

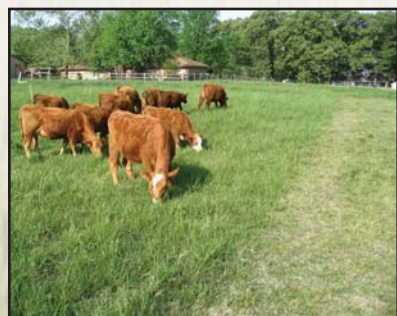


United States Department of Agriculture
Natural Resources Conservation Service

ARKANSAS

Conservation Practice Catalog

As a landowner or farm operator, you face many decisions when managing your natural resources. When you evaluate options for your operation, consider installing conservation practices listed in this handout to help improve your resource management and cropping system. A conservation plan can be developed to improve management for additional resource concerns. NRCS staff and your local soil and water conservation district (SWCD) are available to help you make the right choices to protect your operation and resources.



Helping People Help the Land

PRACTICE DESCRIPTION**PURPOSE****Access Control 472**

The temporary or permanent exclusion of animals, people, vehicles, and/or equipment from an area.

This practice is applied to achieve and maintain water quality by managing the intensity of use by animals, people, vehicles, and/or equipment in coordination with the application schedule of practices, measures and activities specified in the conservation plan.

Access Road 560

A travel-way for equipment and vehicles constructed to provide a fixed route for vehicular travel for resource activities involving the management of timber, livestock, agriculture, wildlife habitat, and other conservation enterprises while protecting the soil, water, air, fish, wildlife, and other adjacent natural resources.

This practice is planned where access is needed from a private or public road or highway to a land use enterprise or conservation measure, or where travel ways are needed in a planned land use area. Access roads range from seasonal use roads, designed for low speed and rough driving conditions, to all-weather roads heavily used by the public and designed with safety as a high priority. Some roads are only constructed for a single purpose; i.e. control of forest fires, logging and forest management activities, access to remote recreation areas, or access for maintenance of facilities.

Agrichemical Handling Facility 309

A facility with an impervious surface to provide an environmentally safe area for the handling of on-farm agrichemicals to provide a safe environment on farm and ranch operations for the storage, mixing, loading and cleanup of agrichemicals, retain incidental spillage, retain leakage, and to reduce pollution to surface water, groundwater, air, and/or soil.

This practice applies where:

- The handling of agrichemicals creates significant potential for pollution of surface water, groundwater, air or soil and a facility is needed to properly manage and handle the chemical operation;
- An adequate water supply is available for filling application equipment tanks, rinsing application equipment and chemical containers as needed for the operation;
- Soils and topography are suitable for construction.

NOTE: This practice does not apply to the handling or storage of fuels. This practice does not apply to commercial or multi-landowner agrichemical handling operations.

PRACTICE DESCRIPTION**PURPOSE****Alley Cropping 311**

Trees or shrubs planted in a set or series of single or multiple rows with agronomic, horticultural crops or forages produced in the alleys between the rows of woody plants.

This practice applies where:

- Produce tree and/or shrub products (wood, nuts, berries, fodder, mulch, etc.) along with crops or forages.
- Improve crop or forage quality and quantity by enhancing microclimatic conditions.
- Reduce surface water runoff and erosion.
- Improve utilization and recycling of soil nutrients.
- Reduce subsurface water quantity or alter water table depths.
- Provide or enhance wildlife habitat.
- Create habitat for biological pest management.
- Improve crop diversity, quantity, quality and economic returns.
- Decrease movement offsite of nutrients or chemicals.
- Increase net carbon storage in the vegetation and soil.
- Improve air quality.

Amendments for Treatment of Ag Waste 591

The treatment of manure, wastewater, storm water runoff from high use areas, and other wastes, with chemical or biological additives.

This practice applies where the use of a chemical or biological amendments will alter the physical and chemical characteristics of the animal waste as a part of a planned waste management system to:

- Improve or protect air quality
- Improve or protect water quality
- Improve or protect animal health
- Alter the consistency of the waste stream of facilitates implementation of a waste management system

Anerobic Digester 366

A component of a waste management system that provides biological treatment in the absence of oxygen.

This practice is applied for the treatment of manure and other byproducts of animal agricultural operations for one or more of the following reasons to:

- capture biogas for energy production
- manage odors
- reduce the net effect of greenhouse gas emissions
- reduce pathogens

PRACTICE DESCRIPTION**PURPOSE****Animal Mortality Facility 316**

An on-farm facility for the treatment or disposal of livestock and poultry carcasses for routine and catastrophic mortality events.

This practice is applied for one or more of the following purposes:

- Reduce impacts to surface and groundwater resources
- Reduce the impact of odors
- Decrease the spread of pathogens

Animal Trails and Walkways 575

Established lanes or travel ways that facilitate animal movement.

This practice is applied to achieve one or more of the following:

- Provide or improve access to forage, water, working/handling facilities, and/or shelter
- Improve grazing efficiency and distribution, and/or
- Protect ecologically sensitive, erosive and/or potentially erosive sites

Anionic Polyacrylamide Erosion Control 450

Application of water-soluble Anionic Polyacrylamide (PAM) to meet a resource concern.

This practice is applied as part of a conservation system to support one or more of the following:

- Reduce soil erosion by water or wind
- Improve water quality
- Improve air quality by reducing dust emissions

PRACTICE DESCRIPTION**PURPOSE****Aquaculture Ponds 397**

A water impoundment constructed and managed for commercial production of fish and other aquaculture products.

This practice applies to all types of ponds installed or modified for commercial production of fish and other animals and plants. The purpose of the practice is to provide a favorable water environment for producing, growing, harvesting, and marketing commercial aquaculture crops.

Bedding 310

This practice involves forming the surface of flat, poorly drained land into a series of parallel ridges and furrows. The practice is used to create a warm, dry planting bed for establishment of vegetation.

Bedding is a relatively low cost practice that improves surface drainage and creates an elevated, more favorable planting condition for establishment of field crops, trees, and other types of vegetation. It does not apply to the cultural practice of “listing” or bedding cropland on an annual basis. Beds run in the direction of the general slope so that drainage can be provided without causing erosion. Engineering surveys are not needed when the general slope of the land is known. However, the furrows are to be graded toward a natural or constructed outlet with sufficient capacity and protection from erosion.

Brush Management 314

The management or removal of woody (non-herbaceous or succulent) plants including those that are invasive and noxious.

This practice is applied to achieve one or more of the following:

- Create the desired plant community consistent with the ecological site.
- Restore or release desired vegetative cover to protect soils, control erosion, reduce sediment, improve water quality or enhance stream flow.
- Maintain, modify, or enhance fish and wildlife habitat.
- Improve forage accessibility, quality and quantity for livestock and wildlife.
- Manage fuel loads to achieve desired conditions.

PRACTICE DESCRIPTION**PURPOSE****Channel Bed Stabilization 584**

Measure(s) used to stabilize the bed or bottom of a channel. This practice applies to the beds of existing or newly constructed alluvial or threshold channels that are undergoing damaging aggradation or degradation and that cannot be feasibly controlled by clearing or snagging, by the establishment of vegetative protection, by the installation of bank protection, or by the installation of upstream water control measures.

