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1 (a) The diversion includes an adequate outlet that prevents erosion.

2 (b) The diversion complies with all of the following that apply:

3 1. NRCS technical guide critical area planting standard 342.

4 2. NRCS technical guide diversion standard 362.

5 3. NRCS technical guide fencing standard 382.

6 4. NRCS technical guide grassed waterway standard 412.

7 5. NRCS technical guide lined waterway or outlet standard 468.

8 6. NRCS technical guide obstruction removal standard 500.

9 7. NRCS technical guide subsurface drain standard 606.

10 8. NRCS technical guide underground outlet standard 620.

11 9. NRCS technical guide wildlife upland habitat management standard 645, if

12 habitat management is used to mitigate the loss of habitat resulting from installation of a

13 diversion.

14 (c) The landowner agrees to maintain the diversion for 10 years unless farming

15 operations on the affected land are discontinued.

16 **ATCP 50.71 Field windbreaks.** (1) **DEFINITION.** In this section, "field

17 windbreak" means a strip or belt of trees, shrubs or grasses established or restored within

18 or adjacent to a field, so as to control soil erosion by reducing wind velocities at the land

19 surface.

20 (2) **ELIGIBLE COSTS.** A cost-share grant under s. ATCP 50.40 may reimburse the

21 cost of planting trees, shrubs or grasses to protect farm fields from wind erosion.

1 (3) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant under s.
2 ATCP 50.40 may not reimburse field windbreak costs unless all of the following
3 conditions are met:

4 (a) The windbreak is protected from destructive grazing.

5 (b) The windbreak complies with all of the following that apply:

6 1. NRCS technical guide fencing standard 382.

7 2. NRCS technical guide field windbreaks standard 392.

8 3. NRCS technical guide livestock exclusion standard 472.

9 (c) The landowner agrees to maintain the windbreak for 10 years unless farming
10 operations on the affected land are discontinued.

11 **ATCP 50.72 Filter strips.** (1) DEFINITION. In this section:

12 (a) "Filter strip" means an area of herbaceous vegetation that separates an
13 environmentally sensitive area from cropland, grazing land or disturbed land. "Filter
14 strip" does not include a wastewater treatment strip.

15 (b) "Wastewater treatment strip" has the meaning given in s. ATCP 50.94(1).

16 (2) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse the
17 following filter strip costs:

18 (a) Permanent fencing to protect the filter strip.

19 (b) Costs to establish permanent vegetative cover in the filter strip, or to provide
20 temporary cover until permanent cover is established. This may include costs for mulch,
21 fertilizer and other necessary materials.

22 (c) Costs to shape, smooth or prepare the filter strip before establishing a
23 permanent vegetative cover.

1 (3) DESIGN, CONSTRUCTION AND MAINTENANCE STANDARDS. A cost-share grant
2 under s. ATCP 50.40 may not reimburse filter strip costs unless all of the following
3 conditions are met:

4 (a) The filter strip complies with all of the following that apply:

- 5 1. NRCS technical guide critical area planting standard 342.
- 6 2. NRCS technical guide fencing standard 382.
- 7 3. NRCS technical guide field border standard 386.
- 8 4. NRCS technical guide filter strip standard 393.
- 9 5. NRCS technical guide livestock exclusion standard 472.
- 10 6. NRCS technical guide mulching standard 484.
- 11 7. NRCS technical guide riparian forest buffer standard 391.

12 (b) The landowner agrees to maintain the filter strip for 10 years unless farming
13 operations on the affected land are discontinued.

14 **ATCP 50.73 Grade stabilization structures.** (1) DEFINITION. In this section,
15 "grade stabilization structure" means a structure which stabilizes the grade in a channel in
16 order to protect the channel from erosion, or to prevent gullies from forming or
17 advancing. A "grade stabilization structure" may include any of the following:

18 (a) Detention or retention structures such as dams, desilting reservoirs, sediment
19 basins and debris basins.

20 (b) Related structures such as channel linings, chutes, drop spillways or pipe
21 drops.

