

State Specific Training Module for Indiana

February 2024

Purpose of this Module

This module will provide some general information that TSPs need to conduct conservation planning in Indiana. This information is general in nature so the TSP may need to follow up with additional reading or training to make sure they have the knowledge, skill, licenses and certifications to conduct conservation planning in Indiana as a TSP Conservation Planner (TSP-CCP).

What This Module Will Not Do...

This module only serves the purpose of a broad overview of conservation planning in Indiana and will enable prospective TSPs to perform certain components of nationally-established TSP planning requirements as a TSP Conservation Planner.

This module does not meet the requirements of a “Certified Conservation Planner” in Indiana. Details of that process are covered later...



Conservation Planning's Primary Purpose:
Identify Solutions to Address ***Resource Concerns***



Conservation Planning Process

Nine Steps of Conservation Planning:

1. Identify Problems & Opportunities
2. Determine Objectives
3. Inventory Resources
4. Analyze Resource Data
5. Formulate Alternatives
6. Evaluate Alternatives
7. Make Decisions
8. Implement Plan
9. Evaluate Plan



IN Conservation Planning Certification Process

Expectations of Indiana Certified Conservation Planners:

- Ability to independently identify resource concerns on all land uses in Indiana.
- Ability to recognize and collect the field data needed to adequately assess potential resource concerns.
- Knowledge of planning criteria related to each resource concern.
- Knowledge of conservation practices impacts on each resource concern.
- Ability to formulate alternative systems of practices to address resource concerns to planning criteria within the producer's abilities and objectives.
- Ability to satisfy all NEPA related issues (as applicable)
 - Cultural Resources
 - Threatened and Endangered (T&E) Species
 - Wetlands, Riparian areas, etc.
 - All other applicable special environmental concerns
- Ability to use NRCS approved business tools and assessment tools (as applicable)
 - Conservation Desktop and CART
 - Soil Survey
 - FOTG
 - RUSLE2, WinPST, WEPs, etc.
 - Soil Health Assessment Worksheet, Pasture Condition Score sheet, Forest Health Assessment, WHEG, SVAP2, etc.

What is Considered a Complete Conservation Plan?

- The conservation plan is developed jointly by the client and the planner, for the client's and planner's use to record decisions for natural resource protection, conservation, and enhancement. The NRCS copy of the plan is maintained in hardcopy or electronically, as appropriate.
- Decisions and resource information needed during implementation and maintenance of the plan are recorded throughout the planning process. The plan narrative and supporting information provide guidance for implementation and may serve as a basis for compliance and program funding through Federal, State, Tribal, Territorial, or local financial support initiatives. Assistance notes are recorded at each step in the planning process to document important points or discussions with the client.
- The following guidance helps to maintain quality and provide appropriate documentation of a plan. Though this section outlines required items to be included in a plan, the plan content will be tailored to the client's needs.
- The plan documents provided to the client must be of good quality and contain meaningful information for the client. The documents may be provided to the client electronically or as hardcopy.
 - Title 180- National Planning Procedures Handbook
 - Subpart D – Plan Format and Content, [Part 600.31 Conservation Plan](#)

Review of National and State Laws

- National and state laws prohibit activities that may impact protected resources without adequate evaluation and public comment, including but not limited to:
 - Threatened and Endangered species, especially the Indiana Bat
 - Cultural Resources
 - Wetlands
 - Waters of the US
- NRCS will complete environmental evaluations of the practices in plans developed by TSPs prior to practice implementation. **TSPs must inform producers in writing to not implement the recommended practices until NRCS has adequately reviewed them for compliance with state and federal laws.**

Review of National and State Laws

- State laws that impact planning considerations in Indiana:
 - Office of the Indiana State Chemist (OISC);
 - Animal Feeding Operations (AFOs);
 - Confined Feeding Operations (CFOs) and Concentrated Animal Feeding Operations (CAFOs) (Indiana Department of Environmental Management – IDEM).
- Planning of engineering practices does not require the TSP to have a Professional Engineering (PE) License in the State of Indiana (**NOTE: Designing engineering practices does require a PE License**).
- However, it is expected the TSP will have the technical knowledge, skills and ability to complete the inventory & evaluation and any necessary site feasibility for all planned engineering practices. Conservation Practice Standards (FOTG-Section IV) contain the minimum site feasibility criteria.

