

Choosing the best calculator for eLINK

This document is a guide to selecting pollution reduction calculators for Best Management Practices (BMPs). Table 1 contains BMPs that have a recommended pollution reduction calculator. Pollution reduction calculators are not available or applicable for all BMPs. Table 2 contains BMPs that either lack a peer reviewed/professionally accepted calculator or pollution reduction estimation is not applicable. To use this guidance document, first look for the BMP of interest in Table 1. Then look across the row to find the recommended pollution reduction calculator(s). Multiple calculators are listed for some BMPs and you may choose which are most appropriate. Not all calculators listed need to be used, however in many circumstances using more than one calculator is necessary to estimate a suite of pollutants. The choice of calculator depends on site specific characteristics. The 'eLINK Category' and 'eLINK Indicators' columns corresponds to drop down menus in the eLINK data entry window and is meant to facilitate entry of pollution reduction estimates into eLINK.

Note: This guidance document does not include all available pollution reduction calculators or models. Use of peer reviewed/professionally accepted calculators or models is acceptable when available and appropriate for the project. Please indicate the model used in the comments field of the indicators tab when reporting in eLINK.

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Table 1

Practice	Suggested Calculator	eLINK Category	eLINK Indicator (s)
Closure of Waste Impoundments (360)	MinnFARM	MinnFARM	P reduction N reduction BOD5 COD Fecal Coliform
Conservation Cover (327)	WEQ	Wind Erosion	Soil (estimated savings)
	RUSLE2	Water Pollution	Soil (estimated savings)
	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)
Conservation Crop Rotation (328)	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)
	RUSLE2	Water Pollution	Soil (estimated savings)
	WEQ	Wind Erosion	Soil (estimated savings)

Table 1 continued

Practice	Suggested Calculator	eLINK Category	eLINK Indicator (s)
Contour Buffer Strips (332)	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)
	RUSLE2	Water Pollution	Soil (estimated savings)
Contour Farming (330)	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)
	RUSLE2	Water Pollution	Soil (estimated savings)
Cover Crop (340)	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)
	RUSLE2	Water Pollution	Soil (estimated savings)
	WEQ	Wind Erosion	Soil (estimated savings)
Critical Area Planting (342)	BWSR Filter strip	Water Pollution	Soil (estimated savings) Sediment (TSS) Phosphorus (estimated reduction)
	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)
	RUSLE2	Water Pollution	Soil (estimated savings)
	WEQ	Wind Erosion	Soil (estimated savings)
Erosion Control (148)	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)
	BWSR Filter strip	Water Pollution	Soil (estimated savings) Sediment (TSS) Phosphorus (estimated reduction)
	BWSR Gully	Water Pollution	Soil (estimated savings) Sediment (TSS) Phosphorus (estimated reduction)
	BWSR Stream & Ditch	Water Pollution	Soil (estimated savings) Sediment (TSS) Phosphorus (estimated reduction)
	RUSLE2	Water Pollution	Soil (estimated savings)
	WEQ	Wind Erosion	Soil (estimated savings)
Field Border (386)	WEQ	Wind Erosion	Soil (estimated savings)
Field Windbreak (RR-4/a, RR-4/b)	WEQ	Wind Erosion	Soil (estimated savings)
Filter Strip (393)	BWSR Filter strip	Water Pollution	Soil (estimated savings) Sediment (TSS) Phosphorus (estimated reduction)
	RUSLE2	Water Pollution	Soil (estimated savings)
Grade Stabilization Structure (410)	BWSR Gully	Water Pollution	Soil (estimated savings) Sediment (TSS)

