Enter Watershed Variables Below

Watershed Name	*Ottertail*	Watershed Code	*09020103*		Help
Landuse Type	*Row Crops*	Landuse Acres	*367,827*	Interest Rate	*5%*
Typical Unit Size (ac)	*70*	Percent TA of FA	*20%*	Cost-Share Rate	*50%*

Estimated Time Frame = 5 years

Participation Rate *(Based on Watershed Profile)* [ ] COMPARE 29% **Calculated Participation Rate** *(Based on Projected Future Conditions)* Next

Current Conditions			Projected Change			Projected Future Condition				
System	Percent	Acres	System	Percent	Acres	System	Percent	Acres		
								Total	Static	Treated
Baseline	*50%*	183,914	Baseline	*50%*	91,957	Baseline	25%	91,957	91,957	0
			Progressive	*40%*	73,565					
			RMS	*10%*	18,391					
			Must Total 100%	*100%*						

Current Conditions			Projected Change			Projected Future Condition				
System	Percent	Acres	System	Percent	Acres	System	Percent	Acres		
								Total	Static	Treated
Progressive	*45%*	165,522	Progressive	*95%*	157,246	Progressive	63%	230,811	157,246	73,565
			RMS	*5%*	8,276					
			Must Total 100%	*100%*						

Current Conditions			0			Projected Future Condition				
System	Percent	Acres	System	Percent	Acres	System	Percent	Acres		
								Total	Static	Treated
RMS	*5%*	18,391	RMS	100%	18,391	RMS	12%	45,059	18,391	26,667
Grand Totals	**100%**	**367,827**					**100%**	**367,827**	**267,594**	**100,233**

DOCUMENTATION SECTION

Use an "x" to place conservation practices in each treatment level. Click the "Next" Button to move forward. Help		Conservation Treatment Levels		
Practices from CPPE Tool Output	**Code**	**Base**	**Prog**	**RMS**
Conservation Crop Rotation (ac.) 328	328	x	x	x
Cover Crop (ac.) 340	340		x	x
Critical Area Planting (ac.) 342	342			x
Filter Strip (ac.) 393	393		x	x
Grade Stabilization Structure (no.) 410	410			x
Grassed Waterway (ac.) 412	412		x	x
Nutrient Management (ac.) 590	590		x	x
Pest Management (ac.) 595	595			x
Residue and Tillage Management, Mulch Till (ac.) 329B	329B		x	x
Residue Management, No-Till/Strip Till/Direct Seed (ac.) 329A	329A		x	x
Riparian Forest Buffer (ac.) 391	391			x
Streambank & Shoreline Protection (ft.) 580	580			x
Subsurface Drain (ft.) 606	606		x	x
Underground Outlet (ft.) 620	620		x	x
Water & Sediment Control Basin (no.) 638	638		x	x
Wetland Restoration (ac.) 657	657			x

DOCUMENTATION SECTION

Back

PRACTICE FACTOR SHEET
Only shaded practices are in this analysis.
Modify the formula for each Base, Prog, RMS to enter feet, no. or acres for each practice factor.
Please enter appropriate factor for each level of treatment (Baseline, Progressive, & RMS)

