AGRICULTURE COST SHARE PROGRAM
DETAILED IMPLEMENTATION PLAN (DIP)
FISCAL YEAR 2017*

(REVISED July 2016)

Definition of Practices

(1) Abandoned tree removal means to 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 grass, hardwoods, or white pine 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) An abandoned well closure is 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. Cost share for this practice is limited to $1,500 per well at 75% cost share and $1,800 per well at 90%.

(3) An agrichemical containment and mixing facility means 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. Cost share for this practice is limited to $16,500 per facility at 75% cost share and $19,800 per facility at 90%.

(4) An agrichemical handling facility means 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. Cost share for this practice is limited to $27,500 per facility at 75% cost share and $33,000 per facility at 90%.

(5) Agricultural pond restoration/repair means 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. For restoration projects involving dam, spillway, or overflow pipe upgrades, cost share is limited to $15,000 per pond at 75% cost share and $18,000 per pond at 90%. For restoration projects involving removal of accumulated sediment only, total charge to NCACSP is restricted to a total of $3,000 per pond at 75% cost share and $3,600 per pond at 90%.

(6) Agricultural road repair/stabilization means repair or stabilization of existing access roads utilized for agricultural operations, including roads to existing crop fields, pastures, and barns.

(7) Agricultural temporary water collection pond means to 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.

(8) Chemigation or fertigation backflow prevention is 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.

(9) A conservation cover practice means to 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.

(10) A three-year conservation tillage system means any tillage and planting system in which at least (60) sixty percent of the soil surface is covered by plant residue for the same fields for three consecutive years to improve water quality. Benefits may include reduction of soil erosion, sedimentation and pollution from dissolved and sediment-attached substances. This incentive is broken down into two categories depending on the crop(s) to be grown:

(a) Grain crops and cotton
(b) Vegetables, Tobacco, Peanuts, and Sweet Corn

Cost share for each category of this practice is limited to $15,000 per cooperator in a lifetime.

(11) A cover crop means a crop or mixture of crops grown primarily for seasonal protection, erosion control and soil improvement. It usually is grown for one year or less. The major purpose is water and wind erosion control, to cycle plant nutrients, add organic matter to the soil, improve infiltration, aeration and tilth, improve soil quality, reduce soil crusting, and sequester carbon/nutrients. Benefits may include reduction of soil erosion, sedimentation and pollution from dissolved and sediment-attached substances. Cost share for this incentive practice is limited to $15,000 per cooperator in a lifetime.

(12) A critical area planting means 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.

(13) A cropland conversion practice means 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.

(14) Crop residue management means maintaining cover on sixty (60) percent of the soil surface at planting to protect water quality. Crop residue 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 dissolved sediment-attached substances. Cost share for this incentive practice is limited to $15,000 per cooperator in a lifetime.

(15) A diversion means 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.

(16) A field border means 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.

(17) A filter strip means an area of permanent perennial vegetation for removing sediment, organic matter, and other pollutants from runoff and waste water to improve water quality. Benefits may include reduced soil erosion, sedimentation, pathogen contamination and pollution from dissolved, particulate, and sediment-attached substances.

(18) A grade stabilization structure means 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.

(19) A grassed waterway means 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.

(20) A heavy use area protection means 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.

(21) A land smoothing practice means reshaping the surface of agricultural land to planned grades for the purpose of improving water quality. Improvements to water quality include:

(a) Reduction in nutrient loss.
(b) Reduction in concentrated flow of water from an agricultural field.
(c) Improved infiltration.

(22) A livestock exclusion system means a system of permanent fencing (board or 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.

(23) A livestock feeding area is 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. Cost share for the concrete pad for this practice is limited to $4,200 at 75% cost share and $5,040 at 90%.

(24) A long term no-till practice means planting all crops for five consecutive years with at least eighty (80) percent plant residue from preceding crops to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sediment-attached substances. Cost share for this incentive or this incentive combined with 3-year conservation tillage for grain and cotton is limited to $25,000 per cooperator in a lifetime.