22 (2) ELIGIBLE COSTS: A cost-share grant under s. ATCP 50.40 may reimburse any
23 of the following:

- 1 (a) Costs to design, construct, repair or modify a grade stabilization structure.
- 2 (b) Costs for leveling and filling needed to install the structure.
- 3 (c) Costs to establish permanent vegetative cover, or to provide temporary cover
- 4 until permanent cover is established. This may include costs for mulch, fertilizer, seed
- 5 and other necessary materials.
- 6 (d) Costs for fencing to protect the structure.

7 (3) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant under s.

8 ATCP 50.40 may not reimburse any cost related to a grade stabilization structure unless

9 all of the following conditions are met:

- 10 (a) The department pre-approves the structure in writing if the embankment
- 11 structural height is 15 to 25 feet, or the maximum storage capacity is 15 to 50 acre-feet.
- 12 (b) The structural height does not exceed 25 feet, and the maximum storage
- 13 capacity does not exceed 50 acre-feet.
- 14 (c) DNR is notified and given the opportunity to conduct a feasibility study if the
- 15 structure is adjacent to a navigable stream or a stream supporting a fishery.
- 16 (d) The structure complies with all of the following that apply:
- 17 1. NRCS technical guide critical area planting standard 342.
- 18 2. NRCS technical guide diversion dam standard 348.
- 19 3. NRCS technical guide sediment basin standard 350.
- 20 4. NRCS technical guide diversion standard 362.
- 21 5. NRCS technical guide fencing standard 382.
- 22 6. NRCS technical guide obstruction removal standard 500.
- 23 7. NRCS technical guide grade stabilization structure standard 410.

- 1 8. NRCS technical guide grassed waterway standard 412.
- 2 9. NRCS technical guide lined waterway or outlet standard 468.
- 3 10. NRCS technical guide mulching standard 484.
- 4 11. NRCS technical guide subsurface drain standard 606.
- 5 12. NRCS technical guide underground outlet standard 620.
- 6 13. NRCS technical guide water and sediment control basin standard 638.

7 (e) The landowner agrees to maintain the grade stabilization structure for 10
8 years unless farming operations on the affected land are discontinued.

9 **ATCP 50.74 Heavy use area protection.** (1) DEFINITION. In this section,
10 "heavy use area protection" means installation of surface material to control runoff and
11 erosion in areas subject to concentrated or frequent livestock activity. "Heavy use area
12 protection" may include establishing vegetative cover, or installing surfacing materials
13 such as concrete, compacted stone and stone fragments, or geotextiles.

14 (2) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse any
15 of the following costs related to heavy use area protection:

16 (a) Costs for surfacing materials in a barnyard runoff control system, manure
17 storage system or prescribed grazing system if necessary to facilitate removal of manure
18 or to protect groundwater.

19 (b) Costs for installing a permanent vegetative cover, including costs for mulch,
20 fertilizer, seed and other necessary materials.

21 (c) Costs for excavation, fill, grading and compacting.

22 (d) Costs for fencing needed to contain livestock in any barnyard runoff control
23 system.

1 (3) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant under s.
2 ATCP 50.40 may not reimburse the cost of heavy use area protection unless all of the
3 following conditions are met:

4 (a) The practice complies with all of the following that apply:

- 5 1. NRCS technical guide critical area planting standard 342.
- 6 2. NRCS technical guide fencing standard 382.
- 7 3. NRCS technical guide heavy use area protection standard 561.

8 (b) The landowner agrees to maintain the heavy use area protection for 10 years
9 unless farming operations on the affected land are discontinued.

10 **ATCP 50.75 Livestock fencing.** (1) DEFINITION. In this section, "livestock
11 fencing" means either of the following:

12 (a) Excluding livestock, by fencing or other means, in order to protect an erodible
13 area or a practice under this subchapter.

14 (b) Restricting, by fencing or other means, human access to manure storage
15 structures or other practices under this subchapter which may pose a hazard to humans.

16 (2) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse
17 costs for livestock fencing, including the cost of designing and installing permanent
18 fencing, gates and related devices that are necessary to protect a practice, or to prevent
19 degradation of waters of the state.

20 (3) INELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may not
21 reimburse the costs for any of the following:

- 22 (a) Electric fence energizers.
- 23 (b) Portable fences and equipment used to contain or exclude livestock.

1 (c) Fencing, gates or other equipment used primarily for the purpose of
2 segregating, handling or feeding livestock, rather than protecting an erodible area or a
3 practice under this subchapter.