This practice may be applied as part of a conservation management system to support one or more of the following:

- Maintain or alter channel bed elevation or gradient
- Modify sediment transport or deposition
- Manage surface water and groundwater levels in floodplains, riparian areas, and wetlands.

Clearing and Snagging 326

Removal of vegetation along the bank (clearing) and/or selective removal of snags, drifts, or other obstructions (snagging) from natural or improved channels and streams.

Reduce risks to agricultural resources or civil infrastructure by removing obstructions that hinder channel flow or sediment transport in order to accomplish one or more of the following:

- Restore flow capacity and direction;
- Prevent excessive bank erosion by eddies or redirection of flow;
- Reduce the undesirable formation of bars; and/or;
- Minimize blockages by debris and ice.

Combustion System Improvement 372

Installing, replacing, or retrofitting agricultural combustion systems and/or related components or devices for air quality and energy efficiency improvement.

This practice is applied to achieve one or more of the following:

- To improve air quality by addressing the air quality resource concerns for particulate matter and ozone precursors by mitigating actual or potential emissions of oxides of nitrogen and/or fine particulate matter
- To improve the energy efficiency of agricultural combustion systems

PRACTICE DESCRIPTION**PURPOSE****Composting Facility 317**

A facility to process raw organic by-products such as, animal mortality and manure into biologically stable organic material.

This practice is applied to reduce the pollution potential of organic agricultural wastes to surface and ground water by one or more of the following:

- Reduces volume by 25% to 50%
- Improves fertilizing capabilities by converting nitrogen to less soluble form
- Aids in Nutrient Management

Conservation Cover 327

Establishing and maintaining permanent vegetative cover.

This practice may be applied to accomplish one or more of the following:

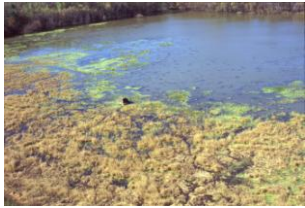
- Reduce soil erosion and sedimentation
- Improve water quality
- Improve air quality
- Enhance wildlife habitat
- Improve soil quality
- Manage plant pests

Conservation Crop Rotation 328

Growing crops in a recurring sequence on the same field.

This practice may be applied as part of a conservation management system to support one or more of the following:

- Reduce sheet and rill erosion
- Reduce soil erosion from wind
- Maintain or improve soil organic matter content
- Manage the balance of plant nutrients
- Improve water use efficiency
- Manage plant pests (weeds, insects, and diseases)
- Provide food for domestic livestock
- Provide food and cover for wildlife

PRACTICE DESCRIPTION**PURPOSE****Constructed Wetland 656**

An artificial ecosystem with hydrophytic vegetation for water treatment.

For treatment of wastewater and contaminated runoff from agricultural processing, livestock, and aquaculture facilities, or for improving the quality of storm water runoff or other water flows lacking specific water quality discharge criteria.

Contour Buffer Strips 332

Narrow strips of permanent, herbaceous vegetative cover established around the hill slope, and alternated down the slope with wider cropped strips that are farmed on the contour.

This practice is applied to achieve one or more of the following:

- Reduce sheet and rill erosion
- Reduce transport of sediment and other water-borne contaminants downslope
- Increase water infiltration

Contour Farming 330

Using ridges and furrows formed by tillage, planting and other farming operations to change the direction of runoff from directly downslope to around the hillslope.

This practice is applied to achieve one or more of the following:

- Reduce sheet and rill erosion
- Reduce transport of sediment, other solids and the contaminants attached to them
- Increase water infiltration

PRACTICE DESCRIPTION**PURPOSE****Contour Orchard and Other Perennial Crops 331**

Planting orchards, vineyards, or other perennial crops so that all cultural operations are done on or near the contour.

Apply this practice on sloping land where orchards, vineyards, or other perennial crops are to be established to accomplish one or more of the following:

- Reduce soil erosion
- Reduce transport of sediment and other associated contaminants
- Increase Infiltration

For annually planted crops use the practice Contour Farming (330).

Cover Crop 340

Crops including grasses, legumes and forbs for seasonal cover and other conservation purposes.

This practice is applied to achieve one or more of the following:

- Reduce erosion from wind and water
- Increase soil organic matter content
- Promote biological nitrogen fixation
- Increase biodiversity
- Weed suppression
- Provide supplemental forage
- Soil moisture management
- Minimize and reduce soil compaction

Critical Area Planting 342

Establishing permanent vegetation on sites that have or are expected to have high erosion rates, and on sites that have physical, chemical or biological conditions that prevent the establishment of vegetation with normal practices.

This practice is applied to achieve one or more of the following:

- Stabilize areas with existing or expected high rates of soil erosion by water
- Stabilize areas with existing or expected high rates of soil erosion by wind
- Rehabilitate and revegetate degraded sites that cannot be stabilized through normal farming practices
- Stabilize coastal areas, such as sand dunes and riparian areas

PRACTICE DESCRIPTION**PURPOSE****Cross Wind Ridges 588**

Ridges formed by tillage, planting or other operations and aligned across the direction of erosive winds. This practice applies to cropland.

It is best adapted on soils that are stable enough to sustain effective ridges and cloddiness, such as loamy and clayey soil materials. It is not well adapted on soils with lower aggregate stability such as sandy soil materials and certain organic soils.

This practice is applied to achieve one or more of the following:

- Reduce soil erosion from wind.
- Protect growing crops from damage by wind-borne soil particles.
- Reduce soil particulate emissions to the air.

Dam 402

An artificial barrier that can impound water for one or more beneficial purposes.

This practice is applied to achieve one or more of the following:

- Reduce downstream flood damage.
- Provide permanent water storage for one or more beneficial uses such as irrigation or livestock supply, fire control, municipal or industrial uses, or recreational uses.
- Create or improve habitat for fish and wildlife.

Deep Tillage 324

Performing tillage operations below the normal tillage depth to modify adverse physical or chemical properties of a soil.

This practice is applied to achieve one or more of the following:

- Bury or mix soil deposits from wind or water erosion or flood overwash
- Reduce concentration of soil contaminants, which inhibit plant growth
- Fracture restrictive soil layers

PRACTICE DESCRIPTION**PURPOSE****Dike 356**

A berm or ridge, or ridge and channel combination of compacted soil to channel water to a desired location or away from an undesired location.

This practice is applied to achieve one or more of the following:

- Protect people and property from floods
- Control water level in connection with crop production, fish and wildlife management; or wetland maintenance, improvement, restoration, or construction
- Direct water to stable outlets or traps
- Direct clean water away from disturbed or polluted areas

Diversion 362

A channel constructed across the slope with a supporting ridge on the lower side.

This practice may be applied as part of a resource management system to support one or more of the following purposes:

- Break up concentrations of water on long slopes, on undulating land surfaces, and on land that is generally considered too flat or irregular for terracing
- Increase or decrease the drainage area above ponds
- Protect terrace systems by diverting water from the top terrace where topography, land use, or land ownership prevents terracing the land above
- Intercept surface and shallow subsurface flow
- Reduce runoff damages from upland runoff

Drainage Water Management 554

The use of structures for water control in the process of managing water discharges from surface and/or subsurface agricultural drainage systems.