(25) A micro-irrigation system means 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:

(a) To efficiently and uniformly apply irrigation water and maintain soil moisture for plant growth.
(b) To efficiently and uniformly apply plant nutrients in a manner that protects water quality.
(c) To prevent contamination of ground and surface water by efficiently and uniformly applying chemicals and fertilizers.
(d) To establish desired vegetation.

Cost share for this practice will be based on actual cost with receipts required not to exceed $25,000 charge to the NCACSP at 75% cost share and $30,000 at 90%, including the cost of backflow prevention.

(26) A nutrient management means 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.

(27) A nutrient scavenger crop is a crop of small grain grown primarily as a seasonal nutrient scavenger. The purpose is to scavenge and cycle plant nutrients. The nutrient scavenger crop also adds organic matter to the soil, improves infiltration, aeration and tilth, improves soil quality, reduces soil crusting, provides residue for conservation tillage, and sequesters carbon. Benefits may include reduction of soil erosion, sedimentation and pollution from dissolved and sediment-attached substances. Cost share for this incentive practice is limited to $25,000 per cooperator in a lifetime.

(28) A pastureland conversion practice means 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.

(29) A pasture renovation practice means to 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.

(30) A portable agrichemical mixing station means 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. Cost share for this practice is limited to $3,500 per station at 75% cost share and $4,200 at 90%. Cost share is also limited to one station per cooperator.

(31) Precision Agrichemical Application means using a system of components that enable reduction and greater control of fertilizer and pesticide application. This is accomplished through avoidance of excessive overlapping, unnecessary application to end/turn rows, and more precise control of application rates.

(32) Precision nutrient management means 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. Cost share for this incentive is limited to $15,000 per cooperator.

(33) Prescribed grazing involves 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. Cost share for this incentive is limited to $15,000 per cooperator.

(34) A riparian buffer means 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.

(35) A rock-lined outlet means 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.

(36) A rooftop runoff management system means 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.

(37) A sediment control basin means 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.

(38) A sod-based rotation practice means 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. Cost share for this incentive practice is limited to $25,000 per cooperator in a lifetime.

(39) A stock trail or walkway means to 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.

(40) A stream protection system means a planned system for protecting streams and stream banks that eliminates the need for livestock to be in streams by providing an alternative-watering source for livestock to improve water quality. Benefits may include reduced soil erosion, sedimentation, pathogen contamination, and pollution from dissolved, particulate and sediment-attached substances. System components may include:

(a) A spring development means improving springs and seeps by excavating, cleaning, capping or providing collection and storage facilities.
(b) A stream crossing means a trail constructed across a stream to allow livestock to cross without disturbing the bottom or causing soil erosion on the banks.
(c) A trough or tank means devices installed to provide drinking water for livestock at a stabilized location.
(d) A stream protection well means constructing a drilled, driven or dug well to supply water from an underground source.
(e) A windmill means erecting or constructing a mill operated by the wind's rotation of large vanes and is used as a source of power for pumping water.

(41) Streambank and shoreline protection means 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.

(42) A stream restoration system means 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. Cost share for this practice is limited to $50,000 per cooperator per year at 75% cost share and to $60,000 per year at 90%.

(43) A stripcropping practice means 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.

(44) A terrace means 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.

(45) A waste management system means a planned system in which all necessary components are installed for managing liquid and solid waste to prevent or minimize degradation of soil and ground and surface water resources. System components may include:

(A) A closure of waste impoundment means the safe removal of existing waste and waste water and the application of this waste on land in an environmentally safe manner. This practice is only applicable to waste storage ponds and lagoons. Cost share for this practice is limited to $75,000 per cooperator at 75% cost share and $90,000 at 90% cost share.

(B) A concentrated nutrient source management system is 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.

(C) A constructed wetland for land application practice means 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.

(D) A drystack means a fabricated structure for temporary storage of animal waste. Cost share for drystacks for poultry and non-.0200 animal operations are limited to $33,000 per structure at 75% cost share and $39,600 at 90%.

(E) The feeding/waste storage structure is designed for the purpose of 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. Cost share for this practice is limited to $27,500 per structure at 75% cost share and $33,000 per structure at 90%.

