



Design and Implementation Activity

Forest Management

DEFINITION

Design conservation practices found in a site specific Forest Management Plan (CPA 106) or that address the planned practices to meet conservation objectives.

A site-specific forestry activity, as a component of a forest management plan. The DIA-165 is developed for a client to address one or more resource concerns on nonindustrial private forestland where forestry-related conservation activities and/or practices will be planned and implemented. The plan describes how to implement long-term goals through practices that direct forest development to provide for intended future uses.

CRITERIA

General Requirements

A Design and Implementation Activity (DIA) is the planning and implementation of a single practice or any combination of vegetative or forest management practices 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 for each planned conservation practice.

The TSP will complete Implementation Requirements for vegetative and forest 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 implementation requirements, templates, Standard Detail Drawings, etc. located in the state's Field Office Technical Guide.

This activity includes one or more conservation practices that applies to forest land, and in some cases other land uses where conversion to forestry is being considered, or where agroforestry practices are used. Associated agricultural land may be included when forestry activities are being considered.

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

- Wildlife and aquatic species
- Soil erosion

- Soil condition
- Water quality
- Plant condition

The DIA may include as appropriate, but is not limited to, the conservation practices listed below:

Code	Practice Name
311	Alley Cropping
379	Multi-Story Cropping
380	Windbreak/Shelterbelt Establishment
381	Silvopasture
383	Fuel Break
384	Woody Residue Treatment
391	Riparian Forest Buffer
394	Firebreak
472	Access Control
490	Tree/Shrub Site Preparation
612	Tree/Shrub Establishment
650	Windbreak/Shelterbelt Renovation
654	Road/Trail/Landing Closure and Treatment
655	Forest Trails and Landings
660	Tree/Shrub Pruning
666	Forest Stand Improvement

The practices listed above are the primary NRCS forestry and agroforestry practices, but additional conservation practices may be needed to meet all the client's objectives. For all other practices, the practice shall be documented for the planned amount, the fields (or stands) where the practice is to be applied, and the planned year of application. Below are examples of additional conservation practices that may be planned on forestland:

Code	Practice name
314	Brush Management
315	Herbaceous Weed Treatment
327	Conservation Cover
338	Prescribed Burning
342	Critical Area Planting
382	Fence
395	Stream Habitat Improvement and Management
560	Access Road
578	Stream Crossing
580	Streambank and Shoreline Protection
595	Integrated Pest Management
643	Restoration of Rare or Declining Natural Communities
644	Wetland Wildlife Habitat Management
645	Upland Wildlife Habitat Management
647	Early Successional Habitat Development/Management

Practices beyond the basic forestry/agroforestry practices may be included in a plan but the design and implementation of these will be conducted by an appropriately certified TSP for those

practices.

DELIVERABLES

Two copies (hardcopy or electronic) of the DIA 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, specifications, 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:

- a. Client information: Name, farm bill program, contract number, and contract item number.
- b. TSP information: name, address, phone number, email, TSP number, TSP expiration date; and county of service.
- c. Farm identification:
 - i. Farm name, owner name, street address, and county/state.
 - ii. 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 in the DIA-165 may be incorporated from a CPA-106 or equivalent forest management plan, but not be limited to:
 - i. General location map of the implementation areas
 - ii. Forest management plan base map (this may consist of several maps to account for the entire planning area). This map will specifically include:
 - 1. Boundary lines for the Planning Land Units (PLUs) with labels (name, number, or both). A PLU is a unique geographic area, defined by a polygon, that has common land use and is owned, operated, or managed by the same client or clients. The PLU is the minimum unit for planning.
 - 2. Acreage of each PLU.
 - 3. Forest stand boundaries.
 - 4. Unique identifying code for each forest stand.
 - 5. Location of planned and applied conservation practices.
 - 6. If the planning area includes nonprivate lands, such as Federal or Tribal lands, include a land status map displaying land ownership categories (Private, State Trust, BLM, Tribal, and Territorial, etc.).
 - 7. Resource maps of the PLU
 - (a) Soils maps, and other resource maps as applicable.
 - (b) An existing wetland delineation map, if any.
- b. At a minimum, all maps developed for the DIA will include:
 - i. Title block showing:
 - 1. Map title.
 - 2. Client's name (individual or business).
 - 3. Prepared with assistance from USDA – NRCS
 - 4. Assisted By [TSP planner's name].
 - 5. Name of applicable conservation district, county, and State.
 - 6. 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. A record of the preferred alternative for each forest stand, which includes:
 - i. PLU label (name, number, or both).
 - ii. NRCS practice name and code.
 - iii. Amount to be applied.
 - iv. As needed, brief description of the planned practice (practice narrative).
 - v. Date the planned practice is scheduled to be implemented.
 - vi. As needed, applicable "Conservation Practice Overview" sheets or other prepared material.
 - vii. Operation and maintenance agreements and procedures.