The purpose of this practice is:

- Reduce nutrient, pathogen, and/or pesticide loading from drainage systems into downstream receiving waters
- Improve productivity, health, and vigor of plants
- Reduce oxidation of organic matter in soils
- Reduce wind erosion or particulate matter (dust) emissions
- Provide seasonal wildlife habitat

PRACTICE DESCRIPTION**PURPOSE****Dry Hydrant 432**

A non-pressurized permanent pipe assembly system installed into water source that permits the withdrawal of water by suction. To provide all weather access to an available water source for fire suppression.

Where a dependable source of water is available, where transport vehicles can access the site, and where a source of water is needed for fire suppression.

Early Successional Habitat Development / Management 647

Manage plant succession to develop and maintain early successional habitat to benefit desired wildlife and/or natural communities. To provide habitat for species requiring early successional habitat for all or part of their life cycle

This practice is applied on all lands that are suitable for the kinds of desired wildlife and plant species. Management will be designed to achieve the desired plant community structure (e.g., density, vertical and horizontal cover) and plant species diversity.

Farmstead Energy Improvement 374

Installing, replacing, or retrofitting agricultural equipment systems and/or related components or devices which results in an on-farm and/or off-site reduction in actual or potential emissions of greenhouse gases.

This practice is applied to achieve the following:

- Reduce net greenhouse gas emissions (on farm and/or off-site) from agricultural systems or components by implementing the recommendations from on-site energy audits

PRACTICE DESCRIPTION**PURPOSE****Feed Management 592**

Managing the quantity of available nutrients fed to livestock and poultry for their intended purpose on confined livestock and poultry operations with a whole farm nutrient imbalance, with more nutrients imported to the farm than are exported and/or utilized by cropping programs.

- Supply the quantity of available nutrients required by livestock and poultry for maintenance, production, performance, and reproduction; while reducing the quantity of nutrients, especially nitrogen and phosphorus, excreted in manure by minimizing the over-feeding of these and other nutrients.
- Improve net farm income by feeding nutrients more efficiently.

Fence 382

A constructed barrier to animals or people.

This practice facilitates the accomplishment of conservation objectives by providing a means to control movement of animals, people, and vehicles.

Field Border 386

A strip of permanent vegetation established at the edge or around the perimeter of a field.

This practice may be applied to accomplish one or more of the following:

- Reduce erosion from wind and water
- Protect soil and water quality
- Manage pest populations
- Provide wildlife food and cover
- Increase carbon storage
- Improve air quality

PRACTICE DESCRIPTION**PURPOSE****Filter Strip 393**

A strip or area of herbaceous vegetation that removes contaminants from overland flow.

This practice is applied to achieve one or more of the following:

- Reduce suspended solids and associated contaminants in runoff
- Reduce dissolved contaminant loadings in runoff
- Reduce suspended solids and associated contaminants in irrigation tailwater

Firebreak 394

A permanent or temporary strip of bare or vegetated land planned to retard fire.

This practice applies on all land uses where protection from wildfire is needed or prescribed and is applied to accomplish one or more of the following:

- Reduce the spread of wildfire.
- Contain prescribed burns.

Fishpond Management 399

Managing impounded water for the production of fish or other aquatic organisms.

This practice is applied in warm and cold water ponds, lakes, and reservoirs not managed for commercial aquaculture purposes to accomplish one or more of the following:

- To provide favorable habitat for fish and other aquatic organisms.
- To develop and maintain a desired species composition and ratio.
- To develop and maintain a desired level of production

PRACTICE DESCRIPTION**PURPOSE****Forage and Biomass Planting 512**

Establishing native or introduced forage species.

This practice is applied to achieve one or more of the following:

- Establish adapted and compatible species, varieties, or cultivars for forage production
- Improve or maintain livestock nutrition and/or health
- Balance forage supply and demand during periods of low forage production
- Reduce soil erosion and improve water quality
- Increase carbon sequestration

Forage Harvest Management 511

The timely cutting and removal of forages from the field as hay, green-chop or ensilage.

This practice may be applied to accomplish one or more of the following:

- Optimize yield and quality of forage at the desired levels
- Promote vigorous plant re-growth
- Maintain stand life
- Manage for the desired species composition
- Use forage plant biomass as a soil nutrient uptake tool
- Control insects, diseases and weeds
- Maintain and/or improve wildlife habitat

Forest Stand Improvement 666

The manipulation of species composition, stand structure and stocking by cutting or killing selected trees and understory vegetation.

This practice may be applied to accomplish one or more of the following:

- Increase the quantity and quality of forest products by manipulating stand density and structure.
- Harvest forest products.
- Initiate forest stand regeneration.
- Reduce wildfire hazard.
- Improve forest health reducing the potential of damage from pests and moisture stress.
- Restore natural plant communities.
- Achieve or maintain a desired native understory plant community for special forest products, grazing, and browsing.
- Improve aesthetic and recreation, values.
- Improve wildlife habitat.
- Alter water yield.
- Increase carbon storage in selected trees.

PRACTICE DESCRIPTION**PURPOSE****Forest Trails and Landings 655**

A temporary or infrequently used route, path or cleared area. Trails and landings including skid trails are applicable on forest land. They typically connect to an Access Road-560.

This practice may be applied to accomplish one or more of the following:

- Provide routes for temporary or infrequent travel by people or equipment for management activities.
- Provide periodic access for removal and collection of forest products.

Fuel Break 383

A strip or block of land on which the vegetation, debris and detritus have been reduced and/or modified to control or diminish the risk of the spread of fire crossing the strip or block of land.

This practice applies on all land where protection from wildfire is needed to control and reduce the risk of the spread of fire by treating, removing or modifying vegetation, debris and detritus.

Grade Stabilization Structure 410

A structure used to control the grade and head cutting in natural or artificial channels.

The purpose of this practice is to stabilize the grade and control erosion in natural or artificial channels, to prevent the formation or advance of gullies, and to enhance environmental quality and reduce pollution hazards.

PRACTICE DESCRIPTION**PURPOSE****Grassed Waterways 412**

A shaped or graded channel that is established with suitable vegetation to carry surface water at a non-erosive velocity to a stable outlet.

This practice is applied to achieve one or more of the following:

- Convey runoff from terraces, diversions, or other water concentrations without causing erosion or flooding
- Reduce gully erosion
- Protect/improve water quality

Heavy Use Area Protection 561

The stabilization of areas frequently and intensively used by people, animals or vehicles by establishing vegetative cover, by surfacing with suitable materials, and/or by installing needed structures

This practice is applied to achieve one or more of the following:

- Reduce soil erosion
- Improve water quantity and quality
- Improve air quality
- Improve aesthetics
- Improve livestock health

Hedgerow Planting 422

Establishment of dense vegetation in a linear design to achieve a natural resource conservation purpose.

This practice may be installed to accomplish one or more of the following:

- Habitat, including food, cover, and corridors for terrestrial wildlife.
- To enhance pollen, nectar, and nesting habitat for pollinators.
- Food, cover, and shade for aquatic organisms that live in adjacent streams or watercourses.
- To provide substrate for predaceous and beneficial invertebrates as a component of integrated pest management.
- To intercept airborne particulate matter.
- To reduce chemical drift and odor movement.
- Screens and barriers to noise and dust
- To increase carbon storage in biomass and soils.
- Living fences
- Boundary delineation and contour guidelines

PRACTICE DESCRIPTION

PURPOSE

Herbaceous Wind Barriers 603



Herbaceous vegetation established in rows or narrow strips in the field across the prevailing wind direction.

