Conservation Planning

Brandon Bishop
(Acting) Animal Husbandry Specialist
East Technical Center

Our Mission: We deliver conservation solutions so agricultural producers can protect natural resources and feed a growing world.

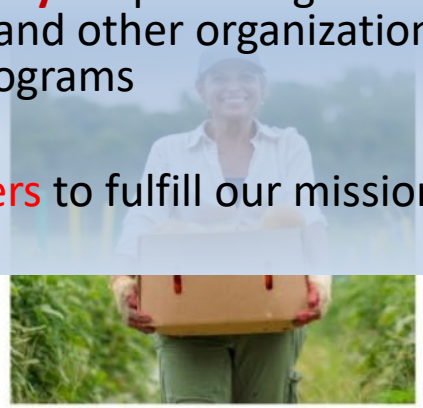
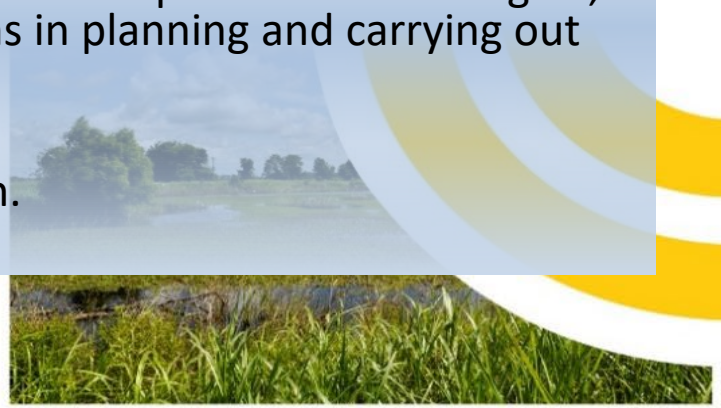


Helping People Help the Land

Helping our clients manage their natural resources and achieve their goals while at the same time meeting the producers responsibility to care for the land

NRCS is USDA's technical agency for providing assistance to private land managers, conservation districts, tribes, and other organizations in planning and carrying out conservation activities and programs

NRCS works with many partners to fulfill our mission.

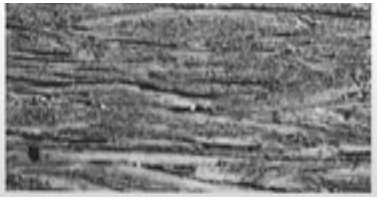




Helping People Help the Land

Hugh Hammond Bennett's list of what soil conservation does. (1940)

1. Holds soil and its contents of plant nutrients in fields, pastures, and woodlands
2. Maintains or increases the supply of beneficial organic matter and organisms in the soil
3. Keeps land productive
4. Stores rainfall in the soil for crop use
5. Increases diversification of crops
6. Increases per acre yields
7. Makes cultivation easier and more efficient
8. Reduces cost of operation and maintenance of farm machinery
9. Increases farm income
10. Reduces waste of rainfall and helps control floods
11. **Reduces the filling of stream channels, ditches, and reservoirs with the debris of erosion**
12. **Reduces stream pollution**
13. **Improves conditions for wildlife and fish**
14. Puts all land into productive use according to adaptability
15. Develops cooperation of people working together on common problems
16. Causes people to love the land and develops appreciation of rural life
17. Encourages people to work together in a neighborly way.

Soil Erosion
Soil Health
Efficient use/storage of water
Diversity
Economics
Flood control
Water quality
Wildlife
Partnerships
Relationships
Human/ Social considerations

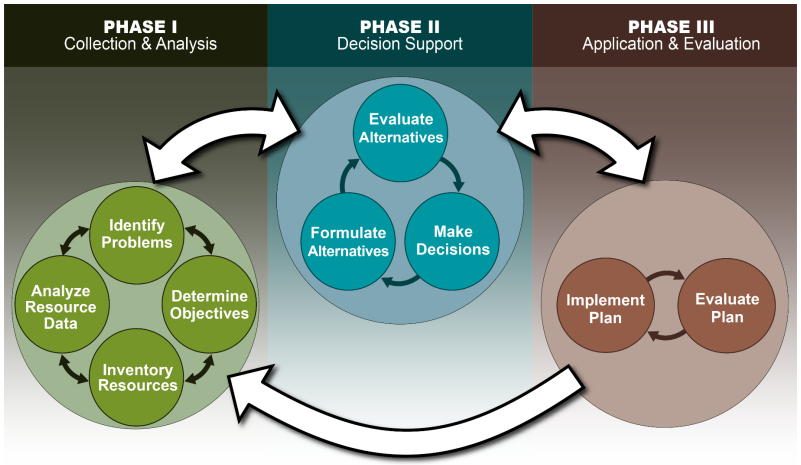


Hugh Hammond Bennet Principles as outlined in his text "Elements of Conservation" dated 1947

