



# Detailed Implementation Plan Fiscal Year 2023

August 16, 2022

## **AGRICULTURE COST SHARE PROGRAM SUMMARY**

The North Carolina Agriculture Cost Share Program (ACSP) was authorized by the General Assembly in 1983 to improve water quality associated with agriculture in three nutrient sensitive watersheds covering 16 counties. In 1990, the program was expanded to include 96 soil and water conservation districts (districts) covering all 100 counties across the state. In FY2023, there are 66 approved best management practices (BMPs) in the ACSP. BMPs include both short-term and long-term practices.

ACSP is administered by the North Carolina Soil and Water Conservation Commission and implemented through local soil and water conservation districts. The commission meets with stakeholders to gather input on ACSP's development and administration through the Technical Review Committee. ACSP currently receives a recurring state appropriation of \$4,016,998 for BMP allocation. A separate recurring appropriation in the amount of \$2,448,778 is used to support technical assistance funding for districts.

## **FISCAL YEAR 2023 ANNUAL GOALS**

- (1) Allocate funds to soil and water conservation districts for all ACSP BMPs.
  - a. Award funds to all districts requesting an allocation following 02 NCAC 59D .0103.
- (2) Support implementation of a Job Approval Authority process for ACSP BMPs.
  - a. Review job approval category requirements to ensure technical competency.
  - b. Maintain the job approval database.
- (3) Conduct training for districts.
  - a. Continue to train districts on the program.
  - b. Provide technical training for the required skills to plan and implement approved ACSP BMPs.
  - c. Maintain the [ACSP website](#) with all relevant information.

## **DISTRICT ALLOCATIONS**

- (1) Allocations will be made to all districts requesting funds in their FY2023 Strategy Plan.
- (2) Allocation parameters are described 02 NCAC 59D .0103 Agriculture Cost Share Program Financial Assistance Allocation Guidelines and Procedures (Effective January 1, 2020).

**Table 1.** Allocation parameters

<b>PARAMETER</b>	<b>PERCENT</b>
Percentage of total acres of agricultural land in North Carolina that are in the respective district as reported in the most recent edition of the North Carolina Census of Agriculture.	20%
Percentage of total number of animal units in North Carolina that are in the respective district as reported in the most recent edition of the North Carolina Census of Agriculture and converted to animal units.	20%
Relative rank of the percentage of the county outside of municipal boundaries draining to waters identified as impaired or impacted on the most recent Integrated Report produced by the North Carolina Division Water Resources.	20%
Relative rank of the percentage of the county draining to waters classified as Primary Nursery Areas, Outstanding Resource Waters, High Quality Waters, and Trout Waters on the current schedule of Water Quality Standards and Classifications, Shellfish Harvesting Areas (open) as determined by the Division of Marine Fisheries, and North Carolina Drinking Water Assessment Areas as determined by the Division of Water Resources.	10%
Percentage of program funds allocated to a district that are expended for installed BMPs in the highest three of the most recent seven-year period as reported in the NC Cost Share Contracting System.	20%
Relative rank of the number of acres of highly erodible land in the county as reported by the United States Department of Agriculture Farm Service Agency.	10%

**TECHNICAL ASSISTANCE ALLOCATIONS**

- (1) Allocations for technical assistance shall be based on the recommendation of the Division, the funding requested in the district’s strategic plan, and the need to install BMPs in the district.
- (2) Each district shall provide at least 50% matching funds for technical assistance.
- (3) The allocation is made based on the implementation of conservation practices for which district employees provided technical assistance:
  - a. Commission Cost Share Programs funded practices: 100%
  - b. Local, State, Federal and grant funded practices that meet the purpose requirements of Commission Cost Share Programs: 25%