Next

Code	BASE		PROG		RMS		SHORT NOTE *TU = Typical Unit Size*	Practice Name (Help)
328	x	80.0%	x	90.0%	x	100.0%	PERCENT of TU	Conservation Crop Rotation (ac.) 328
340		100.0%	x	15.0%	x	25.0%	PERCENT of TU	Cover Crop (ac.) 340
342		1.0%		2.0%	x	1.0%	PERCENT of TU	Critical Area Planting (ac.) 342
391		25.0%		25.0%	x	1.0%	PERCENT of TU	Riparian Forest Buffer (ac.) 391
393		10.0%	x	2.5%	x	3.0%	PERCENT of TU	Filter Strip (ac.) 393
410		1		1	x	0.050	NUMBER per TU	Grade Stabilization Structure (no.) 410
412		5.0%	x	0.5%	x	1.0%	PERCENT of TU	Grassed Waterway (ac.) 412
580		500		500	x	20	FEET per TU	Streambank & Shoreline Protection (ft.) 580
590		100.0%	x	30.0%	x	100.0%	PERCENT of TU	Nutrient Management (ac.) 590
595		100.0%		8.0%	x	100.0%	PERCENT of TU	Pest Management (ac.) 595
606		1,000	x	10	x	20	FEET per TU	Subsurface Drain (ft.) 606
620		50	x	0	x	0	FEET per TU	Underground Outlet (ft.) 620
638		1	x	0.1	x	0.2	NUMBER per TU	Water & Sediment Control Basin (no.) 638
657		100.0%		100.0%	x	0.2%	PERCENT of TU	Wetland Restoration (ac.) 657
329A		100.0%	x	3.0%	x	30.0%	PERCENT of TU	Residue Management, No-Till/Strip Till/Direct Seed (ac.) 329A
329B		30.0%	x	60.0%	x	70.0%	PERCENT of TU	Residue and Tillage Management, Mulch Till (ac.) 329B
350		1		1		1	NUMBER per TU	Sediment Basin (no.) 350
327		10.0%		10.0%		10.0%	PERCENT of TU	Conservation Cover (ac.) 327
330		100.0%		30.0%		45.0%	PERCENT of TU	Contour Farming (ac.) 330
332		100.0%		100.0%		2.0%	PERCENT of TU	Contour Buffer Strips (ac.) 332
351		1		1		1	NUMBER per TU	Well Decommissioning (no.) 351
362		500		500		25	FEET per TU	Diversion (ft.) 362
386		1,000		1,000		300	FEET per TU	Field Border (ft.) 386
484		100.0%		100.0%		100.0%	PERCENT of TU	Mulching (ac.) 484
512		100.0%		100.0%		100.0%	PERCENT of TU	Pasture & Hayland Planting (ac.) 512
585		100.0%		10.0%		10.0%	PERCENT of TU	Stripcropping (ac.) 585
600		5,000		40		80	FEET per TU	Terrace (ft.) 600
612		10.0%		10.0%		10.0%	PERCENT of TU	Tree/Shrub Establishment (ac.) 612
643		100.0%		100.0%		100.0%	PERCENT of TU	Restoration and Management of Declining Habitats (ac.) 643
645		100.0%		7.0%		80.0%	PERCENT of TU	Upland Wildlife Habitat Management (ac.) 645

WATERSHED NAME & CODE	OTTERTAIL - 09020103	LANDUSE ACRES	367,827
LANDUSE TYPE	ROW CROPS	TYPICAL UNIT SIZE ACRES	70
ASSESSMENT INFORMATION		ESTIMATED PARTICIPATION	29%

	CURRENT CONDITIONS	FUTURE CONDITIONS			RESOURCE CONCERNS			