- Consider the needs and capabilities of each acre within the plan
- Consider the client's facilities, machinery, and economic situation
- Incorporate the client's willingness to try new practices
- Consider the land's relationship to the entire farm, ranch, or watershed
- Ensure the conservationist's presence out on the land

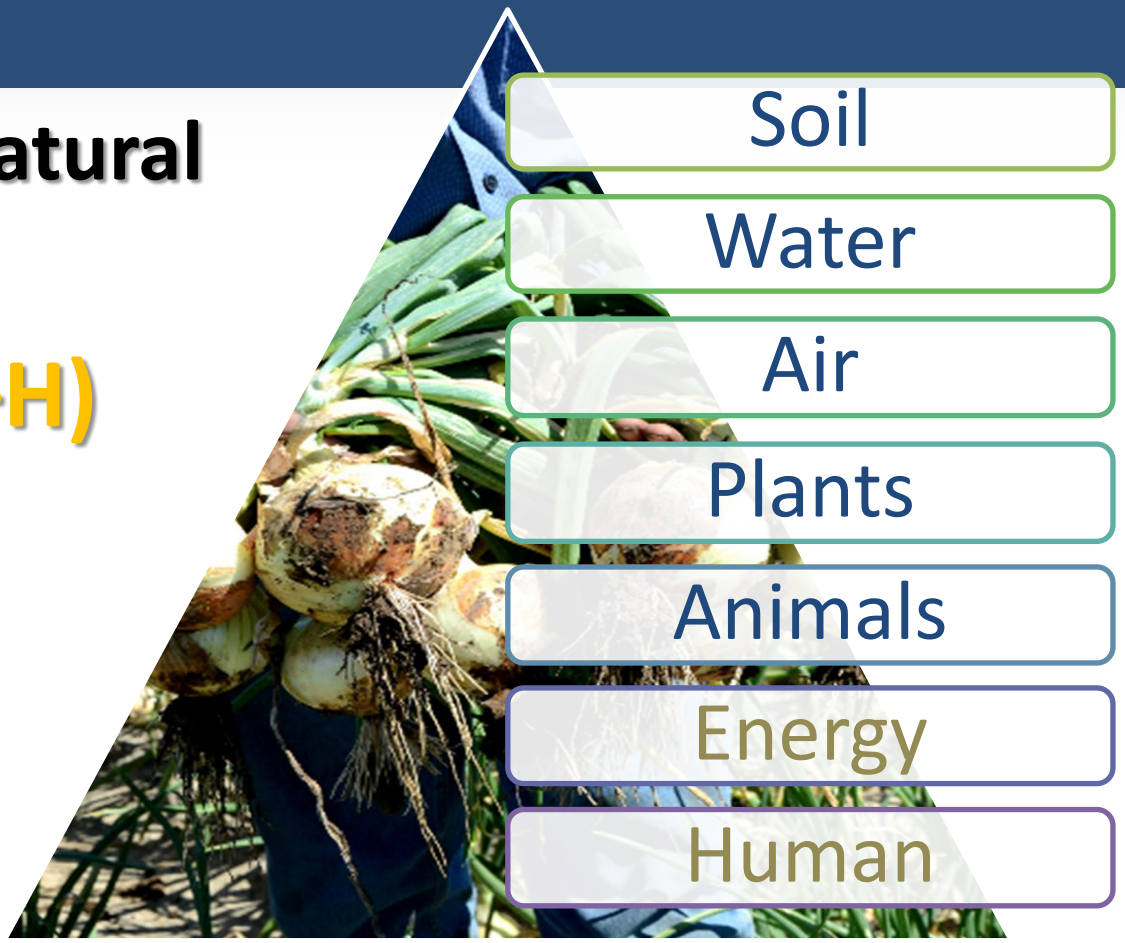
Emphasis: What the land (natural resources) needs, not what the producer wants

