

**National and State Resource Concerns and Planning Criteria
10/1/2013**

SOIL	Description	Land Use	Component	Screening	Assessment Level	Assessment Tools
SOIL EROSION - Sheet, rill, & wind erosion	Detachment and transportation of soil particles caused by rainfall runoff/splash, irrigation runoff or wind that degrades soil quality.	<ul style="list-style-type: none"> • Crop* • Developed Land* • Farmsteads* • Associated Ag Land* • Designated Protected Area* • Other Rural Land* • Pasture* 	Sheet & Rill	Permanent ground cover > 90% and slope < 10%	Water erosion rate ≤ T	RUSLE2
			Wind		Wind erosion rate ≤ T	WEPS
		• Forest*	Sheet & Rill	Soil surface organic residue cover > 80%	Site is stable and without visible signs of erosion	Visual Inspection
			Wind			
• Range*	Sheet & Rill	State established criteria.	RHA - soil site stability - slight to moderate or less OR Rangeland Planned Trend is positive	RHA - Rangeland Health Assessment Rangeland Trend Worksheet		
	Wind					
SOIL EROSION – Concentrated flow erosion	Untreated classic gullies may enlarge progressively by head cutting and/or lateral widening. Ephemeral gullies occur in the same flow area and are obscured by tillage. This includes concentrated flow erosion caused by runoff from rainfall, snowmelt or irrigation water.	<ul style="list-style-type: none"> • Crop* 	Ephemeral gullies	Ephemeral gullies are not occurring	Conservation practices and managements are in place to prevent or control ephemeral gullies	Field measurements / observations
			Classic gullies	Classic gullies are not present	Classic gully management is adequate to stop the progression of head cutting and widening and offsite impacts are minimized by vegetation and/or structures	
			<ul style="list-style-type: none"> • Forest* • Farmsteads* • Pasture* • Range* • Developed Land* • Associated Ag Land* • Designated Protected Area* • Other Rural Land* 	Classic gullies	Classic gullies are not present	
SOIL EROSION– Excessive bank erosion from streams shorelines or water conveyance channels	Sediment from banks or shorelines threatens to degrade water quality and limit use for intended purposes.	<ul style="list-style-type: none"> • Crop* • Forest • Range* • Developed Land* • Associated Ag Land* • Designated Protected Area* • Water* • Other Rural Land* • Farmsteads* 		Streams, shoreline or channels are not adjacent to site	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?	SVAP2
			• Pasture*		For streambanks; SVAP2 bank condition element score ≥ 5? AND Bank erosion is it beyond the client’s control or commensurate with normal geomorphological processes? AND PCS - streambank / shoreline erosion element score ≥ 4?	SVAP2 PCS - Pasture Condition Score