CONSERVATION SYSTEMS BY TREATMENT LEVELS	Total Units	Existing Unchanged Units	New Treatment Units	Total Units	Soil Erosion – Sheet and Rill	Soil Erosion – Ephemeral Gully	Water Quality – Excessive Nutrients and Organics in	Water Quality – Excessive Suspended Sediment and
Baseline System				**System Rating ->**	**1**	**1**	**1**	**1**
Total Acreage at Baseline Level	**183,914**	**91,957**	**0**	**91,957**				
Conservation Crop Rotation (ac.) 328	147,131	73,565	0	73,565	3	3	2	2
Progressive System				**System Rating ->**	**5**	**5**	**4**	**4**
Total Acreage at Progressive Level	**165,522**	**157,246**	**73,565**	**230,811**				
Conservation Crop Rotation (ac.) 328	148,970	200,374	7,357	207,730	3	3	2	2
Cover Crop (ac.) 340	24,828	23,587	11,035	34,622	4	3	2	2
Filter Strip (ac.) 393	4,138	3,931	1,839	5,770	2	0	4	4
Grassed Waterway (ac.) 412	828	786	368	1,154	0	5	2	4
Nutrient Management (ac.) 590	49,657	47,174	22,070	69,243	1	1	5	0
Residue and Tillage Management, Mulch Till (ac.) 329B	99,313	94,348	44,139	138,487	4	2	3	3
Residue Management, No-Till/Strip Till/Direct Seed (ac.) 329A	4,966	4,717	2,207	6,924	5	3	3	3
Subsurface Drain (ft.) 606	23,646	22,464	10,509	32,973	1	1	-2	1
Underground Outlet (ft.) 620	236	225	105	330	3	5	3	1
Water & Sediment Control Basin (no.) 638	236	225	105	330	0	3	3	3
Resource Management System (RMS)				**System Rating ->**	**5**	**5**	**4**	**5**
Total Acreage at RMS Level	**18,391**	**18,391**	**26,667**	**45,059**				
Conservation Crop Rotation (ac.) 328	18,391	40,553	4,506	45,059	3	3	2	2
Cover Crop (ac.) 340	4,598	5,839	5,425	11,265	4	3	2	2
Critical Area Planting (ac.) 342	184	184	267	451	5	5	3	1
Filter Strip (ac.) 393	552	759	593	1,352	2	0	4	4
Grade Stabilization Structure (no.) 410	13	13	19	32	0	4	0	3
Grassed Waterway (ac.) 412	184	225	225	451	0	5	2	4
Nutrient Management (ac.) 590	18,391	20,874	24,185	45,059	1	1	5	0
Pest Management (ac.) 595	18,391	18,391	26,667	45,059	0	0	0	0
Residue and Tillage Management, Mulch Till (ac.) 329B	12,874	17,840	13,702	31,541	4	2	3	3
Residue Management, No-Till/Strip Till/Direct Seed (ac.) 329A	5,517	5,766	7,752	13,518	5	3	3	3
Riparian Forest Buffer (ac.) 391	184	184	267	451	3	0	2	2
Streambank & Shoreline Protection (ft.) 580	5,255	5,255	7,619	12,874	0	2	1	4
Subsurface Drain (ft.) 606	5,255	6,437	6,437	12,874	1	1	-2	1
Underground Outlet (ft.) 620	53	64	64	129	3	5	3	1
Water & Sediment Control Basin (no.) 638	53	64	64	129	0	3	3	3
Wetland Restoration (ac.) 657	37	37	53	90	2	2	1	3