- Identify and assess **resource concerns**
  - Site visits, Planning Criteria, assessment tools
- Work with clients to **develop solutions**
  - Alternatives, Conservation practices, discussions with client
- Provide assistance to **implement solutions** on the ground
  - Technical Assistance – site visits, IR's, designs
  - Financial Assistance



What are Natural Resources

(SWAPAE+H)



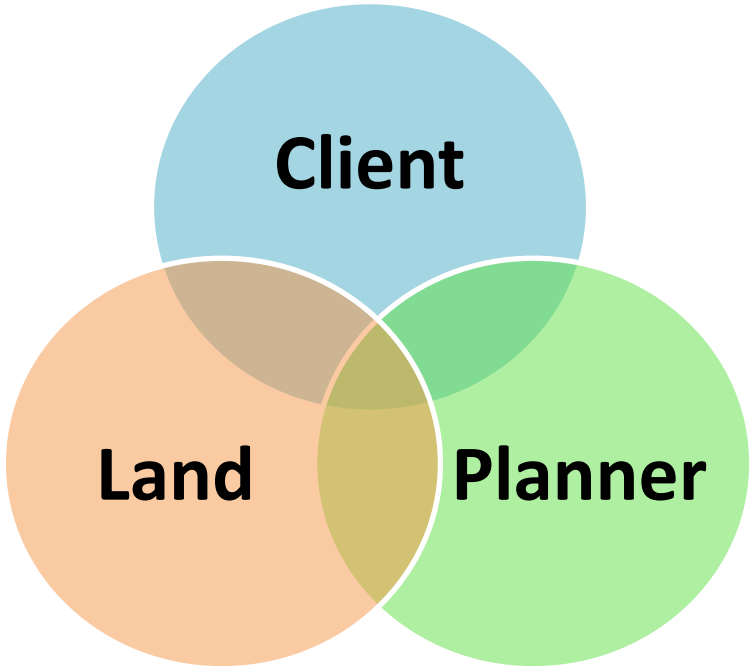
What is a Conservation Plan

A conservation plan is the record of decisions and supporting information for treatment of a unit of land meeting planning criteria for one or more identified natural resource concerns as a result of the planning process.

Desired Future Condition

A quantitative or qualitative expression of an ecological, economic, or social condition one is attempting to achieve. This goal is compared with the predicted outcomes of alternative implementation options.

- Establish relationship between client, planner and Land
  - Client – Planning objectives need to be based on clients needs and values regarding the use, management and treatment of area, history
  - Planner – Experience and knowledge of the area, solutions to problems and ability to influence or motivate client
  - Land - Soil-water-plant-animal interactions
- Planning = Transfer of Knowledge
  - Listen to client – guide them to decision making
  - Landowners put conservation on the ground – we influence them and motivate them.



Clients will make and implement sound decisions if they understand their resources, natural resource concerns and opportunities, and the effects of their decisions.

Our Foundation - Conservation Planning

Conservation Planning – Its what we DO!

