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Compliance Matters – NEPA and NRCS

Natural Resources Conservation Service

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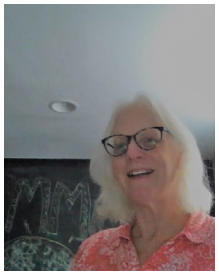
Compliance Team



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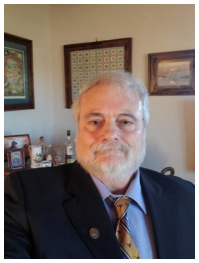

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Objectives

- Understand the legal foundations for environmental compliance.
- Recognize other key environmental laws.
- Recognize regulatory, policy, and guidance resources for environmental compliance.
- Understand how the EE/CPA-52 provides the mechanism for documenting compliance with the laws above.
- Recognize how the EE/CPA-52 saves us time and prevents environmental and legal issues.
- Know the term “Environmental Evaluation” and where it originates.
- Learn the functions of the EE for environmental compliance and planning.
- Understand the critical support documents for our CEs and our programmatic NEPA.
- Know where to go and who to call for help.

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Environmental Compliance

What does environmental compliance mean?

- **Complying with all federal, state, and local laws and regulatory requirements.**

Why does compliance matter?

- **Provides a critical piece of good planning.**
- **Identifies mitigation opportunities for adverse impacts.**
- **Informs better decisions about alternative actions.**
- **Avoids legal consequences.**

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Statutes

Environmental Laws

Statutes

- National Environmental Policy Act - 1969
- Clean Air Act - 1970
- Clean Water Act – 1972
- Coastal Zone Management Act – 1972
- Endangered Species Act – 1973
- National Historic Preservation Act – 1966
- Magnuson-Stevens Act – 1976
- Bald and Golden Eagle Protection Act - 1962

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The 50s and 60s...

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What is NEPA?

Statute

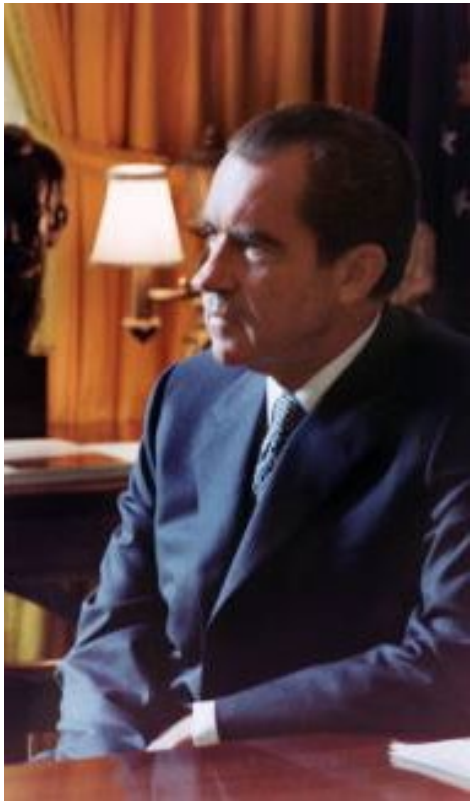
National Environmental Policy Act of 1969

Bipartisan bill:

- Senate: Unanimous (100 to 0 on July 10, 1969)
- House: 372 to 15 (on September 23, 1969)

Nixon announced the enactment of NEPA:

"I [am] convinced that the 1970s absolutely must be the years when America pays its debt to the past by reclaiming the purity of its air, its waters, and our living environment. It is literally now or never.“



NEPA Statute...what must agencies do?

Section 102.

(2) All agencies of the federal government shall (C) include in every recommendation or report on proposals for legislation and other major **Federal actions *significantly affecting*** the quality of the ***human environment***, a detailed statement by the responsible official on –

- The environmental impact of the proposed action
- Any adverse environmental Impacts which cannot be avoided should the proposal be implemented
- Alternatives to the proposed action
- The relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and
- Any irreversible and irretrievable commitments of resources which would be involve in the proposed action should it be implemented

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Statute

What else is NEPA?

Regulations 1978

"National Environmental Policy Act"

1969: Statute - National Environmental Policy Act of 1969

Manuals

1978/2020: CEQ Regulations (40 CFR 1500-1508)

1983: USDA NEPA Regulations (7 CFR Part 1b)

1979: NRCS NEPA Regulations (7 CFR 650)

Executive Orders / Secretarial Orders

1979: NRCS Policy for Compliance with NEPA (GM 190 Part 410)

2016: NRCS National Environmental Compliance Handbook

Case Law – 40 years, e.g. "Hard Look" doctrine

Guidance

What triggers NEPA?

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What triggers NEPA?

Remember the Statute:

All agencies of the federal government shall include in...major **federal actions** significantly affecting the quality of the human environment, a detailed statement by the responsible official on—

Federal Actions

Look before you Leap – a "Hard Look"

NEPA general principles:

- Informed decisions
- Transparency
- Public involvement/voice

Hard Look Doctrine:

Case Law: Used in applying "arbitrary and capricious" standard under administrative law.

A Hard Look at what?

NEPA Statute...what must agencies do?

Section 102.

(2) All agencies of the federal government shall (C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the **quality of the *human environment***, a detailed statement by the responsible official on –

- The environmental impact of the proposed action
- Any adverse environmental Impacts which cannot be avoided should the proposal be implemented
- Alternatives to the proposed action
- The relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and
- Any irreversible and irretrievable commitments of resources which would be involve in the proposed action should it be implemented

Human Environment

Human environment (1508.1(m)): means comprehensively the natural and physical environment and the relationship of present and future generations of Americans with that environment.

