Conservation Planning Guide for Resource Management Systems

Conservation planning is recognized as the cornerstone of the NRCS conservation delivery system and serves as the basic tool for clients to manage their natural resources. A <u>Conservation Plan</u> is defined by the National Planning Procedures Handbook (NPPH) as "A record of the client's decisions and supporting information for the treatment of a unit of land for one or more identified natural resource concerns as a result of the planning process. The plan describes the schedule of implementation for practices and activities needed to address identified natural resource concerns and takes advantage of opportunities. The needs of the client, the resources, and Federal, State, Tribal, and local requirements will be met." A conservation plan that meets NRCS policies and planning procedures, and considers reasonably foreseeable impacts on the environment, including but not limited to Special Environmental Concerns (SECs), must be developed to document the provision of technical assistance and to support all financial assistance program agreements. Through this process, NRCS reassures their clients, that in order to effectively protect, conserve, and enhance natural resources on private lands, a conservation plan is fundamental to the long-term success in achieving sustainable use and sound management of Soil, Water, Air, Plants, Animals, Energy and Human (SWAPAE+H) resources.

The NRCS objective in conservation planning is to:

1. Help each client attain sustainable use and sound management of SWAPAE+H, based on related human considerations.

The NRCS purpose in conservation planning is to:

- 1. Prevent the degradation of resources,
- 2. Ensure their sustained use and productivity,
- 3. Considering economic and social needs (+H) relative to the resource.

The NRCS planning standard in conservation planning is to:

- 1. Develop alternative treatments to meet the resource needs, objectives of the client, and adequately treats the identified resource concerns the client chooses to address
- 2. One or more action alternatives will be developed, included in the case file, and presented to the client.
- 3. Conservation planning is conducted with the client, working progressively towards an RMS level of management.

Successful conservation planning on any land use is achieved through the <u>3-Phase</u>, <u>9- Step Planning Process</u>. The three-phase, nine-step process is used by NRCS to help clients plan and apply conservation treatments or make land use and treatment decisions.

Phase I – Collection and Analysis (Understanding the Problems and Opportunities)

Step 1 – Identify problems and opportunities

Step 2 - Determine objectives

Step 3 - Inventory resources

Step 4 – Analyze resource data

Phase II - Decision Support (Understanding the Solutions)

Step 5 – Formulate alternatives

Step 6 – Evaluate alternatives

Step 7 - Make decisions

Phase III – Application and Evaluation (Understanding the Results)

Step 8 - Implement the plan

Step 9 - Evaluate the plan

| ldentify Problems and Opportunities | 2 Determine Objectives | 3 Inventory Resources | Analyze Resource Data | 5 Formulate Alternatives | 6 Evaluate Alternatives | 7 Make Decisions | 8 Implement the Plan | 9 Evaluate the Plan |
|--|--|--|---|---|---|--|---|---|
| Initial opportunities and problems are first identified while working with the customer. | The customer identifies their objectives, while the planner guides the process so that it includes the customer's needs and values, the resource uses, and on-site and off-site ecological protection. | Natural resource, economic, and social information for the planning area is collected to further define problems and opportunities, develop alternatives, and evaluate the plan. | The planner studies the resource data and defines existing conditions for all the identified natural resources, including limitations and potentials for the desired use. | Alternatives are formulated that achieve the customer's objectives, solve identified concerns, and take advantage of opportunities to improve or protect resource conditions. | Alternatives are evaluated to determine their effectiveness in addressing the customer's problems, opportunities, and objectives. | The customer selects their preferred alternatives and works with the planner on practice implementation. | The customer implements the selected alternatives. The planner provides the land manager with detailed practice implementation information. | The planner evaluates the effectiveness of the plan in solving the resource concerns and works with the customer to make adjustments as needed. |

Successful conservation planning also requires the correct application of conservation practices and management activities for which standards and practice specifications have been developed and offered in the state's Field Office Technical Guide (eFOTG). A specific treatment, such as a structural or vegetative measure, or management technique, commonly used to meet specific needs in planning and implementing conservation, is needed to maintain, treat, or improve SWAPAE+H resource concerns to sustainable levels and meet client objectives.