4 (4) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant under s. 100
5 ATCP 50.40 may not reimburse livestock fencing costs unless all of the following
6 conditions are met:

7 (a) The livestock fencing complies with all of the following that apply:

- 8 1. NRCS technical guide fencing standard 382.
- 9 2. NRCS technical guide livestock exclusion standard 472.

10 (b) The landowner agrees to maintain the livestock fencing practice for 10 years
11 unless farming operations on the affected land are discontinued.

12 **ATCP 50.76 Livestock watering facilities.** (1) DEFINITION. In this section,
13 "livestock watering facility" means a trough, tank, pipe, conduit, spring development,
14 pump, well, or other device or combination of devices installed to deliver drinking water
15 to livestock.

16 (2) COST-SHARE ELIGIBILITY. A cost-share grant under s. ATCP 50.40 may
17 reimburse costs to establish a livestock watering facility if the livestock watering facility
18 is a necessary component of a prescribed grazing system funded under s. ATCP 50.80, or
19 if all of the following conditions are met:

20 (a) The livestock watering facility will do one of the following:

- 21 1. Prevent nonpoint source water pollution by replacing livestock access to a
22 stream or other natural drinking water source.

1 2. Water livestock that are isolated from a natural drinking water source by
2 another conservation practice under this subchapter.

3 (b) The livestock watering facility is necessary to achieve water quality
4 objectives.

5 (c) Installing the livestock watering facility is less expensive than providing
6 environmentally safe livestock access to a natural source of drinking water.

7 (3) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse the
8 cost of designing and constructing a livestock watering facility.

9 (4) INELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may not
10 reimburse costs for any of the following:

11 (a) More than one livestock watering facility when the need for more than one
12 watering facility is created by the segregation or handling of livestock within a manure
13 management system. This paragraph does not apply when the need for more than one
14 livestock watering facility is created by the segregation or handling of livestock within a
15 prescribed grazing system.

16 (b) A water supply used for purposes other than providing drinking water to
17 livestock.

18 (c) Installing a livestock watering facility if there is a less expensive way to water
19 livestock, consistent with soil and water conservation goals.

20 (5) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant may not
21 reimburse the cost of establishing a livestock watering facility unless all of the following
22 conditions are met:

23 (a) The livestock watering facility complies with all of the following that apply:

- 1 1. NRCS technical guide spring development standard 574.
- 2 2. NRCS technical guide trough and tank standard 614.
- 3 3. NRCS technical guide well standard 642.
- 4 4. NRCS technical guide pipeline standard 516.
- 5 5. Chapter NR 812, related to well construction and pump installation.

6 (b) The landowner agrees to maintain the livestock watering facility for 10 years
7 unless farming operations on the affected land are discontinued.

8 **ATCP 50.77 Milking center waste control systems.** (1) **DEFINITIONS.** In this
9 section:

10 (a) "Milking center waste" means waste water, cleaning ingredients, waste milk
11 or other discharge from a milking parlor or milkhouse.

12 (b) "Milking center waste control system" means a system of facilities or
13 equipment designed to contain or control the discharge of milking center waste.

14 (2) **ELIGIBLE COSTS.** A cost-share grant under s. ATCP 50.40 may reimburse any
15 of the following costs related to a milking center waste control system:

16 (a) Costs to design, construct, repair or modify a milking center waste control
17 system, including costs for appropriate waste pretreatment, waste storage and land
18 irrigation equipment.

19 (b) Costs for conduits, pumps and related equipment required to transfer milking
20 center wastes, provided that the equipment is designed and used for that sole purpose.

21 (c) Other milking center waste control measures, approved by the department,
22 that are needed to meet identified water quality objectives. These measures may include
23 conservation sinks, pre-cooler water utilization systems, manifold cleaning systems, air

1 injection systems, wastewater treatment strips used with appropriate waste pretreatment
2 measures, recyclable water storage and plumbing for automatic water and cleaning
3 chemicals controls, flocculator systems, waste milk diverter valves and booster pumps for
4 parlor floor cleaning.

5 (3) INELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may not
6 reimburse any of the following costs related to a milking center waste control system:

7 (a) Costs for any system, component or practice that is not needed to correct an
8 identified water pollution hazard.