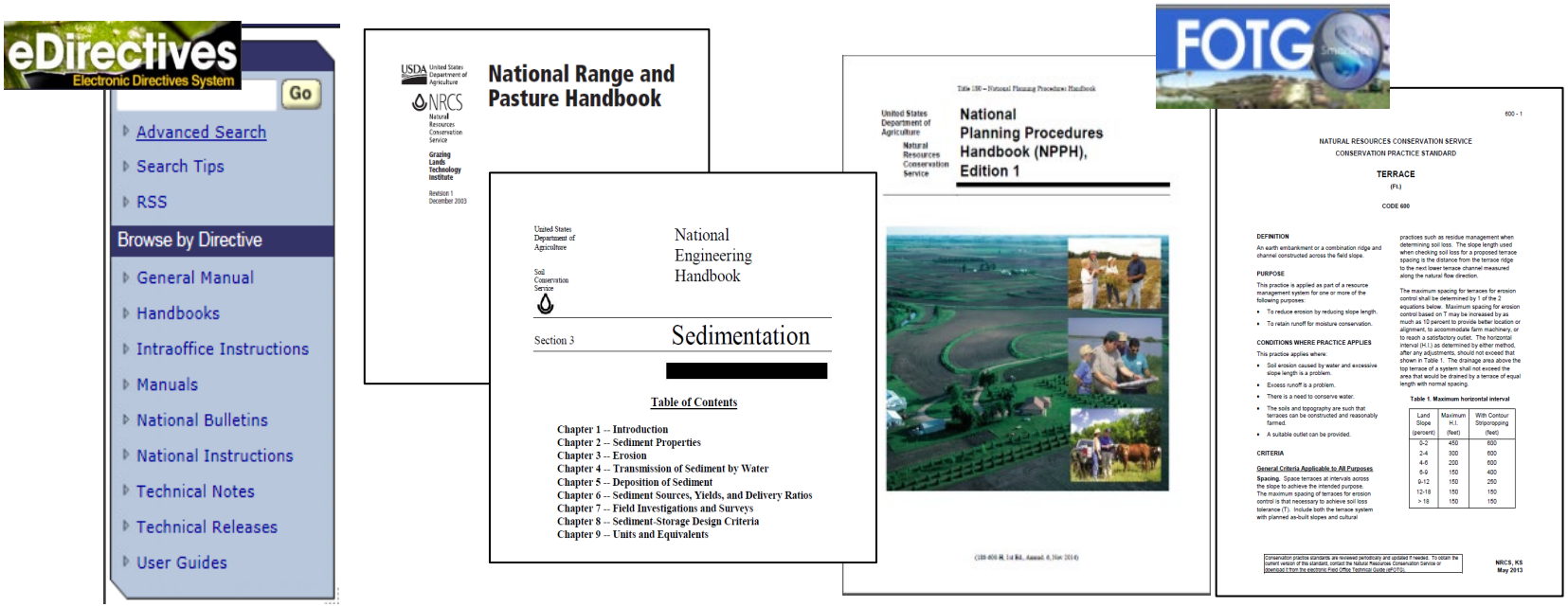
NOT Conservation Planning!

Policy and Guidance for Conservation Planning

Yes, the boring stuff…..

Guidance Resources

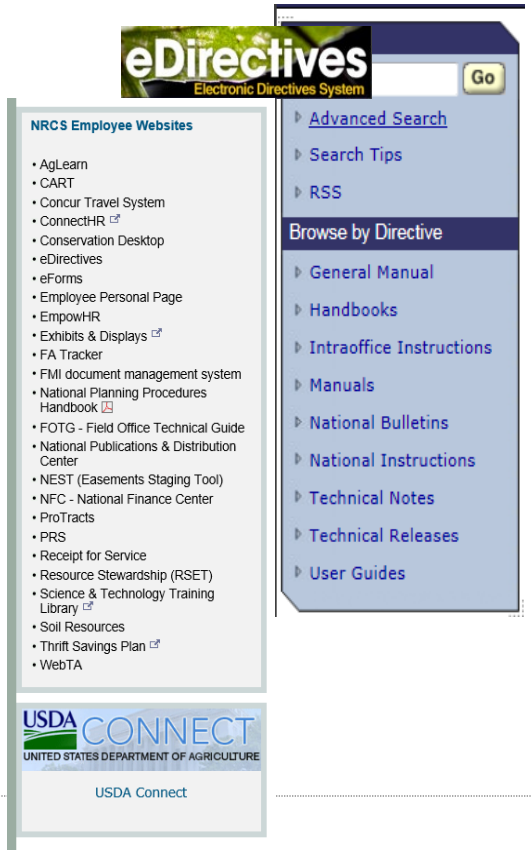
To assist the planner throughout the process, NRCS maintains various policy, manuals, handbooks, and guides.



