

State Specific Training Module for Utah

Purpose of this Module

This module will provide some general information that TSPs need to conduct conservation planning in our state. 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 this state.

Review of State Laws

CNMP State Laws

- Animal Feeding Operations need to be evaluated for proximity to sensitive areas such as wetlands, ditches, and streams
- All CNMP plan documents will be developed through the use of the Manure Management Planner software program.
- There can be no discharge of nutrients to Waters of the State.

Review of State Laws

Engineering in Utah

- For TSP's that plan, design, or check out NRCS practices that are specifically Engineering practices the TSP must follow State of Utah rules and regulations found at:

https://le.utah.gov/xcode/Title58/Chapter22/C58-22_1800010118000101.pdf

- Reference Utah Code 58-22-102

Review of State Laws

Pest Management

- Utah requires anyone applying or recommending restricted use pesticides to be certified.
- Utah Department of Agriculture and Food (UDAF) is the Certifying agent in Utah.
- UDAF has several has several local agents spread across the state to assist you.

Review of State Laws

Pest Management

- To be an effective planner one must be able to use Win-PST
- Win-PST is a windows based program that evaluates risks of the use of pesticides.
- To learn more about Win-PST please contact the Utah State TSP Coordinator.

Review of State Laws

Water Rights in Utah

- Utah like the majority of the Western United States operates on the “First in Time, First in Right” rule.
- When addressing any resource issue involving water one must inventory water rights
- Typical Conservation Practices involved would include but not be limited to: Any Irrigation related practice, spring development, and any water impoundment

Review of State Laws

Cultural Resources

- Any ground disturbing practice must be evaluated by a cultural resource specialist or permitted archeologist.
- State Historic Preservation Office (SHPO) consultation must be completed prior to ground disturbance (30 days).

Review of State FOTG Requirements

All Technical Service Providers should be familiar with and use the State of Utah Field Office Technical Guide (FOTG). The FOTG has all of Utah's Conservation Practice Standards and Specifications in Section 4.

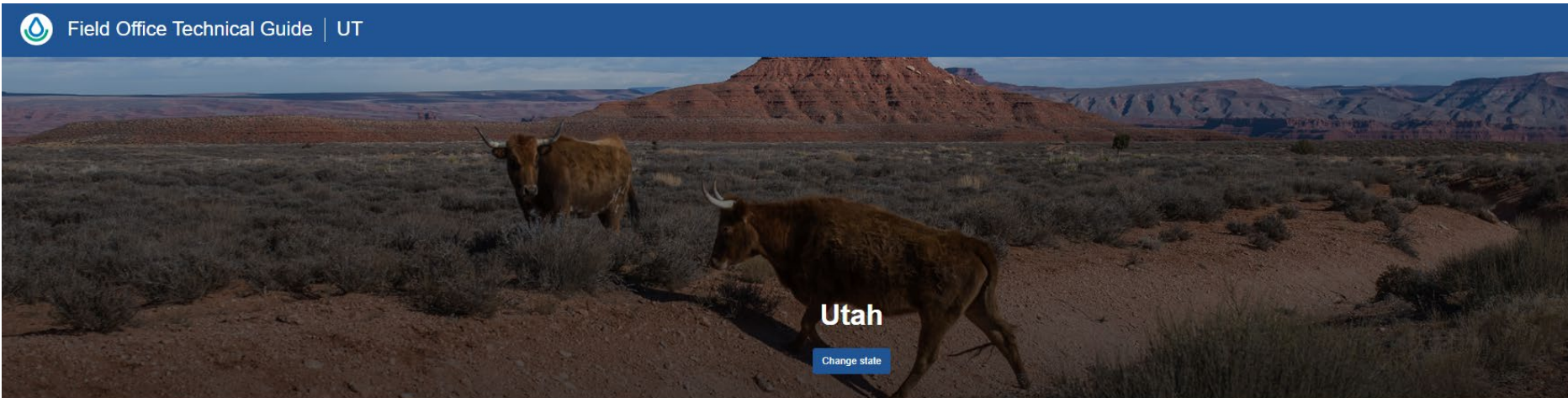
Review of Important Resource Issues

Energy

- Energy as a resource concern is often overlooked
- Energy conservation opportunities exist in almost every operation.
- Energy opportunities are especially prevalent on aging irrigation systems.