- c. Allocations are calculated using the highest three of the most recent seven years. This calculation was approved at the February 24, 2021 Commission meeting and is effective this fiscal year.
  - d. Allocations are calculated once every three years, unless there is a change in technical assistance State appropriations.
- (4) Technical assistance funds may be used for any expense of the district in implementing Commission Cost Share Programs.
- (5) The minimum allocation for districts with the required match is \$20,000. The maximum allocation per district is \$30,000.
- (6) If a district is not spending more financial assistance funds on Commission Cost Share Programs than they receive for technical assistance, the district will appeal to the Commission to receive technical assistance funding.
- (7) All technical district employees shall obtain Job Approval Authority for two BMPs from the Commission or United States Department of Agriculture Natural Resources Conservation Service (USDA-NRCS) within three years of being hired or by January 1, 2023, whichever is later.
  - a. One BMP must be a design practice as described in Commission Program Detailed Implementation Plans, such as this document, or as defined as an engineering practice by USDA-NRCS.
  - b. Boards of Supervisors may request a one-year extension for their employees in meeting this requirement for extenuating circumstances outside the employees' control.

#### **BEST MANAGEMENT PRACTICES ELIGIBLE FOR COST SHARE PAYMENTS**

- (1) The best management practices eligible for cost sharing include the practices listed in Table 2 and any approved District BMPs.
  - District BMPs shall be reviewed by the Division for technical merit in achieving the goals of this program. Upon approval by the Division, the District BMPs will be eligible to receive cost share funding as described in 02 NCAC 59D .0106.
- (2) The minimum life expectancy of the BMPs shall be that listed in Table 2. Practices designated by a District shall meet the life expectancy requirement established by the Division for that District BMP.
- (3) The list of BMPs eligible for cost sharing may be revised by the Soil and Water Conservation Commission as deemed appropriate in order to meet program purpose and goals. Additional practices may be adopted and introduced during the program year.

**Table 2.** Best management practices eligible for cost sharing, the minimum life expectancy of each practice and the practice type.

<b>PRACTICE</b>	<b>MINIMUM LIFE EXPECTANCY (years)</b>	<b>PRACTICE TYPE</b>
Abandoned Tree Removal	10	AGRONOMIC
Abandoned Well Closure	1	DESIGN
Agrichemical Containment and Mixing Facility	10	DESIGN
Agrichemical Handling Facility	10	DESIGN
Agricultural Pond Repair/Retrofit	10	DESIGN
Agricultural Pond Sediment Removal	1	DESIGN
Agricultural Road Repair/Stabilization	10	DESIGN
Agricultural Water Collection System	10	DESIGN
All-Season Agricultural Access	10	DESIGN
Backflow Prevention System (Chemigation or Fertigation)	10	DESIGN
Closure of Abandoned Waste Impoundment	10	DESIGN
Concentrated Nutrient Source Management System	10	DESIGN
Conservation Cover	6	AGRONOMIC
Constructed Wetland for Land Application	10	DESIGN
Cover Crops	1	AGRONOMIC
Critical Area Planting	10	AGRONOMIC
Cropland Conversion	10	AGRONOMIC
Diversion	10	DESIGN
Drystack	10	DESIGN
Feeding/Waste Storage Structure	10	DESIGN
Field Border	10	AGRONOMIC
Filter Strip	10	AGRONOMIC
Grade Stabilization Structure	10	DESIGN
Grassed Waterway	10	DESIGN
Heavy Use Area Protection	10	DESIGN
Insect Control System	5	DESIGN
Lagoon Biosolids Removal Practice	1	DESIGN
Land Smoothing	5	DESIGN
Livestock Exclusion Fence	10	AGRONOMIC
Livestock Feeding Area	10	DESIGN
Livestock Mortality Management System - Incinerator	5	DESIGN
Livestock Mortality Management System - Other Systems	10	DESIGN

