



DESIGN AND IMPLEMENTATION ACTIVITY

Pollinator Habitat

DEFINITION

Plan, design and document the conservation practices needed to address a pollinator habitat resource concern.

A pollinator habitat enhancement plan is a site-specific plan developed for a client that addresses the improvement, protection, restoration, enhancement, or expansion of flower-rich habitat that supports native and/or managed pollinators.

The pollinator habitat enhancement plan will—

- Meet NRCS quality criteria plant condition, wildlife (pollinators).
- Comply with Federal, State, Tribal, and local laws, regulations, and permit requirements.
- Meet the client's objectives.

CRITERIA

General Requirements

A Design and Implementation Activity (DIA) is the planning and designing of a single practice or any combination of structural, vegetative, or land management practices and management activities to treat one or more resource concerns.

The DIA documents the verification of the client's conservation plan, and the development of the implementation requirements or plans and specifications for each planned conservation practice.

The TSP will complete Implementation Requirements for vegetative and land management practices as outlined in each state adopted Conservation Practice Standard (CPS) and Statement of Work (SOW) found in the NRCS Field Office Technical Guide for the state in which the practices are being implemented.

The TSP will maintain an ongoing record of DIA related discussions with the client. The TSP will document on a conservation assistance notes form (CPA-6) or other format that includes all components of the CPA-6 (client objectives, dates of assistance, all parties present, notes of significant information, alternatives considered, and decisions reached). Any correspondence between the TSP and the client related to the development of the DIA will be included in the record.

The TSP may use any of the Conservation Practice Documents, such as Job Sheets, templates, Standard Detail Drawings, etc. located in the state's Field Office Technical Guide.

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

- Pesticides Transported to Surface Water

- Pesticides Transported to Groundwater
- Plant Productivity and Health
- Terrestrial Habitat for Wildlife and Invertebrates

The activity will meet one or more conservation practices that also will meet the state adopted NRCS Conservation Practice Standards (CPS) and Statements of Work (SOW) included in the client's conservation plan or EQIP Contract and include at least one of following:

Code	Practice Name
327	Conservation Cover
340	Cover Crop
342	Critical Area Planting
386	Field Border
390	Riparian Herbaceous Cover
391	Riparian Forest Buffer
393	Filter Strip
420	Wildlife Habitat Planting
422	Hedgerow Planting
595	Pest Management Conservation System
643	Restoration of Rare or Declining Natural Communities
645	Upland Wildlife Habitat Management
647	Early Successional Habitat Development/Management

DELIVERABLES

Two copies (hardcopy or electronic) of the plan must be developed—one for the client and one for the NRCS field office. At the client's request, Technical Service Provider (TSP) can deliver NRCS's copy to the NRCS Field Office. The client's copy must include the implementation requirements or plans, specifications, operation and maintenance, and quality assurance plan, unless the client requests other documents from this section. The NRCS copy must include all items identified herein. An additional electronic copy of the plan should also be uploaded on NRCS Registry.

1. Cover Page

Cover page reporting the technical services provided by the TSP. Cover page(s) must include the following:

- Client information: Name, farm bill program, contract number, and contract item number.
- TSP information: name, address, phone number, email, TSP number, TSP expiration date; and county of service.
- Farm identification:
 - Farm name, owner name, street address, and county/state.
 - Primary phone number of the client.

- iii. **List of all practice and/or scenario designs included in this plan.**
 - d. Statement by TSP that services provided:
 - i. Comply with all applicable Federal, State, Tribal, and local laws and requirements.
 - ii. Meet applicable NRCS standards, specifications, and program requirements.
 - iii. Are consistent with the conservation program goals and objectives for which the program contract was entered into by the client.
 - iv. Incorporate alternatives that are both cost effective and appropriate to address the resource issues.
 - e. TSP certification statement: signature and date.
 - f. Client acceptance statement:
 - i. A statement that the plans and specifications adequately represent existing conditions and the selected preliminary design alternatives, and the client understands and will abide with the operation and maintenance plans.
 - ii. Signature of the client and date the client received the plans.
 - g. Block for NRCS reviewer acceptance (to be completed by NRCS).

2. Conservation Assistance Notes and Correspondence

- a. Conservation Assistance Notes (NRCS-CPA-6) or other format that includes all components of the CPA-6.
 - i. Document the client's objectives.
 - ii. Document each interaction with the client, include notes and results of that interaction, date, and initials of the TSP.
 - iii. Document each site visit, activity in the field, results of each site visit, all parties present, date, and initials of the TSP.
- b. Any correspondence between the TSP and the client relating to the development of the DIA.

3. Maps

- a. Maps to include, but not be limited to:
 - i. General location map of the implementation areas showing access roads to the location.
 - ii. Conservation Plan map (this may consist of several maps to account for the entire implementation area). This map may be obtained from the client.
 - iii. Other maps, as needed, with appropriate interpretations.
- b. At a minimum, all maps developed for the DIA will include:
 - i. Title block showing:
 - Map title.
 - Client's name (individual or business).
 - Prepared with assistance from USDA – NRCS
 - Assisted By [TSP planner's name].
 - Name of applicable conservation district, county, and State.
 - Date prepared.
 - ii. Map scale.
 - iii. Information needed to locate the implementation area, such as geographic coordinates, public land survey coordinates, etc.