Review of Resource Issues in Utah

- Soil Water Air Plants Animals + Cultural + Energy (SWAPA+C+E) Resource Concerns



Field Office Technical Guide | UT

Document Tree Document Search

Keyboard Navigation Instructions

- Section 1 - General Resource References
- Section 2 - Natural and Cultural Resources Information
- Section 3 - Resource Concerns and Planning Criteria
 - Conservation Guidance Documents
 - CPA, DIA, CEMA, Technical Criteria
 - Legislated Programs
 - Resource Concerns and Planning Criteria**
- Section 4 - Practice Standards and Supporting Documents

Resource Concerns and Planning Criteria

★ Featured

Document Title	Type	Pub Date	End Date	Subject	Keywords	Abstract
<input type="checkbox"/> National Resource Concern List and Planning Criteria		2023-04-10	--	Conservation Effects, Conservation Planning, Quality Criteria	conservation planning, planning criteria	NRCS nationally approved resource concerns list and planning criteria released March 2023
<input type="checkbox"/> National Resource Concerns List and Planning Criteria		2023-04-10	--	Conservation Effects, Conservation Planning, Quality Criteria	conservation planning	NRCS nationally approved resource concerns and planning criteria list released March 2023

Review of Important Resource Issues

Pollinator

- Farm Bill guides NRCS to consider pollinator conservation in all planning
- 35% of crops require a pollinator, equaling \$27 billion of crops in the US alone
- Honeybees and native bees are in decline, due to a variety of reasons (disease, parasites, habitat loss)
- About 1000 species of native bees in Utah
- Native bees provide high value services to many crops, including free pollination and increased crop yield
- Keystone species for ecosystem services (wild plant reproduction, fruit /nut/seed production, food for other wildlife)

Review of Important Resource Issues

Pollinator

1. Protection from pesticide
 - a) Reduce or eliminate use
 - b) Follow labels
 - c) Beware of drift
2. Providing or conserving nesting sites
 - a) 70% ground nesting, 30% wood cavity nesting
 - b) Manage existing sites or provide artificial nests
3. Providing or conserving floral resources
 - a) Season-long diverse bloom
 - b) Native plant species are best

Review of Cropland Issues in Utah (Irrigated, water quantity)

- Irrigation efficiency needs to be addressed (water quantity)
- Typical practices include:
 - 442 Sprinkler System
 - 441 Micro Irrigation
 - 449 Irrigation Water Management
 - 533 pumping plant
 - 587 Structure for Control
 - 443 Surface Irrigation
 - 436 Irrigation Reservoir

Review of Cropland Issues in Utah

Irrigated Soil Health

- Soil Erosion induced primarily by flood irrigation
- Soil Compaction in under irrigation caused by excessive tillage
- Poor Soil Organic content again caused by excessive tillage
- Typical Practices include:
 - 449 Irrigation Water Management
 - 340 Cover Crops
 - 329 Reduced Tillage

Review of Cropland Issues in Utah

Irrigated Plant Productivity

- Plans should be developed to control plant pests
- Resistance to pesticides needs to be evaluated
- Typical Practices include:
 - 595 Integrated Pest Management
 - 315 Herbaceous Weed Control (corner and waste areas)
 - 328 Conservation Crop Rotation

Review of Cropland Issues in Utah Irrigated Grazing Systems

- Most cropland is in forage production.
- There is potential for highly productive pastures.
- Small Acreage farms are ideal for small scale livestock production
- Typical Practices:
 - 528 Prescribe Grazing (MIG)
 - Biomass and Forage Planting
 - Forage Harvest Management