Review of State FOTG Requirements

The Field Office Technical Guide (FOTG) is the official the repository of conservation planning guidance documents for IN NRCS. The Indiana FOTG contains:

Section I – General References

Section II – Soil and Site Information

Section III – Conservation Management Systems

Section IV – Practice Standards and Specifications

Section V – Conservation Effect

Review of State FOTG Requirements

Providing Services in Multiple States or New TSPs:

- After taking the “Introduction to the Field Office Technical Guide” online training course, it is required the TSP review and understand the Conservation Practice Standards (CPS) and Job Sheets in the different states they work in to recognize if there are major differences.
- Contact Indiana’s TSP Coordinator for a discipline specialist name & contact information if further clarification is needed for specific practices.

Review of State FOTG Requirements

- Indiana's practice standards and Implementation Requirements (job sheets) are all located in Section 4 of the FOTG.
- Indiana's Technical Notes and other technical resources are in Section 1 of the FOTG.
- The national Conservation Planning Activities documents are accessed in Section 3 of the IN FOTG.
- Indiana's Resource Concerns, Land Uses, Planning Criteria, and Assessment Tools are in Section 3 of the FOTG.
- Indiana's Planning Criteria Tool is in Section 3 of the FOTG.

Indiana FOTG Section 3 contains – Indiana Planning Tool and National Planning Criteria



Keyboard Navigation Instructions

Resource Concern List and Planning Criteria

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	Document Title	Type	Pub Date	End Date	Subject	Keywords	Abstract	Size	Info
<input type="checkbox"/>	Indiana Conservation Planning Tool		2023-11-09	--	--	plan, cart	Indiana's planning tool includes links to Indiana and national planning policy, CART guidance, and more	3.3 MB	
<input type="checkbox"/>	Indiana Required Resource Concerns		2022-01-20	--	--	resource, concern, indiana, required	Resource Concerns required to be assessed for conservation planning in Indiana	249 kB	
<input type="checkbox"/>	National FY24 CART Resource Concern Assessment		2023-11-09	--	--	--	National documentation of CART questions and calculations, thresholds, etc.	2.7 MB	
<input type="checkbox"/>	National Resource Concern List and Planning Criteria		2023-03-27	--	Conservation Planning	planning criteria, resource, concern	NRCS' nationally approved resource concern list and planning criteria, released March 2023.	--	

Section 1 - General Resource References ▾

Section 2 - Natural and Cultural Resources Information ▾

Section 3 - Resource Concerns and Planning Criteria ▲

Conservation Activities (CPA, DIA, & CEMA)

Resource Concern List and Planning Criteria ▲

In-Field Soil Health Assessments (SHAs)

National CART Guidance Documents

Pasture Condition Scoresheet (PCS)

Resource Concern Information Sheets ▾

Stream Visual Assessment Protocol (SVAP2)

Wildlife Habitat Evaluation Guide (WHEG)