Note: Estimates for Matrices are for general planning purposes only and not based on actual funding.

WATERSHED NAME & CODE	OTTERTAIL - 09020103	LANDUSE ACRES	367,827
LANDUSE TYPE	ROW CROPS	TYPICAL UNIT SIZE ACRES	70
CONSERVATION INVESTMENT INFORMATION		ESTIMATED PARTICIPATION	29%

CONSERVATION SYSTEMS BY TREATMENT LEVELS	FUTURE	USDA INVESTMENT				PRIVATE INVESTMENT		
	New Treatment Units	Installation Cost 50%	Management Cost - 3 yrs 100%	Technical Assistance 20%	Total Present Value Cost	Installation Cost 50%	Annual O & M + Mgt Costs 100%	Total Present Value Cost
Progressive System Acres Treated	**73,565**							
Conservation Crop Rotation (ac.) 328	7,357	$0	$882,785	$176,557	$977,904	$0	$294,262	$472,651
Cover Crop (ac.) 340	11,035	$0	$1,603,579	$320,716	$1,776,363	$0	$534,526	$858,571
Filter Strip (ac.) 393	1,839	$71,542	$0	$14,308	$85,851	$71,542	$2,862	$83,932
Grassed Waterway (ac.) 412	368	$348,641	$0	$69,728	$418,369	$348,641	$13,946	$409,018
Nutrient Management (ac.) 590	22,070	$0	$364,149	$72,830	$403,386	$0	$121,383	$194,969
Residue and Tillage Management, Mulch Till (ac.) 329B	44,139	$0	$1,986,266	$397,253	$2,200,285	$0	$662,089	$1,063,466
Residue Management, No-Till/Strip Till/Direct Seed (ac.) 329A	2,207	$0	$198,627	$39,725	$220,028	$0	$66,209	$106,347
Subsurface Drain (ft.) 606	10,509	$47,292	$0	$9,458	$56,750	$47,292	$2,838	$59,577
Underground Outlet (ft.) 620	105	$2,130	$0	$426	$2,556	$2,130	$128	$2,684
Water & Sediment Control Basin (no.) 638	105	$315,280	$0	$63,056	$378,336	$315,280	$18,917	$397,180
	Subtotal	**$784,886**	**$5,035,404**	**$1,164,058**	**$6,519,829**	**$784,886**	**$1,717,158**	**$3,648,395**
Resource Management System (RMS) Acres Treated	**26,667**							
Conservation Crop Rotation (ac.) 328	4,506	$0	$540,706	$108,141	$598,966	$0	$180,235	$289,499
Cover Crop (ac.) 340	5,425	$0	$788,426	$157,685	$873,379	$0	$262,809	$422,131
Critical Area Planting (ac.) 342	267	$24,841	$0	$4,968	$29,809	$24,841	$1,490	$31,294
Filter Strip (ac.) 393	593	$23,072	$0	$4,614	$27,687	$23,072	$923	$27,068
Grade Stabilization Structure (no.) 410	19	$142,861	$0	$28,572	$171,434	$142,861	$2,857	$155,232
Grassed Waterway (ac.) 412	225	$213,543	$0	$42,709	$256,251	$213,543	$8,542	$250,524
Nutrient Management (ac.) 590	24,185	$0	$399,046	$79,809	$442,043	$0	$133,015	$213,653
Pest Management (ac.) 595	26,667	$0	$440,013	$88,003	$487,424	$0	$146,671	$235,587
Residue and Tillage Management, Mulch Till (ac.) 329B	13,702	$0	$616,570	$123,314	$683,005	$0	$205,523	$330,117
Residue Management, No-Till/Strip Till/Direct Seed (ac.) 329A	7,752	$0	$697,676	$139,535	$772,850	$0	$232,559	$373,542
Riparian Forest Buffer (ac.) 391	267	$55,207	$0	$11,041	$66,248	$55,207	$1,104	$59,987
Streambank & Shoreline Protection (ft.) 580	7,619	$8,952,646	$0	$1,790,529	$10,743,176	$8,952,646	$1,790,529	$16,704,701
Subsurface Drain (ft.) 606	6,437	$28,966	$0	$5,793	$34,760	$28,966	$1,738	$36,491
Underground Outlet (ft.) 620	64	$1,305	$0	$261	$1,566	$1,305	$78	$1,644
Water & Sediment Control Basin (no.) 638	64	$193,109	$0	$38,622	$231,731	$193,109	$11,587	$243,273
Wetland Restoration (ac.) 657	53	$160,005	$0	$32,001	$192,006	$160,005	$3,200	$173,859
	Subtotal	**$9,795,556**	**$3,482,437**	**$2,655,599**	**$15,612,334**	**$9,795,556**	**$2,982,861**	**$19,548,603**
TOTAL ACRES TREATED / ESTIMATED TREATMENT COSTS	**11862.42075**	**$10,580,442**	**$8,517,842**	**$3,819,657**	**$22,132,164**	**$10,580,442**	**$4,700,019**	**$23,196,998**

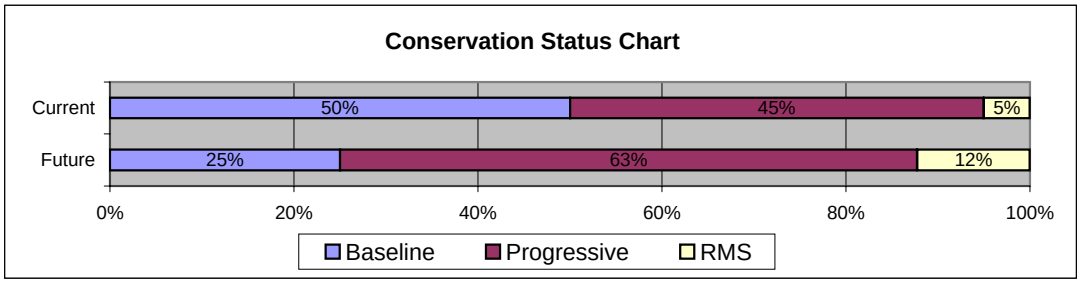

Chart Refers To	
Landuse Type	ROW CROPS
Estimated Participation Rate	29%

Average PV Costs per Ac		
System	Federal	Private
Prog	$89	$50
RMS	$585	$733

Estimated FTE per Year	7.6

Note: Estimates for Matrices are for general planning purposes only and not based on actual funding.

