

Linkage Between the Old Resource Concerns and New Resource Concerns

Old Resource	Old Resource Concern	New Resource Concern	New Resource
	Classic Gully	Concentrated Flow Erosion	Soil Erosion
	Ephemeral Gully	Sheet, Rill, & Wind Erosion	
	Sheet and Rill	Excessive Bank Erosion from streams, shoreline and water conveyance channels	
	Wind	WATER QUALITY DEGRADATION – Excessive Sediment in surface waters.	
	Shoreline	SOIL EROSION (Sheet and Rill, Ephemeral, Gully) and WATER QUANTITY - Inefficient Use of Irrigation Water	
	Streambank		
	Mass Movement		
	Road, Road Sides and Construction Sites		
	Irrigation-induced		

Soil Condition	Soil Quality Degradation
Organic Matter Depletion	Soil Quality Degradation
Compaction	
Subsidence	
Contaminants - Salts and Other Chemicals	
Damage from Sediment Deposition	
Contaminants - Residual Pesticides	
Contaminants-Animal Waste and Other Organics - N	
Contaminants-Animal Waste and Other Organics - P	
Contaminants-Animal Waste and Other Organics - K	
Contaminants-Commercial Fertilizer - N	
Contaminants-Commercial Fertilizer - P	
Contaminants-Commercial Fertilizer - K	
Rangeland Site Stability	

Water Quantity		
Agriquer Overdraft	Inefficient Use of Irrigation Water	Excess \ Insufficient Water
Reduced Capacity of Conveyances by Sediment Deposition	WATER QUALITY DEGRADATION – Excessive Sediment in surface waters. Relative to irrigation, it is implied that the whole irrigation system (pumps, transport systems, irrigation efficiency) is covered.	
Insufficient Flows in Water Courses		
Reduced Storage of Water Bodies by Sediment Accumulation		
Rangeland Hydrologic Cycle	WATER QUALITY DEGRADATION – Inefficient Water Use on Non-irrigated Land	
Inadequate Outlets	SOIL EROSION – Concentrated Flow Erosion	

Water Quality		
Excessive suspended sediment and turbidity in surface waters	Excessive Sediment in surface waters	Water Quality Degradation
Harmful Temperatures of Surface Water	Elevated Water Temperature	
Excessive Nutrients and Organics in Groundwater	Excess Nutrients in surface and ground waters	
Excessive Nutrients and Organics in Surface Water	Excessive Salts in surface waters and ground waters	
Excessive Salinity in Groundwater		
Excessive Salinity in Surface Water		
Harmful Levels of Pesticides in Groundwater	Pesticides transported to surface and ground waters	
Harmful Levels of Pesticides in Surface Water	Excess pathogens and chemicals from manure, bio-solids or compost applications.	
Harmful Levels of Pathogens in Groundwater		
Harmful Levels of Pathogens in Surface Water	Petroleum, Heavy Metals and other pollutants transported to receiving waters	
Harmful Levels of Heavy Metals in Groundwater		
Harmful Levels of Heavy Metals in Surface Water		
Harmful Levels of Petroleum in Groundwater		
Harmful Levels of Petroleum in Surface Water		

Plant Condition		
Wildfire Hazard	Wildfire hazard, excessive biomass accumulation	Degraded Plant Condition
Plants not adapted or suited		
Productivity, Health and Vigor	Undesirable Plant Productivity and Health	
Forage Quality and Palatability		
Noxious and Invasive Plants	Excessive Plant Pest Pressure	
Threatened and Endangered Plant Species	Addressed as a Special Environmental Concerns	
T&E Plant Species: Declining Species, Species of Concern	DEGRADED PLANT CONDITION - Excessive Plant Pest Pressure	
	DEGRADED PLANT CONDITION - Inadequate Structure and Composition	

Fish and Wildlife		
Inadequate Cover/Shelter	Habitat Degradation	Inadequate Habitat For Fish And Wildlife
Inadequate Food		
Inadequate Space		
Inadequate Water		
Habitat Fragmentation	Habitat Degradation	
Imbalance Among and Within Populations	Addressed as a Special Environmental Concerns	
Threatened and Endangered Fish and Wildlife Species		
T&E Species: Declining Species, Species of Concern		