Table 1 continued

Practice	Suggested Calculator	eLINK Category	eLINK Indicator (s)
Grass Waterway (RR-7, 412)	BWSR Filter strip	Water Pollution	Soil (estimated savings) Sediment (TSS) Phosphorus (estimated reduction)
	RUSLE2	Water Pollution	Soil (estimated savings)
Lined Waterway or Outlet (468)	BWSR Gully	Water Pollution	Soil (estimated savings) Sediment (TSS) Phosphorus (estimated reduction)
	WEQ	Wind Erosion	Soil (estimated savings)
Native Grass Establishment (with or without forbs) (RR-2/a, RR-2-FB/b, RR-2-FB/a)	WEQ	Wind Erosion	Soil (estimated savings)
	RUSLE2	Water Pollution	Soil (estimated savings)
	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)
Pasture and Hayland Management (510)	WEQ	Wind Erosion	Soil (estimated savings)
	RUSLE2	Water Pollution	Soil (estimated savings)
	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)
Pasture and Hayland Planting (512)	WEQ	Wind Erosion	Soil (estimated savings)
	RUSLE2	Water Pollution	Soil (estimated savings)
	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)
Planned Grazing System (556)	WEQ	Wind Erosion	Soil (estimated savings)
	RUSLE2	Water Pollution	Soil (estimated savings)
	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)
Prescribing Grazing (528)	WEQ	Wind Erosion	Soil (estimated savings)
	RUSLE2	Water Pollution	Soil (estimated savings)
	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)
Residue Management - Mulch Till (329B)	WEQ	Wind Erosion	Soil (estimated savings)
	RUSLE2	Water Pollution	Soil (estimated savings)
	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)
Residue Management - No Till & Strip Till (329A)	WEQ	Wind Erosion	Soil (estimated savings)
	RUSLE2	Water Pollution	Soil (estimated savings)
	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)

Table 1 continued

Practice	Suggested Calculator	eLINK Category	eLINK Indicator (s)
Residue Management - Ridge Till (329C)	WEQ	Wind Erosion	Soil (estimated savings)
	RUSLE2	Water Pollution	Soil (estimated savings)
	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)
Residue Management - Seasonal (344)	WEQ	Wind Erosion	Soil (estimated savings)
	RUSLE2	Water Pollution	Soil (estimated savings)
	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)
Restoration and Management of Declining Habitats (643)	WEQ	Wind Erosion	Soil (estimated savings)
	RUSLE2	Water Pollution	Soil (estimated savings)
	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)
Riparian Forest Buffer (391)	BWSR Stream & Ditch	Water Pollution	Soil (estimated savings) Sediment (TSS) Phosphorus (estimated reduction)
Riparian Herbaceous Buffer (390)	BWSR Stream & Ditch	Water Pollution	Soil (estimated savings) Sediment (TSS) Phosphorus (estimated reduction)
	BWSR Filter strip	Water Pollution	Soil (estimated savings) Sediment (TSS) Phosphorus (estimated reduction)
Runoff Management System (570)	MinnFARM	MinnFARM	P reduction N reduction BOD5 COD Fecal Coliform
Sediment Basin (350)	BWSR Gully	Water Pollution	Soil (estimated savings) Sediment (TSS) Phosphorus (estimated reduction)
	RUSLE2	Water Pollution	Soil (estimated savings)
Stream Channel Stabilization (584)	BWSR Stream & Ditch	Water Pollution	Soil (estimated savings) Sediment (TSS) Phosphorus (estimated reduction)
Streambank and Shoreline Protection (580)	BWSR Stream & Ditch	Water Pollution	Soil (estimated savings) Sediment (TSS) Phosphorus (estimated reduction)

Table 1 continued

Practice	Suggested Calculator	eLINK Category	eLINK Indicator (s)
Stripcropping (585)	WEQ	Wind Erosion	Soil (estimated savings)
	RUSLE2	Water Pollution	Soil (estimated savings)
	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)
Structure for Water Control (587)	***If used as part of a grade stabilization, sediment basin or terrace, see appropriate BMP***		
Subsurface Drain (606)	***If used as a component of another practice, use the calculators suggested for the other practice (i.e. Terrace)****		
Terrace (600)	BWSR Gully	Water Pollution	Soil (estimated savings) Sediment (TSS) Phosphorus (estimated reduction)
	RUSLE2	Water Pollution	Soil (estimated savings)
Upland Wildlife Habitat Management (645)	RUSLE2	Water Pollution	Soil (estimated savings)
	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)
	WEQ	Wind Erosion	Soil (estimated savings)
Waste Management System (312)	MinnFARM	MinnFARM	P reduction N reduction BOD5 COD Fecal Coliform
Waste Storage Facility (313)	MinnFARM	MinnFARM	P reduction N reduction BOD5 COD Fecal Coliform
Waste Treatment Lagoon (359)	MinnFARM	MinnFARM	P reduction N reduction BOD5 COD Fecal Coliform
Wastewater & Feedlot Runoff Control (784)	MinnFARM	MinnFARM	P reduction N reduction BOD5 COD Fecal Coliform