Review of Cropland Issues in Utah Irrigated Economics

- Special Attention should be paid to economic returns on investments when expensive irrigation infrastructure is being considered as a conservation alternative.
- Analysis sheet and runs should be done

Review of Cropland Issues in Utah

Dry Land Soil Health

- Soil Erosion is a primary concern when dealing with Dry Land farming.
- Both Wind and Water induced erosion (know WEPS or RUSLE2)
- Declining Fertility over time should be evaluated
- Typical Practices:
 - Reduced Tillage
 - Conservation Crop Rotation

Review of Important Resource Issues

Pasture/Rangeland Issues

- Soil Erosion – Tools used to determine erosion on pasture & rangeland: SVAP, Pasture Conditioning Score sheet, Rangeland Health Assessment, Rangeland Trend Worksheet.
- Conservation Practices to address soil erosion on range and pasture:
 - 528 – Prescribed Grazing
 - 550 – Range Planting
 - 512 – Pasture and Hay Planting

Review of Important Resource Issues, Cont.

Pasture/Rangeland Issues – Continued

- Soil Quality Degradation - Tools used to determine erosion on pasture & rangeland: Pasture Conditioning Score sheet, RUSLE2 or WEPS.
- Conservation Practices to address soil quality degradation on range and pasture:
 - 528 – Prescribed Grazing
 - 511 – Forage Harvest Management

Review of Important Resource Issues, Cont

Pasture/Rangeland Issues – Continued

- Water Resources – Water Quality and Quantity – see irrigation concerns – usually related to pasture.

Review of Important Resource Issues, Cont

Pasture/Rangeland Issues (Cont.)

Plant Resource Concerns:

- Degraded plant condition – tools to use to determine plant condition: Pasture Conditioning Score sheet, Rangeland Health Assessment, Rangeland Trend worksheet, Similarity Index.

Conservation practices that can be used to address this concern:

- 528 – Prescribed Grazing
- 382 – Fencing
- 512 – Forage and Biomass Planting
- 550 – Range Planting

Review of Important Resource Issues, Cont

Pasture/Rangeland Issues (Cont.)

Animal Resource Concerns:

- Inadequate Habitat for Fish & Wildlife, Livestock Production Limitation, Inadequate livestock water. Tools to determine: SVAP2, Habitat Suitability Index, Feed/Forage Balance worksheet,
- Practices used to address concern:
 - 645 – Upland Wildlife Habitat Management
 - 528 – Prescribed Grazing
 - 614 – Watering Facility
 - 649 – Structures for Wildlife
 - 382 - Fence
 - 550 – Range Planting
 - 512 – Forage and Biomass Planting

Review of Important Resource Issues, Cont

Threatened & Endangered species Issues:

- Habitat Degradation
- Imbalances among populations
- Habitat fragmentation
- Human disturbances
- Livestock impacts
- Human encroachment

Practices used to address T&E concerns:

- 645 - Upland Wildlife Habitat Management
- 314 - Brush Management
- 550 - Range Planting
- 512 – Forage and Biomass Planting
- 612 - Tree and Shrub Establishment.

Utah's list of threatened and endangered species are in the FOTG section 2 at the following link: <https://efotg.sc.egov.usda.gov/#/state/UT/documents/section=2&folder=15106>

Review of Important Resource Issues, Cont

Riparian concerns

- Stream bank stability, water quality, erosion control, temperature, turbidity, species composition along stream bank. (319 list on State of Utah website.) Tools to use to determine status: SVAP2.