<b>PRACTICE</b>	<b>MINIMUM LIFE EXPECTANCY (years)</b>	<b>PRACTICE TYPE</b>
Manure Composting Facility	10	DESIGN
Manure/Litter Transportation Incentive	1	DESIGN
Micro-Irrigation System	10	DESIGN
Nutrient Management	3	AGRONOMIC
Odor Management System	1 to 10	AGRONOMIC
Pasture Renovation	10	AGRONOMIC
Pastureland Conversion	10	AGRONOMIC
Portable Agrichemical Mixing Station	5	DESIGN
Precision Agrichemical Application	5	AGRONOMIC
Precision Nutrient Management	3	AGRONOMIC
Prescribed Grazing	3	AGRONOMIC
Residue and Tillage Management	1 to 3	AGRONOMIC
Retrofit of On-going Animal Operations	10	DESIGN
Riparian Buffer	10	AGRONOMIC
Rock-lined Waterway or Outlet	10	DESIGN
Rooftop Runoff Management System	10	DESIGN
Sediment Control Basin	10	DESIGN
Sod-based Rotation	3, 4 or 5	AGRONOMIC
Solids Separation from Tank-Based Aquaculture Production	10	DESIGN
Spring Development	10	DESIGN
Stock Trail and Walkway	10	DESIGN
Storm Water Management System	10	DESIGN
Stream Crossing	10	DESIGN
Stream Debris Removal	1	DESIGN
Stream Protection Well	10	DESIGN
Stream Restoration	10	DESIGN
Streambank and Shoreline Protection	10	DESIGN
Stripcropping	5	AGRONOMIC
Terrace	10	DESIGN
Trough or Tank	10	DESIGN
Waste Application System	10	DESIGN
Waste Treatment Lagoon/Storage Pond	10	DESIGN
Water Control Structure	10	DESIGN
Wetlands Restoration System	10	DESIGN

## BEST MANAGEMENT PRACTICE DEFINITIONS

### Agrichemical Pollution Prevention Practices

- (1) **Abandoned tree removal:** Remove Christmas and/or apple tree fields for integrated pest management and for reducing sedimentation. An abandoned tree field can be of any size or age trees where standard management practices (e.g., maintaining groundcover, insect and disease control, fertilizer applications and annual shearing practices) for the production of the trees are discontinued or abandoned. The field must have been abandoned for at least 5 years. Abandonment leads to adverse soil erosion formations such as gullies and to production of disease inoculums and increased pest population. Conversion to perennial vegetation on abandoned fields further protects soil loss by preventing runoff on steep slopes due to a better groundcover thereby providing additional water quality protection. Benefits include water quality protection, prevention of soil erosion, and wildlife habitat establishment.
- (2) **Agrichemical containment and mixing facility:** A system of components that provide containment and a barrier to the movement of agrichemicals. The purpose of the system is to provide secondary containment to prevent degradation of surface water, groundwater, and soil from unintentional release of pesticides or fertilizers.
- (3) **Agrichemical handling facility:** A permanent structure that provides an environmentally safe means of mixing agrichemicals and filling tanks with agrichemicals for application and storage to improve water quality. Benefits may include prevention of accidental degradation of surface and ground water.
- (4) **Chemigation or Fertigation backflow prevention:** A combination of devices (valves, gauges, injectors, drains, etc.) to safeguard water sources from contamination by fertilizers used during the irrigation of agricultural crops. The practice is intended to modify or improve fertilizer injection systems with components necessary to prevent backflow or siphoning of contaminants into the water supply thereby improving and protecting the state's waters.
- (5) **Precision agrichemical application:** Using a system of components that enable reduction and greater control of fertilizer or pesticide application. This is accomplished through avoidance of excessive overlapping, unnecessary application to end/turn rows, and more precise control of application rates.
- (6) **Portable agrichemical mixing station:** A portable device to be used in the field to prevent the unintentional release of agrichemicals to the environment during mixing and transferring of agrichemicals. Benefits may include prevention of accidental degradation of surface and ground water.