5) Documentation

- a. An in-depth stand-level resource inventory, assessment, and analysis are used to formulate management alternatives. Use inventory plot data summarized at the stand level along with assessment information incorporated from a CPA 106 or equivalent forest management plan, supplemented as necessary with site-level assessment information. Document findings on resource concerns, existing benchmark conditions, and special environmental concerns and provide stand-level descriptions and data summaries along with management recommendations in the [Managing Your Woodlands Template](#). Prepare NRCS Implementation Requirements as per State's FOTG for practices identified in the preferred alternative and scheduled within five years from the time of stand inventory.
 - i. Forest stand inventories, including plot data, are used in summarizing stand attributes. Follow inventory guidance in NRCS Forestry Inventory Methods, Technical Note No. 190-FOR-01, Jul 2018. Document inventory methods utilized.
 1. Documentation that forest inventory plot data was collected will be attached to the Template as an appendix.
 - ii. A stand-level summary, for each stand, will include:
 1. Forest type
 2. Basal area
 3. Trees per acre
 4. % Stocking
 5. Diameter distribution by species, in 2-inch diameter classes at a minimum (DBH may be estimated or measured)
 6. Site indices for major species, estimated from published height-age curves
 7. Stand health based on observations of insects and disease, fire fuels, invasive species, level of mortality, crown ratios, impacts of past management, etc.
 8. Estimate of current stand age, or of age cohorts if an uneven-aged stand
 9. Estimated tree growth potential based on soils, site index, and other site factors
 10. Estimated canopy height for dominant and codominant trees
 11. Other important stand attributes as determined by the TSP
 - iii. If conditions at the stand level warrant a more detailed description than appears in a CPA 106 (or equivalent forest management plan), because of their potential impact on management decisions, include the information in the Stand Level Information section of the Template. Describe benchmark (existing) conditions, past conditions, and any resource concerns or limitations, if relevant to stand management, associated with:
 1. Protected species and cultural resources
 2. Adjacent stand or ownerships that present opportunities or limitations to management options
 3. Recreation uses by the landowner
 4. Access to the stand and condition of roads, trails, landings, and stream crossings
 5. Soil and site descriptions, including relevant soil interpretations, slope, topography, and aspect

6. Streams, wetlands, ponds, and lakes
 7. Past management, harvesting, natural disturbances, and/or other land use history that has affected stand condition and/or growth potential
 8. Grazing practices
 9. Potential for carbon sequestration
 10. Fish and wildlife species and habitat elements
 11. Risk of insect and disease infestation
 12. Noxious and invasive plant species
 13. Reforestation and afforestation opportunities
 14. Prescribed burning opportunities
 15. Wildfire risk (surface and crown fires)
 16. Other important features as determined by the TSP
- iv. For each stand, complete Template sections on Forest Management Activities to include:
1. If not included in the CPA 106 or equivalent forest management plan:
 - a. Document the Desired Future Condition (DFC) for each stand at maturity, including narrative descriptions of what the stand will look like to the client. Describe the use of natural or artificial regeneration techniques, silvicultural systems, harvesting systems, and future monitoring that will be used to achieve the DFC.
 - b. Alternatives for achieving the DFC. Document the effect of each alternative on resource concerns identified during the resource inventory.
 - c. The no-action alternative, which uses benchmark conditions with projections of stand development and other changes in condition that would occur if management currently practiced by the client continued through the planning period (generally ten years for a forest management plan).
 2. As applicable, describe how the following activities and environmental protections will be applied in the stand: permits needed, Forestry Best Management Practices for water quality, and stand monitoring/maintenance.
 3. Develop silvicultural prescriptions for each practice identified in the preferred alternative and scheduled within a five-year timeframe. Include acres to be treated, and other information needed to select the appropriate payment scenario. Complete relevant portions of the State's Implementation Requirements.

6) Implementation requirements:

- a. Implementation requirements will be developed for preferred alternative nonstructural conservation practices. Recordkeeping and operation and maintenance requirements must be clearly stated.
- b. Cost estimates developed for preferred alternative nonstructural conservation practices.
- c. Develop and provide all supporting documentation, including any additional items required by the State Conservationist.

REFERENCES

- USDA Natural Resources Conservation Service. National Planning Procedures Handbook.
<https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=36483.wba>
- USDA Natural Resources Conservation Service. Field Office Technical Guide.
<https://efotg.sc.egov.usda.gov/#/>
- USDA Natural Resources Conservation Service. National TSP Resources.
<https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/technical/tsp/?cid=nrcseprd1417414>
- USDA Natural Resources Conservation Service. National Environmental Compliance Handbook.
<https://directives.sc.egov.usda.gov/viewerFS.aspx?hid=39467>
- USDA Natural Resources Conservation Service. Cultural Resources Handbook.
<https://directives.sc.egov.usda.gov/viewerFS.aspx?hid=42752>
- USDA Natural Resources Conservation Service. Forestry Inventory Methods, Technical Note No. 190-FOR-01.
<https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=42554.wba>
- American Tree Farm System/Forest Stewardship/USDA Natural Resources Conservation Service.
“Managing Your Woodlands: A template for your plans for the future” National Joint Management Plan Template.
https://www.nrcs.usda.gov/wps/PA_NRCSCConsumption/download?cid=nrcseprd1361475&ext=pdf
- American Tree Farm System/Forest Stewardship/USDA Natural Resources Conservation Service.
“A Guide for Foresters and other Natural Resource Professionals on using: Managing Your Woodlands: A template for your plans for the future”.
https://www.nrcs.usda.gov/wps/PA_NRCSCConsumption/download?cid=nrcseprd1361473&ext=pdf
- American Tree Farm System/Forest Stewardship/USDA Natural Resources Conservation Service.
“A Guide for Landowners on using: Managing Your Woodlands: A template for your plans for the future”.
https://www.nrcs.usda.gov/wps/PA_NRCSCConsumption/download?cid=nrcseprd1361474&ext=pdf