Planning by its nature is both progressive and adaptive. A first-time client may only be interested in a single practice to meet one of their resource concerns. By introducing the planning process, the client may be presented a range of alternatives to address multiple resource concerns and ideally, to develop and implement a full Resource Management System (RMS). Whether delivering progressive or RMS planning assistance, planners and clients work closely together throughout each step of the planning process, learning from each other and further refining short-term and long-term objectives. It is important to continue assisting clients in addressing resource concerns by increasing the level of planning and implementation over time and ultimately achieving the client's planned goals and sustainable management of the natural resources.

RMS vs. PPS

A **Resource Management System (RMS)** is "a combination of conservation practices and resource management activities that treats all identified resource concerns for soil, water, air, plants, animals and energy to a level that meets or exceeds the planning criteria in the FOTG". All conservation planning activities are conducted with the client, working progressively towards an RMS level of management. Conservation planning assistance is provided to land-users to progressively plan as much treatment needed towards an RMS as decision-makers are willing and able to adopt or implement at any point in time. The progressive planning approach is the incremental process of building a conservation plan consistent with land-user's ability to make decisions over a period of time, but still striving, progressively, towards an RMS level of management. The rate of progress in moving to an RMS level will depend on the client's desires and constraint. When all SWAPAE+H resources for a planning land unit (PLU) are treated, improved, or maintained to a level that meets or exceeds planning criteria, the plan is considered to have achieved a Resource Management System (RMS).

A **Progressive Planning System (PPS)** is "a conservation plan that addresses a limited number of resource concerns, or even a single resource concern, and consequently does not achieve an RMS level of treatment for all SWAPAE+H resources in a PLU." A PPS may move to the RMS level depending on the client's desires and constraints and planner ability to cultivate and maintain a relationship with the client. All PPS should move towards an RMS level as the client and the planner develop a trusting relationship and, both understand existing problems, resource concerns, and opportunities.

All conservation plans, regardless of the level of management (RMS or PPS), must document a summary of the client's decisions and describe the planned conservation system (planned practices AND existing functional practices), amounts, and schedule for implementation. Conservation plans may also include "component plans" to provide greater detail in addressing resource concerns.

Resource Management System (RMS)

RMS planning outlines conservation practices and resource management activities that treat ALL identified resource concerns for a planning area or land unit to a level that meets or exceeds planning criteria. Over time, all conservation PPS should move toward an RMS level as the client and the planner develop a trusting relationship and both understand existing problems/resource concerns.

An RMS is developed by selecting the conservation practices and management activities required to meet or exceed planning criteria for all existing resource concerns, including describing and documenting existing functional practices that are part of the system. All resource concerns and Special Environmental Concerns (SECs) identified for the planning unit during Phase I - Collection and Analysis, must be evaluated and documented using the NRCS-CPA-52 and/or CD-EE, and alternative actions recommended under the Alternatives 1 and 2.

An RMS is considered fully applied when all the conservation practices that make up the system have been implemented/ adopted according to the applicable Conservation Practice Standards & Specifications in Section IV of the eFOTG. Refer to Planning Guides below for conservation practices to consider for a particular land use designation.

Progressive Planning System (PPS)

PPS is when a client addresses a limited number of resource concerns—or even a single resource concern. PPS does not achieve the RMS level of treatment immediately but may move to an RMS level depending on the client's desires and constraints and, planner ability to cultivate and maintain a trusting relationship with the client.

Much like in an RMS, a PPS is a system planning approach and must treat resource problems on a land unit. A PPS meets or exceeds eFOTG planning criteria for each of the resource concerns identified by the planner and client. PPS must: 1) Describe and document existing functional practices that are part of the system, 2) NOT have long term negative impacts (*create other persistent resource problems*), and 3) must be able to function and solve identified resource concern(s) with normal operation and maintenance.

Like an RMS plan, a PPS identifies conservation practices required to meet a minimum level of resource performance. All resource concerns and Special Environmental Concerns (SECs) identified for the planning unit during Phase I - Collection and Analysis, must be evaluated and documented using the NRCS-CPA-52 and/or CD-EE, and alternative actions recommended under the Alternatives 1 and 2. Refer to Planning Guides below for conservation practices to consider for a particular land use designation.



Planning Guides

One of the first and most important steps in formulating an RMS level of treatment, is to complete a comprehensive resource inventory and analysis, including an environmental evaluation (e.g., NRCS-CPA-52 and/or CD-EE) to identify all potential resource concerns in the planning area and determine how they relate to each of the SWAPAE+H resources, including but not limited to Special Environmental Concerns (SECs), and other applicable Federal, State, Local, and Tribal laws and regulations.

