



Ranking Criteria for Pennsylvania Natural Resources Conservation Service (NRCS) Programs

Individuals or entities may submit an application for participation in NRCS Programs. The State Conservationist, in consultation with the State Technical Committee and Local Work Groups, has developed ranking criteria to prioritize and subsequently fund applications addressing priority natural resource concerns.

The State Conservationist will establish batching periods and select the highest ranked applications for funding, based on applicant eligibility and the NRCS ranking process. NRCS will use the Conservation Assessment Ranking Tool (CART) for all program ranking.

The Conservation Assessment Ranking Tool (CART) is designed to assist NRCS conservation planners as they assess site vulnerability, existing conditions, and identify potential resource concerns on a unit of land. CART results are then used to support conservation planning activities for the client. CART also captures this information to prioritize programs and report outcomes of NRCS investments in conservation.

CART is a decision support system designed to provide a consistent, replicable framework for the conservation planning process based on geospatially referenced information, client provided information, field observations as appropriate, and planner expertise. Site evaluations for existing management and conservation efforts are then compared to the quality criteria threshold to determine what level of conservation effort is needed to address resource concerns on the participant's land.

In general, resource concerns fall into one of three categories for the assessment method used to assess and document a resource concern:

- Client Input/Planner Observation
- Procedural/Deductive
- Predictive

Client Input/Planner Observation: A streamlined list of options will be presented to the planner to document the client input and/or planner observation of present resource concerns. These observations will then be compared to the quality criteria threshold. Most of the Client Input or Planner Observation resource concerns will have an established CART system threshold. If the existing condition choice is below the threshold, then the assessment threshold is not met.

Procedural/Deductive: A large group of the remaining resource concerns fall into this category and usually reference a tool to assist with a determination or have a list of inventory-like criteria in the assessment. Due to the local variability in state tools, these choices will be broad in nature to allow states to more carefully align them with state conditions. As above, these have a set threshold but they may vary.

Predictive: The remaining group of resource concerns are assessed using a type of predictive interactive model simulation. The CART systems attempt to replicate the outcomes related to the assessment threshold being met or not compared to the model outputs. Most of these have variable thresholds related to the intrinsic site conditions which reflect significant impacts on the model outputs.

After identifying resource concerns and answering existing condition questions, planned conservation practices and activities can be added to the existing condition to determine the state of the management system. Supporting practices may be necessary to support the primary conservation practices and activities and will be identified as necessary, but do not add conservation management points to the total.

If the client is interested in financial assistance, CART will directly and consistently transfer inventory and assessment information, along with client decisions related to conservation practice adoption, to the ranking tool to avoid duplication, increase prioritization on critical areas based on geospatial priorities and site-specific data, and provide better outcomes and a framework for continuous improvement.

CART will identify applicable financial assistance ranking pools to provide the most advantageous situation for the client and to help planners prioritize workload toward those clients who are most likely to receive funding.

CART Ranking Criteria will use the following guiding principles:

- Degree of cost-effectiveness of the proposed conservation practices;
- Magnitude of the environmental benefits resulting from the treatment of national priorities;
- Reflecting the level of performance of proposed conservation practices;
- Magnitude of the environmental benefits resulting from the treatment of priority resource concerns reflecting the level of performance of proposed conservation practices;
- Treatment of multiple resource concerns; and
- Compliance with Federal, state, local or tribal regulatory requirements with regards to natural resources.

CART will utilize a set of National Ranking Templates created by National Program Managers for all NRCS programs and initiatives. The National Ranking Templates contain four parameters that will be customized for each program to reflect the national level ranking priorities. The four parameters are:

1. **Land Uses** - NRCS has developed land use designations to be used by planners and modelers at the field and landscape level. Land use modifiers more accurately define the land's actual use and provide another level of specificity and help denote how the land is managed. Land use designations and modifiers are defined in GM180, Part 600 National Planning Procedures Handbook.
2. **Resource Concerns** - An expected degradation of the soil, water, air, plant, or animal resource base to the extent that the sustainability or intended use of the resource is impaired. Because NRCS quantifies or describes resource concerns as part of a comprehensive conservation

planning process, that includes client objectives, human and energy resources are considered components of the resource base.