Indiana Planning Criteria Tool contains – Land Uses

NRCS LAND USES		NRCS LAND USE MODIFIERS	
<i>From Title 180 - National Planning Procedures Handbook (NPPH), Amend 7, January 2020</i>		<i>From Title 180 - National Planning Procedures Handbook (NPPH), Amend 7, January 2020</i>	
<p>LAND USE - A term that includes categories of land cover and categories of land use. Land cover is the vegetation or other kind of material that covers the land surface. Land use is the purpose of human activity on the land; it is usually, but not always, related to land cover. NRCS has developed the following land use designations to be used by planners and modelers at the field and landscape level.</p>		<p>LAND USE MODIFIER - Modifiers provide another level of specificity and help denote what the land is managed for. The modifiers are:</p>	
Crop	Land used primarily for the production and harvest of annual or perennial field, forage, food, fiber, horticultural, orchard, vineyard, or energy crops.	Irrigated	Used when an operational system is present and managed to supply water. <i>Triggers adjustments to rainfall related analyses and irrigation and water use related CART assessment questions.</i>
Forest	Land on which the historic and/or introduced vegetation is predominantly tree cover managed for the production of wood products or non-timber forest products.	Wildlife	Used when the client is actively managing for wildlife. <i>Triggers additional wildlife related assessment questions in CART. Required to assess terrestrial wildlife and aquatic wildlife (also requires Water Feature modifier)</i>
Pasture	Land composed of introduced or domesticated native forage species that is used primarily for the production of livestock. Pastures receive periodic renovation and cultural treatments, such as tillage, fertilization, mowing, weed control, and may be irrigated. Pastures are not in rotation with crops.	Grazed	Used when grazing animals impact how land is managed (not needed on pasture land use because grazing is implied). <i>This modifier triggers animal related CART assessment questions on cropland.</i>
Farmstead	Land used for facilities and supporting infrastructure where farming, forestry, animal husbandry, and ranching activities are often initiated. This may include dwellings, equipment storage, plus farm input and output storage and handling facilities. Also includes land dedicated to the facilitation and production of high-intensity animal agriculture in a containment facility where daily nutritional requirements are obtained from other lands or feed sources.	Drained	Used when artificial drainage exists <i>and is functioning such that it has an impact on how the land is managed. Triggers changes in the CART assessment related to surface water and other resource concerns – existing condition and threshold values.</i>
Associated Agricultural Lands	Land associated with farms and ranches that are not purposefully managed for food, forage, or fiber and are typically associated with nearby production or conservation lands. This could include incidental areas, such as idle center pivot corners, odd areas, ditches and watercourses, riparian areas, field edges, seasonal and permanent wetlands, and other similar areas.	Water Feature	Used to identify that the planned land unit contains or is <i>immediately</i> adjacent to a water feature, such as a stream, lake, river, etc. <i>Triggers water feature related assessment questions such as ‘bank erosion’ and ‘aquatic habitat’ in CART.</i>
Developed Land	Land occupied by buildings and related facilities used for residences, commercial sites, public highways, airports, and open space associated with towns and cities.	Organic	Used on field which has met the organic or transitioning to organic criteria. <i>This land use modifier is required for the applicability of Organic Ranking pools in CART.</i>

Indiana Planning Criteria Tool contains – Planning Criteria Questions

Infrastructure			
	Energy Efficiency of Equipment and Facilities		
	Energy Efficiency of Field Operations		
	Power Supplies		
	Concentrated Pollutants		
Q:	Are biosolids, manure, compost, or other soil nutrient and pathogen sources stored or handled on the PLU which may pose a risk to surface/ground water pollution?	National Reference for Existing Condition	Indiana Guidance List PLU's
	Yes. The material is NOT CONTAINED, or containment is NOT FULLY FUNCTIONAL		no additional Indiana guidance
	Yes. The material is CONTAINED and containment is FULLY FUNCTIONAL		no additional Indiana guidance
Q:	Are livestock wastes, by-products, or feedstocks stored or handled in a way that could contaminate surface/ground water with nutrients or pathogens?	National Reference for Existing Condition	Indiana Guidance List PLU's
	Yes. Treatment IS ADEQUATE on the PLU to prevent surface water pollution		no additional Indiana guidance
	Yes. Treatment IS NEEDED on the PLU to prevent surface water pollution		no additional Indiana guidance
Wildlife			
	Wildlife		



Indiana FOTG Section 3 also contains – Measurement and Assessment Tools



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★ Featured by Content Manager Export CSV Document Title (A-Z) Table Card

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Resource Concern Information Sheets

Stream Visual Assessment Protocol (SVAP2)

Wildlife Habitat Evaluation Guide (WHEG)

Review of Important Resource Issues

- Indiana is divided into 3 main climatic and soil regions
 - Northern
 - Central
 - Southern
- Climatic differences may impact field conditions for installing structural practices.
 - If a structural practice cannot be installed due to winter conditions provisions must be included in the planned practice specification that will provide temporary cover to prevent erosion on disturbed areas.