This planning guide lists (1) recognized NRCS Natural Resources & Resource Concerns, (2) NRCS Landuse Categories and Definitions, (3) the Primary Conservation Practice(s) associated with each land use and modifier, (4) a selected list of Supporting Conservation Practice(s) that may be used as needed to facilitate the implementation of a primary conservation practice, and (5) a list of Component Plans required to provide greater detail in addressing resource concerns for each land use category.

List of Natural Resources & Resource Concerns (SWAPAE)

A resource concern is the resource condition that does not meet minimum acceptable condition levels as established by resource planning criteria shown in the FOTG, Section III. This implies an expected degradation of the soil, water, air, plant, animal or energy resource base to the extent that the sustainability or intended use of the resource is impaired. Refer to the NC eFOTG>Section III>Planning Criteria subfolder for the latest list of NRCS approved resource concerns.

Soil

- 1. Sheet and rill erosion
- Wind erosion
- 3. Ephemeral gully erosion
- 4. Classic gully erosion
- Bank erosion from streams, shorelines or water conveyance channels
- 6. Subsidence
- 7. Compaction
- 8. Organic matter depletion
- 9. Concentration of salts or other chemicals
- 10. Soil organism habitat loss or degradation
- 11. Aggregate instability

Water

- 12. Ponding and flooding
- 13. Seasonal high water table
- 14. Seeps
- 15. Drifted snow
- 16. Surface water depletion
- 17. Ground water depletion
- 18. Naturally available moisture use
- 19. Inefficient Irrigation water use
- 20. Nutrients transported to surface water
- 21. Nutrients transported to groundwater
- 22. Pesticides transported to surface water
- Pesticides transported to groundwater Pathogens and chemicals from manure, bio-solids, or compost applications transported to surface water.
- Pathogens and chemicals from manure, bio-solids, or compost applications transported to groundwater.
- 25. Salts transported to surface water
- 26. Salts transported to groundwater
- 27. Petroleum, heavy metals, and other pollutants transported to surface water
- 28. Petroleum, heavy metals, and other pollutants transported to ground water
- 29. Sediment transported to surface water
- 30. Elevated water temperature

<u>A</u>ir

- 32. Emissions of particulate matter PM and PM precursors
- 33. Emissions of greenhouse gases GHGs
- 34. Emissions of ozone precursors
- 35. Objectionable odors
- 36. Emissions of airborne reactive nitrogen

Plants

- 37. Plant productivity and health
- 38. Plant structure and composition
- 39. Plant pest pressure
- 40. Wildfire hazard from biomass accumulation

Animals

- 41. Terrestrial habitat for wildlife and invertebrates
- 42. Aquatic habitat for fish and other organisms
- 43. Feed and forage imbalance
- 44. Inadequate livestock shelter
- 45. Inadequate livestock water quantity, quality and distribution

Energy

- Energy efficiency of equipment and facilities
- 47. Energy efficiency of farming/ranching practices and field operations

Landuse Categories & Definitions

Land Use includes categories of *land cover* and categories of *land use*. *Land cover* is the vegetation or other kind of material that covers the land surface. *Land use* is the purpose of human activity on the land; it is usually, but not always, related to land cover. NRCS has developed the following land use designations to be used by planners and modelers at the field and landscape level. Refer to the Section III> Landuse Categories & Definitions">NRCS approved resource concerns.

Crop — Land used primarily for the production and harvest of annual or perennial field, forage, food, fiber, horticultural, orchard, vineyard, or energy crops.

Pasture — Land composed of introduced or domesticated native forage species that is used primarily for the production of livestock. Pastures receive periodic renovation and cultural treatments, such as tillage, fertilization, mowing, weed control, and may be irrigated. Pastures are not in rotation with crops.

Farmstead — Land used for facilities and supporting infrastructure where farming, forestry, animal husbandry, and ranching activities are often initiated. This may include dwellings, equipment storage, plus farm input and output storage and handling facilities. Also includes land dedicated to the facilitation and production of high-intensity animal agriculture in a containment facility where daily nutritional requirements are obtained from other lands or feed sources.

Forest — Land on which the historic and/or introduced vegetation is predominantly tree cover managed for the production of wood products or non-timber forest products.

Associated Agriculture Lands — Land associated with farms and ranches that are not purposefully managed for food, forage, or fiber and are typically associated with nearby production or conservation lands. This could include incidental areas, such as idle center pivot corners, odd areas, ditches and watercourses, riparian areas, field edges, seasonal and permanent wetlands, and other similar areas.