This practice applies to lands where crops or forages are grown to accomplish one or more of the following:

- Reduce soil erosion from wind.
- Reduce soil particulate emissions to the air.
- Protect growing crops from damage by wind or wind-borne soil particles
- Enhance snow deposition to increase plant-available moisture.

Integrated Pest Management 595



A site-specific combination of pest prevention, pest avoidance, pest monitoring, and pest suppression strategies

This practice is applied on all lands where pests will be managed to accomplish one or more of the following:

- Prevent or mitigate off-site pesticide risks to water quality from leaching, solution runoff and adsorbed runoff losses.
- Prevent or mitigate off-site pesticide risks to soil, water, air, plants, animals and humans from drift and volatilization losses.
- Prevent or mitigate on-site pesticide risks to pollinators and other beneficial species through direct contact.
- Prevent or mitigate cultural, mechanical and biological pest suppression risks to soil, water, air, plants, animals and humans.

Irrigation Canal or Lateral 320



A permanent channel constructed to convey irrigation water from the source of supply to one or more irrigated areas

Apply this practice to facilitate the efficient distribution and use of water on irrigated land to accomplish one or more of the following:

- Where a canal or lateral and related structures are needed as an integral part of an irrigation water conveyance system
- Where water supplies for the area served are sufficient to make irrigation practical for the crops to be grown and the irrigation water application methods to be used

Conservation Practice Standard Irrigation Field Ditch (388) should be used for on-farm irrigation water conveyance and/or distribution of less than 25 cubic feet per second.

PRACTICE DESCRIPTION**PURPOSE****Irrigation Field Ditch 388**

A permanent irrigation ditch constructed in or with earth materials, to convey water from the source of supply to a field or fields in an irrigation system.

This practice may be applied as part of an irrigation water management system to efficiently convey and distribute irrigation waters. This standard is limited to open channels and elevated ditches of 25 cubic feet per second or less in capacity and constructed of earth materials. This practice applies where field ditches are needed as an integral part of an irrigation water distribution system design to facilitate the conservation use of soil and water resources.

Irrigation Land Leveling 464

Reshaping the surface of land to be irrigated, to planned lines and grades.

This practice applies to the leveling of land irrigated by surface or subsurface irrigation systems. The leveling is based on a detailed engineering survey, design, and layout. Land to be leveled shall be suitable for irrigation and for the proposed methods of water application. Soils shall be deep enough that, after leveling, an adequate usable root zone remains that will permit satisfactory crop production with proper conservation measures. Limited areas of shallow soils may be leveled to provide adequate irrigation grades or an improved field alignment. The finished leveling work must not result in exposed areas of highly permeable soil materials that would inhibit proper distribution of water over the field.

Irrigation Pipeline 430

A pipeline and appurtenances installed in an irrigation system to convey water.

This practice is applied to convey water from a source of supply to an irrigation system or storage reservoir.

PRACTICE DESCRIPTION**PURPOSE****Irrigation Reservoir 436**

An irrigation water storage structure made by constructing a dam, embankment, pit, or tank.

This practice may be applied as part of a resource conservation system to achieve one or more of the following:

- Store water to provide a reliable irrigation water supply or regulate available irrigation flows
- Improve water use efficiency on irrigated land
- Provide storage for tailwater recovery and reuse
- Provide irrigation runoff retention time to increase breakdown of chemical contaminants
- Reduce energy consumption

Irrigation System, Microirrigation 441

An irrigation system for frequent application of small quantities of water on or below the soil surface: as drops, tiny streams or miniature spray through emitters or applicators placed along a water delivery line.

This practice may be applied as part of a conservation management system to support one or more of the following purposes:

- To efficiently and uniformly apply irrigation water and maintain soil moisture for plant growth.
- To prevent contamination of ground and surface water by efficiently and uniformly applying chemicals.
- To establish desired vegetation

Irrigation System, Sprinkler 442

An irrigation system in which all necessary equipment and facilities are installed for efficiently applying water by means of nozzles operated under pressure.

This practice may be applied as part of a conservation management system to achieve one or more of the following:

- Efficiently and uniformly apply irrigation water to maintain adequate soil water for the desired level of plant growth and production without causing excessive water loss, erosion, or water quality impairment.
- Climate control and/or modification.
- Applying chemicals, nutrients, and/or waste water.
- Leaching for control or reclamation of saline or sodic soils.
- Reduction in particulate matter emissions to improve air quality.

PRACTICE DESCRIPTION**PURPOSE****Irrigation System, Surface and Subsurface 443**

A system in which all necessary earthwork, multi-outlet pipelines, and water-control structures have been installed for distribution of water by surface means, such as furrows, borders, and contour levees, or by subsurface means through water table control.

This practice is applied as part of a resource conservation system to achieve one or more of the following:

- Efficiently convey and distribute irrigation water to the surface point of application without causing excessive water loss, erosion, or water quality impairment.
- Efficiently convey and distribute irrigation water to the subsurface point of application without causing excessive water loss or water quality impairment.
- Apply chemicals and/or nutrients as part of a surface irrigation system in a manner which protects water quality.
- Improve energy use efficiency.

Irrigation Tailwater Recovery 447

A planned irrigation system in which all facilities utilized for the collection, storage, and transportation of irrigation tailwater and/or rainfall runoff for reuse have been installed.

This practice shall be applied as part of a conservation management system to support one or more of the following:

- Conserve irrigation water supplies
- Improve off-site water quality

Irrigation Water Management 449

The process of determining and controlling the volume, frequency and application rate of irrigation water in a planned, efficient manner.

This practice is applied to achieve one or more of the following:

- Manage soil moisture to promote desired crop response
- Optimize use of available water supplies
- Minimize irrigation induced soil erosion
- Decrease non-point source pollution of surface and groundwater resources
- Manage salts in the crop root zone
- Manage air, soil, or plant micro-climate
- Proper and safe chemigation or fertigation
- Improve air quality by managing soil moisture to reduce particulate matter movement

PRACTICE DESCRIPTION**PURPOSE****Karst Sinkhole Treatment 527**

The treatment of sinkholes in karst areas to reduce contamination of groundwater resources, and/or to improve farm safety.

This practice may be applied as part of a conservation management system in karst topography, which is an area underlain by solutioned carbonate bedrock with sinkholes and caverns. The practice supports one or more of the following purposes:

- Improve water quality
- Improve farm safety

Land Clearing 460

Removing trees, stumps, and other vegetation to achieve a conservation objective.

This practice applies to wooded areas where the removal of trees, stumps, brush, and other vegetation is needed in carrying out a conservation plan to allow needed land use adjustments and improvements in the interest of conservation.

