# Appendix F: Refuge Operating Needs System and Maintenance Management System

# Appendix F: Refuge Operating Needs System (RONS) and Maintenance Management System (MMS) Priorities

#### **Refuge Operating Needs System Projects**

Project Number	Project Title	Estimated Cost (\$1,000s)
00003	Investigate mercury levels in the Mingo ecosystem	54
00007	Improve volunteer program by providing bunkhouse	170
98006	Monitoring of Mingo NWR reptiles and amphibians	74
99001	Enhance Visitor Services by providing information	24
03002	Design and implement effective kiosks, directional signs, and outdoor interpretive panels	28
03004	Provide fishing opportunities for mobility impaired visitors	129
03005	Develop and implement a Watchable Wildlife nature trail	37
03006	Improve marsh and moist soil access for management and wildlife observation	27
03007	Provide shelter for visitors utilizing boardwalk	25
03009	Construct an environmental education classroom	65
98003	Expand the Refuge biological program	114
98010	Inventory biological features of the Class I Wilderness Area on Mingo	31
98011	Compile biotic inventory for sensitive species occurring in the Wilderness Area of Mingo NWR	27
98012	Monitoring of dry and wet deposition in the Class I Wilderness Area of Mingo NWR	51
98014	Install optical monitoring equipment in the Wilderness Area of Mingo NWR	63
98017	Install automatic gates to protect closed area resources	36
98019	Increase management capabilities through implementation of a Geographical Information System	170
98020	Conduct swamp rabbit survey	26
98021	Reestablish the boundary along the west side of the Mingo NWR	36
98022	Create and install an interactive computer station at the Visitor Center	29
00002	Ensure visitor and resource protection of Mingo NWR	136
01005	Transition of 1,000 acres of fescue pasture to native prairie	75
01006	Preserve the ecological health and integrity of Mingo NWR by removing exotic and invasive species	40
01009	Improve and enhance public use program	30
01012	Organize public use supplies and materials for easy access	22
01013	Enhance audio-visual programming and develop a Mingo NWR specific video	42

## Maintenance Projects, Mingo NWR

Project Title	Estimated Cost (\$1,000s)
Replace high mileage 1991 model full size dodge pickup	30
Replace worn-out 1982 Jeep CJ7 utility vehicle.	31
Replace deteriorated vault toilet at Ditch 1.	32
Remove damaged fences on retired pasture units.	39
Repair Deteriorated Boardwalk on the Nature Trail	510
Replace worn-out Crisafulli Trailer Mounted Pump, 16", Centrifugal Humpback	13
Replace worn-out Western Slip on Pumper, 200 Gal, 20 hp engine	13
Replace JI Case 2090 Ag Tractor, 108hp, w/ Cab	64
Replace Chevrolet S10 Cargo Truck	26
Replace worn-out Ford L9000 Dump Truck, 12 CY 14', 350 HP, 52000 GVWR	90
Replace deteriorated siding on the Storage / Carpenter Shop Building	52
Replace worn-out Reynolds Earth Scraper, Towed, 10 CY, Hydraulic	21
Replace worn-out Caterpillar 426C Backhoe / Loader, w/ Cab	79
Replace worn-out Gorman / Rupp Wheel Mounted Pump, 350 gpm, 4" intake/outlet	15
Replace worn-out Gorman / Rupp Wheel Mounted Pump, 350 gpm, 4" intake / outlet	15
Replace Chevrolet Astro Passenger Van	21
Replace Aero Welding Water Tank Trailer, 400 Gal, 1.5 Ton	19
Replace worn-out Motorola Quantar (C99ED) Radio Base Station	17
Replace Ford F709E Dump Truck, 5 CY, 24000 GVWR	74
Replace John Deere 2640 Ag Tractor, 70hp	53
Replace worn-out Crisafulli 16" Centrifugal Pump	13
Replace John Deere 4640 Ag Tractor, 150 hp	85
Replace worn-out John Deere 455 Plow Disk	17
Remove Debris and Silt from Drainage Ditches - Phase II [cc]	1,259
Remove Debris and Silt from Drainage Ditches - Phase I [p/d]	321
Replace corroded pipes at the Ditch 2 Pumping Station	44
Energy Retrofit the Visitor Center	264
Replace deteriorated Lick Creek Bridge on the Auto Tour Route.	112
Replace deteriorated Lateral Ditch Bridge	112
Replace deteriorated roof on the Visitor Center.	52
Replace worn-out Side Mount Mower Rotary 6'	13
Replacement of Suzuki All Terrain Vehicle	7
Repair Surfacing on Visitor Center Entrance - FHWA Route No. 010	40
Repair Surfacing on Refuge Auto Tour Route - FHWA Route No. 011	4,109
Repair Surfacing on Red Mill Entrance Road - FHWA Route No. 100	277
Repair Surfacing on Red Mill Drive - FHWA Route No. 101	1,343
Repair Surfacing on Bluff Road - FHWA Route No. 102	1,142
Repair Surfacing on Job Corps Entrance Road - FHWA Route No. 104	370
Repair Surfacing on Flat Banks Road - FHWA Route No. 105	146
Repair Surfacing on May Pond Entrance Road - FHWA Route No. 200	27
Repair Surfacing on Bow Hunters Parking Area - FHWA Route No. 902	20
Repair Surfacing on Red Mill Parking Area - FHWA Route No. 903	25

## Maintenance Projects, Mingo NWR

Project Title	Estimated Cost (\$1,000s)
Repair Surfacing on Visitor Center Parking Area - FHWA Route No. 905	28
Construct Covered Fishing Dock	28
Construct an Environmental Education Classroom	68
Rehabiliate Bluff Road by Installing Asphalt Surfacing - Phase I	125
Rehabiliate Bluff Road by Installing Asphalt Surfacing - Phase II	160
Rehabilate Marsh and Moist Soil Unit Access for Management and Wildlife Observation	28
Construct water delivery system for Moist Soil Units.	41
Construct Wildlife Observation Platform Along State Highway 51	37
Construct a Spillway in an Existing Roadway / Low Level Dam	21
Construct Kiosks, Directional Signs, and Outdoor Interpretive Panels	365
Construct a Watchable Wildlife Nature Trail	39
Seismic Safety Rehabilitation - Phase I [p/d]	50
Construct a Bunkhouse for Volunteers, Students and Interns.	522