Animals		
Inadequate Stock Water	Inadequate Livestock Water	Livestock Production Limitation
Inadequate Quantities and Quality of Feed and Forage	Inadequate Feed and Forage	
Inadequate Shelter	Inadequate Livestock Shelter	
Stress and Mortality	LIVESTOCK PRODUCTION LIMITATION - (Insufficient Feed and Forage, Stock Water and Shelter)	

Air Quality		
Excessive Ozone	Emissions of Ozone Precursors	Air Quality Impacts
Reduced Visibility	Emissions of Particulate Matter (PM) and PM Precursors	
Chemical Drift		
Particulate matter less than 10 micrometers in diameter (PM 10)	Emissions of Particulate Matter (PM) and PM Precursors	
Particulate matter less than 2.5 micrometers in diameter (PM 2.5)		
Objectionable Odors	Objectionable Odors	
Ammonia (NH3)		
Excessive Greenhouse Gas - CH4 (methane)	Emission of Greenhouse Gases (GHGs)	
Excessive Greenhouse Gas - CO2 (carbon dioxide)		
Excessive Greenhouse Gas - N2O (nitrous oxide)		
Undesirable Air Movement	DEGRADED PLANT CONDITION - Undesirable Plant Productivity and Health	Air Quality Impacts
Adverse Air Temperature	DEGRADED PLANT CONDITION - Undesirable Plant Productivity and Health and LIVESTOCK PRODUCTION LIMITATION - Shelter	

Energy		
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	
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.	Ineffecient Energy Use

Color Key

	Green = No significant Change
	Yellow = Modified
	Red = Replaced with existing Resource Concern
	Blue = New

Resource Concerns – CPPE Components Effective FY 2013

SOIL EROSION

- Sheet, Rill, & Wind Erosion
 - Sheet and Rill
 - Wind
- Concentrated Flow Erosion
 - Classic Gully
 - Ephemeral Erosion
- Excessive bank erosion from streams, shorelines or water conveyance channels

SOIL QUALITY DEGRADATION

- Subsidence
- Compaction
- Organic Matter Depletion
- Concentration of Salts and other Chemicals

EXCESS / INSUFFICIENT WATER

- Ponding, Flooding, Seasonal High Water Table, Seeps and Drifted Snow
 - Seep
 - Runoff, Flooding or Ponding
 - Seasonal high water table
 - Drifted Snow
- Inefficient Moisture Management
- Inefficient Use of Irrigation Water

WATER QUALITY DEGRADATION

- Excess nutrients in surface and ground waters
 - Ground water
 - Surface waters
- Pesticides transported to surface and ground waters
 - Ground waters
 - Surface waters
- Excess pathogens and chemicals from manure, bio-solids or compost applications in surface waters and ground waters
 - Surface Water
 - Groundwater

- Excessive Salts in surface waters and ground waters
 - Surface waters
 - Ground waters
- Petroleum, Heavy Metal and other pollutants transported to waters
 - Surface waters
 - Ground waters
- Excessive Sediment in surface waters
- Elevated Water Temperature

DEGRADED PLANT CONDITION

- Undesirable Plant Productivity and Health
- Inadequate Structure and Composition
- Excessive Plant Pest Pressure
- Wildfire Hazard, Excessive Biomass Accumulation

INADEQUATE HABITAT FOR FISH AND WILDLIFE

- Habitat Degradation
 - Food
 - Water
 - Cover/Shelter
 - Habitat Continuity / Space

LIVESTOCK PRODUCTION LIMITATION

- Inadequate Feed and Forage
- Inadequate Livestock Shelter
- Inadequate Livestock Water

AIR QUALITY IMPACTS

- Emissions of Particulate Matter (PM) and PM Precursors
- Emission of Greenhouse Gases (GHGs)
- Emissions of Ozone Precursors
- Objectionable Odors

INEFFICIENT ENERGY USE

- Equipment and Facilities
- Farming/Ranching Practices and Field Operations