Practices to address riparian concerns:

- 580 – Stream bank & shoreline protection
- 395 - Stream habitat improvement management
- 528 - Prescribed grazing
- 472 – Access control (use exclusion)
- 612 - Tree and shrub establishment

Review of Forestland Issues in Utah

1. Soil Erosion (Sheet and Rill, and Wind)
 - Visual Inspection of site for stability and no active erosion that is maintained with >80% surface organic residue per;
 - Mulching (484)
 - Woody Residue Treatment (384)
 - Critical Area Planting (342)

2. Soil Erosion (Concentrated Flow)
 - Observe that classic gullies are not present and if so are measured and managed for per;
 - Access Control (472)
 - Grade Stabilization Structure (410)

Review of Forestland Issues in Utah

3. Soil Erosion (Excessive Bank Erosion)

- Observe that eroding banks are present within and adjacent to site, and evaluate with either SVAP2 or PFC
 - For shorelines and water conveyance channels; banks are stable or commensurate with normal geomorphological processes AND If bank erosion is present, it is beyond the client's control or commensurate with normal geomorphological processes AND For stream banks; SVAP2 bank condition element score ≥ 5 OR PFC functional rating = Proper Functioning, per;
 - Access Control (472)
 - Riparian Forest Buffer (391)
 - Tree and Shrub Establishment (612)

4. Soil Quality Degradation (Subsidence)

- Generally not a forest land use resource concern in Utah

Review of Forestland Issues in Utah

5. Soil Quality Degradation (Compaction)

- Observe that current or activities resulting in compaction negatively impact soil properties or plant condition, per;

- Access Control (472)
- Forest Trails and Landing (655)
- Woody Residue Treatment (384)

6. Soil Quality Degradation (Organic Matter Depletion)

- Observe that current or activities resulting in depletion of organic matter that ground cover meets state criteria specific to ecological site OR Soil organic matter is managed to meet Client objectives, per;

- Woody Residue Treatment (384)

Review of Forestland Issues in Utah

7. Soil Quality Degradation (Concentration of Salts or other chemicals)
 - Not a forest land use resource concern in Utah

8. Excess Water (Ponding, Seasonal High Water Table, Seeps, and Drifting Snow)
 - Observe that classic gullies are not present and if so are measured and managed for per conservation practice ;
 - Tree and Shrub Seedling Establishment (612)
 - Windbreak and Shelterbelt Establishment (380)
 - Hedgerow Planting (

9. Insufficient Water (Inefficient moisture management)
 - Generally not a forest land use resource concern in Utah

Review of Forestland Issues in Utah

10. Insufficient Water (Inefficient use of irrigation water)
 - Generally not a forest land use resource concern in Utah

11. Water Quality Degradation (Excess nutrients in surface and ground water)
 - Generally not a forest land use resource concern in Utah

12. Water Quality Degradation (Pesticides transported to surface and ground water)
 - Generally not a forest land use resource concern in Utah

Review of Forestland Issues in Utah

13. Water Quality Degradation (Excess pathogens and chemicals from manure, biosolids or compost applications)
 - Generally not a forest land use resource concern in Utah

14. Water Quality Degradation (Excessive salts in surface and ground water)
 - Generally not a forest land use resource concern in Utah

Review of Forestland Issues in Utah

15. Water Quality Degradation (Petroleum, Heavy metals, or other pollutants are transported to receiving waters)
 - Observe that transport of pollutants is not occurring in active treatment areas where refueling and maintenance service areas, and landings exist and if so are managed for per;
 - Forest Trails and Landings (655)
16. Water Quality Degradation (Excessive sediment in surface water)
 - Observe that there are no untreated sources of erosion AND streams or shoreline are not on or adjacent to site. Upslope treatment and buffer practices address concentrated flows to water bodies AND Heavy use areas are stable AND SVAP2 - bank condition ≥ 5 OR PFC functional rating = Proper Functioning per;
 - Mulching (484)
 - Access Control(372)
 - Access Road (560)
 - Critical Area Planting (472)
 - Woody Residue Treatment (384)
 - Riparian Forest Buffer (391)
 - Riparian Herbaceous Buffer (390)