Developed Land — Land occupied by buildings and related facilities used for residences, commercial sites, public highways, airports, and open space associated with towns and cities.

Water — Geographic area whose dominant characteristic is open water or permanent ice or snow. May include intermingled land, including tidal-influenced coastal marsh lands.

Other — Land that is barren, sandy, rocky, or that is impacted by the extraction of natural resources, such as minerals, gravel or sand, coal, shale, rock, oil, or natural gas.

Modifiers

The following land use modifiers are used to differentiate level(s) of land use specificity and help describe <u>how land is managed</u>.

Irrigated — Used when an operational system is present and managed to supply water.

Wildlife — Used when the client is actively managing for wildlife.

Grazed — Used when grazing animals impact how land is managed.

Drained — Used when artificial drainage exists that has an impact on how the land is managed

Organic — Used on field which has met the organic or transitioning to organic criteria

Water Feature — Used to identify that the planned land unit contains or is adjacent to a water feature, such as a stream, lake, river, etc.

Protected — The land unit is under a conservation easement or similar protection

Hayed — Used when hay production is the primary activity.

Urban — Used when land is located in a landscape predominated by residential, commercial, industrial, and transportation uses.

Primary and Supporting Conservation Practices

A <u>primary</u> conservation practice is a practice that results in the greatest environmental benefit on the resource concern is treating and has been identified as essential to successfully treat a land unit. Primary conservation practices are always planned and must be part of an RMS plan for a particular land use designation. A <u>supporting</u> conservation practice is planned to facilitate management, function, or effectiveness of a *primary conservation practice* but does not achieve the desired effects on its own. Determining if a practice is primary or supporting is a planner decision, based on their knowledge of the local resources and how practices or system of practice are designed and applied to treat resource concerns.

The following land use guides provides a non-exhaustive list of conservation practices and activities to be considered when conducting conservation planning on typical agricultural land uses in North Carolina (NC). This guide is not intended to be used as an all-inclusive list of practices or system of practices typically found in an RMS level of treatment in NC. Planners are expected to acquire the technical and planning knowledge, skills, and abilities (KSAs) to independently conduct thorough and comprehensive resource assessments for common land use designations within their area of responsibly. More importantly, planners must possess the working knowledge of eFOTG conservation practices and system of practices typically planned or applied within a workunit and be competent in formulating RMS alternative systems that address resource concerns, opportunities, and achieve sound management of SWAPAE+H resources to sustainable levels. Use of professional judgment and knowledge, to develop site-specific recommendations to solve identified resource concerns, maintain acceptable levels of resource sustainability, or improve upon them, is applicable to all planning scenarios.

Planned and/or Existing Functional Practices listed in the guides are categorized as follows:

- Primary practices that address essential resource concern elements for the land use designation and/or modified.
- **Supporting** practices required to support functioning of *primary* practices.
- Component Plans plan(s) required to provide greater detail in addressing resource concerns. The following is a partial list of some examples of component plans, including but not limited to plans addressing Invasive Species and Pollinators:
 - 1) Comprehensive Nutrient Management Plans (CNMP),
 - 2) Nutrient Management Plans,
 - 3) Integrated Pest Management Plans,
 - 4) Forest Management Plans,
 - 5) Prescribed Burn Plans,
 - 6) Irrigation Water Management Plans,
 - 7) Grazing Management Plans,
 - 8) Wildlife Management Plans,
 - 9) Organic System Plans,
 - 10) Invasive Species within the Conservation Plan
 - 11) Pollinators within the Conservation Plan
 - 12) Other

The following virtual training titled "<u>Guiding Principles & Elements of a Resource Management System (RMS)</u>" offers Planners additional technical information and RMS-level planning guidance. The training covers NRCS expectations for the development of an RMS-level plan as described in the National Planning Procedures Handbook (NPPH) (180-VI-NPPH, Amend. 8, Nov. 2020) and National Conservation Planning Policy ((180-409-GM, 1st Ed., Amend. 46, July 2021)). Key topics discussed during this training event are outlined below:

- 1) Guiding Principles for Conservation Planners
- 2) Important NPPH Concepts/Definitions
- 3) Elements of a Sound RMS Plan
- 4) RMS Planning Scenarios for Crop and Pasture Landuse Types, and
- 5) Available Panning Aids and Resources.