National Planning Directives

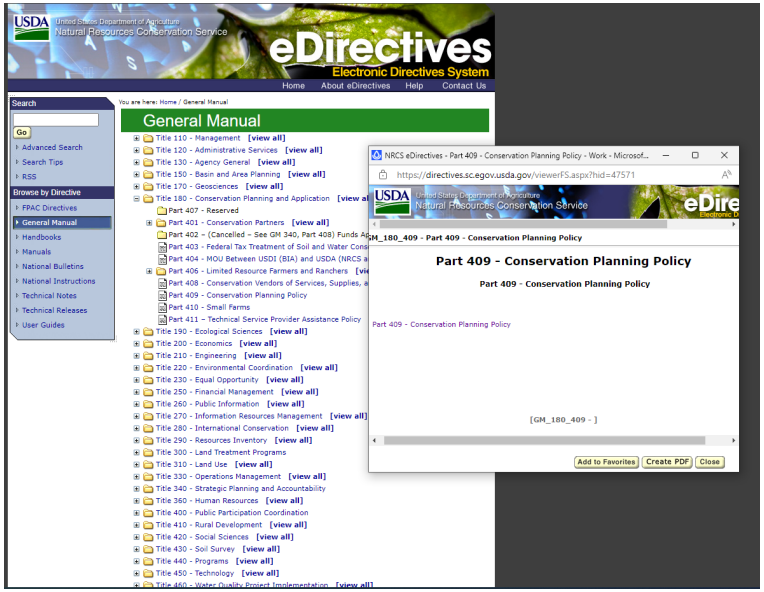
https://www.nrcs.usda.gov/wps/portal/nrcs/asl/national/people/employee/

- Established to help implement legislated laws and regulations
  - Interpret laws to make them more understandable
- Sources of Direction for Conservation Planning
  - Policy (GM 180, 190)
  - Procedure (NPPH)
  - Manuals (FSA Compliance, Programs)
  - Handbooks
  - Technical Guidance (GM450, FOTG)
  - Tools (FOTG, Internal)
  - Program Guidance (Programs Manuals and handbooks)



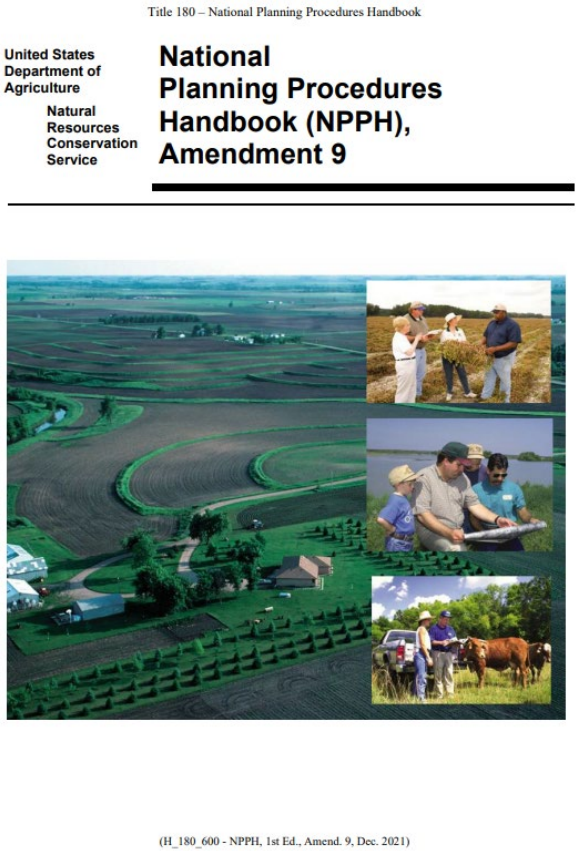
Conservation Planning Policy GM180, Part 409 - Key Points

- Conservation plans are the basis for all assistance NRCS provides to clients
- Purpose - to prevent the degradation of resources and to ensure their sustained use and productivity, while considering the client's economic and social needs.
  - Conservation planning is conducted with the client – In the field
  - Work progressively towards a resource management system (RMS) level of management.
  - Conservation plan is developed and documents the client's selected alternative.



Conservation Planning Policy GM180, Part 409 - Key Points

- Title 180, National Planning Procedures Handbook, Part 600 (180-NPPH-600), provides procedures and guidance on implementing the NRCS conservation planning process.
  - Establishes standards (Handout)
- All plans approved / signed by NRCS designated Level III Planner and Client
  - The signature of the NRCS conservation planner certifies that the conservation plan meets the needs of the client; NRCS conservation planning policy, procedures, and standards; and any applicable program or provision requirements.



Conservation Planning Policy GM180, Part 409 - Key Points

(3) The following persons are required to obtain the Level I, III or IV conservation planner designations as defined in 180-GM-409-409.9.

(i) NRCS employees with conservation planning as a major duty included in their official position description.