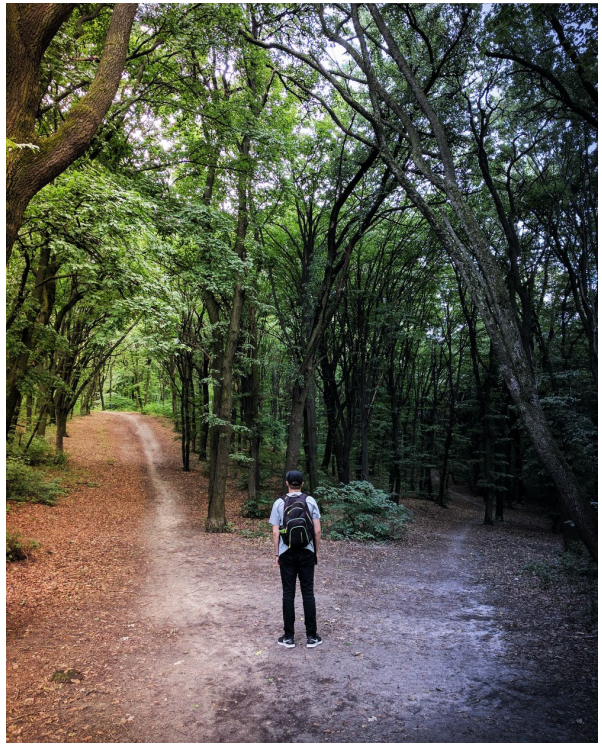
Great, what does that mean?

A "Hard Look" at Impacts/Effects

Effects or impacts means changes to the "*human environment*" from the proposed action or alternatives.

Effects include - 1508.1(g)(1):

- Ecological
- Aesthetic
- Historic
- Cultural
- Economic
- Social
- Health



How do we choose ...?

Look before you Leap – A "Hard Look"

EIS – Environmental Impact Statement (ROD)

- Explains the significant impacts
- Contents determined by CEQ Regulations: 40 CFR 1502.10

EA – Environmental Assessment (FONSI)

- Determines whether significant impacts are likely
- Contents minimal: 40 CFR 1508.9(b)

CE – Categorical Exclusion

- Fits in a category of actions with no significant impacts
- Contents not stipulated.

NRCS "EE" and "CPA-52"

- EE = Environmental Evaluation
- CPA-52 = EE Worksheet

How does NRCS process document a "hard look" for NEPA?

Environmental Evaluation – "EE"

EE defined in NRCS regulations:

The Environmental Evaluation (EE) is the part of planning that inventories and estimates the potential **effects on the human environment of alternative solutions** to resource problems. The EE for a program, regulation, or individual action is used to determine the need for an ***environmental assessment*** or an ***environmental impact statement***. It also aids in the consideration of alternatives and in the identification of available resources.

Full text of regulation:

7 CFR 650.4(c)

Is the EE a NEPA document?

NRCS - NEPA v. EE/CPA-52

Programmatic NEPA (7 EAs and 1 EIS)

- **Actions: Farm Bill program dollars and Conservation Practices**
- **Effects Analysis:**
  - General: Conservation Practice Standards
  - General: Network Effects Diagrams
  - General: Conservation Practice Physical Effects
  - Site-specific: EE/CPA-52

Categorical Exclusions (CEs)

- **USDA (7CFR 1b.3) = 7 CEs**
- **NRCS (7 CFR 650.6) = 26 CEs**

What if we implement an action other than a conservation practice?

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Environmental Compliance in NRCS

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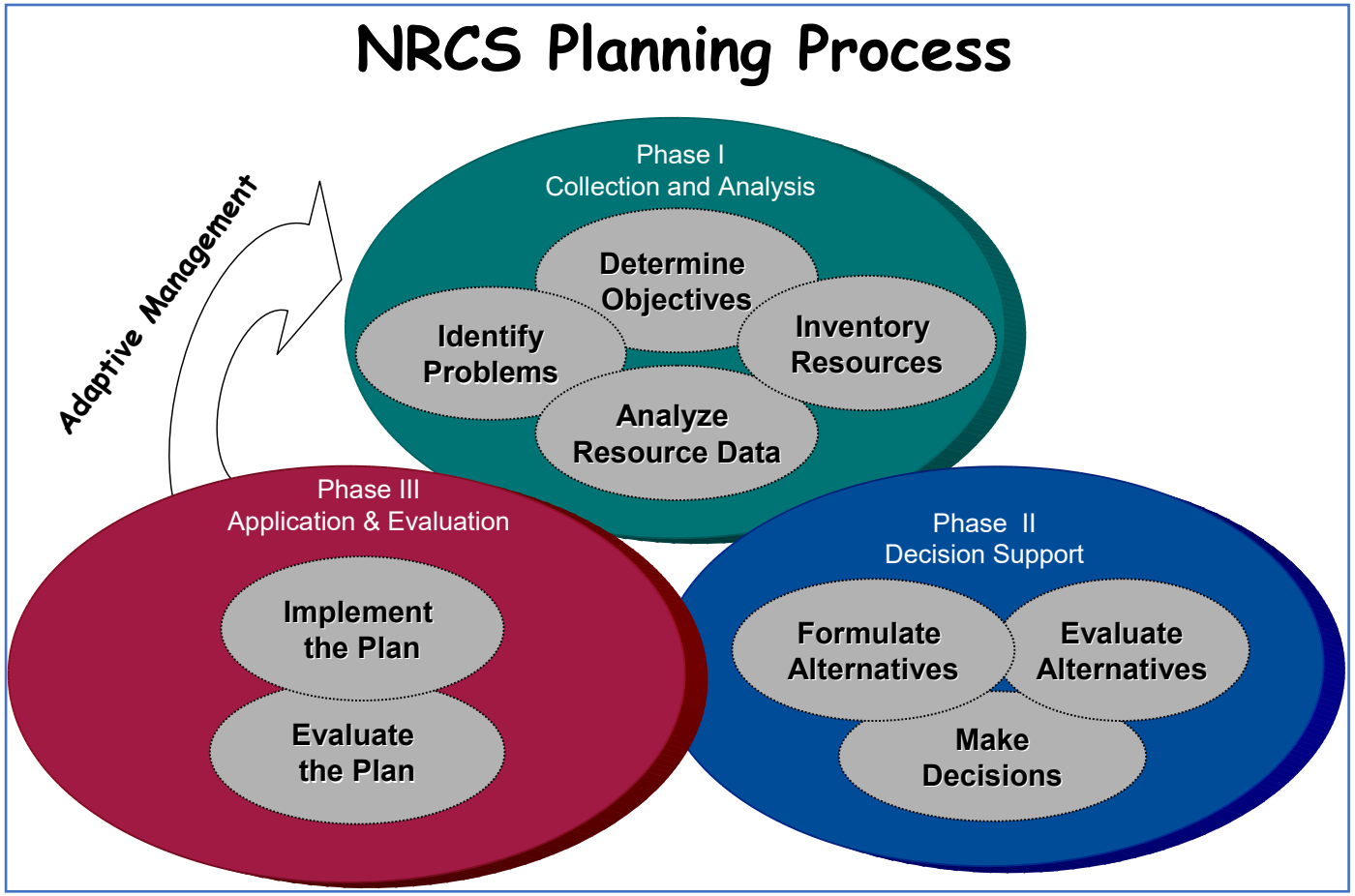
Conservation Planning