A copy of the presentation can be viewed/downloaded from the following weblink: https://efotg.sc.egov.usda.gov/references/public/NC/GuidingPrinciples&ElementsofRMS Participant.pdf

CROP

PRIMARY PRACTICE(S)

(Required to manage growing crop plants, their residues, and/or promote a healthy soil environment)

- 1) Appropriate Residue and Tillage Management. Must include at least one of the following:
 - Residue and Tillage Management, Reduced Till (345),

or

- Residue and Tillage Management, No Till (329)).
- 2) Conservation Crop Rotation (328)
- 3) Cover Crop (340)

| Land Use Modifiers (Primary Practices) | | | | |
|---|---|--|--|--|
| Hayed Forage Harvest Management (511) | Water Feature Riparian Forest Buffer (391) Filter Strip (393) | Wildlife Planned practices and management must achieve a WHEP Score ≥0.75 for upland species/habitat, and SVAP2 >5 for aquatic | | |
| Grazed See Pasture PRIMARY Practices | <i>Irrigated</i> Irrigation Water Management (449) | habitat (when water feature modifier is present). Plan must include an appropriate wildlife management practice(s) (see bulleted list below) for the species/habitat type. Aquatic Organism Passage (396) is required where there are barriers to aquatic species movement. Appropriate Wildlife Management Practices •Field Border (386) •Fishpond Management (399) •Stream Habitat Improvement & Management (395) •Wildlife Habitat Planting (420) •Restoration & Management of Rare or Declining Habitat (643) •Wetland Wildlife Habitat Management (644) •Upland Wildlife Habitat Management (645) •Shallow Water Development & Management (646) •Early Successional Habitat Development & Management (647) •Structures for Wildlife (649) | | |
| Organic Planned system must adhere to the criteria and guidelines outlined in an Organic System Plan (OSP). | Drained Drainage Water Management (554) | | | |
| *As determined by the Planner to address the threat of land conversion and loss of wetland, floodplain, and/or forestland functions and values. | *As determined by the Planner to address the resource base. Refer to the Engineering Field Handbook-Chapter 20, for additional planning and technical guidance. | | | |

SUPPORTING PRACTICE(S)

- 1) Nutrient Management (590) (if nutrients are applied)
- 2) Pest Management Conservation System (595) (if pesticides are applied)
- 3) Other eFOTG practices that are feasible and suitable to treat the resource base as determined by the Planner as a result of the NRCS 9-Step planning process.

COMPONENT PLAN(S)

- 1) Nutrient Management Plan (if nutrients are applied)
- 2) Integrated Pest Management Plan (if pesticides are applied)
- 3) Irrigation Water Management Plan (if Irrigated Modifier is present)
- 4) Grazing Management Plan (if Grazing Modifier is present)
- 5) Wildlife Management Plan ((if Wildlife Modifier is present)
- 6) Invasive Species within the Conservation Plan ((if Invasive Species are present)
- 7) Pollinators within the Conservation Plan (if Wildlife Modifier is present)
- 8) Organic System Plan ((if Organic modifier is present)

AGROFORESTRY CATEGORY

(Intentional combination of agriculture and forestry to create productive and sustainable land use practices.)

- 1) Alley Cropping (311)
- 2) Riparian Forest Buffer (391) (if water feature is present)
- 3) Windbreak/Shelterbelt Establishment (380)

<u>PASTURE</u>

PRIMARY PRACTICE(S)

(Required to manage growing forage plants, manage grazing animals, and/or promote a healthy soil environment)

- 1) Prescribed Grazing (528)
- 2) Fence (382)
- 3) Access Control (472) (if water feature is present)

| Land Use Modifiers (Primary Practices) | | | | | |
|---|---|--|--|--|--|
| Hayed Forage Harvest Management (511) | Water Feature Access Control (472) Riparian Forest Buffer (391) Filter Strip (393) | Wildlife Planned practices and management must achieve a WHEP Score ≥0.75 for upland species/habitat, and SVAP2 >5 for aquatic habitat (when water feature modifier is present). Plan must include an appropriate wildlife management practice(s) (see bulleted list below) for the species/habitat type. Aquatic Organism Passage (396) is required where there are barriers to aquatic species movement. Appropriate Wildlife Management Practices Field Border (386) Fishpond Management (399) •Stream Habitat Improvement & Management | | | |
| Grazed *As Noted on this page | <i>Irrigated</i> Irrigation Water Management (449) | | | | |
| Organic Planned system must adhere to the criteria and guidelines outlined in an Organic System Plan (OSP). | Drained Drainage Water Management (554) | | | | |
| *As determined by the Planner to address the threat of land conversion and loss of wetland, floodplain, and/or forestland functions and values. | *As determined by the Planner to address the resource base. Refer to the Engineering Field Handbook-Chapter 20, for additional planning and technical guidance. | (395) •Wildlife Habitat Planting (420) •Restoration & Management of Rare or Declining Habitat (643) •Wetland Wildlife Habitat Management (644) •Upland Wildlife Habitat Management (645) •Shallow Water Development & Management (646) •Early Successional Habitat Development & Management (647) •Structures for Wildlife (649) | | | |