### Erosion and Nutrient Management Practices

- (1) **Conservation cover:** Establish and maintain a conservation cover of grass, legumes, or other approved plantings on fields previously with no groundcover established, to reduce soil erosion and improve water quality. Other benefits may include reduced offsite sedimentation and pollution from dissolved and sediment-attached substances. Eligible land includes that planted to Christmas Trees, orchards, ornamentals, vineyards and other cropland needing protective cover.

- (2) **Cover crop:** A crop of grasses, legumes, small grain or brassicas grown primarily for seasonal vegetative protection, erosion control and soil improvement. Cover crops are typically grown for one year or less. The practice can be implemented to support one or more of the following purposes: reduce erosion from wind and water; reduce water quality degradation by utilizing excessive soil nutrients; improve infiltration of rainfall; maintain or increase soil health and organic matter content; suppress excessive weed pressures and break pest cycles; improve soil moisture use efficiency and/or minimize soil compaction.
- (3) **Critical area planting:** An area of highly erodible land that cannot be stabilized by ordinary conservation treatment on which permanent perennial vegetative cover is established and protected to improve water quality. Benefits may include reduced soil erosion and sedimentation.
- (4) **Cropland conversion:** To establish and maintain a conservation cover of grasses, trees, or wildlife plantings on fields previously used for crop production to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sediment-attached substances.
- (5) **Diversion:** A channel constructed across a slope with a supporting ridge on the lower side to control drainage by diverting excess water from an area to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sediment-attached substances.
- (6) **Land smoothing:** Reshaping the surface of agricultural land to planned grades for the purpose of improving water quality. Improvements to water quality include reduction in nutrient loss; reduction in concentrated flow of water from an agricultural field and improved infiltration.
- (7) **Micro-irrigation:** An environmentally safe system for the conveyance and distribution of water, chemicals, and fertilizer to agricultural fields for crop production. A micro-irrigation system is 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 efficiently and uniformly apply plant nutrients in a manner that protects water quality; to prevent contamination of ground and surface water by efficiently and uniformly applying chemicals and fertilizers and/or to establish desired vegetation.
- (8) **Pasture-land conversion:** Establishing trees or perennial wildlife plantings on excessively eroding land with a visible sediment delivery problem to the waters of the state used for pasture that is too steep to mow or maintain with conventional equipment to improve water quality. Benefits may include reduced soil erosion and sedimentation.
- (9) **Pasture renovation:** Establish and maintain a conservation cover of grass, where existing pasture vegetation is inadequate. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sediment-attached substances.
- (10) **Prescribed Grazing:** Managing the intensity, frequency, duration, timing, and number of grazing animals on pastureland in accordance with site production limitations, rate of plant growth, physiological needs of forage plants for production and persistence, and nutritional needs of the

grazing animals. The goal of this practice is to reduce accelerated soil erosion and compaction, to improve or maintain riparian and watershed function, to maintain surface and/or subsurface water quality and quantity, to improve nutrient distribution, and to improve or maintain desired species composition and vigor of plant communities. Productive pastures maintain wildlife habitat and permeable green space.

- (11) **Residue and Tillage management:** Maintaining crop and other plant residue on the soil surface year-round and limiting soil disturbing activities to protect water quality. Residue and tillage management also provides seasonal soil protection from wind and rain erosion, adds organic matter to the soil, conserves soil moisture, and improves infiltration, aeration and tilth. Benefits may include reduction in soil erosion, sedimentation and pollution from sediment-attached substances.
- (12) **Rooftop runoff management:** A system of collection and stabilization practices (dripline stabilization, guttering, collection boxes, etc.) to prevent rainfall runoff from agricultural rooftops from causing erosion where vegetative practices are insufficient to address erosion concerns and protect water quality.
- (13) **Sod-based rotation:** An adapted sequence of crops, grasses and legumes or a mixture thereof established and maintained for a definite number of years as part of a conservation cropping system which is designed to provide adequate organic residue for maintenance or improvement of soil tilth to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sediment-attached substances.
- (14) **Stripcropping:** To grow crops and sod in a systematic arrangement of alternating strips or bands on the contour to improve water quality. Benefits may include reduced soil erosion, sedimentation, and pollution from dissolved and sediment-attached substances. The crops are arranged so that a strip of grass or close-growing crop is alternated with a strip of clean-tilled crop, fallow, or no-till crop, or a strip of grass is alternated with a close-growing crop.
- (15) **Terraces:** An earth embankment, a channel, or a combination ridge and channel constructed across the slope to improve water quality. Benefits may include reduced soil erosion, sedimentation, and pollution from dissolved and sediment-attached substances.
- (16) **Stream debris removal:** The 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.
- (17) **Wetland restoration system:** A system of practices designed to restore the natural hydrology of an area that had been drained and cropped.