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Conservation Planning

Environmental Evaluation (EE)

- Part of planning that inventories and estimates the potential effects on the human environment of alternative solutions to resource problems.
- Integrates environmental concerns throughout the planning, installation, and operation of NRCS-assisted projects.
- Applies to all assistance provided by NRCS
- Findings of the EE process are documented on the CPA-52 form

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Conservation Planning

U.S. Department of Agriculture — Natural Resources Conservation Service — NRCS-CPA-52 11/2010

ENVIRONMENTAL EVALUATION WORKSHEET

A. Client Name:

B. Conservation Plan ID # (as applicable):
Program Authority (optional):

C. Identification # (farm, tract, field #, etc. as required):

D. Client's Objective(s) (purpose):
STEP 2

E. Need for Action:
STEP 1

H. Alternatives

	No Action	√ if RMS	Alternative 1	√ if RMS	Alternative 2	√ if RMS
	STEP 5					

Resource Concerns

In Section "F" below, analyze, record, and address concerns identified through the Resources Inventory process. (See FOTG Section III - Resource Planning Criteria for guidance).

F. Resource Concerns and Existing/ Benchmark Conditions (Analyze and record the existing/benchmark conditions for each identified concern)	I. Effects of Alternatives — No Action: Amount, Status, Description (Document both short and long term impacts)	√ if does NOT meet PC	Alternative 1: Amount, Status, Description (Document both short and long term impacts)	√ if does NOT meet PC	Alternative 2: Amount, Status, Description (Document both short and long term impacts)	√ if does NOT meet PC
SOIL						
		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
WATER						
		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
AIR						
		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
PLANTS						
		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
ANIMALS						
		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
ENERGY						
		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC

STEPS 3 & 4

STEP 6

Special Environmental Concerns: Environmental Laws, Executive Orders, policies, etc.

In section "G" complete and attach Environmental Procedures Guide Sheets for documentation as applicable. Items with a "•" may require a federal permit or consultation/coordination between the lead agency and another government agency. In these cases, effects may need to be determined in consultation with another agency. Planning and practice implementation may proceed for practices not involved in consultation.

G. Special Environmental Concerns (Document existing/ benchmark conditions)	J. Impacts to Special Environmental Concerns — No Action: Document all impacts (Attach Guide Sheets as applicable)	√ if needs further action	Alternative 1: Document all impacts (Attach Guide Sheets as applicable)	√ if needs further action	Alternative 2: Document all impacts (Attach Guide Sheets as applicable)	√ if needs further action
• Clean Air Act *Guide Sheet*		☐		☐		☐
• Clean Water Act / Waters of the U.S. *Guide Sheet*		☐		☐		☐
• Coastal Zone Management *Guide Sheet*		☐		☐		☐
Coral Reefs *Guide Sheet*		☐		☐		☐
• Cultural Resources / Historic Properties *Guide Sheet*		☐		☐		☐
• Endangered and Threatened Species *Guide Sheet*		☐		☐		☐
Environmental Justice *Guide Sheet*		☐		☐		☐
• Essential Fish Habitat *Guide Sheet*		☐		☐		☐
Floodplain Management *Guide Sheet*		☐		☐		☐
Invasive Species *Guide Sheet*		☐		☐		☐
• Migratory Birds/Bald and Golden Eagle Protection Act *Guide Sheet*		☐		☐		☐
Natural Areas *Guide Sheet*		☐		☐		☐
Prime and Unique Farmlands *Guide Sheet*		☐		☐		☐
Riparian Area *Guide Sheet*		☐		☐		☐
Scenic Beauty *Guide Sheet*		☐		☐		☐

STEPS 3 & 4

STEP 6

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Conservation Planning

K. Other Agencies and Broad Public Concerns	No Action	Alternative 1	Alternative 2
Easements, Permissions, Public Review, or Permits Required and Agencies Consulted.	STEP 8		
Cumulative Effects Narrative (Describe the cumulative impacts considered, including past, present and known future actions regardless of who performed the actions)			
L. Mitigation (Record actions to avoid, minimize, and compensate)	STEP 8		
M. Preferred Alternative — Preferred alternative	☐	☐	☐
M. Preferred Alternative — Supporting reason	STEP 7		

N. Context (Record context of alternatives analysis)

The significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality.

O. To the best of my knowledge, the data shown on this form is accurate and complete:

In the case where a non-NRCS person (e.g. a TSP) assists with planning they are to sign the first signature block and then NRCS is to sign the second block to verify the information's accuracy.