SUPPORTING PRACTICE(S)

- 1) Nutrient Management (590) (if nutrients are applied)
- 2) Pest Management Conservation System (595) (if pesticides are applied)
- 3) Pasture & Hay Planting (512)
- 4) Watering Facility (614)¹
- 5) Water Well (642)
- 6) Pumping Plant (533)
- 7) Livestock Pipeline (516)
- 8) Heavy Use Area Protection (561)
- 9) Trails and Walkways (575)
- 10) Stream Crossing (578)
- 11) Streambank and Shoreline Protection (580)
- 12) Pasture and Hay Planting (512)
- 13) Other eFOTG practices that are feasible and suitable to treat the resource base as determined by the Planner as a result of the NRCS 9-Step planning process.

¹Livestock watering facilities are comprised of a combination of conservation practices. All potential water sources (well, public water supply, spring, pond, or stream) should be identified. Direct consumption from surface water bodies should be used only after other options to provide livestock watering facilities have been exhausted. If livestock are permitted to drink from streams or ponds, the Prescribed Grazing Plan must specify a frequency of rotation or method of controlled access to prevent degradation of channel banks and water quality. If channel banks and water quality will not be adequately protected through implementation of Prescribed Grazing, Heavy Use Area Protection (561) and Use Exclusion (472) must both be used to control access and prevent degradation.

COMPONENT PLAN(S)

- 1) Grazing Management Plan
- 2) Nutrient Management Plan (if nutrients are applied)
- 3) Integrated Pest Management Plan (if pesticides are applied)
- 4) Irrigation Water Management Plan (if Irrigated Modifier is present)
- 5) Wildlife Management Plan ((if Wildlife Modifier is present)
- 6) Invasive Species within the Conservation Plan ((if Invasive Species are present)
- 7) Pollinators within the Conservation Plan (if Wildlife Modifier is present)
- 8) Organic System Plan ((if Organic modifier is present)

AGROFORESTRY CATEGORY

(Intentional combination of agriculture and forestry to create productive and sustainable land use practices.)

- 1) Alley Cropping (311)
- 2) Riparian Forest Buffer (391) (if water feature is present)
- 3) Windbreak/Shelterbelt Establishment (380)
- 4) Silvopasture (381)

FARMSTEAD

PRIMARY PRACTICE(S)

(Required to manage facilities and infrastructure used for, or in support of, farming operations. Farmsteads can encompass a broad spectrum of farm activities and resource concerns, including dwellings, confined animals, aquaculture, horticulture, storage (crops, feed, fuel, equipment), and farm maintenance/repair.)

- 1) For planning activities involving Animal Feeding Operations (AFOs) / Confined Animal Feeding Operations (CAFOs):
 - Any eFOTG practice(s) listed in the Comprehensive Nutrient Management Plan (CNMP) that are feasible, suitable, and essential to successfully treat the farmstead and land application areas of an AFO/CAFO.
- 2) For planning activities involving aquaculture, horticulture, storage (crops, feed, fuel, equipment), and farm maintenance/repair:
 - Any eFOTG practice(s) that is feasible and suitable to treat the resource base as determined by the Planner as a result of the NRCS 9-Step planning process.