(ii) Partner organization or agency employees, including conservation districts, acting on behalf of NRCS and independently assisting customers through the nine-step conservation planning process for developing RMS or progressive conservation plans for NRCS conservation programs.

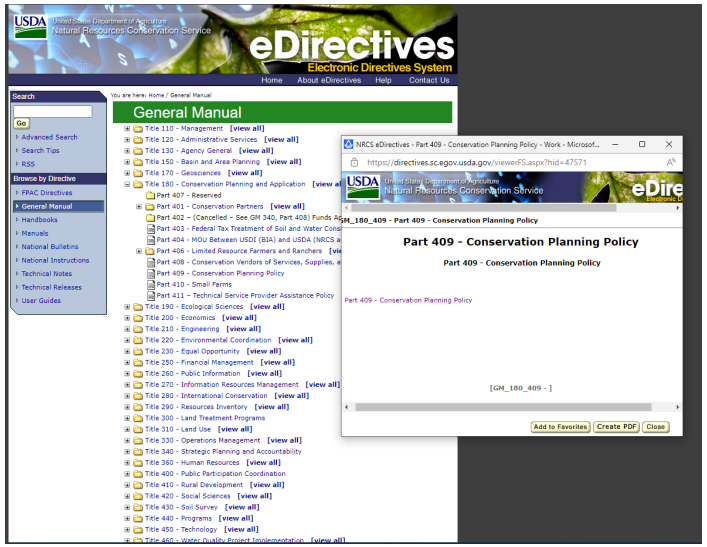
A conservation planner is a person who possesses the necessary skills, training, and experience to implement the NRCS planning process to meet client objectives in solving resource concerns.

Employees/partners will be *designated one of the following roles:*

- ***Level I Conservation Planner***
- ***Level II (Technical Specialist)***
- ***Level III Conservation Planner***

Conservation Planning Policy GM180, Part 409 - Key Points

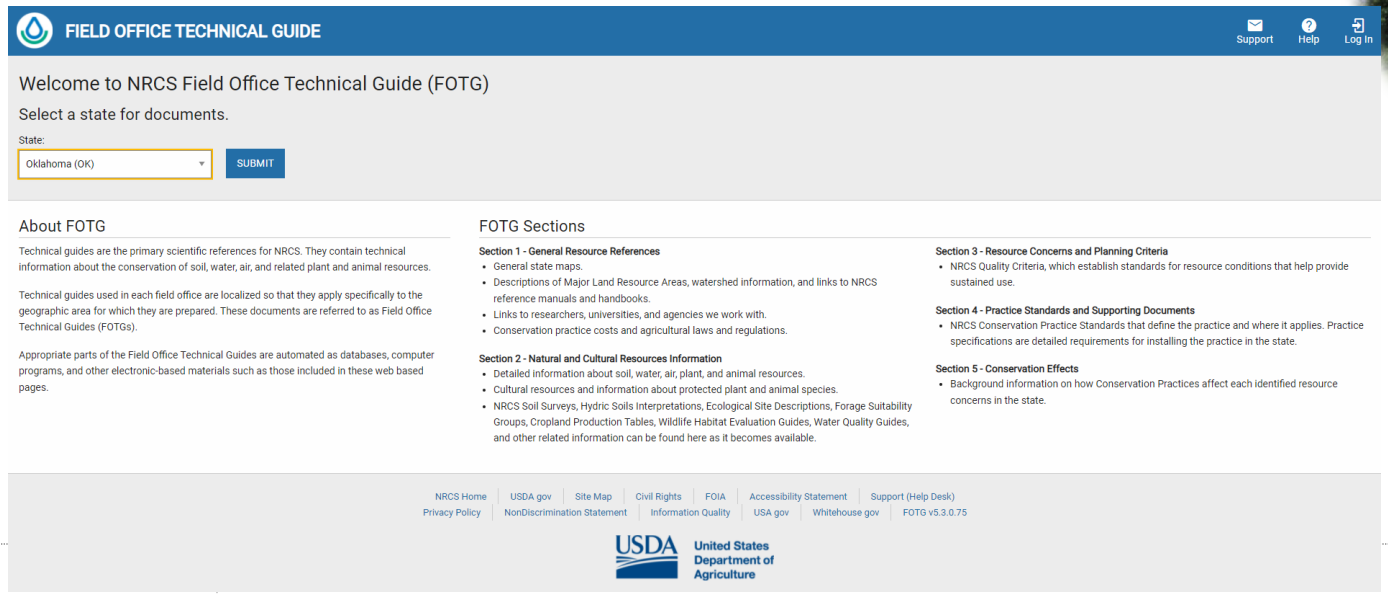
- Policy requires that all conservation planning conducted by NRCS follow guidance in the FOTG.
- All NRCS-designated conservation planners will develop conservation plans that contain conservation practices that meet all NRCS standards and specifications as documented in the FOTG.