Table 1 continued

Practice	Suggested Calculator	eLINK Category	eLINK Indicator (s)
Water & Sediment Control Basin (638)	RUSLE2	Water Pollution	Soil (estimated savings)
	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)
Wildlife Habitat Management (perennial plantings) (154M)	RUSLE2	Water Pollution	Soil (estimated savings)
	BWSR Sheet/Rill	Water Pollution	Sediment (TSS) Phosphorus (estimated reduction)
	WEQ	Wind Erosion	Soil (estimated savings)
Windbreak/Shelterbelt Establishment (380)	WEQ	Wind Erosion	Soil (estimated savings)

Table 2

<p>Not Applicable - BMPs that are either unlikely to reduce pollution or pollution reduction is too site specific and a generalized calculator is not appropriate.</p>	<p>Not currently available or under development — calculators either do not exist for this BMP or BWSR is not currently recommending a specific calculator.</p>
<p>Access Road (560) Aeration (567M) Agricultural Development - crop (141M) Agricultural Development - no crop (142M) Aquaculture (160M) Bedding (310M) Brush Management (314) Commercial Fishponds (397M) Conservation Cover Easement (327M) Cooperative Weed Management Area (613M) Dam, Floodwater retarding (402) Dam, Multi-Purpose (349) Dike (356) Drainage Modification System (363M) Early Successional Habitat Development/Management (647) Education - Equipment (106M) Education - Materials (107M) Education - Media (108M) Existing Private Road (136M) Fabricated Shelter for Livestock (771) Fence (382) Fish Management (391M) Fish Stream Improvement (395) Floodwater Diversion (400) Floodway (404) Forest Site Preparation (490) Land Clearing (460M) Land Reconstruction Abandoned Mine (543M) Mole Drain (482M) New Private Road (137M) Obstruction Removal (500) Pest Management (595) Pipeline (516) Pond Sealing or Lining, Bentonite Seal (521C) Pond, pushup (163M)</p>	<p>Abandoned Well Sealing (100) Alley Cropping (311) Alternative Tile Intake - Dense Pattern Tiling (170M) Alternative Tile Intake - Hickenbottom Intake (171M) Alternative Tile Intake - Other Blind Intake (173M) Alternative Tile Intake - Rock Inlet (172M) Anaerobic Digester (366) Animal Mortality Facility (316) Animal Trails and Walkways (575) Aquatic Vegetation Management (565M) Bioretention (712) Clearing & Snagging (326) Composting Facility (317) Critical or Sensitive Area Protection (343M) Deferred Grazing (GB6) Diversion (362, RR-5) Drainage Water Management (554) Field Windbreak (RR-4/a, RR-4/b) Forest Stand Improvement (666) Forestry Management (147) Heavy Use Area Protection (561) Nutrient Management (590) Pond (378) Pond Maintenance (164M) Roof Runoff Management (558) Salt Reduction (610) Septage Management (127M) Septic System Improvement (126M) Sinkhole Treatment (571) Storm Water Retention Basin (155M) Tree/Shrub Establishment (612, RR-3/a, RR-3/b, RR-3/c) Underground Outlet (620) Urban Landscaping (621M) Urban Landscaping - Raingarden (622M) Use Exclusion (472)</p>

Table 2 continued

<p>Not Applicable - BMPs that are either unlikely to reduce pollution or pollution reduction is too site specific and a generalized calculator is not appropriate.</p>	<p>Not currently available or under development – calculators either do not exist for this BMP or BWSR is not currently recommending a specific calculator.</p>
<p>Prescribed Burning (338) Private Drainage Improvement (159M) Private Drainage Maintenance (157M) Public Drainage Improvement (158M) Public Drainage Maintenance (156M) Pumping Plant for Water Control (533) Recreation Trail and Walkway (568M) Road Construction Practices (564M) Spoil Spreading (572) Surface Drain - Field Ditch (607) Surface Drain - Main or Lateral (608) Utility Repair/Maintenance (144M) Waste Facility Cover (367) Waste Utilization (633) Water and Sediment Control Basin Maintenance (639) Water Appropriation (152M) Watering Facility (614) Well (642) Wetland Wildlife Habitat Management (644)</p>	<p>Water Control for Lake/Wetland draw down (646M) Well Decommissioning (351) Well Sealing (643M) Wetland Creation (658, 132M, RR-8/a, RR-8/b, RR-8/c) Wetland Enhancement (659) Wetland Restoration (657, RR-8/c) Windbreak Shelterbelt Renovation (650) Woodland Improvement & Harvesting (654M)</p>