| Land Use Modifiers (Primary Practices) | | | | |
|---|--|--|--|--|
| Hayed Forage Harvest Management (511) | Water Feature Riparian Forest Buffer (391) Filter Strip (393) | Wildlife Planned practices and management must achieve a WHEP Score >0.75 for upland species/habitat, and SVAP2 >5 for aquatic | | |
| Grazed See Pasture PRIMARY Practices | <i>Irrigated</i> Irrigation Water Management (449) | habitat (when water feature modifier is present). Plan must include an appropriate wildlife management practice(s) (see bulleted list below) for the species/habitat type. | | |
| Organic Planned system must adhere to the criteria and guidelines outlined in an Organic System Plan (OSP). | Drained Drainage Water Management (554) | Aquatic Organism Passage (396) is required where there are barriers to aquatic species movement. Appropriate Wildlife Management Practices | | |
| *As determined by the Planner to address the threat of land conversion and loss of wetland, floodplain, and/or forestland functions and values. | Urban *As determined by the Planner to address the resource base. Refer to the Engineering Field Handbook-Chapter 20, for additional planning and technical guidance. | •Field Border (386) •Fishpond Management (399) •Stream Habitat Improvement & Management (395) •Wildlife Habitat Planting (420) •Restoration & Management of Rare or Declining Habitat (643) •Wetland Wildlife Habitat Management (644) •Upland Wildlife Habitat Management (645) •Shallow Water Development & Management (646) •Early Successional Habitat Development & Management (647) •Structures for Wildlife (649) | | |

SUPPORTING PRACTICE(S)

- 1) Waste Storage Facility (313) (if manure, animal waste, wastewater, and/or agricultural by-products storage is needed)
- 2) Animal Mortality Facility (316) (if on-farm treatment or disposal of animal carcasses is needed)
- 3) Composting Facility (317) (if on-farm aerobic treatment of animal manure is needed)
- 4) Roofs and Covers (367)
- 5) Roof Runoff Structure (558)
- 6) Critical Area Planting (342)
- 7) Mulching (484)
- 8) Other eFOTG practices that are feasible and suitable to treat the resource base as determined by the Planner as a result of the NRCS 9-Step planning process.

COMPONENT PLAN(S)

- 1) Comprehensive Nutrient Management Plan (CNMP) (if part of an Animal Feeding Operation (AFO) or CAFO)
- 2) Nutrient Management Plan (if nutrients are applied)
- 3) Integrated Pest Management Plan (if pesticides are applied)
- 4) Irrigation Water Management Plan (if Irrigated Modifier is present)
- 5) Grazing Management Plan (if Grazing Modifier is present)
- 6) Wildlife Management Plan ((if Wildlife Modifier is present)
- 7) Invasive Species within the Conservation Plan ((if Invasive Species are present)
- 8) Pollinators within the Conservation Plan (if Wildlife Modifier is present)
- 9) Organic System Plan ((if Organic modifier is present)

AGROFORESTRY CATEGORY

(Intentional combination of agriculture and forestry to create productive and sustainable land use practices.)

- 1) Riparian Forest Buffer (391) (if water feature is present)
- 2) Windbreak/Shelterbelt Establishment (380)

FOREST

PRIMARY PRACTICE(S)

(Required to manage stocking and competition on a stand of trees and/or promote a healthy soil environment)

1) Forest Stand Improvement (666)

Land Use Modifiers (Primary Practices)

Grazed

See Pasture PRIMARY Practices

Water Feature

Riparian Forest Buffer (391) Filter Strip (393)

Organic

Planned system must adhere to the criteria and guidelines outlined in an Organic System Plan (OSP).

Drained

Drainage Water Management (554)

movement. Appropriate Wildlife Management Practices

Wildlife

Planned practices and management must

achieve a WHEP Score <a>\text{ > 0.75} for upland species/habitat, and SVAP2 > 5 for aquatic habitat (when water feature modifier is present). Plan must include an appropriate

wildlife management practice(s) (see bulleted

list below) for the species/habitat type. Aquatic

Organism Passage (396) is required where

there are barriers to aquatic species

- •Field Border (386) •Fishpond Management (399)
- •Stream Habitat Improvement & Management (395) •Wildlife Habitat Planting (420) •Restoration & Management of Rare or Declining Habitat (643)
 - •Wetland Wildlife Habitat Management (644)
 - •Upland Wildlife Habitat Management (645)
- •Shallow Water Development & Management (646) •Early Successional Habitat Development & Management (647) •Structures for Wildlife (649)

Protected

*As determined by the Planner to address the threat of land conversion and loss of wetland, floodplain, and/or forestland functions and values.

Urban

*As determined by the Planner to address the resource base. Refer to the Engineering Field Handbook-Chapter 20, for additional planning and technical guidance.