3. **Practices** - A specific treatment, such as a structural or vegetative measure, or management technique, commonly used to meet specific needs in planning and implementing conservation, for which standards and specifications have been developed.
4. **Ranking Component Weights** – A set of five components that comprise the ranking score for an individual assessed practice schedule. The components include vulnerability, planned practice points, program priorities, resource priorities, and efficiency. The points for vulnerability, planned practice points, and efficiency are garnered from the assessment portion of CART.

Pennsylvania NRCS created state specific ranking pools from the parameters established in the National Ranking Templates. Ranking pool customization allows states to focus funding on priority resource concerns and initiatives identified by the State Technical Committee and Local Work Groups.

The state ranking pools contain a set of questions that includes the following sections – applicability, category, program questions, and resource questions. Program participants will be considered for funding in all applicable ranking pools by program. This will allow more for participants to receive financial assistance.

CART Ranking Pools are customized to incorporate locally led and partner input and will evaluate the participant's assessed practice schedule for five main areas:

1. **Vulnerability** - Site vulnerability is determined by subtracting the existing condition and existing practice scores from the thresholds.
2. **Planned Practice Effects** - The planned practice score will be based on the sum of the planned practice on that land unit which address the resource concern. These two scores will be weighted by a ranking pool to address the resource concerns prioritized by that ranking pool.
3. **Resource Priorities** - National and State Program Priorities are set through the Farm Bill, Secretary and Chief Priorities and Locally Led Input from Local Work Groups and State Technical Committee which address land and resource considerations.
4. **Program Priorities** - National and State Program Priorities are set through the Farm Bill, Secretary and Chief Priorities and Locally Led Input from Local Work Groups and State Technical Committee which address program purposes.
5. **Cost Efficiency** – Summation of Planned Practice Points divided by the log of the summation of Average Practice Cost.

The 2018 Farm Bill requires that NRCS dedicate financial assistance dollars in the following categories:

Livestock – 50%

Source Water Protection – 10%

Wildlife – 10%

Socially Disadvantaged Farmers or Ranchers – 5%

Beginning Farmers or Ranchers – 5%

The following table lists the 47 Resource Concerns NRCS utilizes during the Conservation Planning process. (added the chart from the CART 1.0 attachment)

Categories	NRCS Resource Concerns
Soil	1. Sheet and rill erosion
	2. Wind erosion
	3. Ephemeral gully erosion
	4. Classic gully erosion
	5. Bank erosion from streams, shorelines, or water conveyance channels
	6. Subsidence
	7. Compaction
	8. Organic matter depletion
	9. Concentration of salts or other chemicals
	10. Soil organism habitat loss or degradation
	11. Aggregate instability
Water	12. Ponding and flooding
	13. Seasonal high water table
	14. Seeps
	15. Drifted snow
	16. Surface water depletion
	17. Groundwater depletion
	18. Naturally available moisture use
	19. Inefficient irrigation water use
	20. Nutrients transported to surface water
	21. Nutrients transported to groundwater
	22. Pesticides transported to surface water
	23. Pesticides transported to groundwater
	24. Pathogens and chemicals from manure, biosolids, or compost applications transported to surface water
	25. Pathogens and chemicals from manure, biosolids, or compost applications transported to groundwater
	26. Salts transported to surface water
	27. Salts transported to groundwater
	28. Petroleum, heavy metals, and other pollutants transported to surface water
	29. Petroleum, heavy metals, and other pollutants transported to groundwater
	30. Sediment transported to surface water
	31. Elevated water temperature
Air	32. Emissions of particulate matter (PM) and PM precursors
	33. Emissions of greenhouse gasses (GHGs)
	34. Emissions of ozone precursors
	35. Objectionable odors
	36. Emissions of airborne reactive nitrogen
Plants	37. Plant productivity and health
	38. Plant structure and composition

	39. Plant pest pressure
	40. Wildfire hazard from biomass accumulation
Animals	41. Terrestrial habitat for wildlife and invertebrates
	42. Aquatic habitat for fish and other organisms
	43. Feed and forage imbalance
	44. Inadequate livestock shelter
	45. Inadequate livestock water quantity, quality and distribution
Energy	46. Energy efficiency of equipment and facilities
	47. Energy efficiency of farming/ranching practices and field operations

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