Review of Forestland Issues in Utah

17. Water Quality Degradation (Elevated water temperature)
 - Water courses on or adjacent to the site are not designated by a State Agency as a temperature impairment OR water course temperature is not a client concern. SVAP2 - riparian area quality element score ≥ 5 AND SVAP2 - canopy cover element score ≥ 6 OR PFC functional rating = Proper Functioning OR Existing conservation practices are in place to address water temperature and managed for per;
 - Riparian Forest Buffer (391)
 - Seedling and Tree Establishment (612)

18. Degraded Plant Condition (Undesirable plant productivity and health)
 - Observe and determine with inventory plots and transects if plant productivity, vigor and/or quality negatively impacts other resources or does not meet yield potential due to improper fertility, management or plants not adapted to site. This includes addressing pollinators and beneficial insects per;
 - Forest Stand Improvement (666)
 - Seedling and Tree Establishment (612)

Review of Forestland Issues in Utah

19. Degraded Plant Condition (Inadequate structure and composition)
 - Observe that plant communities have insufficient composition and structure to achieve ecological functions and management objectives. This includes degradation of wetland habitat, targeted ecosystems, or unique plant communities. Ecological Site / Range Site Descriptions AND Inventory plots and transect analyses determine if plant communities contain adequate diversity, composition and structure to support desired ecological functions and managed per;
 - Forest Stand Improvement (666)
 - Riparian Forest Buffer (391)
 - Seedling and Tree Establishment (612)
20. Degraded Plant Condition (Excessive plant pest pressure)
 - Observe that excessive pest damage to plants including that from undesired plants, diseases, animals, soil borne pathogens, and nematodes. This concern addresses invasive plant, animal and insect species. Manage to where pest damage to plants are below economic or environmental thresholds or client-identified criteria AND Plant pests, including noxious and invasive species are managed to meet client objectives per;
 - Forest Stand Improvement (666)
 - Integrated Pest Management (595)
 - Woody Residue Treatment (384)

Review of Forestland Issues in Utah

21. Degraded Plant Condition (Wildfire hazard, excessive biomass accumulation)
- Observe that the kinds and amounts of fuel loadings - plant biomass - create wildfire hazards that pose risks to human safety, structures, plants, animals, and air resources. Where hazardous fuels are managed and reduced to meet minimum specifications for defensible space irrespective of forest type, or reduce the probability of uncharacteristic fire in forest types that have unprecedented accumulation of fuels per;
 - Forest Stand Improvement (666)
 - Fuel Break (383)
 - Fire Break (394)
 - Brush Management (314)
 - Prescribed Burning (338)

Review of Forestland Issues in Utah

22. Inadequate Habitat for Fish and Wildlife (Habitat Degradation)

- Observe that the quantity, quality or connectivity of food, cover, space, shelter and/or water is inadequate to meet requirements of identified fish, wildlife or invertebrate species, Species-specific or guild targeted assessment, or habitat assessment rating ≥ 0.5 AND (when surface stream present) SVAP2 score ≥ 7 OR PFC rating is "Proper Functioning "Species-specific or guild targeted assessment OR it is demonstrated that the quality, quantity and connectivity of all life requirements (food, water, cover, space, shelter) are met to support stable populations of the species of interest or guild of interest per;
 - Forest Stand Improvement (666)
 - Riparian Forest Buffer (391)
 - Riparian Herbaceous Buffer (390)

Review of Forestland Issues in Utah

23. Livestock Production Limitation (Inadequate feed and forage)
 - In the case of grazed forests, observe that feed and forage quality or quantity is inadequate for nutritional needs and production goals of the kinds and classes of livestock. Livestock forage, roughage and supplemental nutritional requirements are addressed, Client input / planner observation Livestock Forage-Animal Balance Worksheet, and managed per;
 - Forest Stand Improvement (666)
 - Brush Management (314)
 - Prescribed Burning (338)
24. Livestock Production Limitation (Inadequate livestock shelter)
 - Generally not a forest land use resource concern in Utah
25. Livestock Production Limitation (Inadequate livestock water)
 - Generally not a forest land use resource concern in Utah
26. Livestock Production Limitation (Inadequate livestock water)
 - Generally not a forest land use resource concern in Utah

