



Design and Implementation Activity

Prescribed Burning Design

DIA 160

Definition

This Design and Implementation Activity (DIA) provides site-specific instructions for prescribed burning and related conservation practices.

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

In states where a designated agency has responsibility for burning activities, the TSP must work with and through the designated agency to fully utilize that agency's expertise, personnel, and equipment. Where no agency has designated responsibility, prescribed burning and related

practices must be developed cooperatively and cleared through such groups as rural fire departments, county commissioners, law enforcement offices, adjacent participants, U.S. Forest Service, Bureau of Land Management, and state forestry, wildlife, and natural resource agencies.

DELIVERABLES

The TSP must provide documentation showing all the tasks indicated in the **Technical Requirements** section and the following sections:

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) In states where certification or licensing is required for prescribed burning activity on private land, provide a copy of TSP's current certificate or license by the designated state agency.
- 5) 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* _____

- 6) Participant's acceptance statement indicating:

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

Participant Signature _____ *Date* _____

- 7) 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 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 and the applicable Practice Specification (PS).
 - b) Include all items listed in the "Operations and Maintenance" section.
- 2) Statement of Work 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.
- 4) No matter the form or format used, the implementation details provided must include all of the following:
 - a) A list of the resource management objectives for the fire prescription, such as:
 - i) Manage undesirable vegetation to improve plant community composition and structure.
 - ii) Manage pests, pathogens, and diseases to reduce plant pressure.
 - iii) Reduce biomass accumulation.
 - iv) Improve terrestrial habitat for wildlife.
 - v) Improve plant and seed production, quantity and/or quality.
 - vi) Facilitate distribution of grazing animals
 - vii) Improve and maintain habitat for soil organisms and enhance soil health.
 - b) Post-burn evaluation criteria to use determining if the burn's objectives are met.
 - c) The required weather and environmental conditions for burn prescription, including but not limited to temperature, relative humidity, wind speed, wind direction, and soil moisture.
 - d) Any needed pre-burn preparation and description of the vegetation.
 - e) Describe the appropriate ignition method and firing sequence.
 - f) Provide a pre-burn notification check list of adjoining neighbors, local fire departments and public safety officials as appropriate.
 - g) List of needed equipment, materials, and trained personnel roles and personnel safety requirements.

- 5) Describe the weather parameters, smoke dispersion, and other conditions that will affect fire behavior during the burn.
 - a) Adherence to the State's smoke management program and use the specific tools the State requires to address smoke management. Be mindful of the potential air quality impacts that burning might have on downwind communities.

Implementation Maps

- 1) Burn Plan Map showing:
 - a) Location of the burn site,
 - b) Ignition point(s) with wind direction, ignition method, and firing sequence indicated,
 - c) Crew and equipment locations
 - d) Control points such as roads, lakes, streams, wetlands, roads, firebreaks, and fuel breaks
 - e) Safety zones, and water sources.
 - f) Heat and Smoke Sensitive resources, structures and infrastructure that need protection from fire, heat, and/or smoke. Examples include fences, watering facilities, utility poles, petroleum pipelines, structures (including historic sites and historic properties), and smoke-sensitive areas, like roads, highways, dwellings, schools, medical facilities, nursing homes, airport, scenic vistas, etc.
- 2) Other maps that the TSP determines necessary, or helpful.
- 3) All maps for this 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.

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

- Fuhlendorf, S.D., R.F. Limb., D.M. Engle, and R.F. Miller. 2011. Assessment of Prescribed Fire as a Conservation Practice. Conservation Benefits of Rangeland Practices Assessment, Recommendations, and Knowledge Gaps 2:75-104.
- Hardy, C.C., R.D. Ottmar, J.L. Peterson, J.E. Core, P. Seamon. 2001. Smoke Management Guide for Prescribed and Wildland Fire. PMS 420-2. NFES 1279. Boise ID: National Wildfire Coordination Group.
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<https://www.govinfo.gov/app/details/FR-2016-10-03/2016-22983>
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<https://www.epa.gov/sites/production/files/2016-06/documents/agaqconsmeasures.pdf>
- USDA Natural Resources Conservation Service. Field Office Technical Guide.
<https://efotg.sc.egov.usda.gov/#/>
- USDA Natural Resources Conservation Service. National Planning Procedures Handbook.
<https://directives.sc.egov.usda.gov/viewerFS.aspx?hid=44407>
- USDA Natural Resources Conservation Service. National Range and Pasture Handbook, Subpart J.
- USDA Natural Resources Conservation Service. National TSP Resources.
<https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/technical/tsp/?cid=nrscseprd1417414>
- USDA Natural Resources Conservation Service. National TSP Website.
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- Weir, J.R. 2009. Conducting Prescribed Fires, a Comprehensive Manual. College Station, TX: Texas A&M University Press.
- Wright, H.A. and A.W. Bailey. 1982. Fire Ecology: United States and Southern Canada. New York, NY: Wiley and Sons.