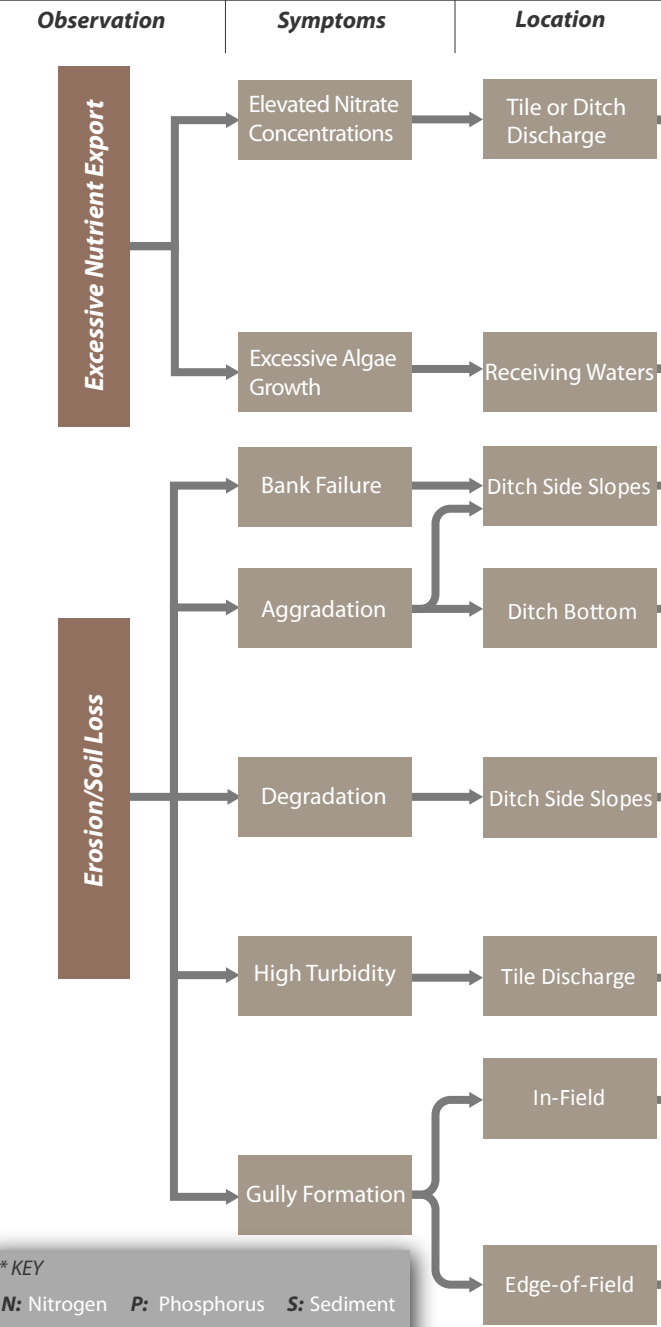


# Agriculture Drainage Best Management Practices



Practice with NRCS Code	
1	<b>Drainage Water Management</b> 554
2	<b>Denitrifying Bioreactor</b> 605
3	<b>Saturated Buffer</b> 604
4	<b>Created/Restored Wetland</b> 657/658
5	<b>Two-Stage Ditch</b> 582
6	<b>Lined Waterway</b> 468
7	<b>Lined Outlet</b> 468
8	<b>Riparian Buffer</b> 390
9	<b>Blind Inlet</b> 620
10	<b>Grassed Waterway</b> 412
11	<b>Filter Strip</b> 393
12	<b>Side-Inlet Drainage Structure</b> 410

Installed on	N	P	S	Effectiveness	Cost
	SEE KEY*				
Tile	✓	✓	✗	11 - 98% N reduction, 48 - 68% dissolved P reduction	\$1.29 per lb of N removed
Tile	✓	--	✗	12 - 75% N reduction, P reduction with biochar amendment	\$0.92 per lb of N removed
Tile	✓	--	--	35 - 59% N reduction, up to 20% dissolved P reduction	\$1 - \$2.20 per lb N removed
Ditch	✓	--	--	11 - 92% N reduction, up to 43% P reduction	\$1.38 per lb of N removed
Ditch	✓	✓	✓	Increased N removal, significant P & turbidity reductions	\$5.27 per lb of N removed
Ditch/Waterway	✗	✓	✓	Targeted erosion prevention	Varies
Tile/Ditch	✗	✓	✓	Targeted erosion prevention	Varies
Ditch/Waterway	--	✓	✓	33 - 99% N reduction, 58 (32)% P reduction	\$1.91 per lb of N removed \$14 per lb of P removed
Tile	✗	✓	✓	11 - 87% P reduction	Varies
Waterway	--	✓	✓	3.7% P reduction Targeted erosion prevention	Varies
Ditch	--	✓	✓	Targeted erosion prevention	Varies
Ditch	✗	✓	✓	Targeted erosion prevention	Varies

\*KEY  
**N:** Nitrogen **P:** Phosphorus **S:** Sediment  
 ✓ Effective    -- Can be effective  
 ✗ Ineffective / Not Applicable



# Agriculture Drainage Best Management Practices

This guide to agricultural drainage BMPs was generated in June of 2019 by Emmons & Olivier Resources, Inc. to outline the most current and generally accepted drainage practices that will achieve reduction of phosphorus, nitrate, and/or sediment loading into Iowa's waters. The table (on the back of this page) provides a summary of the practices, their function in the watershed, and the applicable cost of pollutant removal. Below is an info-graphic depicting the locations of these practices on a typical landscape.