WATERSHED NAME & CODE	OTTERTAIL - 09020103	LANDUSE ACRES	367,827
LANDUSE TYPE	ROW CROPS	TYPICAL UNIT SIZE ACRES	70
POSSIBLE SOURCES OF FUNDING		ESTIMATED PARTICIPATION	29%

CONSERVATION SYSTEMS BY TREATMENT LEVELS	FUTURE	USDA INVESTMENT						OTHERS			NOTES/COMMENTS
	New Treatment Units	CTA	EQIP	WRP	WHIP	CSP	CRP/ CREP	Fed	State	Local	
Progressive System Acres Treated	**73,565**										
Conservation Crop Rotation (ac.) 328	7,357	X	X								
Cover Crop (ac.) 340	11,035	X									
Filter Strip (ac.) 393	1,839	X									
Grassed Waterway (ac.) 412	368	X	X		X	X					
Nutrient Management (ac.) 590	22,070	X	X		X	X					
Residue and Tillage Management, Mulch Till (ac.) 329B	44,139	X	X								
Residue Management, No-Till/Strip Till/Direct Seed (ac.) 329A	2,207	X	X								
Subsurface Drain (ft.) 606	10,509	X									
Underground Outlet (ft.) 620	105	X									
Water & Sediment Control Basin (no.) 638	105	X	X	X	X	X					
Resource Management System (RMS) Acres Treated	**26,667**										
Conservation Crop Rotation (ac.) 328	4,506	X	X								
Cover Crop (ac.) 340	5,425	X									
Critical Area Planting (ac.) 342	267	X									
Filter Strip (ac.) 393	593	X									
Grade Stabilization Structure (no.) 410	19	X									
Grassed Waterway (ac.) 412	225	X	X		X	X					
Nutrient Management (ac.) 590	24,185	X	X		X	X					
Pest Management (ac.) 595	26,667	X	X	X							
Residue and Tillage Management, Mulch Till (ac.) 329B	13,702	X	X								
Residue Management, No-Till/Strip Till/Direct Seed (ac.) 329A	7,752	X	X								
Riparian Forest Buffer (ac.) 391	267	X		X							
Streambank & Shoreline Protection (ft.) 580	7,619	X				X					
Subsurface Drain (ft.) 606	6,437	X									
Underground Outlet (ft.) 620	64	X									
Water & Sediment Control Basin (no.) 638	64	X	X	X	X	X					
Wetland Restoration (ac.) 657	53	X		X							

Note: Estimates for Matrices are for general planning purposes only and not based on actual funding.

DOCUMENTATION SECTION

Rapid Assessment Tool Data

								Resource Concerns:			
Conservation Practice	**Code**	**Units**	**Installation Cost**	**Life**	**O&M Factor**	**Total Annual Cost**	**Soil Erosion – Sheet and Rill**	**Soil Erosion – Ephemeral Gully**	**Water Quality – Excessive Nutrients and Organics in Surface Water**	**Water Quality – Excessive Suspended Sediment and Turbidity in Surface Water**
Conservation Crop Rotation (ac.) 328	328	Ac	$40.00	1	0.00	$40.00	3	3	2	2
Cover Crop (ac.) 340	340	Ac	$48.44	1	0.01	$48.92	4	3	2	2
Critical Area Planting (ac.) 342	342	Ac	$186.30	10	0.03	$29.72	5	5	3	1
Filter Strip (ac.) 393	393	Ac	$77.80	10	0.02	$11.63	2	0	4	4
Grade Stabilization Structure (no.) 410	410	No	$15,000.00	10	0.01	$2,092.57	0	4	0	3
Grassed Waterway (ac.) 412	412	Ac	$1,895.68	10	0.02	$283.41	0	5	2	4
Nutrient Management (ac.) 590	590	Ac	$5.50	1	0.00	$5.50	1	1	5	0
Pest Management (ac.) 595	595	Ac	$5.50	1	0.00	$5.50	0	0	0	0
Residue and Tillage Management, Mulch Till (ac.) 329B	329B	Ac	$15.00	1	0.00	$15.00	4	2	3	3
Residue Management, No-Till/Strip Till/Direct Seed (ac.) 329A	329A	Ac	$30.00	1	0.00	$30.00	5	3	3	3
Riparian Forest Buffer (ac.) 391	391	Ac	$414.04	15	0.01	$44.03	3	0	2	2
Streambank & Shoreline Protection (ft.) 580	580	Ft	$2,350.00	10	0.10	$539.34	0	2	1	4
Subsurface Drain (ft.) 606	606	Ft	$9.00	20	0.03	$0.99	1	1	-2	1
Underground Outlet (ft.) 620	620	Ft	$40.54	10	0.03	$6.47	3	5	3	1
Water & Sediment Control Basin (no.) 638	638	No	$6,000.00	10	0.03	$957.03	0	3	3	3
Wetland Restoration (ac.) 657	657	Ac	$6,000.00	15	0.01	$638.05	2	2	1	3