9 (b) Buildings or modifications to buildings. This paragraph does not apply to
10 building modifications that are essential for the installation of a milking center waste
11 control system.

12 (c) Portable equipment for spreading milking center wastes onto land or
13 incorporating those wastes into land.

14 (4) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant may not
15 reimburse any costs related to a milking center waste control system unless all of the
16 following conditions are met:

17 (a) The system complies with all of the following that apply:

18 1. The university of Wisconsin-extension pollution control guide for milking
19 center waste water management (July 1994).

20 **NOTE:** The UW-extension pollution control guide for milking center waste
21 water management is on file with the department, the secretary of state
22 and the revisor of statutes. Copies may be purchased from the department
23 or the university of Wisconsin-extension (UWEX Pub. No. A3592).

24 2. NRCS technical guide wastewater treatment strip standard 635.

25 3. NRCS technical guide waste storage facility standard 313.
26

1 4. NRCS technical guide manure transfer standard 634.

2 5. NRCS technical guide nutrient management standard 590 dated March, 1999.

3 (b) The landowner agrees to maintain the milking center waste control system for
4 10 years unless the milking operation is discontinued.

5 **ATCP 50.78 Nutrient management.** (1) DEFINITIONS. In this section,
6 "nutrient management" means controlling the amount, source, form, location and timing
7 of plant nutrient applications, including application of organic wastes, commercial
8 fertilizers, soil reserves and legumes, in order to provide plant nutrients while minimizing
9 the movement of nutrients to surface water and groundwater.

10 (2) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse
11 costs for nutrient management prescribed in a nutrient management plan. A cost-share
12 grant may reimburse any of the following costs related to nutrient management:

13 (a) Costs for soil and plant nutrient testing, including residual nitrogen analysis.

14 (b) Costs for nutrient analysis of manure and other organic waste.

15 (c) Costs to develop or revise a nutrient management plan.

16 (3) DESIGN AND MAINTENANCE. A cost-share grant under s. ATCP 50.40 may not
17 reimburse nutrient management costs under this section unless all of the following
18 conditions are met:

19 (a) The nutrient management practice complies with NRCS technical guide
20 nutrient management standard 590 dated March, 1999.

21 (b) The landowner agrees to maintain the nutrient management practice in each
22 year for which cost-sharing is provided.

1 **ATCP 50.79 Pesticide management.** (1) DEFINITION. In this section,
2 “pesticide management” means controlling the storage, handling, use and disposal of
3 pesticides used in crop production in order to minimize contamination of water, air and
4 nontarget organisms.

5 (2) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse
6 costs for pesticide management described in a pesticide management plan. A cost-share
7 grant may reimburse any of the following costs related to pesticide management:

8 (a) Costs for integrated pest management field scouting.

9 (b) Costs to develop or revise a pesticide management plan.

10 (c) Costs for spill control facilities, including any of the following facilities that
11 are needed:

12 1. A liquid-tight, reinforced concrete pad for a pesticide mixing area.

13 2. Water-tight walls or perimeter flow diversion structures to convey spills or
14 contaminated water from a pesticide mixing area to a sump.

15 3. Perimeter flow diversion structures needed to convey surface water away from
16 a pesticide mixing area.

17 4. A shallow sump collection area capable of storing spills, rinsate, washwater
18 and precipitation that may leak or fall on a pesticide mixing pad.

19 5. Roof structures and walls to protect a pesticide mixing area.

20 6. Pesticide mixing area approach ramps.

21 7. Water supply systems needed for a pesticide mixing area.

22 8. Sump pump alarm and recovery systems for a pesticide mixing area.

1 (3) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant under s.
2 ATCP 50.40 may not reimburse pesticide management costs under this section unless all
3 of the following conditions are met:

4 (a) The cost-shared practice complies with all of the following that apply:

- 5 1. NRCS technical guide pest management standard 595.
- 6 2. Pesticide mixing and loading standards under subch. VIII of ch. ATCP 29.
- 7 3. Standards specified by the midwest plan service in *Designing Facilities for*
8 *Pesticide and Fertilizer Containment*, MWPS-37 (first edition, 1991).

9 (b) The landowner agrees to maintain the pesticide management practice for each
10 cropping season for which cost-sharing is provided.

