

EXAMPLE 4 CONSERVATION MANAGEMENT SYSTEM GUIDANCE DOCUMENT

LOCATION (MLRA AND NRD): Middle Republican and western portion of Lower Republican NRD's MLRA 73

RESOURCE SETTING: Dryland Cropland: Wheat-Milo/Corn-Fallow; Soils: LCC IIe silt loam soils with steep canyons adjacent to cropland; annual precipitation 18-22 inches; moisture is usually lacking in the summer; occasional intense rainfall events; Wildlife: Potential for pheasant, deer, turkey and other wildlife; Domestic Livestock: Fall gleaning row crop stubble by cow/calf herd.

BENCHMARK RESOURCE PROBLEMS (EXISTING CONDITIONS)

Soil:	Sheet & rill erosion approaching "T", significant ephemeral erosion, classic gully at lower edges of fields.
Water:	Excess runoff, excessive moisture loss, surface water contamination by sediment and herbicides.
Air:	None
Plants:	Low crop yields, excessive annual broadleaf and grassy weeds, nutrients are not available as needed.
Animals:	Lack of food, cover, and shelter for upland wildlife.
Human:	Interested in Nutrient and Pest Management and crop yield improvements. Family farm would like to maintain or improve value of land and economic return.

CONSERVATION MANAGEMENT SYSTEM (list practices to be applied and maintained and where they are applicable)

Planned Practices	Practice Description
328 Crop Rotation	3 year Wheat-Milo/Corn-Fallow During wetter years wheat may be substituted for fallow by no-till planting following corn/milo harvest
329A Residue Management no-till	Ecofallow no-till corn/milo into wheat stubble.
329B Residue Management Mulch till	Mulch tillage seedbed preparation for wheat.
330 Contour Farming	Farming with terraces on contour
590 Nutrient Management	Soil testing done regularly, applies anhydrous ammonia and/or dry N with phosphorus in late summer before wheat planting. Applies liquid nitrogen with herbicide before row crop planting.
595 Pesticide Management	Applies 2, 4-D in spring after wheat planting for winter annual broadleaf weed control, applies burndown herbicide for volunteer wheat, grass weeds, and broadleaf weeds after wheat harvest.
600 Terraces	Level terraces Installed on steeper slopes to reduce erosion and capture surface runoff

RESULTS OF MANAGEMENT ACTIONS

MANAGEMENT ACTIONS	RESULTS OF MANAGEMENT ACTIONS
3 year rotation Wheat-Corn/Milo-Fallow	Appropriate for the resource setting. Reduced weed competition
Soil test at least every other year, apply anhydrous ammonia or dry N w/ P on new wheat and liquid N with other appropriate nutrients with planter on corn/milo.	Proper balance and adequate amount of nutrients for optimum crop yield. Proper amount and types of nutrients applied.
Use various herbicides as recommended	Proper pesticide application.
Plant on contour/till/anhydrous application	Reduce sheet/rill, ephemeral & classic gully erosion
Uses burndown for weed control in fallow year and tills after July 1, prior to drilling wheat	Improves available soil moisture and provides crop residue for and wildlife erosion control and wildlife cover.
Construct terraces	Reduce sheet and rill, ephemeral and gully erosion at canyon edges. Improves surface water quality.

QUALITY CRITERIA DOCUMENTATION

RESOURCE CONCERN (refer to Section III quality Criteria and Exhibit 1 of NPPH for a list of concerns)	BEFORE CONDITIONS	AFTER CONDITIONS (refer to Section III quality criteria for more guidance)	QUALITY CRITERIA MET (Y or N)
Sheet and Rill Erosion	3 tons/acre/year	1 ton/acre/year	Y
Ephemeral Gully Erosion	Varies by site	0	Y
Classic Gully Erosion	Gullies at edge of canyons	Stabilize existing gully	Y
Water Quantity-Other	Excess soil moisture loss	Acceptable soil moisture loss	Y
Surface Water Contamination Pesticides	Medium to High risk of Pesticide loss using Win-PST	Low Risk with Win-PST evaluation or Medium Risk with mitigation applied per 595 standard	Y
Wildlife Habitat	Less than a 0.5 Index rating	0.5 or greater Index rating	Y