The Field Office Technical Guides

The FOTG are the primary technical reference for NRCS and are localized to apply specifically to an identified geographic area.

http://efotg.sc.egov.usda.gov/



The Field Office Technical Guides

The FOTG contains five sections supporting the technical aspects of conservation planning activities as identified below:

- "All certified conservation planners will develop conservation plans that contain conservation practices that meet NRCS standards and specifications as documented in the FOTG". From GM Title 180, Part 409, 409.3 G.

Job Approval Authority

- Applies to all practices
  - Engineering (**NEM Section 210 Part 501)**
  - ECS (**GM 190 Part 417 (state supplement)**
- What is JAA - The certification *granted to an individual* that has demonstrated the appropriate knowledge, skill, and abilities to plan, design, and certify installation of a given conservation practice
- Must be earned – not automatic - After Level I achieved
  - Experience
  - Training
  - Demonstrated competence
- Cannot operate without it and/or outside limits assigned
  - NRCS Policy
  - State Law - Engineering

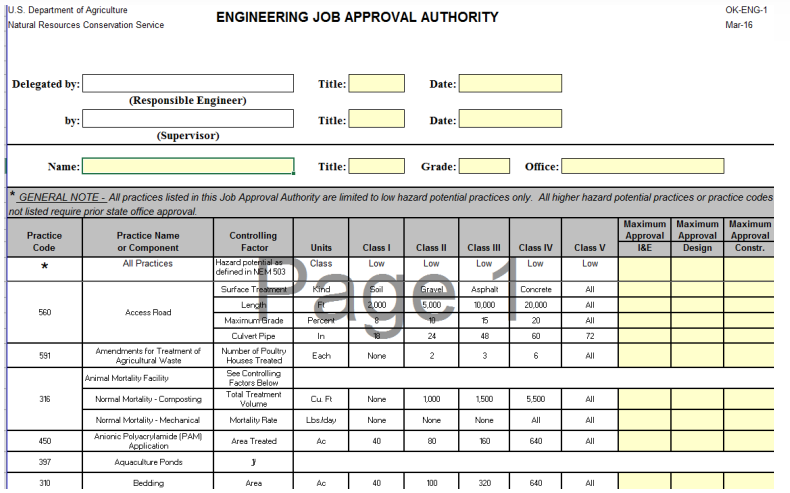
Job Approval Authority

- Ensures practices are:
  - Planned Properly
  - Designed to accepted criteria
  - Constructed / implemented to meet design life and safety requirements

- **Inventory & Evaluation (Planning)**
  - On-site observations, assessment tools
  - Preparation of sound alternative solutions of sufficient intensity for the cooperator to make treatment decisions
- **Design**
  - Developing supporting data, drawings/specifications to ensure that the planned practice will meet the purpose for which it is installed
  - Includes setting specific inspection or monitoring requirements
- **Installation**
  - Confirmation that the practice is installed according to the conservation practice standard, specifications, and certification of practice completion

JAA

- Operate within your JAA
  - Know what you are assigned– don't plan, design or certify for anything not assigned
  - Know CPS standards
  - Only work on CPS you are comfortable with – OK to rely on others