Signature (TSP if applicable)	Title	Date
Signature (NRCS)	**Title**	**Date**

If preferred alternative is not a federal action where NRCS has control or responsibility and this NRCS-CPA-52 is shared with someone other than the client then indicate to whom this is being provided.

The following sections are to be completed by the Responsible Federal Official (RFO)

NRCS is the RFO if the action is subject to NRCS control and responsibility (e.g., actions financed, funded, assisted, conducted, regulated, or approved by NRCS). These actions do not include situations in which NRCS is only providing technical assistance because NRCS cannot control what the client ultimately does with that assistance and situations where NRCS is making a technical determination (such as Farm Bill HEL or wetland determinations) not associated with the planning process.

P. Determination of Significance or Extraordinary Circumstances

To answer the questions below, consider the severity (intensity) of impacts in the contexts identified above. Impacts may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

If you answer ANY of the below questions "yes" then contact the State Environmental Liaison as there may be extraordinary circumstances and significance issues to consider and a site specific NEPA analysis may be required.

Yes	No	
☐	☐	Is the preferred alternative expected to cause significant effects on public health or safety?
☐	☐	Is the preferred alternative expected to significantly affect unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas?
		Are the effects of the preferred alternative on the quality of the human environment likely to be highly controversial?
☐	☐	Does the preferred alternative have highly uncertain effects or involve unique or unknown risks on the human environment?
	☐	Does the preferred alternative establish a precedent for future actions with significant impacts or represent a decision in principle about a future consideration?
	☐	Is the preferred alternative known or reasonably expected to have potentially significant environment impacts to the quality of the human environment either individually or cumulatively over time?
☐	☐	Will the preferred alternative likely have a significant adverse effect on ANY of the special environmental concerns? Use the Evaluation Procedure Guide Sheets to assist in this determination. This includes, but is not limited to, concerns such as cultural or historical resources, endangered and threatened species, environmental justice, wetlands, floodplains, coastal zones, coral reefs, essential fish habitat, wild and scenic rivers, clean air, riparian areas, natural areas, and invasive species.
	☐	Will the preferred alternative threaten a violation of Federal, State, or local law or requirements for the protection of the environment?

Q. NEPA Compliance Finding (check one) The preferred alternative:		Action required
	1) Is **not a federal action** where the agency has control or responsibility.	Document in "R.1" below. No additional analysis is required
☐	2) Is a federal action **ALL** of which is **categorically excluded** from further environmental analysis **AND** there are **no extraordinary circumstances as identified in Section "O"**.	Document in "R.2" below. No additional analysis is required
☐	3) Is a federal action that has been **sufficiently analyzed** in an existing Agency state, regional, or national NEPA document **and** there are no predicted significant adverse environmental effects or extraordinary circumstances.	Document in "R.1" below. No additional analysis is required.
☐	4) Is a federal action that has been sufficiently analyzed in another Federal agency's NEPA document (EA or EIS) that addresses the proposed NRCS action and its' effects **and has been formally adopted by NRCS**. NRCS is required to prepare and publish its own Finding of No Significant Impact for an EA or Record of Decision for an EIS when adopting another agency's EA or EIS document. (**Note: This box is not applicable to FSA**)	Contact the State Environmental Liaison for list of NEPA documents formally adopted and available for tiering. Document in "R.1" below. No additional analysis is required
☐	5) Is a federal action that has **NOT** been sufficiently analyzed or may involve predicted significant adverse environmental effects or extraordinary circumstances and may require an EA or EIS.	Contact the State Environmental Liaison. Further NEPA analysis required.

R. Rationale Supporting the Finding

R.1 Findings Documentation	
R.2 Applicable Categorical Exclusion(s) **(more than one may apply)**	STEP 7
7 CFR Part 650 *Compliance With NEPA*, subpart 650.6 *Categorical Exclusions* states prior to determining that a proposed action is categorically excluded under paragraph (d) of this section, the proposed action must meet six sideboard criteria. See NECH 610.116.	

I have considered the effects of the alternatives on the Resource Concerns, Economic and Social Considerations, Special Environmental Concerns, and Extraordinary Circumstances as defined by Agency regulation and policy and based on that made the finding indicated above.

S. Signature of Responsible Federal Official:

Signature	Title	Date

Additional notes

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Conservation Planning

Planning Step	NEPA Requirement
1. Identify Problems and Opportunities	Need for Action
2. Determine Objectives	Purpose of Action
3. Inventory Resources	Affected Environment
4. Analyze Resource Data	Affected Environment
5. Formulate Alternatives	Alternatives
6. Evaluate Alternatives	Environmental Consequences
7. Make Decisions	Preferred Alternative/CE/FONSI/ROD
8. Implement Plan	Mitigation/Monitoring
9. Evaluate Plan	Adaptive Management

Public Involvement

Before agency decisions are made and before actions are taken

- Information on environmental consequences is available to the public
- The public is provided opportunity to comment

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Public Involvement

Conservation Practice Standards

- Network Effects Diagrams
- Conservation Practice Physical Effects

Farm Bill Rulemaking

- Listening Sessions
- Programmatic NEPA Documents

Public Meetings

- State Technical Committee
- Local Working Groups
- Conservation District

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Categorical Exclusions

Categories of actions that do not individually or cumulatively have a significant effect on the human environment.

Published in agency NEPA procedures

Exempt from the requirement to prepare an EA or EIS

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Categorical Exclusions

USDA (7 CFR Part 1b.3)

- 1 – 7

NRCS (7 CFR Part 650.6)

- Data gathering and interpretation programs
  - 1 – 5
- Restoration and conservation activities
  - 1 – 21
  - Overarching criteria (sideboards)

Only cover compliance with NEPA

Requirements of other laws must be met

Categorical Exclusions

To use a CE

- All of the activities to be implemented are described by one or more of the CEs published in NRCS's or USDA's NEPA implementing regulations.
- No extraordinary circumstances (significant adverse impacts) that cannot be mitigated are anticipated.

