



Design and Implementation Activity

Pest Management Conservation System Design

DIA 161

Definition

Pest Management Conservation System manages pests using a combination of conservation practices and Prevention, Avoidance, Monitoring, and Suppression (PAMS) techniques. It addresses beneficial organism, plant pressure, surface, and groundwater impacts.

Pest management plans are documents of record establishing how pests will be managed while addressing identified resource concerns including plant pest pressure, beneficial organisms, and the movement of pesticides. These plans are prepared in collaboration with producer and/or landowner and designed to help the producer implement and maintain an effective plan for the management of pests from available sources.

REQUIREMENTS

General Requirements

A Design and Implementation Activity (DIA) assists a participant with implementing their conservation plan by providing site-specific instructions, requirements, plans, or specifications for putting conservation practices and enhancements on the land.

A DIA may involve providing assistance for a single conservation practice or a combination of structural, vegetative, or land management conservation practices, enhancements, and management activities.

Prior to initiation of the DIA, the Technical Service Provider (TSP) will schedule a conference with the participant and Natural Resources Conservation Service (NRCS) field office staff to ensure an understanding of the participant objectives (including practices to be covered by the DIA), required deliverables, and characteristics of the DIA tasks. The meeting between all parties may take place in person or electronically.

The participant and conservation planner have determined which practices a TSP will provide DIA assistance for. The TSP must have certification in NRCS Registry for each practice they will provide assistance for through this DIA. If not certified for a practice(s), a TSP can use a subcontractor who is a certified TSP for the practice(s). If there are no available certified TSPs, then that practice shall be removed from the scope of the participant's DIA.

DIA assistance is based on the participant's conservation plan and applicable conservation practice standards and related technical guidance provided in the NRCS Field Office Technical Guide (FOTG). Each NRCS State Office publishes appropriate technical guidance and reference information in the state's version of the FOTG. DIA assistance must conform with the conservation practice standards included in FOTG, Section 4 for the state where the practice(s) are to be implemented. A TSP may use conservation practice supporting documents found in the applicable state's FOTG, Section 4 to facilitate delivery of appropriate information to the participant.

Examples of conservation practice supporting documents include statements of work (SOW), implementation requirements (IR), practice specifications (PS), standard drawings (SD), General Specifications (GS), Construction Specifications (CS), Material Specifications (MS), and design

support tools. The FOTG homepage hyperlink is: <https://efotg.sc.egov.usda.gov/#/>.

Technical Requirements

This activity will meet the Natural Resource Conservation Service (NRCS) planning criteria for one or more of the following resource concerns:

- 1) Plant pest pressure.
- 2) Degradation of soil organism habitat and terrestrial habitat.
- 3) Pesticides transported to surface water (by runoff and drift).
- 4) Pesticides transported to groundwater.
- 5) Emissions of particulate matter (PM) and PM precursors (chemical droplet drift).
- 6) Emissions of ozone precursors (pesticide volatilizations).

This activity will meet the state adopted NRCS Conservation Practice Standards (CPS) and Statements of Work (SOW) for Pest Management Conservation System Code 595 and all other CPS that facilitate Prevention, Avoidance, Monitoring and Suppression (PAMS) activities, soil erosion control or reduce the risk of pesticide transport to surface water, groundwater or air, that are included in the participant's conservation plan.

- 1) Pest Management Conservation System requirements:

Pest Management Conservation System plans must comply with all technical criteria contained in the state approved Pest Management Conservation System (595) Conservation Practice Standard and address the use and management of all targeted pests, beneficial organisms and pesticides applied on agricultural lands.

- 2) Hazard Assessments for Land Treatment on all fields where pesticides are applied:

Land treatment conservation practices planned for the fields where pests are managed can be found in the NRCS Conservation Plan. Resource assessments used to refine the pest management are included in the DIA 161 Pest Management Conservation System Design. Wind and water soil erosion estimates from WEPS and RUSLE2 may be in the participant case folder. If no documents are found, complete the assessment for each field. Hazard Assessments must be completed for applicable fields.

- 3) General Risk Assessment:

Field evaluation and verification of soil conditions as noted in Web Soil Survey to identify sensitive areas, vulnerable soils (shallow to bedrock/karst; depth to groundwater); surface inlets, concentrated flow paths, surface water, tile outlets and wells.

- 4) Pesticide Hazard Assessment:

The current NRCS-approved tool to assess the hazards of pesticides is the Windows Pesticide Screening Tool (WIN-PST).

- 5) Erosion Risk Assessment:

Planners must use current NRCS nationally approved erosion-prediction technology to assess the risk of transporting pesticides from the field causing off-site degradation due to wind, water, and irrigation induced erosion.

