



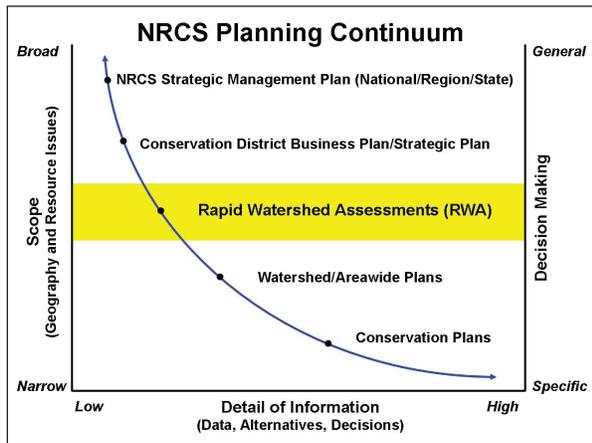
United States Department of Agriculture  
Natural Resources Conservation Service

# Rapid Watershed Assessments

**R**apid watershed assessments (RWA) provide initial estimates of where conservation investments would best address the concerns of landowners, conservation districts, and other community organizations and stakeholders within a watershed. These assessments help landowners and local leaders set priorities and determine the best actions to achieve their goals.

## Information Included in RWAs

RWAs contain summaries of resource concerns and opportunities that are useful for a number of activities. They provide information that can be used in conservation district annual and long range plans or provide a foundation for watershed, area-wide, or site-specific planning. The diagram below shows RWAs in the context of the entire NRCS planning continuum.



RWAs contain two components: a watershed resource profile and an assessment matrix.

## Resource Profile

The watershed resource profile compiles the best readily-available data, including:

- A general description of the location, size, and political units associated with the watershed.
- Physical description including land use/land cover, precipitation/climate, common resource areas, stream flow data, land capability class, etc.
- Known resource concerns.
- Census and social data.

- Status and history of resource conservation in the watershed.
- References and data sources.

The image shows the cover page of a resource profile for the Lower Deschutes 8-Digit Hydrologic Unit (HUC) 17070306. The page includes the USDA NRCS logo, the title 'Lower Deschutes - 17070306 8-Digit Hydrologic Unit Profile', and the date 'MAY 2005'. It features an 'Introduction' section with a map of the HUC and text describing its size and location. Below the introduction is a 'Profile Contents' section with links to various sections: Introduction, Physical Description, Land Use Map & Precipitation Map, Common Resource Area, Resource Concerns, Census and Social Data, Progress/Status, and Footnotes/Bibliography. At the bottom, there are two maps: a 'Relief Map' and an 'Ownership Map' showing land ownership types (Private, Public, Tribal, Unknown).

Figure 1: Example resource profile cover page

## Assessment Matrix

The Assessment Matrix summarizes, in tabular form, current resource conditions and related maintenance costs. It also summarizes desired resource conditions, conservation opportunities and related installation and maintenance costs, qualitative effects on primary resource concerns, and potential funding sources for conservation implementation.

The Assessment Matrix contains:

- Current Conditions Table—detailing the current level of conservation in the watershed.
- Future Conditions Table—identifying appropriate suites of conservation practices needed to deal with the primary resource concerns for each major land use.

Future Conditions for Cropland - Irrigated													
Management Systems		Quantity		Costs		Effects*				Implementation			
	Practices	Unit	Quantity	Investment Cost	Annual O&M Cost	Soil Erosion	Soil Condition	Water Quantity	Water Quality, Surface	EQUIP	WHIP	WRP	Other
<b>BM1</b>		Ac.	44,732			-3	-1	-3	-2				
	Conservation Cropping Rotation	Ac.	44,732		\$26,839								
	Residue Management	Ac.	44,732		\$984								
<b>BM2</b>		Ac.	67,098			0	-1	0	-1				
	Conservation Cropping Rotation	Ac.	67,098		\$40,259								
	Residue Management	Ac.	67,098		\$1,476								
	Irrigation Water Management	Ac.	67,098		\$73,808								
<b>RMS1</b>		Ac.	70,785			+2	0	+1	+1				
	Conservation Cropping Rotation	Ac.	70,785	\$424,708	\$42,471					X			
	Residue Management	Ac.	70,785	\$77,863	\$1,557					X			
	Nutrient Management	Ac.	70,785	\$566,278	\$56,628					X			
	Pest Management	Ac.	70,785	\$424,708	\$42,471					X			
	Irrigation Water Management	Ac.	70,785	\$778,632	\$77,963					X			
<b>RMS2</b>		Ac.	4,438			+2	+1	+1	+1				
	Conservation Cropping Rotation	Ac.	4,438	\$26,626	\$2,663					X			
	Conservation Tillage	Ac.	4,438	\$39,940	\$3,994					X			
	Irrigation Water Management	Ac.	4,438	\$48,815	\$4,882					X			
	Irrigation System, Sprinkler (conversion)	Ac.	4,438	\$252,951,210	\$1,264,756					X			X
<b>Total RMS Costs</b>													
				<b>\$255,338,780</b>	<b>\$1,640,751</b>								

\* Note: Effects are numerical values placed on benchmark conditions and degree of change in conditions by conservation system(s) application. Scale ranges from -5 (most damaging to resources) to +5 (best protection offered by treatment).

Figure 2: Example of Assessment Matrix.

- Summary Table—summarizing the various costs associated with the Resource Management Systems developed in the previous step.

## Benefits

RWAs provide sufficient information to help facilitate the making of some key decisions. RWAs can:

- Provide a quick and inexpensive source of information on which to base decisions about conservation priorities, allocation of resources, funding for implementation, and how to report outcomes/results.
- Provide enough detail to identify conservation activities that can be taken without waiting on further watershed-level studies or analyses.
- Provide a preliminary source of information for standard environmental evaluations.
- Determine if there is a need for further detailed analysis or watershed studies.
- Identify if there are infrastructure needs.

- Address multiple concerns and objectives of landowners and communities.
- Enhance established local and state partnerships.
- Enable landowners and communities to decide on the best mix of NRCS programs and other funding sources to meet their resource concerns.
- Evaluate availability of conservation program tools (cost share, easements, technical assistance).

## Building on RWAs

RWAs address the first six steps of the NRCS planning process on a broad scale. The information is general in nature and is not sufficiently detailed to be used in lieu of an area-wide or watershed plan. However, the information will provide a solid starting point for local stakeholders to use should they decide to proceed with a more detailed area-wide or watershed planning effort.

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