- iv. North arrow.
- v. Appropriate map symbols and a map symbol legend on the map or as an attachment.

4. Planning

- a. Identify Client Objectives such as:
 - i. Improve pollination service provided by wild (unmanaged) bees by:
 - Increasing floral diversity and ensuring continuous and diverse bloom.
 - Increasing undisturbed habitat/ground (including the creation of alkali or other ground-nesting bee beds).
 - Increasing nesting opportunities for tunnel-nesting bees.
 - Providing pollinator refuge from insecticide exposure or other disturbance.
 - ii. Improve pollination service provided by managed bees by:
 - Increasing floral diversity and ensuring continuous and diverse bloom.
 - Providing readily accessible clean water.
 - iii. Increase diversity and availability of butterfly host plants.
 - iv. Increase abundance of beneficial insects important for pest management.
 - v. Improve cost efficiency (e.g., removal of marginal crop land from production and/or improvement of produce quality from enhanced pollination).
 - vi. Maintain or improve wildlife habitat.
 - vii. Beautify the landscape.
 - viii. Provide pollinator populations with refuge from pesticides.
 - ix. Change or adjust pesticide use to reduce hazards for pollinator populations.
- b. Identify/Document Existing Conditions
 - i. Create the conservation plan map including field boundaries, streams, surface waters, wetlands, fences, and land uses.
 - ii. Acquire a soils map and appropriate soil descriptions for the land use and resource concerns.
 - iii. Identify the number of acres available.
 - iv. Use an appropriate habitat assessment, evaluation, or Habitat Suitability Index model and (when available) the ecological site description to define the existing conditions for wildlife.
 - v. Document the existing management practices and activities on cropped and noncropped portions of the property.
- c. Document the Desired Future Conditions/Goals
 - i. Develop the plant species composition plan that will benefit a diverse pollinator community (i.e., at least nine species of flowering plants, three of which are in bloom at any one time during the early, mid, and late periods of the growing season).

Note: if the planting is designed to support adjacent insect-pollinated agriculture, then:

 - Minimize bloom competition with insect-pollinated crops.
 - Take care to avoid plants that may serve as crop pest or disease hosts.
 - Design for the minimal weed competition.
 - ii. Include, where appropriate, larval host plants or important forage plants for declining species (e.g., milkweed as Monarch butterfly host plants).

- iii. Where appropriate, identify areas of undisturbed pollinator habitat such as—
 - No till areas appropriate for ground-nesting bees.
 - Overgrown bunch grasses, thatch or undisturbed ground for bumble bee nest sites.
 - Host plants for butterflies.
 - Tree cavities, standing dead trees, exfoliating bark (e.g., in riparian or adjacent land) for wood-nesting bees.
- d. Document—
 - i. The estimated flowering season for each of the pollinator-friendly forage plant species.
 - ii. Pesticides used that may pose a hazard to pollinators.
 - iii. If providing crop pollination services, record the crops to be pollinated.
 - iv. [Optional] Identify the expected or targeted pollinators and time-frame (date range) of visits.
- e. Monitoring Plan - Identify specific dates and data to be recorded.

5. Documentation

- a. Include and update, when needed, the client's conservation plan.
- b. A record of the alternatives developed (a minimum of two alternatives must be developed)
- c. A record of the preferred alternative for each habitat type, which includes:
 - i. PLU label (name, number, or both).
 - ii. Client objectives and desired future habitat condition.
 - iii. NRCS practice name and code.
 - iv. Amount to be applied.
 - v. Brief description of the planned practice (practice narrative).
 - vi. Date the planned practice is scheduled to be implemented.
 - vii. As needed, applicable "Conservation Practice Overview" sheets or other prepared material.
 - viii. Operation and maintenance agreements and procedures.
 - ix. Available maps, sketches, and designs resulting from the planning process that will be useful to the client in implementing the plan.
- d. Resource assessment results for pollinators.
- e. Pesticide exposure risk assessment for all habitat areas and, if appropriate, a plan to minimize or eliminate the risk of exposure to bee-toxic pesticides in all habitat areas.
- f. 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.
- g. 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

6. Implementation Requirements

- a. Develop written Implementation Requirements for each planned (non-engineering) conservation practice included in the preferred alternative, including facilitating practices.
 - i. Include, as a minimum, all items listed in each CPS "Plans and Specifications" section.

- ii. Include both visual / photographic and narrative descriptions of the work. Provide descriptive information on the quality of the completed work and the quantities of all materials required for completion of the work.
 - iii. A location map, plan view and written information are required. These items may be included in a single document where all specification information is included on the plans, or in multiple documents where the specifications are independent of the plans.
- b. Prepare an operation and maintenance plan for each design that the client will use after implementation of the practices are complete. Include, as a minimum, all items listed in each CPS "Operation and Maintenance" section.

References

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=nrcseprd1417414>