Review of Forestland Issues in Utah

26. Inefficient Energy Use (Equipment and Facilities)
 - Generally not a forest land use resource concern in Utah
27. Inefficient Energy Use (Equipment and Facilities)
 - Generally not a forest land use resource concern in Utah
28. Air Quality Impacts (Emissions of particulate matter, PM and PM precursors)
 - Observe the direct emissions of particulate matter - dust and smoke -, as well as the formation of fine particulate matter in the atmosphere from other agricultural emissions - ammonia, NO_x, and VOCs - cause multiple environmental impacts, such as:- The unintended movement of particulate matter - typically dust or smoke - results in safety or nuisance visibility restriction- The unintended movement of particulate matter and/or chemical droplets results in unwanted deposits on surfaces- Increased atmospheric concentrations of particulate matter can impact human and animal health and degrade regional visibility
 - Forest Stand Improvement (666)
 - Brush Management (314)
 - Prescribed Burning (338)

Review of Forestland Issues in Utah

29. Air Quality Impacts (Emissions of greenhouse gases, GHG)
 - Generally not a forest land use resource concern in Utah

30. Air Quality Impacts (Emissions of ozone precursors)
 - Generally not a forest land use resource concern in Utah

31. Air Quality Impacts (Objectionable odors)
 - Generally not a forest land use resource concern in Utah

Review of Wetland Concerns in Utah

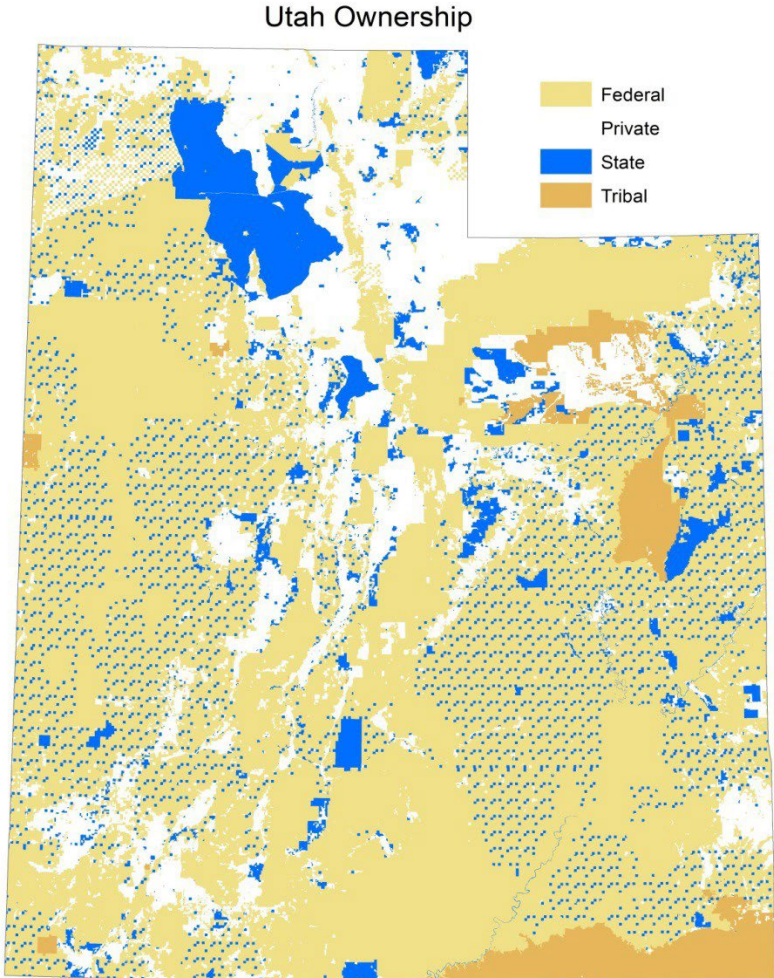
Wetland concerns – Any sort of hydrologic or vegetative modification (see below) which will affect the proper functioning condition of the wetland.