Land Reclamation, Abandoned Mined Land 543

Reclamation of land and water areas adversely affected by past mining activities

Apply this practice to abandoned mined land that degrades the quality of the environment and prevents or interferes with the beneficial uses of soil, water, air, plant or animal resources, or endangers human health and safety to accomplish one or more of the following:

- Stabilize abandoned mined areas to decrease erosion and sedimentation, support desirable vegetation and improve offsite water quality and or quantity
- Maintain or improve landscape visual and functional quality
- Protect public health, safety and general welfare

PRACTICE DESCRIPTION**PURPOSE****Land Reclamation, Landslide Treatment 453**

Managing in-place natural materials, mine spoil (excavated over-burden), mine waste or overburden to reduce down-slope movement.

Apply this practice to areas where in-place material, mine spoil, waste, or overburden, or rock cut road banks are unstable, moving, or judged to have potential of moving down slope in a manner that will cause damage to life, property, or the environment to accomplish one or more of the following:

- Repair unstable slopes caused by slope failure, and reduce the likelihood of enlargement or "renewed movement of slope surfaces;
- Protect life and property;
- Prevent excessive erosion and sedimentation;
- Improve water quality and landscape resource quality; and
- Create a condition conducive to establishing surface protection and beneficial land use.

This practice does not apply to constructed embankment surfaces such as road fills, dams, dikes, levees and terraces.

Land Smoothing 466

Removing irregularities on the land surface. To improve surface drainage, provide for more uniform cultivation, and improve equipment operation and efficiency.

This practice applies on areas where depressions, mounds, old terraces, turn-rows, and other surface irregularities interfere with the application of needed soil and water conservation and management practices.

It is limited to areas having adequate soil depth or where topsoil can be salvaged and replaced.

This practice does not apply to the regular maintenance on irrigated land or on land that has been modified using practice standards Precision Land Forming (462) or Irrigation Land Leveling (464).

Monitoring and Evaluation 799

Monitoring and evaluation are the actions and activities, using acceptable tools and protocols, to measure the effectiveness of conservation practices and systems, and/or to provide data for model development, verification, and validation for use of results in non-monitored fields.

This practice applies to all land uses where conservation practices have been applied, and there is a need to determine the effects and performance on the planned resource concerns. This practice is not intended to be used beyond the farm boundary.

PRACTICE DESCRIPTION**PURPOSE****Mulching 484**

Applying plant residues or other suitable materials produced off site, to the land surface

This practice is applied to achieve one or more of the following:

- Conserve soil moisture
- Moderate soil temperature
- Provide erosion control
- Suppress weed growth
- Facilitate the establishment of vegetative cover
- Improve soil condition
- Reduce airborne particulates

Nutrient Management 590

Managing the amount, source, placement, form and timing of the application of plant nutrients and soil amendments.

This practice is applied to achieve one or more of the following:

- Budget and supply nutrients for plant production
- Properly utilize manure or organic by-products as a plant nutrient source
- Minimize agricultural nonpoint source pollution of surface and ground water resources
- Protect air quality by reducing nitrogen emissions (ammonia and NO² compounds) and the formation of atmospheric particulates
- Maintain or improve the physical, chemical and biological condition of soil

Open Channel 582

Constructing or improving a channel either natural or artificial, in which water flows with a free surface.

To provide discharge capacity required for flood prevention, drainage, other authorized water management purposes, or any combination of these purposes.

PRACTICE DESCRIPTION**PURPOSE****Pipeline 516**

Pipeline having an inside diameter of 4 inches or less where conveyance of water is desirable or necessary to conserve the supply, or maintain the quality of water.

This practice is applied to improve water quantity and quality by conveying water from a source of supply to points of use for livestock or wildlife; make practical the exclusion of livestock from ponds and streams.

Pond 378

A water impoundment made by constructing an embankment or by excavating a pit or dugout. Ponds constructed by the first method are referred to as embankment ponds, and those constructed by the second method are referred to as excavated ponds. Ponds constructed by both the excavation and the embankment methods are classified as embankment ponds if the depth of water impounded against the embankment at the auxiliary spillway elevation is 3 feet or more.

This practice is applied to provide water for livestock, fish and wildlife, recreation, fire control, and other related uses, and to maintain or improve water quality.

Pond Sealing or Lining, Bentonite Sealant 521c

A liner for a pond or waste storage impoundment consisting of a compacted soil-bentonite mixture.

This practice is applied to reduce seepage losses from ponds or waste impoundments for water conservation and environmental protection to accomplish one or more of the following:

- Soils are suitable for treatment with bentonite.
- Ponds or waste storage impoundments require treatment to reduce seepage rates and to impede the migration of contaminants to within acceptable limits

PRACTICE DESCRIPTION**PURPOSE****Pond Sealing or Lining, Compacted Clay Treatment 521d**

A liner for a pond or waste storage impoundment constructed using compacted soil without soil amendments.

Apply this practice to reduce seepage losses from ponds or waste storage impoundments constructed for water conservation and environmental protection to accomplish one or more of the following:

- In-place soils at the site would exhibit seepage rates in excess of acceptable limits or would allow an unacceptable migration of contaminants from the impoundment.
- An adequate quantity of soil suitable for constructing a clay liner without amendments is available at an economical haul distance.

Pond Sealing or Lining, Flexible Membrane 521a

Pond sealing with a flexible membrane is installing a liner made of impervious flexible material to reduce seepage to an acceptable level.

This practice is used to improve the functionality of a pond, and prevent damage to the natural resources including unacceptable loss of water from seepage. This method of pond sealing is relatively expensive, but often necessary for sandy textured sites and projects that require a very effective sealant. Ponds to be lined may include Irrigation Storage Reservoirs, Irrigation Pits, Waste Treatment Lagoons, Waste Treatment Ponds, and Ponds For Livestock/Wildlife.

Pond Sealing or Lining, Soil Dispersant 521b

A liner for a pond or waste storage impoundment consisting of a compacted soil-dispersant mixture.

Apply this practice to reduce seepage losses from ponds or waste impoundments for water conservation and environmental protection to accomplish one or more of the following:

- Soils are suitable for treatment with dispersants.
- Ponds or waste storage impoundments require treatment to reduce seepage rates and to impede the migration of contaminants to within acceptable limits.

PRACTICE DESCRIPTION**PURPOSE****Precision Land Forming 462**

Reshaping the surface of land to planned grades.

All precision land forming shall be planned as an integral part of an overall system to facilitate the conservative use to improve surface drainage and control erosion.

Prescribed Burning 338

Controlled fire applied to a predetermined area

This practice is applied to achieve one or more of the following:

- Control undesirable vegetation.
- Prepare sites for harvesting, planting or seeding.
- Control plant disease.
- Reduce wildfire hazards.
- Improve wildlife habitat.
- Improve plant production quantity and/or quality.
- Remove slash and debris.
- Enhance seed and seedling production.
- Facilitate distribution of grazing and browsing animals.
- Restore and maintain ecological sites.

Prescribed Grazing 528

Managing the harvest of vegetation with grazing and/or browsing animals.