Actions that have potential for significant impacts on the human environment are <u>not</u> categorically excluded.

Categorical Exclusions

Extraordinary Circumstances

P. Determination of Significance or Extraordinary Circumstances

To answer the questions below, consider the severity (intensity) of impacts in the contexts identified above. Impacts may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

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☐	☑	• Is the preferred alternative expected to significantly affect unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas?
☐	☑	• Are the effects of the preferred alternative on the quality of the human environment likely to be highly controversial?
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☐	☑	• Is the preferred alternative known or reasonably expected to have potentially significant environment impacts to the quality of the human environment either individually or cumulatively over time?
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☐	☑	• Will the preferred alternative threaten a violation of Federal, State, or local law or requirements for the protection of the environment?

Programmatic NEPA documents

Analyze general effects of conservation practices, not site-specific effects

- Conservation Practice Standards
  - Network Effects Diagrams
  - CPPE
  - Conservation Effects Assessment Project

Conservation Planning Process

- Concurrent site-specific EE
  - Identifies potential adverse impacts
  - Plans mitigation to avoid or minimize adverse impacts

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Programmatic NEPA documents

Agricultural Conservation Easement Program EA, FONSI December 2020

Agricultural Management Assistance Program EA, FONSI November 2002

Conservation Stewardship Program EA, FONSI October 2020

Emergency Watershed Protection Program, EIS, ROD April 2005

Environmental Quality Incentives Program EA, FONSI October 2020

Healthy Forest Reserve Program EA, FONSI April 2006

Regional Conservation Partnership Program EA, FONSI January 2021

Voluntary Public Access-Habitat Improvement Program EA, July 2015

National Environmental Policy Act (NEPA) Documents and Supporting Analysis | NRCS (usda.gov)

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Programmatic NEPA documents

To tier to a Programmatic EA:

1. NRCS' 9-step Conservation Planning Process was used.
   - Concurrent Environmental Evaluation
   - Documented on the NRCS-CPA-52
2. NRCS' CPS will be used.
3. The site-specific impacts of the planned practices documented on the CPA-52 are described in the Network Effects Diagrams and CPPE.
4. There are no extraordinary circumstances – adverse impacts that cannot be mitigated to a level of insignificance.

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Network Effects Diagrams and Conservation Practice Physical Effects

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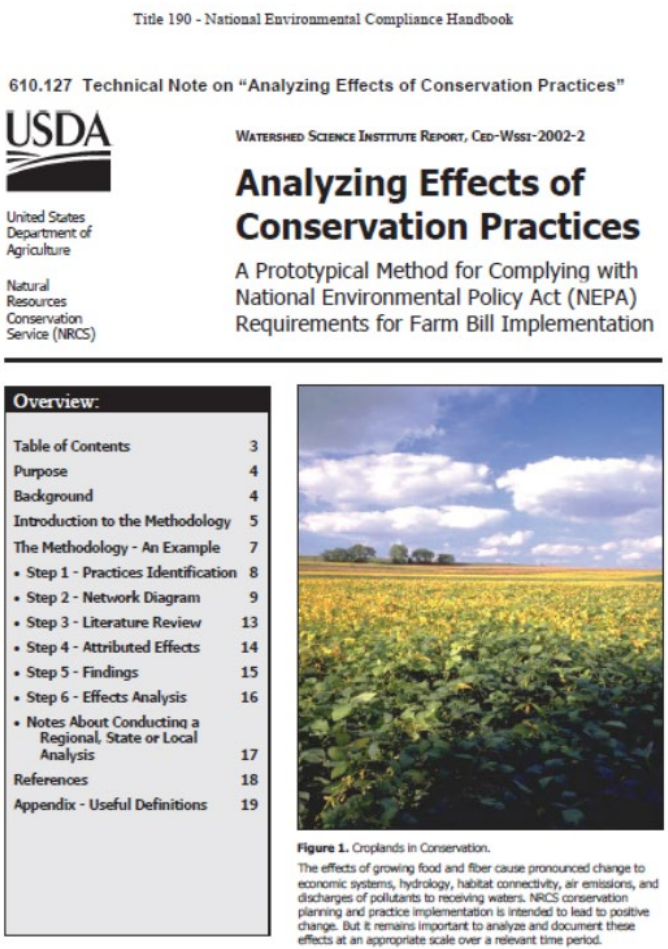
What is the point?



Title 190 - National Environmental Compliance Handbook

610.127 Technical Note on "Analyzing Effects of Conservation Practices"

USDA

United States Department of Agriculture

Natural Resources Conservation Service (NRCS)

WATERSHED SCIENCE INSTITUTE REPORT, CED-WSSI-2002-2

Analyzing Effects of Conservation Practices

A Prototypical Method for Complying with National Environmental Policy Act (NEPA) Requirements for Farm Bill Implementation

Overview:

Figure 1. Croplands in Conservation.

The effects of growing food and fiber cause pronounced change to economic systems, hydrology, habitat connectivity, air emissions, and discharges of pollutants to receiving waters. NRCS conservation planning and practice implementation is intended to lead to positive change. But it remains important to analyze and document these effects at an appropriate scale over a relevant time period.

190-610-H, 3rd, Ed., May 2016 610-H.48

The purpose of the guidance in this document is to provide:

- **An approach for identifying and organizing the effects of Farm Bill-emphasized conservation practices that relies on agency expertise and available scientific literature.**
- **A methodology for making generalized and specific (cited) effects useful at national, regional and statewide levels that clearly illustrates the chain of causation for the effects of the proposed actions.**
- **Documentation of NRCS's direct, indirect and cumulative effects for environmental compliance and disclosure to clients and the public.**

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How does the process work?