Review of Important Resource Issues

- Resource Concerns – Soil (Erosion)



Erosion – example Planning Assessment Questions

Ephemeral Gully Erosion, Existing Condition	National Reference for Existing Condition	Indiana Guidance
No ephemeral gullies observed		And are not likely to form
Ephemeral gullies are observed		Also mark if not observed, but are likely to form or confirmed by client

Cover/Residue/Biomass Crop Rotation Credit	National Reference for Existing Condition	Indiana Guidance
None - Rapidly Depleting Soil Organic Matter	<ul style="list-style-type: none"> - Visible signs of erosion - No soil cover and/or excessive soil disturbance - Fallow (bare or chemical Fallow) for significant portions of the management system - Crops with fragile residue - Multiple full-width tillage passes 	<p>grown and harvested by grazing or forage removal.</p> <p>Pre-Planning/Interview Method: Cropping Systems with full width tillage using tillage tools similar to a chisel, disk, field cultivator, and/or moldboard plow for any crop in the rotation.</p> <p>If the Indiana Guidance above negatively impacts program eligibility, the National Reference will be used on-site</p>
Low - Depleting Soil Organic Matter	<ul style="list-style-type: none"> - Partial soil cover and/or periodic tillage - Partial width or limited full-width tillage - A mix of crops with fragile and non-fragile residue 	<p>Pre-Planning/Interview Method: Cropping systems where full width tillage only includes single-pass vertical tillage tools or harrows for seedbed preparation for any primary crop in the rotation.</p> <p>If the Indiana Guidance above negatively impacts program eligibility, the National Reference will be used on-site</p>
Moderate - Maintaining Soil Organic Matter	<ul style="list-style-type: none"> - Crop rotations with predominately non-fragile residue - May include cover crops - Part of the rotation in high residue crops - No full-width tillage or tillage passes minimize soil disturbance 	<p>Pre-Planning/Interview Method: Cropping systems that are predominantly no-till or strip-till for all primary crops, or single-pass vertical tillage tools are only used for seedbed preparation for cover crops.</p> <p>If the Indiana Guidance above negatively impacts program eligibility, the National Reference will be used on-site</p>
High - Building Soil Organic Matter	<ul style="list-style-type: none"> - Year-round soil cover and no tillage, or tilled infrequently during the rotation - Crop rotations with high residue crops - Includes cover crops or perennial crops (including hay and green manures) with full ground cover 	<p>Pre-Planning/Interview Method: Cropping system that is continuous no-till or strip till and cover crops are used in most years in the rotation. For the existing system to be counted as high, this operating system needs to have been in use for at least the last 3 years.</p> <p>If the Indiana Guidance above negatively impacts program eligibility, the National Reference will be used on-site</p>

Review of Important Resource Issues

Indiana is a leader in Soil Health!

- What does *Soil Health* mean?
- **Soil Health Key Indicators =**
 - Increasinging organic matter
 - Improving aggregate stability
 - Increasinging water infiltration
 - Increasinging water-holding capacity
 - Improving nutrient cycling
 - Enhancing and diversifying soil biology



Soil Health is not a destination...it's a Journey

Review of Important Resource Issues

NRCS is Making Soil Health a Priority!

Soil Health Principles



Review of Important Resource Issues

Indiana is a leader in Soil Health!

Achieving soil health through:

- Quality No-till/Strip/Reduced-till System
- Diverse and Strategic Cover Crops
- Adapted Nutrient Management
- Integrated Weed & Pest Management
- Diverse Crop Rotations
- Precision Farming Technology
- Prescriptive Buffers



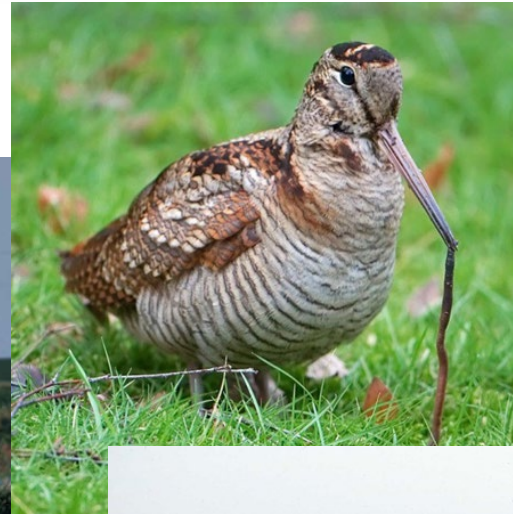
Review of Important Resource Issues

- Resource Concerns – Water (Quality and Quantity)