This practice may be applied as a part of conservation management system to achieve one or more of the following:

- Improve or maintain desired species composition and vigor of plant communities
- Improve or maintain quantity and quality of forage for grazing
- Improve or maintain surface and/or subsurface water quality and quantity
- Improve or maintain riparian and watershed function
- Reduce accelerated soil erosion, and maintain or improve soil condition
- Improve or maintain the quantity and quality of food and/or cover available for wildlife
- Manage fine fuel loads to achieve desired conditions

PRACTICE DESCRIPTION**PURPOSE****Pumping Plant 533**

A facility that delivers water at a designed pressure and flow rate. Includes the required pump, associated power unit(s), plumbing, appurtenances, and may include on-site fuel or energy sources, and protective structures.

This practice may be applied as a part of a resource management system to achieve one or more of the following:

- Delivery of water irrigation, water facilities
- Removal of excessive surface water
- Provide efficient use of water on irrigated land
- Transfer of animal waste as part of a manure transfer system
- Improve energy use efficiency
- Improve air quality

Residue Management, Mulch Till 345

Managing the amount, orientation and distribution of crop and other plant residue on the soil surface year round while limiting the soil-disturbing activities used to grow crops in systems where the entire field surface is tilled prior to planting.

This practice is applied to achieve one or more of the following:

- Reduce sheet and rill erosion
- Reduce wind erosion
- Reduce soil particulate emissions
- Maintain or improve soil condition
- Increase plant-available moisture
- Provide food and escape cover for wildlife

Residue Management, No-Till, and Strip Till 329

Managing the amount, orientation and distribution of crop and other plant residue on the soil surface year round while limiting soil-disturbing activities to only those necessary to place nutrients, condition residue and plant crops.

This practice is applied to achieve one or more of the following:

- Reduce sheet and rill erosion
- Reduce wind erosion
- Improve soil organic matter content
- Reduce CO² losses from soil
- Increase plant-available moisture
- Provide food and escape cover for wildlife

PRACTICE DESCRIPTION**PURPOSE****Residue Management, Ridge-Till 346**

Managing the amount, orientation, and distribution of crop and other plant residues on the soil surface year-round, while growing crops on pre-formed ridges alternated with furrows protected by crop residue.

This practice is applied to achieve one or more of the following:

- Reduce sheet and rill erosion
- Reduce wind erosion
- Maintain or improve soil condition
- Reduce soil particulate emissions
- Manage snow to increase plant-available moisture
- Modify cool wet site conditions
- Provide food and escape cover for wildlife

Residue Management, Seasonal 344

Managing the amount, orientation, and distribution of crop and other plant residues on the soil surface during a specified period of the year, while planting annual crops on a clean-tilled seedbed, or when growing biennial or perennial seed crops.

This practice is applied to achieve one or more of the following:

- Reduce sheet and rill erosion.
- Reduce soil erosion from wind and associated airborne particulate matter.
- Improve Soil Condition
- Reduce off-site transport of sediment, nutrients or pesticides.
- Manage snow to increase plant available moisture.
- Provide food and escape cover for wildlife.

Restoration and Management of Rare and Declining Habitats 643

Restoring and managing rare and declining habitats and their associated wildlife species to conserve biodiversity.

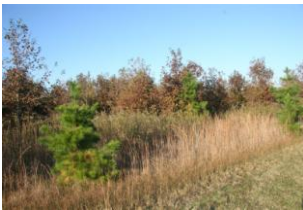
This practice may be installed to provide habitat for rare and declining species.

PRACTICE DESCRIPTION**PURPOSE****Riparian Forest Buffer 391**

An area predominantly trees and/or shrubs located adjacent to and up-gradient from watercourses or water bodies.

This practice is applied to achieve one or more of the following:

- Create shade to lower or maintain water temperatures to improve habitat for aquatic organisms.
- Create or improve riparian habitat and provide a source of detritus and large woody debris.
- Reduce excess amounts of sediment, organic material, nutrients and pesticides in surface runoff and reduce excess nutrients and other chemicals in shallow ground water flow.
- Reduce pesticide drift entering the water body.
- Restore riparian plant communities.
- Increase carbon storage in plant biomass and soils.

Riparian Herbaceous Cover 390

Grasses, sedges, rushes, ferns, legumes, and forbs tolerant of intermittent flooding or saturated soils, established or managed as the dominant vegetation in the transitional zone between upland and aquatic habitats.

This practice may be applied as part of a conservation management system to accomplish one or more of the following purposes:

- Provide or improve food and cover for fish, wildlife and livestock,
- Improve and maintain water quality.
- Establish and maintain habitat corridors.
- Increase water storage on floodplains.
- Reduce erosion and improve stability to stream banks and shorelines.
- Increase net carbon storage in the biomass and soil.
- Enhance pollen, nectar, and nesting habitat for pollinators.
- Restore, improve or maintain the desired plant communities.
- Dissipate stream energy and trap sediment.
- Enhance stream bank protection as part of stream bank soil bioengineering practices.

Roof Runoff Structure 558

Structures that collect, control, and transport precipitation from roofs.

This practice may be installed to improve water quality, reduce soil erosion, increase infiltration, protect structures, improve animal health, and/or increase water quantity.

PRACTICE DESCRIPTION

PURPOSE

Roofs and Covers 367



A rigid, semi-rigid, or flexible manufactured membrane, composite material, or roof structure placed over a waste management facility.

This practice is applied to achieve one or more of the following:

- water quality improvement
- diversion of clean water from animal management areas (i.e. barnyard, feedlot or exercise area) and/or waste storage facilities
- capture of biogas for energy production
- reducing net effect of greenhouse gas emissions
- air quality improvement and odor reduction

Seasonal High Tunnels System for Crops 798



A seasonal high tunnel is a polyethylene covered structure with no electrical, ventilation, or heating system, at least 6 feet in height, which modifies the climate to create more favorable growing conditions for vegetable and other specialty crops grown in the natural soil within the covered space.

A seasonal high tunnel may be used where existing specialty commodity crops are grown in open field conditions, and extension of the growing season is needed due to climate conditions. Commercially available high tunnel structures are made in numerous widths and lengths. The high tunnels are constructed of metal or plastic bow frames that are covered with a single layer of polyethylene. Ventilation is achieved by means of a combination of roll-up side vents, end vents, and occasionally, roof vents. Generally, the end walls are framed-in to create door and ventilation areas. The high tunnel structure covers several crop rows, is wide enough to allow crop growth to full maturity under the tunnel, and is tall enough to allow spraying, cultivation and harvest to occur with the tunnel intact.

Sediment Basin 350



A basin constructed to collect and store debris or sediment.

This practice is applied to achieve one or more of the following:

- Preserve the capacity of reservoirs, wetlands, ditches, canals, diversion, waterways, and streams
- Prevent undesirable deposition on bottom lands and developed areas
- Trap sediment originating from construction sites or other disturbed areas
- Reduce or abate pollution by providing basins for deposition and storage of silt, sand, gravel, stone, agricultural waste solids, and other detritus

PRACTICE DESCRIPTION**PURPOSE****Shallow Water Development and Management 646**

The inundation of lands to provide habitat for fish and/or wildlife.

To provide habitat for wildlife such as shorebirds, waterfowl, wading birds, mammals, fish, reptiles, amphibians and other species that require shallow water for at least a part of their life cycle.

Silvopasture Establishment 381

An agroforestry application establishing a combination of trees or shrubs and compatible forages on the same acreage.