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Network Effects Diagrams (NED)

Essentially a flow chart of direct, indirect and cumulative effects resulting from a practice being installed

Includes consideration of other ongoing and planned activities in the area that affect the same resources

National Practice Standards and Conservation Practice Physical Effects matrix (CPPE) are a reference for identifying direct effects

Completed NED represents an **overview** of expert **consensus** on the kinds and magnitude of effects

Do not depict effects on special environmental concerns (e.g. - endangered or threatened species or cultural resources)

Terminology

Effects or impacts.

Effects or impacts means changes to the human environment from the proposed action or alternatives and include the following:

1) Direct Effects
2) Indirect Effects
3) Cumulative Effects
4) Effects include ecological, aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative

Terminology

Direct effects.

…are caused by the action and occur at the same time and place.

Terminology

Indirect effects.

…are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable.

Terminology

Cumulative Effects.

…effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.

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Notice of Proposed Changes to the National Handbook of Conservation Practices for the Natural Resources Conservation Service

[Docket No.]

PROPOSED FULL TEXT FOR PRACTICE STANDARD CODE 362

USDA United States Department of Agriculture

362-CPS-1

Natural Resources Conservation Service

CONSERVATION PRACTICE STANDARD

DIVERSION

CODE 362

(ft)

DEFINITION

A channel usually constructed across the slope with a supporting ridge on the lower side.

PURPOSE

This practice is used to accomplish one or more of the following purposes:

- Intercept surface and shallow subsurface flow to reduce runoff and erosion
- Divert water away from sensitive areas, conservation practices, agricultural waste systems, infrastructure, and other improvements
- Collect or direct water for storage, water spreading, water-harvesting systems, or treatment

CONDITIONS WHERE PRACTICE APPLIES

This practice applies to all land uses where the soils and topography allow construction of a diversion with a suitable outlet.

CRITERIA

General Criteria Applicable to All Purposes

Capacity

Design diversions to be used as temporary measures to convey the peak discharge from the 2-year frequency, 24-hour duration storm.

Design diversions to protect agricultural land or surface mine reclamation to convey the peak discharge from a 10-year frequency, 24-hour duration storm.

Design diversions to protect urban areas, buildings, roads, and animal waste management systems to convey the peak discharge from a storm frequency consistent with the hazard involved but not less than a 25-year frequency, 24-hour duration storm with a minimum freeboard depth of 0.3 feet.

The diversion design depth is the maximum expected water depth resulting from the design storm plus any required freeboard. The diversion design depth at a culvert crossing or grade stabilization structure must equal the headwater depth for the culvert or structure design storm plus any required freeboard.

Cross section

The channel may be parabolic, V-shaped, or trapezoidal. The diversion side slopes are based on stability and access requirements for maintenance. Where a supporting ridge is required to contain the design flow plus any required freeboard in the channel, the minimum ridge top width is 3 feet. Design all farmable ridge side slopes no steeper than 5 horizontal to 1 vertical (5:1) to allow safe operation of farming equipment. For nonfarmable slopes, the steepest side slope allowable is 2:1 unless an analysis of site

NRCS reviews and periodically updates conservation practice standards. To obtain the current version of this standard, contact your Natural Resources Conservation Service State office or visit the Field Office Technical Guide online by going to the NRCS website at https://www.nrcs.usda.gov/ and type FOTG in the search field.

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NRCS, NHCP
October 2021

Let's Take a Look at CPS 362 - Diversion

Natural Resources Conservation Service

nrcs.usda.gov

362- PURPOSES

This practice is used to accomplish one or more of the following purposes:

- Intercept surface and shallow subsurface flow to reduce runoff and erosion
- Divert water away from sensitive areas, conservation practices, agricultural waste systems, infrastructure, and other improvements
- Collect or direct water for storage, water spreading, water-harvesting systems, or treatment

362- CONDITIONS WHERE PRACTICE APPLIES

This practice applies to all land uses where the soils and topography allow construction of a diversion with a suitable outlet.

362- Criteria

Capacity

Cross Section

Channel Stability and Capacity

Protection Against Sediment

Outlets

Vegetative Establishment

Lining

Conservation Practice Physical Effects

Effects of NRCS Conservation Practices - National

Diversion

A channel generally constructed across the slope with a supporting ridge on the lower side.

Code: 362
Units: ft.

Typical Landuse: C F R P Pr FS D O AL

	Effect	Rationale
Soil Erosion		
Soil Erosion - Sheet and Rill Erosion	1	A channel across the slope reduces the slope length and the opportunity for runoff water to detach soil particles.
Soil Erosion - Wind Erosion	0	Not Applicable
Soil Erosion - Ephemeral Gully Erosion	2	A channel constructed across the slope intercepts surface flow and decreases soil detachment by water.
Soil Erosion - Classic Gully Erosion	2	Overland flow is diverted from gully.
Soil Erosion - Streambank, Shoreline, Water Conveyance C	1	Reduces overland flow to stream.
Soil Quality Degradation		
Excess Water		
Excess Water - Seeps	-1	Seepage may increase due to temporary storage behind the diversion.
Excess Water - Runoff, Flooding, or Ponding	2	Water is diverted and prevented from ponding or flooding.
Excess Water - Seasonal High Water Table	2	Intercepts shallow subsurface flows.
Excess Water - Drifted Snow	0	Not Applicable
Insufficient Water		
Insufficient Water - Inefficient Use of Irrigation Water	2	May help capture and reuse runoff.
Insufficient Water - Inefficient Moisture Management	2	May collect or direct water for water-spreading or water-harvesting systems.
Water Quality Degradation		
Pesticides in Surface Water	1	The action diverts water from the pesticide application site.
Pesticides in Groundwater	1	The action diverts water from the pesticide application site.
Nutrients in Surface water	0	Diversions will trap some sediment, reducing the amount of sediment-adsorbed nutrients delivered off-site. Because diversions concentrate overland flows, there can be an increase in solubles offsite.
Nutrients in Groundwater	-1	The action increases infiltration which may provide transport for nutrients.
Salts in Surface Water	0	Not Applicable
Salts in Groundwater	0	Not Applicable
Excess Pathogens and Chemicals from Manure, Bio-solic	1	Enables better runoff management
Excess Pathogens and Chemicals from Manure, Bio-solic	0	Not Applicable

362 CPPE

Soil Erosion - Ephemeral Gully Erosion

Effect - 2

Rationale - A channel constructed across the slope intercepts surface flow and decreases soil detachment by water.