#### Sediment and Nutrient Management Practices

- (1) **Abandoned well closure:** The sealing and permanent closure of a supply well no longer in use. This practice serves to prevent entry of contaminated surface water, animals, debris, or other foreign substances into the well. It also serves to eliminate the physical hazards of an open hole to people, animals, and farm machinery.



- (2) **Agricultural pond repair/retrofit:** To restore or repair existing failing agricultural pond systems. Benefits may include erosion control, flood control, and sediment and nutrient reductions from farm fields for better water quality. This practice is only applicable to low hazard classification ponds.
- (3) **Agricultural pond sediment removal:** Remove sediment from existing agricultural ponds to increase water storage capacity. Benefits may include water supply, erosion control, flood control, and sediment and nutrient reductions from farm fields
- (4) **Agricultural road repair/stabilization:** Repair or stabilization of existing access roads utilized for agricultural operations, including roads to existing crop fields, pastures, and barns.
- (5) **Agricultural Water Collection System:** Construct an agricultural water collection system for water reuse or irrigation to improve water quality. These systems may include construction of new ponds, utilizing existing ponds, water storage tanks and pumps in order to intercept sediment, nutrients, manage chlorophyll a. These systems may have the added benefit of reducing the demand on the water supply and decreasing withdrawal from aquifers, but these benefits shall not be the justification for this practice.
- (6) **All-season Agricultural Access:** An accompanying best management practice (BMP) to provide stabilized access to agriculture BMPs to reduce erosion and improve water quality. This accompanying BMP is not intended to be used to construct new roads.
- (7) **Field border:** A strip of perennial vegetation established at the edge of the field that provides a stabilized outlet for row water to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sediment-attached substances.
- (8) **Filter strip:** An area of permanent perennial vegetation for removing sediment, organic matter, and other pollutants from runoff and wastewater to improve water quality. Benefits may include reduced soil erosion, sedimentation, pathogen contamination and pollution from dissolved, particulate, and sediment-attached substances.
- (9) **Grade stabilization structure:** A structure (earth embankment, mechanical spillway, detention-type, etc.) used to control the grade and head cutting in natural or artificial channels to improve water quality. Benefits may include reduced soil erosion and sedimentation.
- (10) **Grassed waterway:** A natural or constructed channel that is shaped or graded to required dimensions and established in suitable vegetation for the stable conveyance of runoff to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sediment-attached substances.
- (11) **Nutrient management:** A definitive plan to manage the amount, form, placement, and timing of applications of nutrients to minimize entry of nutrients to surface and groundwater and improve water quality.
- (12) **Precision nutrient management:** Applying nitrogen; phosphorus and lime in a site-specific manner (with specialized application equipment or multiple application events) based on the site-specific

recommendations for each GPS-referenced sampling point to minimize entry of nutrients to surface and groundwater and improve water quality.

