



Natural Resources Conservation Service
P.O. Box 2890
Washington, D.C. 20013

NATIONAL HANDBOOK OF CONSERVATION PRACTICES

450 – NHCP
NOTICE 172

July 28, 2021

Purpose. This notice transmits revised national Conservation Practice Standards (CPSs), along with an updated index for insertion into the National Handbook of Conservation Practices (NHCP). Notes are included to highlight key changes made to each CPS. States have until October 1, 2022, to adopt these changes into the state editions of these standards.

Effective Date. This notice is effective October 1, 2021.

Explanation of Changes. New and revised national CPSs are as follows:

Agrichemical Handling Facility (Code 309): Minor revisions were made for improved organization and for clarity. Some flexible membrane liner thicknesses were changed. The minimum storage volume of the Agrichemical Handling Facility was changed to 1.1 times the volume of largest storage container within the containment area, plus the displacement volume that is occupied by all the other tanks within and below the height of the containment wall or dike.

Air Filtration and Scrubbing (Code 371): Formatting and writing style were updated to meet current agency requirements. Minor revisions were made for clarity and readability purposes and to update citations for existing references. Major changes were made to the Plans and Specifications to identify needed information and to remove requirements of supplying supporting documentation with plans and specifications.

Channel Bed Stabilization (Code 584): Minor changes were made, mostly requiring more specific channel and sedimentation information in the Plans and Specifications section.

Dry Hydrant (Code 432): The revised standard expands the purpose of dry hydrant to include providing access of available water for additional purposes including livestock water, small acreage irrigation, wetland management, and other purposes where water is needed in limited quantities on a periodic basis in addition to the purpose of providing access to an available water source for fire suppression. The revised standard is intended to be more flexible regarding the use of the standard and encouraging landowners to install dry hydrants to meet needs in addition to fire suppression. Criteria were divided to separately address fire suppression and other purposes. Criteria were revised to be more general.

Dust Management for Pen Surfaces (Code 375): The name of this standard has been changed from “Dust Control from Animal Activity on Open Lot Surfaces” to “Dust Management for Pen

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Surfaces” to reflect that it is now entirely a management standard and to simplify the name. Formatting and writing style were updated to meet current agency requirements. Specific criteria, considerations, and references to water application via solid set sprinkler systems were removed from the standard because it is now covered in Sprinkler System (Code 442). Specific criteria related to increased stocking density to supply additional moisture to the pen surface for reducing dust potential were added. New references were added, and minor revisions were made for clarity and readability purposes and to update citations for existing references.

Energy Efficient Agricultural Operation (Code 374): The standard has been revised extensively. The name has been changed from “Farmstead Energy Improvement” to “Energy Efficient Agricultural Operation” to reflect the energy efficiency purpose. The standard has been rewritten to focus on the energy efficiency criteria, fire and electrical safety, flexibility, and manufacturer’s requirements. The requirement for an ASABE S612 Type 2 energy audit has been revised to allow other assessment methods. Criteria was added to support Prescriptive Upgrades to simplify and streamline implementation of some instances of the practice. Criteria was added for heat and air transfer systems and equipment.

Energy Efficient Building Envelope (Code 672): There were no technical changes to the standard. A statement was added in Criteria on compliance with laws, codes, and regulations to be consistent with other engineering practices. A statement was added in Criteria to clarify energy savings documentation is required. Considerations were added for using an on-farm energy audit for recommendations, for renewables, and greenhouse gases. A reference was added for on-farm energy audits.

Energy Efficient Lighting System (Code 670): There were no technical changes to the standard. A statement was added in Criteria on compliance with laws, codes, and regulations to be consistent with other engineering practices. A statement was added in Criteria to clarify energy savings documentation is required. Considerations were added for using an on-farm energy audit for recommendations, for renewables, and greenhouse gases. A reference was added for on-farm energy audits.

Fence (Code 382): Formatting and writing style were updated to meet current agency requirements. Minor revisions were made for clarity and readability purposes. References were updated based on literature review.