362- CPPE

Soil Erosion – Classic Gully Erosion

Effect - 2

Rationale – Overland flow is diverted from gully.

362- CPPE

Water Quality Degradation – Pesticides in Surface Water

Effect – 2

Rationale –The action diverts water from the pesticide application site.

Associated practice

Diversion

(362)

Initial setting-Initial setting: Land dominated by tree growth and/or shrub cover that has undesirable structure, health, or vigor.

First

What tangible changes occur at a site as a result of practice installation?

Second

After the practice is installed, what are the direct effects?

Mitigating practice

Third

After direct effects occur, what are the indirect effects?

Fourth

As the practice is applied throughout the landscape and community, what are the cumulative effects?

LEGEND

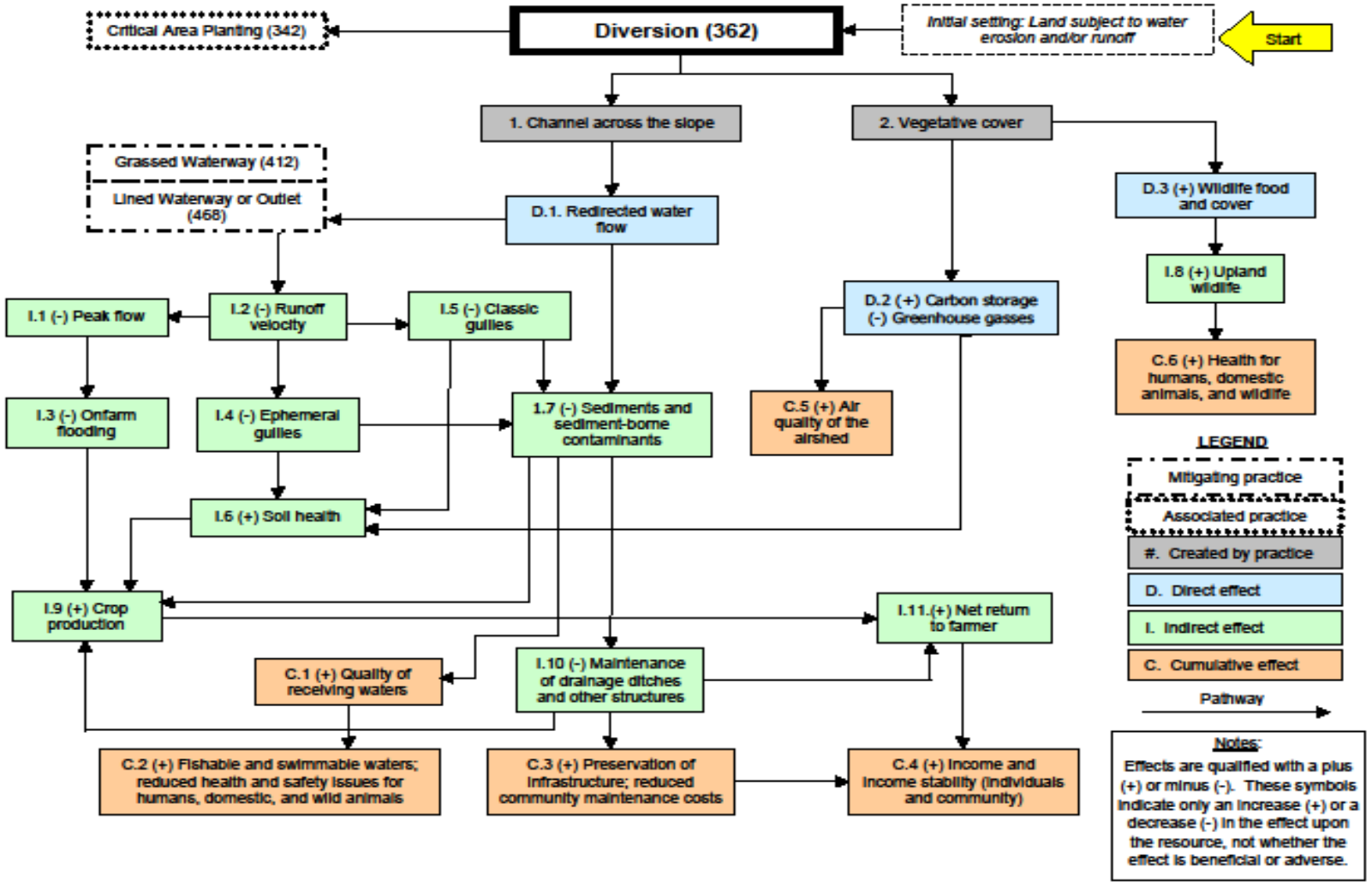
- Created by practice
- Direct effect
- Indirect effect
- Cumulative effect