11 **ATCP 50.80 Prescribed grazing.** (1) DEFINITION. In this section, "prescribed
12 grazing" or "rotational grazing" means a grazing system which divides pastures into
13 multiple cells, each of which is grazed intensively for a short period and then protected
14 from grazing until its vegetative cover is restored.

15 **NOTE:** Prescribed grazing systems can prevent degradation resulting from other
16 pasturing practices. Prescribed grazing systems should replace summer
17 dirt lots when they result in water quality degradation.
18

19 (2) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse the
20 cost of replacing animal lots or pastures, or establishing a prescribed grazing system on
21 croplands, that contribute sediments, nutrients or pesticides to a water resource. This
22 may include any of the following costs:

23 (a) The cost to establish or repair livestock access lanes and stream crossings to
24 prevent instability and erosion.

1 (b) The cost to establish permanent boundary and main paddock fences. This
2 may include perimeter fencing, lane fencing, portable fencing and gates.

3 (c) The cost to establish good seeding stands for pasture and hayland planting.

4 (d) The cost to establish a livestock watering facility. This may include pipeline
5 and pasture watering systems, wells, spring developments, and portable watering systems
6 such as pumps, pipes and tanks.

7 (e) The costs for practices that would remediate streambank erosion and
8 streambank habitat degradation.

9 (f) The costs for practices that would exclude livestock from woodlands,
10 sensitive wildlife habitat and recreational lands.

11 (3) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant under s.
12 ATCP 50.40 may not reimburse prescribed grazing costs unless all of the following
13 conditions are met:

14 (a) The prescribed grazing practices comply with all of the following that apply:

15 1. NRCS technical guide critical area planting standard 342.

16 2. NRCS technical guide pasture and hayland planting standard 512.

17 3. NRCS technical guide pasture and hayland management standard 510.

18 4. NRCS technical guide livestock exclusion standard 472.

19 5. NRCS technical guide streambank and shoreline protection standard 580.

20 6. NRCS technical guide heavy use area protection standard 561.

21 7. NRCS technical guide prescribed grazing standard 528A.

22 8. Guidelines specified in "Wisconsin pastures for profit: a hands-on guide to
23 rotational grazing," published by the university of Wisconsin-extension, August 1994.

1 **NOTE:** Copies of "Wisconsin pastures for profit: a hands-on guide to rotational
2 grazing" are on file with the department, the secretary of state and the
3 revisor of statutes. Copies may be purchased from the department or from
4 the university of Wisconsin-extension (UWEX Pub. No. A3529).

5 9. NRCS technical guide animal trails and walkways standard 575.

6 10. Standards for livestock watering facilities specified under s. ATCP 50.76.

7 (b) The landowner agrees to maintain the prescribed grazing system for 10 years
8 unless farming operations on the affected land are discontinued.

9 **ATCP 50.81 Relocating or abandoning animal feeding operations. (1)**

10 **DEFINITIONS.** In this section:

11 (a) "Abandonment" means discontinuing an animal feeding operation in order to
12 prevent surface water or groundwater pollution from that animal feeding operation.

13 (b) "Animal feeding operation" means a feedlot or facility, other than a pasture,
14 where animals are fed, confined, maintained or stabled for 45 days or more in any 12-
15 month period. Two or more animal feeding operations under common ownership or
16 common management constitute a single animal feeding operation if any of the following
17 apply:

- 18 1. The operations are adjacent.
- 19 2. The operations use common plans, acreage or systems to landspread manure or
20 other wastes.
- 21 3. Manure, barnyard runoff or other wastes are commingled in a common storage
22 facility prior to landspreading.

23 (c) "Relocation" means discontinuing an animal feeding operation at one site and
24 commencing that operation at a suitable alternate site in order to minimize the amount of
25 surface water or groundwater pollution from that animal feeding operation.

1 (2) COST-SHARE ELIGIBILITY. A cost-share grant under s. ATCP 50.40 may
2 reimburse costs incurred for the permanent relocation or abandonment of an animal
3 feeding operation if all of the following conditions are met:

4 (a) The department or the county land conservation committee finds that
5 relocation or abandonment is the most practical and cost-effective way to achieve
6 compliance with state or local regulations.

7 (b) The department approves the relocation or abandonment plan.