Land Reclamation, Abandoned Mined Land (Code 543): The criteria in Land Reclamation, Currently Mined Land (Code 544) and Land Reclamation, Toxic Discharge Control (Code 455), were added to criteria for Land Reclamation, Abandoned Mined Land in order to put all of the technical criteria for abandoned mined land reclamation into one document. The definition, purpose, and conditions where the practice applies were updated to reflect the intent of the practice. The criteria were updated to include the current environmental and personal safety laws and requirements. Plans and Specifications were updated to include the required level of detail.

On-Farm Secondary Containment Facility (Code 319): Formatting and writing style were updated to meet current agency requirements. The redundant purpose was removed since both were to protect water quality. Technical requirements were added or revised, as needed, to be consistent with other referenced codes within the standard.

Precision Land Forming and Smoothing (Code 462): The standard has been combined with CPS 466-Land Smoothing since both standards are similar in practice. Minor revisions were made. Clarity was added regarding grading plan and soil health.

Recreation Land Improvement and Protection (Code 566): CPS 566, originally titled Recreation Land Grading and Shaping, is being combined with CPS 562, Recreation Area Improvement, and renamed CPS 566, Recreation Land Improvement and Protection. Combining the two standards into a single standard makes sense logically and allows for eliminating one of the standards. The new standard retains the number Code 566, and titled, Recreation Land Improvement and Protection to better reflect the elements of the two standards being combined. CPS 562 will be archived. CPS 566 is not a standard likely to be used under NRCS administered programs, such as EQIP, but is a useful standard for Watersheds Protection and Flood Prevention Act (Pub. L. 83-566) work in those locations with the potential for development of recreational facilities.

Roof Runoff Structure (Code 558): One purpose was rewritten to remove references to foundation protection since that is not an established resource concern and now just addresses soil erosion. Minor wording changes were made to the Criteria section for clarity and specificity. Changes were made to the Additional Criteria section to Capture Water for Other Uses to address water quality for reuse of captured water and criteria modified for storage of the captured water.

Sinkhole Treatment (Code 527): The name was changed from Karst Sinkhole Treatment to Sinkhole Treatment. Definition changed to include karst. Safety hazard was addressed as well as minor wording changes to improve clarity.

Sprinkler System (Code 442): Formatting and writing style were updated to meet current agency requirements. Minor revisions were made for clarity and readability purposes. Updated Tables to meet current industry standards. Modified the Land Slope section to allow for pivot systems that may not meet the slope requirement but meet the run-off and application rate requirements. Added a section for Mobile Drip Irrigation (MDI). MDI is a type of irrigation that is partially sprinkler and partially drip type irrigation and it was decided that MDI criteria is more applicable to the standard.

Vegetative Barrier (Code 601): Added new purpose, “Reduce ephemeral gully erosion” and reworded the last purpose. Changed the Conditions Where Practice Applies section to add gully erosion to the statement. Formatting and writing style were updated to meet current agency requirements. Changed table to add stem diameter (.35) and associated densities. Also changed the densities for the .5 stem diameter.

Waste Separation Facility (Code 632): Safety was moved to the beginning of the General Criteria section to emphasize the need for safety on all separation technologies. Wording was added to address location of the facilities and the requirement to manage the 25-year, 24-hour storm event. The sections on Separator selection and Separation efficiency were revised to reference NRCS guidance document National Engineering Handbook (NEH), Part 637, Chapter 4. Direction was added to the Storage or Treatment of Separated Solids section to design storage facilities for separated solids in accordance with the appropriate NRCS standard. A consideration on the biosecurity of separation facilities was added.

Waste Transfer (Code 634): Formatting and writing style were updated to meet current agency requirements. Minor revisions were made for clarity and readability purposes. The structural design requirements were updated to align with changes made to the National Engineering Manual. The criteria for reception pit size, pipe clean-outs and pipeline velocity were revised.

