Visual Assessment Protocol” was changed to “Stream Visual Assessment Protocol, Version 2.” The “Considerations” section was changed, monitoring guidelines for evaluating the effectiveness of the conservation actions were added, and post-project monitoring was added to “Operation and Maintenance” section.

**Tree/Shrub Establishment (Code 612).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The term “pollinator” was added to the wildlife planning consideration that discusses wildlife. Practice standards referenced in the standard were updated to the new names (e.g., Access Control and Integrated Pest Management).

**Underground Outlet (Code 620).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The “Purpose” section was expanded to include other water concentration areas.

**Upland Wildlife Habitat Management (Code 645).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The public comments lacked technical merit. The date of the standard was changed.

**Vertical Drain (Code 630).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. Additional emphasis was placed on water quality protection if practice is used.

**Water Harvesting Catchment (Code 636).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. Changes included the revision of the “Purpose” section; streamlining of text; and expansion of the “Considerations” section.

**Watering Facility (Code 614).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. Criteria were reworded

to require escape facilities unless local knowledge and experience indicate that wildlife will not be at risk of drowning.

**Water Well (Code 642).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The purpose was clarified to exclude human consumption. Screen entrance velocity criteria were changed in accordance with the American Water Works Association standard.

**Water Well Decommissioning (Code 351).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The standard’s name was changed from Well Decommissioning, distinguishing water well decommissioning from industry practices for closure of other purposed wells (oil, injection, etc.). The purpose was clarified. Additional clarification on plugging materials was added.

**Well Water Testing (Code 355).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The “Conditions Where Practice Applies” section was updated to exclude water wells not for agricultural use, and minor edits were made.

**Wetland Creation (Code 658).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. We had few changes to this practice. We reorganized considerations into topics (hydrology, vegetation, and soils) to make the practice easier to use and understand; we also added references.

**Wetland Enhancement (Code 659).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. We changed the definition of this practice standard to ensure its clear differentiation from the wetland restoration practice; added hydrology considerations; reorganized considerations into topics (hydrology, vegetation, and soils) to make the practice easier to use and understand; and added references.

**Wetland Restoration (Code 657).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. We changed the definition of this practice standard to ensure its clear differentiation from the wetland enhancement practice; added functional assessments or equivalent in criteria; added hydrology considerations; reorganized considerations into topics (hydrology, vegetation, and soils) to make the practice easier to use and understand; and added references.

**Wetland Wildlife Habitat Management (Code 644).**—This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. The public comments lacked technical merit. The date of the standard was changed.

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**Filing Instructions.** If a hard copy of the NHCP is maintained, replace the “Contents” pages i through vi, dated November 2008, with the revised pages found at [http://directives.sc.egov.usda.gov/H\\_450\\_NHCP\\_Index\\_152.rtf](http://directives.sc.egov.usda.gov/H_450_NHCP_Index_152.rtf).

Insert the new or revised standards listed above in bold in the NHCP in alphabetical order, as designated on the revised “Contents” pages. Remove and archive, as appropriate, the existing practice standard for the following:

Above Ground, Multi Outlet Pipeline (Code 431), dated August 2006  
 Access Control (Code 472), dated May 2008  
 Animal Mortality Facility (Code 316), dated March 2003  
 Atmospheric Resource Management (Code 370), dated September 2003  
 Channel Bank Vegetation (Code 322), dated November 2002  
 Channel Stabilization (Code 584), dated July 2002  
 Composting Facility (Code 317), dated October 2003  
 Conservation Cover (Code 327), dated June 2007  
 Cover Crop (Code 340), dated May 2006  
 Critical Area Planting (Code 342), dated June 2007  
 Early Successional Habitat Development/Management (Code 647), dated August 2005  
 Fence (Code 382), dated January 2008  
 Field Border (Code 386), dated June 2007  
 Filter Strip (Code 393), dated May 2008  
 Firebreak (Code 394), dated April 2005  
 Forest Slash Treatment (Code 384), dated April 2005  
 Forest Stand Improvement (Code 666), dated January 2006  
 Grazing Land Mechanical Treatment (Code 548), dated March 2003  
 Hedgerow Planting (Code 422), dated October 2003  
 Irrigation Canal or Lateral (Code 320), dated March 2003  
 Irrigation Land Leveling (Code 464), dated September 2001  
 Irrigation System, Surface and Subsurface (Code 443), dated March 2003  
 Lined Waterway or Outlet (Code 468), dated July 2002  
 Monitoring Well (Code 353), dated September 2003  
 Pond Sealing or Lining, Bentonite Sealant (Code 521C), dated September 2001  
 Pond Sealing or Lining, Compacted Clay Treatment (Code 521D), dated February 2005  
 Pond Sealing or Lining, Soil Dispersant (Code 521B), dated September 2001  
 Prescribed Burning (Code 338), dated January 2006  
 Prescribed Grazing (Code 528), dated June 2007  
 Restoration and Management of Rare and Declining Habitats (Code 643), dated August 2005  
 Riparian Herbaceous Cover (Code 390), dated April 2010  
 Runoff Management System (Code 570), dated October 1978  
 Rock Barrier (Code 555), dated July 2002  
 Salinity and Sodic Soil Management (Code 610), dated May 2004  
 Shallow Water Development and Management (Code 646), dated April 2010  
 Sinkhole and Sinkhole Area Treatment (Code 527), dated June 2007  
 Streambank and Shoreline Protection (Code 580), dated April 2005  
 Stream Crossing (Code 578), dated December 2003  
 Stream Habitat Improvement and Management (Code 395), dated August 2006  
 Tree/Shrub Establishment (Code 612), dated January 2006



Underground Outlet (Code 620) dated September 2008  
 Upland Wildlife Habitat Management (Code 645), dated April 2010  
 Vertical Drain (Code 630), dated May 2004  
 Waste Facility Cover (Code 367), dated September 2003  
 Water Harvesting Catchment (Code 636), dated September 2003  
 Watering Facility (Code 614), dated August 2006  
 Water Well (Code 642), dated February 2005  
 Water Well Decommissioning (Code 351), dated December 2003  
 Well Water Testing (Code 355), dated May 2004  
 Wetland Creation (Code 658), dated August 2005  
 Wetland Enhancement (Code 659), dated August 2006  
 Wetland Restoration (Code 657), dated August 2005  
 Wetland Wildlife Habitat Management (Code 644), dated April 2010.

This notice, and each of the conservation practice standards included with this notice, can be accessed electronically through NRCS at [National Conservation Practice Standards - NHCP | NRCS](#) or from the FTP server at [FTP directory /NHQ/practice-standards/standards/ at ftp-fc.sc.gov.usda.gov](#).

**Federal Register Notices.**

NRCS published two notices to solicit public comments about how to improve all agency conservation practice standards in the *Federal Register* on June 12, 2009, for a 60-day comment period and August 14, 2009, for a 30-day comment period. Comments from the public were accepted during the 60- and 30-day comment periods.

NRCS also published two different notices to solicit public comments about how to improve specific agency conservation practice standards in the *Federal Register* on June 15, 2010, and on August 4, 2010, for 30-day comment periods. Comments from the public were accepted during the two comment periods.

Guidance to the States and the Pacific Islands and Caribbean Areas for complying with the provisions of the 1996 Farm Bill that require advertising for public comment prior to revising NRCS State-level technical guides can be found in [Title 450, General Manual, Part 401, Subpart B, Conservation Practice Standards, Section 401.19](#).

/s/

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/s/

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