8 (c) The landowner agrees, in a covenant that runs with the land, that no person
9 may reestablish an animal feeding operation at that site unless the department determines
10 that the reestablished operation complies with ATCP 50.04. The department may waive
11 this requirement if the department finds that the covenant is unnecessary.

12 (d) The covenant under par. (c) is recorded in the office of the register of deeds
13 for each county in which the property is located.

14 (3) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse any
15 of the following costs to relocate or abandon an animal feeding operation:

16 (a) Costs to install manure management systems and other conservation practices
17 under this subchapter at a new site, as authorized under this chapter.

18 (b) Costs to abandon and rehabilitate the current site, including costs for any of
19 the following:

20 1. Removing concrete paving, fencing, bunks, livestock housing structures,
21 livestock feeding structures and other obstructions.

22 2. Grading and establishing vegetation on the site.

23 3. Excluding livestock from the site.

1 4. Abandoning wells on the site.

2 (c) Costs to move buildings and other structures.

3 (d) Costs to transport animals to a site in this state that is not on the same farm,
4 up to a maximum of \$5,000.

5 (e) Costs for livestock buildings and associated facilities needed to maintain the
6 transferred livestock at the new site if all of the following apply:

7 1. The department determines that the relocation is necessary to comply with
8 ATCP 50.04 and is cost-effective.

9 2. The cost-share grant does not exceed the appraised value of the buildings and
10 associated facilities at the current site, or 70% of the costs of the replacement buildings
11 and associated facilities, whichever is less.

12 3. The relocation will not cause a violation of ATCP 50.04.

13 **NOTE:** Cost-share grants under this section are subject to the limitations
14 specified in s. ATCP 50.42.

15 (4) **INELIGIBLE COSTS.** A cost-share grant under s. ATCP 50.40 may not
16 reimburse any costs to reestablish an animal feeding operation that has been abandoned
17 under this section.

18 (5) **DESIGN, CONSTRUCTION AND MAINTENANCE.** A cost-share grant may not
19 reimburse the cost of relocating or abandoning an animal feeding operation unless all of
20 the following apply:

21 (a) The relocation or abandonment complies with the technical guide standards
22 for the conservation practices in this subchapter.

23 (b) The landowner agrees to maintain the relocated operation, if any, for 10 years
24 unless farming operations on the affected land are discontinued.
25

1 **ATCP 50.82 Residue management.** (1) **DEFINITION.** In this section, "residue
2 management" means any of the following:

3 (a) Preparing land surfaces for the planting and growing of crop plants using
4 methods that result in a rough land surface which is covered in varying degrees by
5 vegetative residues of a previous crop, and which provides a significant degree of
6 resistance to soil erosion by raindrop impact, surface water runoff or wind.

7 (b) Planting crop seeds in a narrow slot or a narrow strip of tilled soil, in order to
8 maintain residue cover and avoid disturbing the entire soil surface.

9 (2) **ELIGIBLE COSTS.** (a) A cost-share grant under s. ATCP 50.40 may reimburse
10 costs for any of the following residue management practices:

11 1. No-till practices.

12 2. Chisel plowing.

13 3. Disking.

14 4. Till-planting practices.

15 5. Other, similar practices.

16 (b) For cost-sharing purposes, the cost of residue management practices shall be
17 based on prevailing prices charged by providers of custom residue management services
18 in the surrounding area.

19 (3) **INELIGIBLE COSTS.** A cost-share grant may not reimburse costs for both this
20 practice and the cover and green manure crop practice for the same acreage in the same
21 year, without department approval.

1 (4) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant under s.
2 ATCP 50.40 may not reimburse residue management costs unless all of the following
3 conditions are met:

4 (a) Land subject to residue management is protected from erosion from the time
5 of harvest until after the next planting. Protection may be provided by a cover crop
6 residue, temporary cover or another approved practice. The residue, temporary cover or
7 other approved practice shall cover at least 30% of the land.

8 (b) On lands with slopes greater than 6%, all tillage and planting operations are
9 performed as nearly as practicable on the contour or parallel to terraces.

10 (c) The residue management complies with all of the following applicable
11 standards:

- 12 1. NRCS technical guide residue management, no till and strip till standard 329A.
- 13 2. NRCS technical guide residue management, mulch till standard 329B.
- 14 3. NRCS technical guide residue management, seasonal standard 344.