SUPPORTING PRACTICE(S)

- 1) Tree and Shrub Site Preparation (490)
- 2) Tree and Shrub Establishment (612)
- 3) Firebreak (394)
- 4) Prescribed Burning (338)
- 5) Access Road (560)
- 6) Forest Trails and Landings (655)
- 7) Other eFOTG practices that are feasible and suitable to treat the resource base as determined by the Planner as a result of the NRCS 9-Step planning process.

COMPONENT PLAN(S)

- 1) Forest Management Plan
- 2) Prescribed Burn Plan (if fire is prescribed)
- 3) Invasive Species within the Conservation Plan ((if invasive species are present)
- 4) Nutrient Management Plan (if nutrients are applied)
- 5) Integrated Pest Management Plan (if pesticides are applied)
- 6) Irrigation Water Management Plan (if Irrigated Modifier is present)
- 7) Grazing Management Plan (if Grazing Modifier is present)
- 8) Wildlife Management Plan ((if Wildlife Modifier is present)
- 9) Pollinators within the Conservation Plan (if Wildlife Modifier is present)
- 10) Organic System Plan ((if Organic modifier is present)

AGROFORESTRY CATEGORY

(Intentional combination of agriculture and forestry to create productive and sustainable land use practices.)

- 1) Alley Cropping (311)
- 2) Riparian Forest Buffer (391) (if water feature is present)
- 3) Windbreak/Shelterbelt Establishment (380)
- 4) Silvopasture (381)

ASSOCIATED AGRICULTURE LANDS

PRIMARY PRACTICE(S)
(Required for land that is not purposefully managed for food, forage, or fiber and is typically associated with nearby production or conservation lands. (e.g., incidental areas, idle center pivot corners, odd areas, ditches and watercourses, riparian areas, field edges, seasonal and permanent wetlands, and other similar areas))

1) Any eFOTG practices that are feasible and suitable to treat the resource base as determined by the Planner as a result of the NRCS 9-Step planning process.

| Land Use Modifiers (Primary Practices) | | | | |
|---|---|---|--|--|
| Hayed Forage Harvest Management (511) | Water Feature Riparian Forest Buffer (391) Filter Strip (393) | Wildlife Planned practices and management must achieve a WHEP Score ≥0.75 for upland species/habitat, and SVAP2 >5 for aquatic habitat (when water feature modifier is present). Plan must include an appropriate wildlife management practice(s) (see bulleted list below) for the species/habitat type. Aquatic Organism Passage (396) is required where there are barriers to aquatic species | | |
| Grazed See Pasture PRIMARY Practices | <i>Irrigated</i> Irrigation Water Management (449) | | | |
| Organic Planned system must adhere to the criteria and guidelines outlined in an Organic System Plan (OSP). | Drained Drainage Water Management (554) | movement. <u>Appropriate Wildlife Management Practices</u> •Field Border (386) •Fishpond Management (399) •Stream Habitat Improvement & Management (395) •Wildlife Habitat Planting (420) •Restoration & Management of Rare or Declining Habitat (643) | | |
| *As determined by the Planner to address the threat of land conversion and loss of wetland, floodplain, and/or forestland functions and values. | *As determined by the Planner to address the resource base. Refer to the Engineering Field Handbook-Chapter 20, for additional planning and technical guidance. | Wetland Wildlife Habitat Management (644) Upland Wildlife Habitat Management (645) Shallow Water Development & Management (646) Early Successional Habitat Development & Management (647) Structures for Wildlife (649) | | |

SUPPORTING PRACTICE(S)

1) Other eFOTG practices that are feasible and suitable to treat the resource base as determined by the Planner as a result of the NRCS 9-Step planning process.

COMPONENT PLAN(S)

- 1) Prescribed Burn Plan (if fire is prescribed)
- 2) Nutrient Management Plan (if nutrients are applied)
- 3) Integrated Pest Management Plan (if pesticides are applied)
- 4) Irrigation Water Management Plan (if Irrigated Modifier is present)
- 5) Grazing Management Plan (if Grazing Modifier is present)
- 6) Wildlife Management Plan ((if Wildlife Modifier is present)
- 7) Invasive Species within the Conservation Plan ((if Invasive Species are present)
- 8) Pollinators within the Conservation Plan (if Wildlife Modifier is present)
- 9) Organic System Plan ((if Organic modifier is present)

AGROFORESTRY CATEGORY

(Intentional combination of agriculture and forestry to create productive and sustainable land use practices.)

- 1) Riparian Forest Buffer (391) (if water feature is present)
- 2) Windbreak/Shelterbelt Establishment (380)