pathway

(+) increase; (-) decrease

NRCS CONSERVATION PRACTICE EFFECTS - NETWORK DIAGRAM

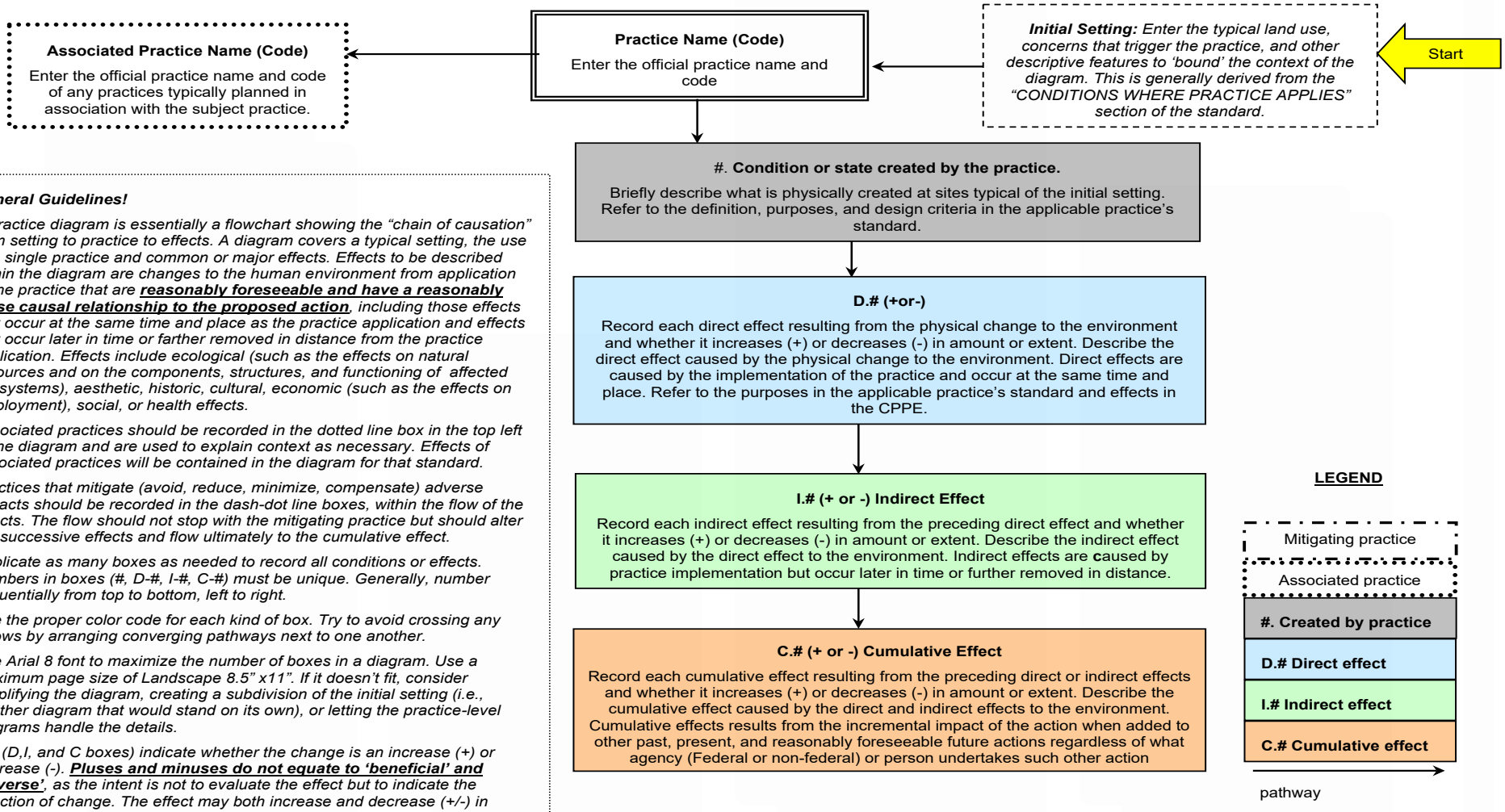
XXXX 2021



USDA United States Department of Agriculture

(Date)

NRCS Conservation Practice Effects- Network Diagram (Instructions)



General Guidelines!

*A practice diagram is essentially a flowchart showing the "chain of causation" from setting to practice to effects. A diagram covers a typical setting, the use of a single practice and common or major effects. Effects to be described within the diagram are changes to the human environment from application of the practice that are **reasonably foreseeable and have a reasonably close causal relationship to the proposed action**, including those effects that occur at the same time and place as the practice application and effects that occur later in time or farther removed in distance from the practice application. Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic (such as the effects on employment), social, or health effects.*

Associated practices should be recorded in the dotted line box in the top left of the diagram and are used to explain context as necessary. Effects of associated practices will be contained in the diagram for that standard.

Practices that mitigate (avoid, reduce, minimize, compensate) adverse impacts should be recorded in the dash-dot line boxes, within the flow of the effects. The flow should not stop with the mitigating practice but should alter the successive effects and flow ultimately to the cumulative effect.

Duplicate as many boxes as needed to record all conditions or effects. Numbers in boxes (#, D-#, I-#, C-#) must be unique. Generally, number sequentially from top to bottom, left to right.

Use the proper color code for each kind of box. Try to avoid crossing any arrows by arranging converging pathways next to one another.

Use Arial 8 font to maximize the number of boxes in a diagram. Use a maximum page size of Landscape 8.5" x11". If it doesn't fit, consider simplifying the diagram, creating a subdivision of the initial setting (i.e., another diagram that would stand on its own), or letting the practice-level diagrams handle the details.

*For (D,I, and C boxes) indicate whether the change is an increase (+) or decrease (-). **Pluses and minuses do not equate to 'beneficial' and 'adverse'**, as the intent is not to evaluate the effect but to indicate the direction of change. The effect may both increase and decrease (+/-) in some cases depending on the site or installation specifications.*

Place the date in the upper right corner as indicated. A final date will be added/edited once the CPS is final.

USDA United States Department of Agriculture

Questions….

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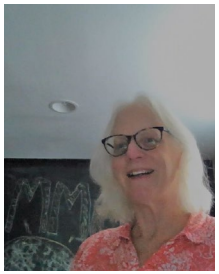
Compliance Team



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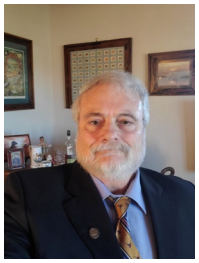

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