15 (d) The landowner agrees to maintain the residue management practice for each
16 cropping season for which cost-sharing is provided.

17 **ATCP 50.83 Riparian buffers.** (1) DEFINITION. In this section, "riparian
18 buffer" means an area in which vegetation is enhanced or established to reduce or
19 eliminate the movement of sediment, nutrients and other nonpoint source pollutants to an
20 adjacent surface water resource or groundwater recharge area, to protect the banks of
21 streams and lakes from erosion, and to protect fish habitat.

22 (2) ELIGIBLE COSTS. A cost-share grant may reimburse any of the following
23 costs:

1 (a) Permanent fencing to protect a riparian buffer.

2 (b) Costs to establish or enhance permanent vegetative cover in a riparian buffer,
3 or to provide temporary cover until permanent cover is established. This may include
4 costs for mulch, fertilizer, seed, seedling trees and other necessary materials.

5 (c) Costs to shape, smooth or prepare the riparian buffer before establishing a
6 permanent vegetative cover.

7 (d) Costs for land removed from agricultural production to install a riparian
8 buffer.

9 (3) DESIGN, CONSTRUCTION AND MAINTENANCE STANDARDS. A cost-share grant
10 may not reimburse riparian buffer costs unless all of the following conditions are met:

11 (a) The riparian buffer system complies with all of the following that apply:

12 1. NRCS technical guide critical area planting standard 342.

13 2. NRCS technical guide fencing standard 382.

14 3. NRCS technical guide field border standard 386.

15 4. NRCS technical guide filter strip standard 393.

16 5. NRCS technical guide livestock exclusion standard 472.

17 6. NRCS technical guide mulching standard 484.

18 7. NRCS technical guide riparian forest buffer standard 391.

19 8. NRCS technical guide shoreland habitat standard 643A.

20 9. NRCS technical guide wildlife upland habitat management standard 645.

21 (b) The landowner agrees to maintain the riparian buffer for 10 years unless
22 farming operations on the affected land are discontinued.

23 **ATCP 50.84 Roofs.** (1) DEFINITIONS. In this section:

1 (a) "Roof" means a weather-proof covering that shields an animal lot or manure
2 storage structure from precipitation, and includes the structure supporting that weather-
3 proof covering. "Roof" does not include, except in the case of a manure storage
4 structure, a covering over an enclosed structure if the sum of the length of the walls of the
5 structure exceeds 50 percent of the perimeter of the covering. If a structure includes 2 or
6 more square or rectangular areas, the ratio of wall length to covering perimeter shall be
7 separately calculated for each square or rectangular area, excluding common sides.

8 (b) "Wall" means a vertical expanse in which more than 50 percent of the
9 opening from eave to floor or ground is composed of a solid building material. The
10 building material need not be rigid.

11 (2) COST-SHARE ELIGIBILITY. A cost-share grant under s. ATCP 50.40 may
12 reimburse the cost of constructing a roof if the county land conservation committee finds
13 that the roof construction is the most practical and cost-effective way to achieve
14 compliance with state or local regulations.

15 (3) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse the
16 cost of designing and constructing a roof, over an existing or relocated animal lot or
17 manure storage structure, that is necessary to prevent barnyard runoff or discharges from
18 a manure storage structure.

19 (4) INELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may not
20 reimburse any of the following:

- 21 (a) Costs to install walls or to enclose a roofed area.
- 22 (b) Costs to design or construct a building or structure other than a roof.

1 (c) Costs to install a roof over feed storage, machinery storage or animal housing
2 areas, except as provided in sub. (3).

3 (5) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant under s.
4 ATCP 50.40 may not reimburse the cost of installing a roof unless all of the following
5 conditions are met:

6 (a) The roof complies with the american society of agricultural engineers
7 engineering practice number 288.5, December 1992 edition.

8 **NOTE:** Copies of ASAE EP 288.5 are on file with the department, the secretary
9 of state and the revisor of statutes. Copies may be obtained from the
10 department.

11
12 (b) The roof structure has sufficient ventilation to protect farm operators,
13 livestock and the roof.

14 (c) The roof and supporting structure are constructed of materials with a life
15 expectancy of 10 years or more.