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SOIL QUALITY DEGRADATION - Subsidence	Loss of volume and depth of organic soils due to oxidation caused by above normal microbial activity resulting from excessive water drainage, soil disturbance, or extended drought. This excludes karst / sinkholes issues or depressions caused by underground activities.	<ul style="list-style-type: none"> • Crop • Forest • Associated Ag Land • Designated Protected Area • Pasture 		<p>Histisol soils are not present</p> <p>OR</p> <p>Histisols soils are not exhibiting subsidence</p>	Subsidence is adequately managed to meet client's objectives	Client input / planner observation
SOIL QUALITY DEGRADATION – Compaction	Management induced soil compaction resulting in decreased rooting depth that reduces plant growth, animal habitat and soil biological activity.	<ul style="list-style-type: none"> • Crop • Forest • Associated Ag Land • Designated Protected Area • Other Rural Land 		<p>Soil compaction is not a problem</p> <p>AND</p> <p>Activities do not cause soil compaction problems</p>	Compaction is managed to meet Client's production and management objectives	Observation of soil and/or plant condition Client input / planner observation
		<ul style="list-style-type: none"> • Pasture 			PCS – compaction element score ≥ 4	PCS - Pasture Condition Score
		<ul style="list-style-type: none"> • Range 			RHA - soil site stability - slight to moderate or less OR Compaction is managed to meet Client's production and management objectives	RHA - Rangeland Health Assessment Observation of soil and/or plant condition
SOIL QUALITY DEGRADATION – Organic matter depletion	Soil organic matter is not adequate to provide a suitable medium for plant growth, animal habitat, and soil biological activity.	<ul style="list-style-type: none"> • Crop* 		<p>Permanent ground cover > 80%</p> <p>Soil organic matter depletion is not a problem</p> <p>AND</p> <p>Activities do not cause soil organic matter depletion</p>	SCI > 0	RUSLE2 WEPS
		<ul style="list-style-type: none"> • Pasture 			SCI > 0 OR [PCS - plant cover element score ≥ 4 AND PCS - plant residue element score ≥ 4]	PCS - Pasture Condition Score RUSLE2
		<ul style="list-style-type: none"> • Range 			[RHA - soil site stability slight to moderate or less AND RHA – biotic integrity attribute rating slight to moderate departure or less] OR Rangeland Planned Trend positive	RHA - Rangeland Health Assessment Rangeland Trend Worksheet
		<ul style="list-style-type: none"> • Forest 			Ground cover meets state criteria specific to ecological site OR Soil organic matter is managed to meet Client objectives	Client input / planner observation

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SOIL QUALITY DEGRADATION – Concentration of salts or other chemicals	Concentration of salts leading to salinity and/or sodicity reducing productivity or limiting desired use, or concentrations of other chemicals impacting productivity or limiting desired use.	<ul style="list-style-type: none"> • Crop • Pasture • Range • Associated Ag Land • Farmsteads 		Activities do not cause salinity/sodicity problems	Conservation practices and managements are in place to mitigate on-site effects	Soil diagnostic evaluations
WATER	Description	Land Use	Component	Screening	Assessment Level	Assessment Tools
EXCESS WATER – Ponding, flooding, seasonal high water table, seeps, and drifted snow	Surface water or poor subsurface drainage restricts land use and management goals. Wind-blown snow accumulates around and over surface structures, restricting access to humans and animals.	<ul style="list-style-type: none"> • Crop • Forest • Farmsteads • Pasture • Range • Developed Land • Associated Ag Land • Designated Protected Area • Other Rural Land 	Ponding and Flooding	Ponding or flooding not a problem AND Activities do not cause ponding/flooding problems	Excess water is managed to meet Client’s objectives	Client input / planner observation
			Seasonal High Water Table	Seasonal high water table does not cause a problem		
			Seeps	Excess water from seeps does not cause a problem		
			Drifted Snow	Drifted snow does not cause a problem		
INSUFFICIENT WATER – Inefficient moisture management	Natural precipitation is not optimally managed to support desired land use goals or ecological processes.	<ul style="list-style-type: none"> • Crop • Developed Land • Forest • Associated Ag Land • Designated Protected Area 		Moisture management is not a problem AND Activities do not cause inefficient moisture management problems	Runoff and evapotranspiration levels are minimized to meet Client’s management objectives	Client input / planner observation
					RHA - hydrologic function attributes slight to moderate or less	RHA - Rangeland Health Assessment
					PCS – compaction element score ≥ 4 AND PCS - plant cover element score ≥ 4	PCS - Pasture Condition Score
INSUFFICIENT WATER – Inefficient use of irrigation water	Irrigation water is not stored, delivered, scheduled and/or applied efficiently. Aquifer or surface water withdrawals threaten sustained availability of ground or surface water. Available irrigation water supplies have been reduced due to aquifer depletion, competition, regulation and/or drought.	• All*		PLU is not irrigated	The irrigation system components and management meet state specific efficiency criteria	State identified measurement and assessment tools - Farm Irrigation Rating Index (FIRI), State Version