- (13) **Riparian buffer:** A permanent, long-lived vegetative cover (grass, shrubs, trees, or a combination of vegetation types) established adjacent to and up-gradient from watercourses or water bodies to improve water quality. Benefits may include reduced soil erosion and nutrient delivery, sedimentation, pathogen contamination and pollution from dissolved, particulate and sediment-attached substances.
- (14) **Rocklined outlet:** A waterway having an erosion-resistant lining of concrete, stone or other permanent material where an unlined or grassed waterway would be inadequate to improve water quality. Benefits may include safe disposal of runoff, reduced erosion and sedimentation.
- (15) **Sediment basin:** A basin constructed to trap and store waterborne sediment where physical conditions or land ownership preclude treatment of a sediment source by the installation of other erosion control measures to improve water quality.
- (16) **Stream restoration:** The use of bioengineering practices, native material revetments, channel stability structures, and/or the restoration or management of riparian corridors in order to protect upland BMPs, restore the natural function of the stream corridor and improve water quality by reducing sedimentation to streams from streambank.
- (17) **Streambank and shoreline protection:** The use of vegetation to stabilize and protect banks of streams, lakes, estuaries, or excavated channels against scour and erosion. This practice should be used to prevent the loss of land or damage to utilities, roads, buildings, or other facilities adjacent to the banks, to maintain the capacity of the channel, to control channel meander that would adversely affect downstream facilities, to reduce sediment load causing downstream damages and pollution, or to improve the stream for recreation or fish and wildlife habitat.
- (18) **Water control structure:** A permanent structure placed in a farm canal, ditch, or subsurface drainage conduit (drain tile or tube), which provides control of the stage or discharge of surface and/or subsurface drainage. The management mechanism of the structure may be flashboards, gates, valves, risers, or pipes. The primary purpose of the water control structure is to improve water quality by elevating the water table and reducing drainage outflow. A secondary purpose is to restore hydrology in riparian buffers to the extent practical. Elevating the water table promotes denitrification and lower nitrate levels in drainage water from cropping systems and minimizes the effects of short-circuiting of drainage systems passing through riparian buffers. Other benefits may include reduced pollution from other dissolved and sediment-attached substances, reduced downstream sedimentation and reduced stormwater surges of fresh water into estuarine areas. This practice is not intended to be used to control water inflow from tidal influence (i.e., no tide gates).

#### Stream Protection Management Practices

- (1) **Heavy use area protection:** An area used frequently and intensively by animals, which must be stabilized by surfacing with suitable materials to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved, particulate, and sediment-attached substances.

- (2) **Livestock exclusion fencing:** A system of permanent fencing (board, barbed, high tensile or electric wire) installed to exclude livestock from streams and critical areas not intended for grazing to improve water quality. Benefits may include reduced soil erosion, sedimentation, pathogen contamination and pollution from dissolved, particulate, and sediment-attached substances.
- (3) **Livestock feeding area:** A sized concrete pad where feeders are located, surrounded by a heavy use area. The livestock feeding area is designed for the purpose of improving the lifespan of the heavy use area and to reduce the runoff of nutrients and fecal coliform to adjacent water bodies. The practice is to be used to address water quality concerns where livestock feeding areas are in close proximity to streams and where relocation or rotation of feeding areas is infeasible due to physical limitations (e.g., slope) and where other stream protection measures are insufficient to protect water quality.
- (4) **Spring development:** Improving springs and seeps by excavating, cleaning, capping or providing collection and storage facilities.
- (5) **Stocktrails and walkways:** Provide a stable area used frequently and intensively for livestock movement by surfacing with suitable material to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved, particulate, and sediment-attached substances.
- (6) **Stream crossing:** A trail constructed across a stream to allow livestock to cross without disturbing the bottom or causing soil erosion on the banks.
- (7) **Trough or tank:** Devices installed to provide drinking water for livestock at a stabilized location.
- (8) **Stream Protection Well:** Constructing a drilled, driven or dug well to supply water from an underground source.