- Wetland guidance comes from the 1985 Food Security Act. Producers will comply with this act so that they are eligible for farm subsidies.
- Producers work with FSA and file form AD1026 if they plan to modify any land, such as draining, land leveling, filling, dredging, land clearing or excavation that has not been evaluated for the presence of wetlands by NRCS.
- A list of certified wetland delineators can be found in the FOTG, Section 3, Legislated Programs and Job Approval Authority.

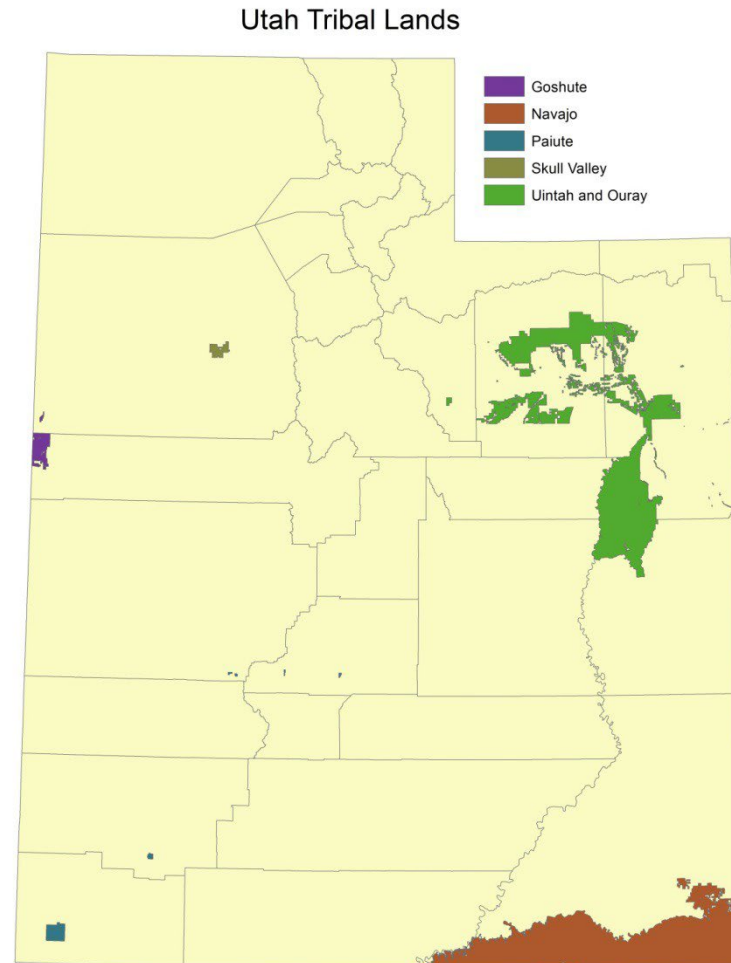
Review of Wetland Concerns in Utah

- Additional Resource concerns: water quality, wildlife habitat and water quantity.
- Practices that can be used to address these concerns:
 - 657 - Wetland Restoration
 - 659 - Wetland Enhancement
 - 646 - Shallow Water Development
 - 644 - Wetland Wildlife Management

Review of Major Land Ownership



Review of Native American Lands



**Take special note
of planning
activities on or
around Tribal
Lands**

NRCS Utah Service Center Boundaries



Expected TSP Workflow

- The State Resource Conservationist (SRC) will be responsible for reviewing TSP conservation planning for the National Planner Certification.
- Subsequent conservation plans will be reviewed by the District Conservationist (DC) at the local USDA Service Center.
- The SRC will conduct plan reviews for TSP planner certification renewals.
- TSPs will work with the local District Conservationist to make sure the proper environmental evaluations (NRCS.CPA.52) are completed.

Non-Discrimination Statement

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at [How to File a Program Discrimination Complaint](#) and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

USDA is an equal opportunity provider, employer, and lender.

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 *Utah 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