

NRCS Resource Concerns / Components and Definitions

	Resource Concern	Component	Definition
	SOIL		
1	SOIL EROSION - Sheet, rill, & wind erosion	1a - Sheet and Rill 1b - Wind	Detachment and transportation of soil particles caused by rainfall runoff/splash, irrigation runoff or wind that degrades soil quality.
2	SOIL EROSION – Concentrated flow erosion	2a - Ephemeral Gullies 2b - Classic Gullies	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.
3	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.
4	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.
5	SOIL QUALITY DEGRADATION – Compaction		Management induced soil compaction resulting in decreased rooting depth that reduces plant growth, animal habitat and soil biological activity.
6	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.
7	SOIL QUALITY DEGRADATION – Concentration of salts or other chemicals		Concentration of salts leading to salinity and/or sodicity reducing productivity or limiting desired use. Concentrations of other chemicals impacting productivity or limiting desired use.
	WATER		
8	EXCESS WATER - Ponding, flooding, seasonal high water table, seeps and drifted snow.	8a - Ponding and flooding 8b - Seasonal high water table 8c - Seeps 8d - 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.
9	INSUFFICIENT WATER - Inefficient Moisture Management		Natural precipitation is not optimally managed to support desired land use goals or ecological processes.
10	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.

	Resource Concern	Component	Definition
	WATER (continued)		
11	WATER QUALITY DEGRADATION – Excess nutrients in surface and ground waters	11a - Excess nutrients in <u>surface</u> waters 11b - Excess nutrients in <u>groundwater</u>	Nutrients - organic and inorganic - are transported to receiving waters through surface runoff and/or leaching into shallow ground waters in quantities that degrade water quality and limit use for intended purposes.
12	WATER QUALITY DEGRADATION – Pesticides transported to surface and ground waters	12a - Pesticides transported to <u>surface</u> water 12b - Pesticides transported to <u>groundwater</u>	Pest control chemicals are transported to receiving waters in quantities that degrade water quality and limit use for intended purposes.
13	WATER QUALITY DEGRADATION – Excess pathogens and chemicals from manure, bio-solids or compost applications	13a - Pathogens and chemicals from manure, bio-solids, or compost applications transported to <u>surface</u> water. 13b - Pathogens and chemicals from manure, bio-solids, or compost applications transported to <u>groundwater</u> .	Pathogens, pharmaceuticals, and other chemicals carried by land applied soil amendments are transported to receiving waters in quantities that degrade water quality and limit use for intended purposes. This resource concern also includes the off-site transport of leachate and runoff from compost or other organic materials of animal origin.
14	WATER QUALITY DEGRADATION – Excessive salts in surface and ground waters	14a - Excessive salts in <u>surface</u> water 14b - Excessive salts in <u>groundwater</u>	Irrigation or rainfall runoff transports salts to receiving water in quantities that degrade water quality and limit use for intended purposes.
15	WATER QUALITY DEGRADATION – Petroleum, heavy metals and other pollutants transported to receiving waters	15a - Petroleum, heavy metals and other pollutants transported to <u>surface</u> water. 15b - Petroleum, heavy metals and other pollutants transported to <u>groundwater</u> .	Heavy metals, petroleum and other pollutants are transported to receiving water sources in quantities that degrade water quality and limit use for intended purposes.
16	WATER QUALITY DEGRADATION – Excessive sediment in surface waters		Off-site transport of sediment from sheet, rill, gully, and wind erosion into surface water that threatens to degrade surface water quality and limit use for intended purposes
17	WATER QUALITY DEGRADATION – Elevated water temperature		Surface water temperatures exceed State/Federal standards and/or limit use for intended purposes.

	Resource Concern	Component	Definition
	AIR		
18	AIR QUALITY IMPACTS - Emissions of Particulate Matter (PM) and PM Precursors		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, NOx, and VOCs - cause multiple environmental impacts, such as: 1) The unintended movement of particulate matter - typically dust or smoke - results in safety or nuisance visibility restriction, 2) The unintended movement of particulate matter and/or chemical droplets results in unwanted deposits on surfaces, 3) Increased atmospheric concentrations of particulate matter can impact human and animal health and degrade regional visibility.
19	AIR QUALITY IMPACTS - Emissions of Greenhouse Gases (GHGs)		Emissions increase atmospheric concentrations of greenhouse gases.
20	AIR QUALITY IMPACTS - Emissions of Ozone Precursors		Emissions of ozone precursors - NOx and VOCs - resulting in formation of ground- level ozone that cause negative impacts to plants and animals.
21	AIR QUALITY IMPACTS - Objectionable Odors		Emissions of odorous compounds - VOCs, ammonia and odorous sulfur compounds - cause nuisance conditions.
	PLANT		
22	DEGRADED PLANT CONDITION – Undesirable plant productivity and health		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.
23	DEGRADED PLANT CONDITION – Inadequate structure and composition		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.
24	DEGRADED PLANT CONDITION – Excessive plant pest pressure		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.
25	DEGRADED PLANT CONDITION– Wildfire hazard, excessive biomass accumulation		The kinds and amounts of fuel loadings - plant biomass - create wildfire hazards that pose risks to human safety, structures, plants, animals, and air resources.

	Resource Concern	Component	Definition
	ANIMAL		
26	INADEQUATE HABITAT FOR FISH AND WILDLIFE – Habitat degradation	26a - Food 26b - Water 26c - Cover/Shelter 26d - Habitat Continuity / Space	Quantity, quality or connectivity of food, cover, space, shelter and/or water is inadequate to meet requirements of identified fish, wildlife or invertebrate species.
27	LIVESTOCK PRODUCTION LIMITATION – Inadequate feed and forage		Feed and forage quality or quantity is inadequate for nutritional needs and production goals of the kinds and classes of livestock.
28	LIVESTOCK PRODUCTION LIMITATION – Inadequate livestock shelter		Livestock lack adequate shelter from climatic conditions to maintain health or production goals.
29	LIVESTOCK PRODUCTION LIMITATION – Inadequate livestock water		Quantity, quality and/or distribution of drinking water are insufficient to maintain health or production goals for the kinds and classes of livestock.
	ENERGY		
30	INEFFICIENT ENERGY USE – Equipment and facilities		Inefficient use of energy in the Farm Operation increases dependence on non-renewable energy sources that can be addressed through improved energy efficiency and the use of on-farm renewable energy sources. As an example, this concern addresses inefficient energy use in pumping plants, on-farm processing, drying and storage.
31	INEFFICIENT ENERGY USE – Farming/ranching practices and field operations		Inefficient use of energy in field operations increases dependence on non-renewable energy sources that can be addressed through improved efficiency and the use of on-farm renewable energy sources.