

Le Sueur Watershed N reduction BMP scenarios

	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	N fertilizer and manure application BMPs only 40%	N fertilizer and manure application BMPs only 80%	N efficiency and Tile Drainage BMPs 40%, 20%	N efficiency and Tile Drainage BMPs 80%, 40%	N efficiency, Tile & veg. cover BMPs 40%,20%,10%	N efficiency, Tile & veg. cover BMPs 80%,40%,20%	Future scenario with high cover crop 80%,40%,50*
N reduction % to waters	9.4%	18.7%	12.7%	24.5%	14.0%	26.2%	37.7%
N reduction Lbs in water		1.6 mill	1.1 mill	2.1 mill	1.2 mill	2.2 mill	3.2 mill
N Fert effic. Cost & acres	+0.2 mill/yr 146,000 ac.	+\$0.9 mill/yr 362,000 ac.	+0.2 mill/yr 146,000 ac.	+\$0.9 mill/yr 362,000 ac.	+0.2 mill/yr 146,000 ac.	+\$0.9 mill/yr 362,000 ac.	+\$0.9 mill/yr 362,000 ac.
Tile drainage Cost & acres			-\$0.4 mill/yr 40,000 ac.	-\$0.9 mill/yr 80,000 ac.	-\$0.4 mill/yr 40,000 ac.	-\$0.9 mill/yr 80,000 ac.	-\$0.9 mill/yr 80,000 ac.
Veg. Cover Cost & acres					-\$3.3 mill/yr 53,000 ac	\$6.7 mill/yr 106,000 ac	? 246,000 ac

Adoption rates:

- A. 40% of corn land with optimal N fert/manure rate;
- B. 80% of corn land with optimal N fert/manure rate
- C. 40% of corn land with optimal N fert/manure rate; 20% of corn with fall N switched to spring w/30 lb rate reduction; 20% of suitable tilled land with wetlands and 20% low slope tilled land with controlled drainage;
- D. 80% of corn land with optimal N fert/manure rate; 40% of corn with fall N switched to spring w/30 lb rate reduction; 40% of suitable tilled land with wetlands and 40% low slope tilled land with controlled drainage;
- E. 40% of corn land with optimal N fert/manure rate; 20% of corn with fall N switched to spring w/30 lb rate reduction; 20% of suitable tilled land with wetlands and 20% low slope tilled land with controlled drainage; 10% suitable riparian corn and marginal lands to perennials and 10% corn/soybeans to rye cover crop with 20% establishment rate.

- F. 80% of corn land with optimal N fert/manure rate; 40% of corn with fall N switched to spring w/30 lb rate reduction; 40% of suitable tilled land with wetlands and 40% low slope tilled land with controlled drainage; 20% suitable riparian corn and marginal lands to perennials and 20% corn/soybeans to rye cover crop with 20% establishment rate.
- G. 80% of corn land with optimal N fert/manure rate; 40% of corn with fall N switched to spring w/30 lb rate reduction; 40% of suitable tilled land with wetlands and 40% low slope tilled land with controlled drainage; 20% suitable riparian corn and marginal lands to perennials and 50% corn/soybeans to rye cover crop with 75% establishment rate.

*50% cover crop and assuming 75% establishment rate, perennials remain at 20% of suitable.