Wastewater Treatment - Milk House (Code 627): Added a new conservation practice standard developed to better address the technical complexities of treating greywater from cleaning the milking equipment. The practice standard is based on several university extension publications referenced in the standard and NRCS field experience.

Windbreak/Shelterbelt Establishment and Renovation (Code 380): Two practice standards were combined, and Code 380 now includes windbreak renovation as well as establishment. The definition, purpose, conditions where practice applies, and considerations sections were updated. Criteria sections were added to address renovation; several other sections were moved to the Considerations section. The Plans and Specifications section were expanded to align with conservation plan requirements, and operations and maintenance sections were expanded to clarify requirements. References were added.

Pen and Ink Changes. There are several conservation practices that have minor Pen and Ink changes to the standard. Standards with a Pen and Ink change have an “R” after the release date on the national standard.

Irrigation Ditch Lining (428) – Under the “Water surface elevation” subheading, minimum head was changed to four inches rather than four feet. The current date of the standard remains October 2020.

Irrigation Pipeline (Code 430) – Design for the cathodic protection added “or equivalent method” to the requirement NRCS Technical Note (Title 210), Design Engineering, Design Note 12, “Control of Underground Corrosion”. The current date of the standard remains September 2020.

Irrigation System, Microirrigation (Code 441) – Corrected a spacing and formatting error following the General Criteria section and inserted missing text “in accordance with.” The current date of the standard remains September 2020.

Livestock Pipeline (Code 516) – Revised the Appurtenances Subsection of the General Criteria Section to allow for an air-gap distance of one inch or twice the inside diameter of the supply pipe or valve opening, whichever is greater. This is an update to the previously established air-gap distance of 2.5 times the diameter of the incoming pipe and aligns the CPS with industry standards and CPS 516 Livestock Pipeline. The current date of the standard remains September 2020.

Pasture and Hay Planting (Code 512) - A sentence on plant selectin for forage production was moved from the General Criteria to the Considerations section. Another sentence on plant selection was moved from General Criteria and placed under a new ‘Additional Criteria for Reducing Erosion’.

Watering Facility (Code 614) – Revised the Appurtenances Subsection of the General Criteria Section to allow for an air-gap distance of one inch or twice the inside diameter of the supply

pipe or valve opening, whichever is greater. This is an update to the previously established air-gap distance of 2.5 times the diameter of the incoming pipe and aligns the CPS with industry standards and CPS 516 Livestock Pipeline. The current date of the standard remains September 2020.

Water Well (Code 642) – A reference to the "Well performance (aquifer) testing" section in the Engineering Field Handbook (210-10-NEH-650) has been updated from to the correct reference (210-650.1205). The current date of the standard remains October 2020.

Standards Being Archived (3). Land Reclamation, Currently Mined Land (544) and Land Reclamation, Toxic Discharge Control (455) are being archived since they have been combined into Land Reclamation, Abandoned Mined Land (543). **Land Smoothing (466)** will be archived since it has been combined into Precision Land Forming and Smoothing (462). These will be archived effective October 1, 2022.

Lifespan. The lifespan for the Dam practice standard has been changed to 50 years and the lifespan of Cross Wind Ridges has been changed to 1 year.

Filing Instructions. If a hardcopy of the NHCP is maintained, replace the “Contents” section (pages i through vi, dated October 2021) with the revised pages found at <http://directives.sc.egov.usda.gov/viewerFS.aspx?hid=22299>

Replace the prior existing practice standards and archive, as appropriate, with the practice standards contained in this notice.

This notice and each of the conservation practice standards included with this notice can be accessed electronically through the NRCS website at http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/technical/cp/ncps/?cid=nrcs143_026849

Federal Register Notice

NRCS published a notice to solicit public comments about how to improve specific agency conservation practice standards in the *Federal Register* on March 24, 2020 and March 9, 2021 for a 30-day comment periods. Comments from the public were accepted during the comment period.

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, Section 401.19.

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