This practice is applied to achieve one or more of the following:

- Provide forage for livestock and the production of wood products
- Increase carbon sequestration
- Improve water quality
- Reduce erosion
- Enhance wildlife habitat
- Reduce fire hazard
- Provide shade for livestock

Solid/Liquid Waste Separation Facility 632

A filtration or screening device, settling tank, settling basin, or settling channel used to separate a portion of solids from a liquid waste stream.

This practice is applied to partition solids, liquids and their associated nutrients as part of a conservation management system to achieve one or more of the following:

- Improve or protect air quality
- Improve or protect water quality
- Improve or protect animal health
- Meet management objectives

PRACTICE DESCRIPTION**PURPOSE****Spoil Spreading 572**

Disposal of surplus excavated materials

This practice applies to sites where spoil material is available from the excavation of open channels, ponds or other construction sites to dispose of excess soil from construction activities in an environmentally sound manner that minimizes soil erosion, protects water quality and fits with the land use and landscape.

Spring Development 574

Collection of water from springs or seeps to provide water for a conservation need.

In areas where a spring or seep will provide a dependable supply of suitable water to improve the quantity and/or quality of water for livestock, wildlife or other agricultural uses.

Stream Crossing 578

A stabilized area or structure constructed across a stream to provide a travel way for people, livestock, equipment, or vehicles.

This practice may be applied to achieve improved water quality by the following:

- Reduce sediment, nutrient, organic, and inorganic loading of the stream
- Reduce stream bank and streambed erosion
- Provide crossing for access to another land unit
- Provide limited access for livestock water use

PRACTICE DESCRIPTION**PURPOSE****Stream Habitat Improvement and Management 395**

Maintain, improve or restore physical, chemical and biological functions of a stream, and its associated riparian zone, necessary for meeting the life history requirements of desired aquatic species.

This practice is applied to achieve one or more of the following:

- Provide suitable habitat for desired fish and other aquatic species.
- Provide stream channel and associated riparian conditions that maintain stream corridor ecological processes and hydrological connections of diverse stream habitat types important to aquatic species.

Streambank and Shoreline Protection 580

Treatment(s) used to stabilize and protect banks of streams or constructed channels, and shorelines of lakes, reservoirs, or estuaries.

This practice is applied to achieve one or more of the following:

- To prevent the loss of land or damage to land uses, or facilities adjacent to the banks of streams or constructed channels, shoreline of lakes, reservoirs, or estuaries including the protection of known historical, archeological, and traditional cultural properties.
- To maintain the flow capacity of streams or channels.
- Reduce the offsite or downstream effects of sediment resulting from bank erosion.
- To improve or enhance the stream corridor for fish and wildlife habitat, aesthetics, recreation.

Stripcropping 585

Growing planned rotations of row crops, forages, small grains, or fallow in a systematic arrangement of equal width strips across a field.

This practice may be applied to achieve one or more of the following:

- Reduce soil erosion from water and transport of sediment and other water-borne contaminants
- Reduce soil erosion from wind
- Protect growing crops from damage by wind-borne soil particles

PRACTICE DESCRIPTION**PURPOSE****Structure For Water Control 587**

A structure in a water management system that conveys water, controls the direction or rate of flow, maintains a desired water surface elevation or measures water.

The practice may be applied as a management component of a water management system to control the stage, discharge, distribution, delivery or direction of water flow.

Surface Drain Field Ditch 607

A graded ditch for collecting excess water in a field.

This practice may be applied as part of a resource conservation system to achieve one or more of the following:

- Interception of excess subsurface water and conveyance to an outlet
- Collection or interception of excess surface water, such as sheet flow from natural and graded land surfaces or channel flow from furrows, and conveyance to an outlet
- Drainage of surface depressions

Surface Drain, Main or Lateral 608

An open drainage constructed to a designed cross section alignment and grade.

This practice is applied as part of a water management system (tailwater recovery) to collect and convey excess irrigation water to storage area for reuse through out the growing season.

PRACTICE DESCRIPTION**PURPOSE****Surface Roughening 609**

Performing tillage operations that create random roughness of the soil surface

This practice may be applied to achieve one or more of the following:

- Reduce wind erosion
- Reduce dust emissions into the air
- Protect plants from abrasion by wind-blown particles.

Terrace 600

An earthen embankment, or a combination ridge and channel, constructed across the field slope.

This practice is applied as a part of a resource management system for one or more of the following purposes:

- Reduce erosion by reducing slope length
- Retain runoff for moisture conservation

Tree/Shrub Establishment 612

Establishing woody plants by planting seedlings or cuttings, direct seeding, or natural regeneration.

This practice is applied to establish woody plants for:

- Forest products such as timber, pulpwood, and energy biomass
- Wildlife habitat
- Long-term erosion control and improvement of water quality
- Treating waste
- Storing carbon in biomass
- Energy conservation
- Improving or restoring natural diversity
- Enhancing aesthetics

PRACTICE DESCRIPTION**PURPOSE****Tree/Shrub Pruning 660**

The removal of all or part of selected branches, leaders or roots from trees and shrubs.

This practice when applied may achieve one or more of the following:

- Improve the appearance of trees or shrubs, e.g., ornamental plants and Christmas trees.
- Improve the quality of wood products.
- Improve the production of plant products, e.g., nuts, fruits, boughs and tips.
- Reduce fire and/or safety hazards.
- Improve the growth and vigor of understory plants.
- Adjust the foliage and branching density or rooting length for other specific intents, such as wind and snow control, noise abatement, access control, and visual screens and managing competition.
- Improve health and vigor of woody plants e.g. disease, insect and injury management.

Tree/Shrub Site Preparation (Forest Site Prep) 490

Treatment of areas to improve site conditions for establishing trees and/or shrubs.

This practice when applied may achieve one or more of the following:

- Encourage natural regeneration of desirable woody plants
- Permit artificial establishment of woody plants

Underground Outlet 620

A conduit or system of conduits installed beneath the surface of the ground to convey surface water to a suitable outlet.

This practice is applied to carry water to a suitable outlet from terraces, water and sediment control basins, diversions, waterways, surface drains or other similar practices without causing damage by erosion or flooding.

PRACTICE DESCRIPTION**PURPOSE****Upland Wildlife Habitat Management 645**

Provide and manage upland habitats and connectivity within the landscape for wildlife.

Treating upland wildlife habitat concerns identified during the conservation planning process that enable movement, or provide shelter, cover, food in proper amounts, locations and times to sustain wild animals that inhabit uplands during a portion of their life cycle.

Vegetated Treatment Area 635

An area of permanent vegetation used for agricultural wastewater treatment.

To improve water quality by reducing loading of nutrients, organics, pathogens, and other contaminants associated with livestock, poultry, and other agricultural operations.

Vegetative Barrier 601

Permanent strips of stiff, dense vegetation along the general contour of slopes or across concentrated flow areas.

This practice when applied may achieve one or more of the following:

- Reduce sheet and rill erosion
- Reduce ephemeral gully erosion
- Manage water flow
- Stabilize steep slopes
- Trap sediment

PRACTICE DESCRIPTION**PURPOSE****Waste Facility Closure 360**

The closure of waste impoundments (treatment lagoons and liquid storage facilities), that are no longer used for their intended purpose, in an environmentally safe manner.