U.S. Department of Agriculture
Natural Resources Conservation Service

ENGINEERING JOB APPROVAL AUTHORITY

OK-ENG-1
Mar-16

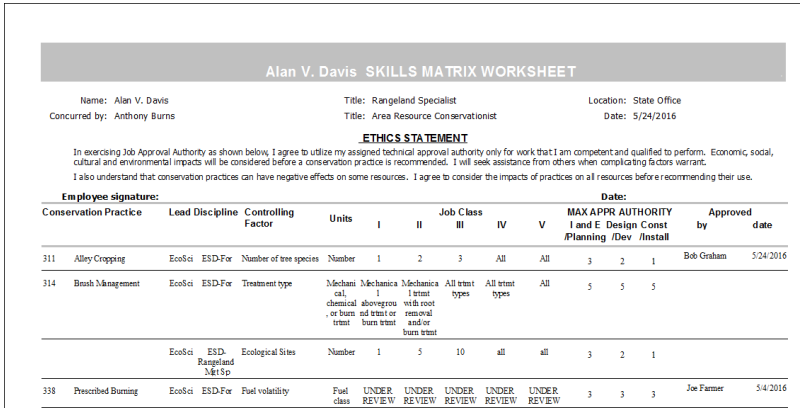
Delegated by: _____ **Title:** _____ **Date:** _____
(Responsible Engineer)

by: _____ **Title:** _____ **Date:** _____
(Supervisor)

Name: _____ **Title:** _____ **Grade:** _____ **Office:** _____

* *GENERAL NOTE - All practices listed in this Job Approval Authority are limited to low hazard potential practices only. All higher hazard potential practices or practice codes not listed require prior state office approval.*

Practice Code	Practice Name or Component	Controlling Factor	Units	Class I	Class II	Class III	Class IV	Class V	Maximum Approval I&E	Maximum Approval Design	Maximum Approval Constr.
*	All Practices	Hazard potential as defined in NEM 503	Class	Low	Low	Low	Low	Low			
560	Access Road	Surface Treatment	Kind	Soil	Gravel	Asphalt	Concrete	All			
		Length	Ft	2,000	5,000	10,000	20,000	All			
		Maximum Grade	Percent	8	10	15	20	All			
		Culvert Pipe	In	18	24	48	60	72			
591	Amendments for Treatment of Agricultural Waste	Number of Poultry Houses Treated	Each	None	2	3	6	All			
316	Animal Mortality Facility	See Controlling Factors Below									
	Normal Mortality - Composting	Total Treatment Volume	Cu. Ft	None	1,000	1,500	5,500	All			
	Normal Mortality - Mechanical	Mortality Rate	Lbs/day	None	None	None	All	All			
450	Anionic Polyacrylamide (PAM) Application	Area Treated	Ac	40	80	160	640	All			
397	Aquaculture Ponds	)									
310	Bedding	Area	Ac	40	100	320	640	All			



Alan V. Davis SKILLS MATRIX WORKSHEET

Name: Alan V. Davis — Title: Rangeland Specialist — Location: State Office
Concurred by: Anthony Burns — Title: Area Resource Conservationist — Date: 5/24/2016

ETHICS STATEMENT

In exercising Job Approval Authority as shown below, I agree to utilize my assigned technical approval authority only for work that I am competent and qualified to perform. Economic, social, cultural and environmental impacts will be considered before a conservation practice is recommended. I will seek assistance from others when complicating factors warrant.

I also understand that conservation practices can have negative effects on some resources. I agree to consider the impacts of practices on all resources before recommending their use.

Employee signature: **Date:**

Conservation Practice		Lead Discipline		Controlling Factor	Units	Job Class I	II	III	IV	V	MAX APPR AUTHORITY I and E /Planning	Design /Dev	Const /Install	Approved by	date
311	Alley Cropping	EcoSci	ESD-For	Number of tree species	Number	1	2	3	All	All	3	2	1	Bob Graham	5/24/2016
314	Brush Management	EcoSci	ESD-For	Treatment type	Mechanical, chemical, or burn trtmt	Mechanical above ground trtmt or burn trtmt	Mechanical trtmt with root removal and/or burn trtmt	All trtmt types	All trtmt types	All	5	5	5		
		EcoSci	ESD-Rangeland Mgt Sp	Ecological Sites	Number	1	5	10	all	all	3	2	1		
338	Prescribed Burning	EcoSci	ESD-For	Fuel volatility	Fuel class	UNDER REVIEW	UNDER REVIEW	UNDER REVIEW	UNDER REVIEW	UNDER REVIEW	3	3	3	Joe Farmer	5/4/2016

Wrap Up

Conservation planners have a great deal of information available to them through policy, manuals, handbooks, the FOTG, bulletins and circulars.

Much of this information can be found in **eDirectives,** however other sources may be on a shelf or in a file cabinet in the field or State office.