DELIVERABLES

The TSP must provide documentation showing all the tasks indicated in the **Technical**

Requirements section and the following sections to fulfill this DIA's requirements:

Cover Page

The cover page must include the following:

- 1) DIA name and number.
- 2) Participant information: Name, farm bill program name, contract number (TSP obtains contract number from participant), land identification (e.g., state, county, farm, and tract number).
- 3) TSP name, TSP number, TSP expiration date, mailing address, phone number, email address.
- 4) A statement by the TSP that services meet the DIA requirements, such as:

I certify the work completed and delivered for this DIA:

- *Complies with all applicable Federal, State, Tribal, and local laws and regulations.*
- *Meets the General and Technical Requirements for this DIA.*
- *The planned practices are based on NRCS Conservation Practice Standards in the state Field Office Technical Guide where the practices are to be implemented.*
- *Is consistent with and meets the conservation goals and objectives for which the program contract was entered into by the participant.*
- *Incorporates alternatives that are both cost effective and appropriate to address the resource issue(s) and participant's objective(s).*

TSP Signature _____ *Date* _____

- 5) Participant's acceptance statement indicating:

I accept the completed DIA deliverables as thorough and satisfying my objectives.

Participant Signature _____ *Date* _____

- 6) A designated space for an NRCS reviewer to certify the agency's acceptance of the completed DIA.

NRCS administrative review completion by:

Signature _____ *Title* _____ *Date* _____

Notes and Correspondence

- 1) Provide notes, in date-order that:
 - a) Document each interaction with the participant, results of that interaction, and the date of the interaction.
 - b) Document each site visit, its participants, the activity completed in the field, and results of each site visit.
 - c) Provide initials of the note-maker, if more than one person provides the assistance.
- 2) Provide copies of correspondence between the TSP and the participant relating to decision-making and completion of this DIA. For example, description of alternatives presented for evaluation and decision-making.

Implementation Maps

- 1) Maps that must be included:
 - a) General location map of the implementation areas showing access roads to the location.
 - b) Conservation Plan map including the locations of planned conservation practices (i.e. 595 Pest Management Conservation System) and buffers and setbacks from sensitive areas and surface water (this may consist of several maps to account for the entire implementation area). This map may be obtained from the client or if the client has a signed release form NRCS-CPA-70.
 - c) Soil map units in the DIA planning area.
- 2) Maps for a DIA must include these features:
 - a) Map title.
 - b) Participant's name.
 - c) Assisted By [TSP planner's name].
 - d) Name of applicable conservation district, county, and State.
 - e) Date prepared.
 - f) Map scale.
 - g) Information needed to locate the planning area, such as geographic coordinates, public land survey coordinates, etc.
 - h) North arrow.
 - i) Appropriate map symbols and a map symbol legend on the map or as an attachment.

Planning and Practice Schedule

- 1) Include and update, when needed, the participant's conservation plan, which includes all related PAMS conservation practices or activities.
- 2) Using the criteria in the applicable state adopted CPS and the participant's needs, develop preliminary design alternatives for each practice and/or scenario contracted in this DIA.
 - a) Estimate installation cost, in dollars, of each preliminary design alternative. Work includes developing preliminary layouts, determining feasibility of current infrastructure, determining performance specifications of proposed equipment, computing approximate quantities of all components, and estimating costs of equipment, materials, labor, permits, certifications, and related items required for installation and start-up of the system.
 - b) Determine the applicable NRCS financial assistance payment schedule scenario, quantity, and payment rates for the implementation of each preliminary design.
- 3) Present each preliminary design alternative to the participant and obtain the participant's selections. Document the selections and date received.
- 4) A record of the alternatives developed (a minimum of two alternatives must be developed).
- 5) A record of the preferred alternative (planned practices) for each habitat type in a table, which includes:
 - a) Tract Number to have planned practices installed.
 - b) PLU (field) number to have planned practices installed.

- c) NRCS practice name and practice code.
- d) Brief description of the planned practice (practice narrative).
- e) Estimated quantities to be applied and units.
- f) Date (month / year) the planned practice is scheduled to be implemented.

The Practice Schedule is used in conjunction with a conservation plan map to document the participant's decision and vision for conservation implementation. Table 1 provides an example Practice Schedule.

Table 1. Example Practice Schedule

Tract Number	PLU (Field) #	Practice Code	Practice Name	Brief Description or Scenario	Planned Amt	Practice Units	Planned Date
1000	1, 3, 5	595	Pest Mgt	Basic IPM – Herbicide Substitution	257	Acres	April 2024
1000	1, 3, 5	595	Pest Mgt	Basic IPM – Herbicide Substitution	257	Acres	April 2025
1000	1, 3, 5	595	Pest Mgt.	Basic IPM -- Herbicide Substitution	257	Acres	April 2026

- 6) Participant objectives and desired future condition.
- 7) Operation and maintenance agreements and procedures.
- 8) Available maps, sketches, and designs resulting from the planning process that will be useful to the participant in implementing the plan.