(F) An insect control system means 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.

(G) Lagoon biosolids removal means 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.

(H) A livestock mortality management system is 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, mortality incinerator, and mortality gasification system.

(I) A manure composting facility is 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.

(J) Manure/litter transportation means 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. Manure/Litter Transportation Incentive payments shall be limited to 3-years per applicant and $15,000 in a lifetime.

(K) An odor control management system means 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.

(L) A retrofit of on-going animal operations means 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 waste water and the application of this waste on land in an environmentally safe manner. .

(M) A solids separation from tank-based aquaculture production means 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.

(N) A storm water management system means 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.

(O) A waste application system means 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. Cost share for this practice is limited to $35,000 per cooperator in a lifetime at 75% cost share and $42,000 in a lifetime at 90%.

(P) A waste storage pond means an impoundment made by excavation or earthfill for temporary storage of animal waste, waste water and polluted runoff.

(Q) A waste treatment lagoon means an impoundment made by excavation or earthfill for biological treatment and storage of animal waste.

(46) A water control structure means 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).

(47) A wetland restoration system means a system of practices designed to restore the natural hydrology of an area that had been drained and cropped.

*To be used in conjunction with the most recent version of the APA Rules for the North Carolina Agriculture Cost Share Program for Nonpoint Source Pollution Control and the NC-ACSP Manual.

BEST MANAGEMENT PRACTICES ELIGIBLE FOR COST SHARE PAYMENTS

(1) Best Management Practices eligible for cost sharing include the practices listed in Table 1 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.

Table 1

Practice	Minimum Life Expectancy (years)
Abandoned Tree Removal	10
Abandoned Well Closure	1
Agrichemical Containment and Mixing Facility	10
Agrichemical Handling Facility	10
Agricultural Pond Restoration/Repair	10
Agricultural Road Repair/Stabilization	10
Agricultural Water Collection System	10
Backflow Prevention System	
Chemigation	10
Fertigation	10
Conservation Cover	6
3-Year Conservation Tillage System	3
Cover Crops	1
Critical Area Planting	10
Cropland Conversion	10
Crop Residue Management	1
Diversion	10
Field Border	10
Filter Strip	10
Grade Stabilization Structure	10
Grassed Waterway	10
Heavy Use Area Protection	10
Land Smoothing	5
Livestock Exclusion	10
Livestock Feeding Area	10
Long Term No-Till	5
Micro-Irrigation System	10
Nutrient Management	3
Nutrient Scavenger Cover Crop	1
Pasture Renovation	10
Pastureland Conversion	10
Portable Agrichemical Mixing Station	5
Precision Agrichemical Application	5
Precision Nutrient Management	3
Prescribed Grazing	3

Riparian Buffer	10
Rock-lined Waterway or Outlet	10
Rooftop Runoff Management System	10
Sediment Control Basin	10
Sod-based Rotation	4 or 5
Stock Trail and Walkway	10
Stream Protection System	
Spring Development	10
Stream Crossing	10
Trough or Tank	10
Stream Protection Well	10
Windmills	10
Streambank and Shoreline Protection	10
Stream Restoration	10
Stripcropping	5
Terrace	10
Waste Management System	
Closure of Abandoned Waste Impoundment	10
Concentrated Nutrient Source Management System	10
Constructed Wetland for Land Application	10
Drystack	10
Feeding/Waste Storage Structure	10
Insect Control System	5
Lagoon Biosolids Removal Practice	1
Livestock Mortality Management System	
Incinerator	5
Others Systems	10
Manure Composting Facility	10
Manure/Litter Transportation Incentive	1
Odor Management System	1 to 10
Retrofit of On-going Animal Operations	10
Solids Separation from Tank-Based Aquaculture Production	10
Storm Water Management System	10
Waste Application System	10
Waste Storage Pond	10
Waste Treatment Lagoon	10
Water Control Structure	10
Wetlands Restoration System	10

(2) The minimum life expectancy of the BMPs shall be that listed in Table 1. 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 Commission as deemed appropriate in order to meet program purpose and goals.