Review of Important Resource Issues

- Resource Concerns – Animals



Review of Important Resource Issues

- Resource Concerns – Plants



Review of Important Resource Issues

- Resource Concerns – Air and Energy



Review of Major Land Uses

- Indiana is roughly 57% cropland, 7% pastureland, 7% woodland and the remaining 29% in other non-agricultural.
- The northern quarter of the state has the highest percentage of irrigation with pockets sprinkled throughout, as well.
- Pastures in Indiana are primarily introduced grass and legume species. The primary grazers are cattle.

Review of Major Land Ownership

Approximately 60% of Indiana cropland is rented. Farm leases can be year-to-year or long-term. There are many different types of leases: cash; shares; fixed/flexible. Leases can include things such as: fertility; pH and lime; drainage and tile; improvements; maintenance; soil health and conservation practices.

Expected TSP Workflow

- Contact Tony Bailey, State Conservation Agronomist (tony.bailey@usda.gov) and Shannon Zezula, State Resource Conservationist (SRC) (shannon.zezula@usda.gov) at the Indiana NRCS State Office to start the certification process.
- A discipline specialist or a team of specialists, as needed, will be assigned to complete the plan review and recommend certification or prepare a summary of deficiencies.
- Summary of deficiencies will include a detailed description of the deficiency, technical guidance to complete or revise the plan and deadline for completing any additional work.
- Additional plan reviews will be required if the first plan cannot be approved as submitted.

Expected TSP Workflow

- After TSP Certification, subsequent Conservation Plans, Conservation Planning Activity (CPA) and Design and Implementation Activity (DIA) Plans written for NRCS clients will be reviewed by the State Office or others as assigned.
- NRCS in Indiana provides no financial assistance to landowners for conservation planning outside of EQIP contracted CPAs, DIAs and CEMAs.
- Plan reviews for TSP planner certification renewals will be completed by the planning specialist or discipline specialist at the State Office.
- TSPs will work with the State Office to make sure the proper environmental evaluations (NRCS.CPA.52) are completed.

Expected TSP Workflow

- Please contact the NRCS-Indiana TSP Coordinator, Tony Bailey if you intend to offer CPA or DIA planning services:
 - tony.bailey@usda.gov or;
 - 317-295-5845 for additional guidance.

Additional References or Training

- NRCS Website at www.nrcs.usda.gov
- NRCS-Indiana Website:
<http://www.nrcs.usda.gov/wps/portal/nrcs/site/in/home/>
- Indiana Field Office Technical Guide (FOTG)
<https://efotg.sc.egov.usda.gov/#/state/IN/documents>
- Technical Service Provider Website: <https://www.nrcs.usda.gov/getting-assistance/technical-assistance/technical-service-providers>
- [NRCS Practice and Conservation Activity List and Certification Criteria-FY 2023](#)
- NRCS Technical Notes (see IN FOTG Section I)
- Air Quality Resource Concerns (online AgLearn)
- Environmental Compliance in Conservation Planning (online AgLearn)
- Nutrient and Pest Management Considerations in Conservation Planning (online AgLearn)

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Certificate of Completion

After viewing the State Specific Training module, please print and sign the completion certificate on the following slide.

The certificate is your acknowledgement that based on the information provided in this module, you have the proper knowledge, skills and ability to conduct planning in this State.

Within your NRCS Registry profile, enter the training and upload the signed certificate to verify completion.



STATE SPECIFIC TRAINING MODULE COMPLETION CERTIFICATE

I, _____ hereby verify I have viewed and understand the content of the Indiana State
TSP Name
Specific Training Module and affirm I have the knowledge, skills, and ability to conduct conservation planning
services in this state.

TSP Signature

Date