Design or Implementation Details

- 1) Develop site-specific written instructions for implementing each planned conservation practice or activity included in the participant's DIA. Those instructions must:
 - a) Include, as a minimum, all items listed in each CPS "Plans and Specifications" section, applicable Practice Specification (PS), and the Statement of Work (SOW) "Design" section.
 - b) Include all items listed in the "Operations and Maintenance" section. Include requirements to obtain all applicable manufacturer installation guides, user manuals and warranty information.
 - c) These items may be included in a single document or in multiple documents, as long as all specification information is provided.
- 2) SOW documents in a state's FOTG Section 4, include a Design section that lists deliverables needed for the participant's successful implementation.
- 3) Implementation Requirement documents in a state's FOTG Section 4 may be used to prepare and deliver site-specific conservation practice instructions, but are not required to be used. Equivalent forms may be used to provide required information.
 - a) Include both visual / photographic and narrative descriptions of the work, when applicable. Provide descriptive information on the quality of the completed work and the quantities of all materials required for completion of the work.

Supporting Documentation (As appropriate for structural and non-structural practices)

- 1) Provide documentation of the following:
 - a) Surveys.

- b) Geological Investigations.
 - c) Testing.
 - d) Layouts of all components.
 - e) Material specifications.
 - f) Infrastructure and other considerations.
 - g) Structural, foundation, hydraulic, and other design computations, and analysis.
 - h) Design checking and reviews.
 - i) Facilitating practices or components.
- 2) Computations, analysis, and other items that support and ensure adherence to the CPS criteria and are needed to develop the implementation requirements.
 - 3) Cost estimate of each final design, including costs of components, materials, equipment, and labor required for demolition, relocation, installation, disposal, and start-up; fees for disposal; permits, and certifications; charges for testing and other quality assurance activities; and all other costs associated with the implementation of each design.
 - 4) Quality assurance activities that are required during installation to ensure the equipment, materials, and installations meet the design intent, function properly, and can be certified as meeting the plans and specifications.
 - 5) Other information as required in the CPS Statement of Work, including but not limited to, practice purpose, list of permits, facilitating practices, and state required items that affect safety and other environmental concerns.

Deliver Completed Work

The TSP must:

- 1) Prepare and provide their participant two sets of the items listed in Deliverables.
 - a) One set is for the participant to keep.
 - b) The other set is for sharing with the local NRCS Office.
 - c) The TSP may transmit a set of the Deliverables to the local NRCS Office, if their participant has authorized it. It is recommended to provide NRCS field office an opportunity to review the DIA deliverables, prior to asking for its acceptance.
- 2) Upload electronic copies of all the Deliverables on NRCS Registry.

References

USDA Natural Resources Conservation Service. National Planning Procedures Handbook.
<https://directives.sc.egov.usda.gov/viewerFS.aspx?hid=44407>

USDA Natural Resources Conservation Service. Field Office Technical Guide.
<https://efotg.sc.egov.usda.gov/#/>

USDA Natural Resources Conservation Service. National TSP Website.
<https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/technical/tsp/>

USDA Natural Resources Conservation Service. National TSP Resources.
<https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/technical/tsp/?cid=nrcsepr>

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USDA Natural Resources Conservation Service. National Environmental Compliance Handbook.
<https://directives.sc.egov.usda.gov/viewerFS.aspx?hid=39467>

USDA Natural Resources Conservation Service. Windows Pesticide Screening Tool (WIN-PST).
<https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/?cid=stelprdb1044769>

USDA Natural Resources Conservation Service. Cultural Resources Handbook.
<https://directives.sc.egov.usda.gov/viewerFS.aspx?hid=42752>

USDA-NRCS GM-190-404 Pest Management Policy
<http://directives.sc.egov.usda.gov/RollupViewer.aspx?hid=17015>

Using Farming Bill Programs for Pollinator Conservation
http://plants.usda.gov/pollinators/Using_Farm_Bill_Programs_for_Pollinator_Conservation.pdf

Regional IPM Centers. A national umbrella site for the regional IPM centers
<http://www.ipmcenters.org/index.cfm/ipm-in-the-us/federal-ipm-coordinating-committee/>

USDA Organic Regulations
<https://www.ams.usda.gov/rules-regulations/organic>

USDA Agricultural Marketing Service, National Organic Program, National List of Allowed and Prohibited Substances