#### Waste Management Practices

- (1) **Closure of waste impoundments:** The safe removal of existing waste and wastewater and the application of this waste on land in an environmentally safe manner. This practice is only applicable to waste storage ponds and lagoons.
- (2) **Concentrated nutrient source management system:** A system of vegetative and structural measures used to manage the collection, storage, and/or treatment of areas where agricultural products may cause an area of concentrated nutrients. Examples could include sweet potato culls and silage leachate.
- (3) **Constructed wetlands:** An artificial wetland area into which liquid animal waste from a waste storage pond or lagoon is dispersed over time to lower the nutrient content of the liquid animal waste.
- (4) **Dry stack:** A fabricated structure for temporary storage of animal waste.
- (5) **Feeding/waste storage structure:** A structure designed for improving the collection/storage of animal waste and to reduce runoff of nutrients and fecal coliform to adjacent water bodies. The practice is intended to be used where livestock feeding areas are in close proximity to streams and

where relocation or rotation of feeding areas is infeasible due to physical limitations (e.g., slope) and where other stream protection measures are insufficient to address water quality concerns.

- (6) **Insect control system:** A practice or combination of practices (planting windbreaks, pre-charging structures, incorporation of waste into soil, etc.) which manages or controls insects from confined animal operations, waste treatment and storage structures, and waste applied to agricultural land.
- (7) **Lagoon biosolids removal:** Removing accumulated biosolids from active lagoons. The biosolids will be properly utilized on farmland or forestland or processed to a value-added product, including energy production, to reduce nutrient impacts from nitrogen-only based planning and impacts of phosphorus accumulation on application land.
- (8) **Livestock mortality management system:** A facility for managing livestock mortalities such as to minimize water quality impacts or to produce a material that can be recycled as a soil amendment and fertilizer substitute. Cost shareable mortality management system components include composter, rotary drum composter, forced aeration static pile composter, mortality freezer/refrigeration unit and mortality incinerator system.
- (9) **Manure composting facility:** A facility for the biological treatment, stabilization and environmentally safe storage of organic waste material (such as manure from poultry and livestock) to minimize water quality impacts and to produce a material that can be recycled as a soil amendment and fertilizer substitute.
- (10) **Manure/litter transportation:** Transporting dry litter and dry manure from livestock and poultry farms that lack sufficient land to effectively utilize the animal-derived nutrients. The litter/manure will be properly utilized on alternative land or processed to a value-added product, including energy production, to reduce nutrient impacts.
- (11) **Odor control management system:** A practice or combination of practices (planting windbreaks, pre-charging structures, incorporation of waste into soil, etc.) which manages or controls odors from confined animal operations, waste treatment and storage structures and waste applied to agricultural land and improves air quality by reducing and intercepting airborne particulate matter, chemical drift and odor.
- (12) **Retrofit of on-going animal operations:** Modification of structures to increase storage or to correct design flaws to meet current standards. This practice may also be used to close waste impoundments on on-going operations, including the safe removal of existing waste and wastewater and the application of this waste on land in an environmentally safe manner.
- (13) **Solids separation from tank/raceway-based aquaculture production:** A facility for the removal, storage and dewatering of solid waste from the effluent of intensive tank-based aquaculture production systems. The system is used to capture organic solids from the effluent stream of intensive fish production systems that would otherwise flow to effluent ponds for storage and further treatment. This waste comes from uneaten feed and feces generated by fish while being fed within a tank-or raceway-based fish farm.

- (14) **Storm water management system:** A system of collection and diversion practices (guttering, collection boxes, diversions, etc.) to prevent unpolluted storm water from flowing across concentrated waste areas on animal operations.
- (15) **Waste Application Systems:** An environmentally safe system (such as solid set, dry hydrant, mobile irrigation equipment, etc.) for the conveyance and distribution of animal wastes from waste treatment and storage structures to agricultural fields as part of an irrigation and waste utilization plan.
- (16) **Waste treatment lagoon/storage pond:** An impoundment made by excavation or earth fill for biological treatment and storage of animal waste.