This practice is applied to achieve one or more of the following:

- Protect the quality of surface water and groundwater resources
- Eliminate a safety hazard for humans and livestock
- Safeguard the public health

Waste Recycling (Waste Utilization) 633

Using agricultural wastes such as manure and wastewater or other organic residues.

This practice is applied to achieve one or more of the following:

- Protect water quality
- Protect air quality
- Provide fertility for crop, forage, fiber production and forest products
- Improve or maintain soil structure
- Provide feedstock for livestock
- Provide a source of energy

Waste Storage Facility 313

A waste storage impoundment made by constructing an embankment and/or excavating a pit or dugout, or by building a structure.

This practice is installed to temporarily store wastes such as manure, to protect from runoff as a component of an agricultural waste management system.

PRACTICE DESCRIPTION

PURPOSE

Waste Transfer 634



A system using structures, conduits or equipment to convey by-products (wastes) from agricultural operations to points of usage.

To transfer agricultural material associated with production, processing, and/or harvesting through a hopper or reception pit, a pump (if applicable), a conduit, and/or hauling equipment to:

- a storage/treatment facility
- a loading area, and/or
- agricultural land for final utilization as a resource

Waste Treatment 629



The mechanical, chemical or biological treatment of agricultural waste.

To use mechanical, chemical, or biological treatment facilities and/processes as part of an agricultural waste management system:

- Improve ground and surface water quality by reducing the nutrient content, organic strength, and/or pathogen levels of agricultural waste
- Improve air quality by reducing odors and gaseous emissions
- Produce value added by-products
- Facilitate desirable waste handling, storage, or land application alternatives

Waste Treatment Lagoon 359



A waste treatment impoundment made by constructing an embankment and/or excavating a pit or dugout.

To biologically treat waste, such as manure and wastewater, and thereby reduce pollution potential by serving as a treatment component of a waste management system.

- Where the lagoon is a component of a planned agricultural waste management system.
- Where treatment is needed for organic wastes generated by agricultural production or processing.
- On any site where the lagoon can be constructed, operated and maintained without polluting air or water resources.
- To lagoons utilizing embankments with an effective height of 35 feet or less where damage resulting from failure would be limited to damage of farm buildings, agricultural land, or township and country roads.

PRACTICE DESCRIPTION**PURPOSE****Water and Sediment Control Basin 638**

An earthen embankment or a combination ridge and channel constructed across the slope of minor watercourses to form a sediment trap and water detention basin with a stable outlet.

This practice may be applied as part of a resource management system for one or more of the following purposes:

- Reduce watercourse and gully erosion
- Trap sediment
- Reduce and manage onsite and downstream runoff

Water Well 642

A hole drilled, dug, driven, bored, jetted or otherwise constructed to an aquifer for water supply.

This practice is applied to achieve one or more of the following:

- Provide water for livestock, wildlife, irrigation, and other agricultural uses
- Facilitate proper use of vegetation, such as keeping animals on rangeland and pastures and away from streams, and providing water for wildlife

Water Well Decommissioning 351

The sealing and permanent closure of an inactive, abandoned, or unusable water well.

This practice is applied to achieve one or more of the following:

- Eliminate physical hazard to people, animals, and farm machinery; and to prevent entry of animals, debris, or other foreign substances
- Prevent contamination of groundwater by surface water inflow
- Restore the natural hydrogeologic conditions, to the extent possible, by preventing vertical cross-contamination or commingling of groundwaters between separate water bearing zones
- Eliminate the possibility of the water well being used for any other purpose
- Allow future alternative use or management of the site

PRACTICE DESCRIPTION**PURPOSE****Watering Facility 614**

A permanent or portable device to provide an adequate amount and quality of drinking water for livestock and or wildlife.

To provide access to drinking water for livestock and/or wildlife in order to:

- Meet daily water requirements
- Improve animal distribution

Wetland Creation 658

The creation of a wetland on a site that was historically non-wetland.

This practice may be applied as part of a resource management system to create wetland functions and values.

Wetland Enhancement 659

The rehabilitation of a degraded wetland or the re-establishment of a former wetland so that soils, hydrology, vegetative community, and habitat are a close approximation of the original natural condition and boundary that existed prior to the modification.

To provide specific wetland conditions to favor specific wetland functions and targeted species by:

- hydrologic enhancement (depth duration and season of inundation, and/or duration and season of soil saturation)
- vegetative enhancement (including the removal of undesired species, and/or seeding or planting of desired species)

PRACTICE DESCRIPTION

PURPOSE

Wetland Restoration 657



The rehabilitation of a degraded wetland or the reestablishment of a wetland so that soils, hydrology, vegetative community, and habitat are a close approximation of the original natural condition that existed prior to modification to the extent practicable.

To restore wetland function, value, habitat, diversity, and capacity to a close approximation of the pre-disturbance by:

- Restoring hydric soil
- Restoring hydrology (depth duration and season of inundation, and/or duration and season of soil saturation)
- Restoring native vegetation (including the removal of undesired species, and/or seeding or planting of desired species)

Wetland Wildlife Habitat Management 644



Retaining, developing or managing wetland habitat for wetland wildlife.

To maintain, develop, or improve wetland habitat for waterfowl, shorebirds, fur-bearers, or other wetland dependent or associated flora and fauna on or adjacent to wetlands, rivers, lakes and other water bodies where wetland associated wildlife habitat can be managed. This practice applies to natural wetlands and/or water bodies as well as wetlands that may have been previously restored (657), enhanced (659), and created (658).

Windbreak/Shelterbelt Establishment 380



Windbreaks or shelterbelts are single or multiple rows of trees or shrubs in linear configurations

This practice is applied to achieve one or more of the following:

- Reduce soil erosion from wind.
- Protect plants from wind related damage.
- Alter the microenvironment for enhancing plant growth.
- Manage snow deposition.
- Provide shelter for structures, animals, and people.
- Enhance wildlife habitat.
- Provide noise screens.
- Provide visual screens.
- Improve air quality by reducing and intercepting air borne particulate matter, chemicals and odors.
- Delineate property and field boundaries.
- Improve irrigation efficiency.
- Increase carbon storage in biomass and soils.

PRACTICE DESCRIPTION**PURPOSE****Windbreak/Shelterbelt Renovation 650**

Replacing, releasing and/or removing selected trees and shrubs or rows within an existing windbreak or shelterbelt, adding rows to the windbreak or shelterbelt or removing selected tree and shrub branches.

In any windbreak or shelterbelt that is no longer functioning properly for the intended purpose. Extending the length of an existing windbreak is handled under Windbreak/Shelterbelt Establishment, 380. For normal and periodic pruning, refer to Tree/Shrub Pruning, 660.

Woody Residue Treatment (Forest Slash Treatment) 384

Treating woody plant residues created during forestry, agroforestry and horticultural activities to achieve management objectives.

This practice is applied to achieve one or more of the following:

- Reduce hazardous fuels
- Reduce the risk of harmful insects and disease
- Protect/maintain air quality by reducing the risk of wildfire
- Improve access to forage for grazing and browsing animals
- Enhance aesthetics
- Reduce the risk of harm to humans and livestock
- Improve the soil organic matter
- Improve the site for natural or artificial regeneration.

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