16 (d) The landowner agrees not to establish additional outdoor animal lots on the
17 site for the duration of the cost-share agreement maintenance period, except with
18 adequate runoff control practices approved by the department.

19 (e) The landowner agrees not to convert a roofed animal lot structure, cost-shared
20 under this chapter, for use other than as an animal lot.

21 (f) The landowner agrees to maintain the roof for 10 years unless farming
22 operations on the affected land are discontinued.

23 **ATCP 50.85 Roof runoff systems.** (1) DEFINITION. In this section, "roof
24 runoff system" means facilities for collecting, controlling, diverting, and disposing of

1 precipitation from roofs. A "roof runoff system" may include gutters, downspouts,
2 erosion-resistant channels, subsurface drains and trenches.

3 (2) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse the
4 cost of designing and constructing a roof runoff system as part of a barnyard runoff
5 control system or manure storage system if the roof runoff system is necessary to prevent
6 roof runoff from flowing across areas of concentrated manure.

7 (3) INELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may not
8 reimburse costs for structures that divert water to areas not adequately protected from
9 erosion.

10 (4) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant under s.
11 ATCP 50.40 may not reimburse the cost of installing a roof runoff system unless all of
12 the following conditions are met:

13 (a) The roof runoff system complies with all of the following that apply:

- 14 1. NRCS technical guide roof runoff management standard 558.
- 15 2. NRCS technical guide underground outlet standard 620.

16 (b) The landowner agrees to maintain the roof runoff system for 10 years unless
17 farming operations on the affected land are discontinued.

18 **ATCP 50.86 Sediment basins.** (1) DEFINITION. In this section:

19 (a) "Sediment basins" means permanent basins that reduce the transport of
20 waterborne pollutants such as eroded soil sediment, debris and manure sediment.
21 Sediment basins may include containment walls or berms, pickets or screens to filter
22 debris, orifices or weirs to control discharge, and conduits to direct runoff to treatment or
23 discharge areas.

1 (b) "Maximum storage capacity" means the volume of water, in acre-feet,
2 capable of being stored behind a dam at maximum water elevation without overtopping
3 any part that is not part of the spillway system.

4 (2) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse the
5 cost of designing and constructing a sediment basin, including costs for heavy use area
6 protection, livestock fencing, filter strips, waste transfer, underground outlets, and critical
7 area plantings.

8 (3) INELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may not
9 reimburse the costs for any of the following:

10 (a) Basins with a structural height of more than 25 feet or with a maximum
11 storage capacity of more than 50 acre-feet.

12 (b) Basins whose failure may endanger human life, or real or personal property.

13 (4) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant under s.
14 ATCP 50.40 may not reimburse the cost of installing a sediment basin unless all of the
15 following conditions are met:

16 (a) Filter strips or buffers are used to filter any discharge from the sediment
17 basin.

18 (b) The sediment basin complies with all of the following that apply:

19 1. NRCS technical guide critical area planting standard 342.

20 2. NRCS technical guide sediment basin standard 350.

21 3. NRCS technical guide manure transfer standard 634.

22 4. NRCS technical guide fencing standard 382.

23 5. NRCS technical guide wastewater treatment strip standard 635.

- 1 6. NRCS technical guide heavy use area protection standard 561.
- 2 7. NRCS technical guide underground outlet standard 620.
- 3 8. Wisconsin DNR conservation practice standard 1001, wet detention basin,
- 4 dated June 1999.

5 **NOTE:** Copies of the DNR conservation practice standard 1001 are on file with
6 the department, the secretary of state, and the revisor of statutes. Copies
7 may be obtained from the department.

8

9 (c) The landowner agrees to maintain the sediment basin for 10 years unless
10 farming operations on the affected land are discontinued.

11 **ATCP 50.87 Sinkhole treatment.** (1) **DEFINITION.** In this section, "sinkhole
12 treatment" means modifying a sinkhole, or the area around a sinkhole, to reduce erosion,
13 prevent expansion of the hole, and reduce pollution of water resources. Modifications
14 may include the diversion of runoff around a sinkhole, or the alteration of a sinkhole by
15 excavation, cleanout, filter treatment, sealing or refilling.

16 (2) **ELIGIBLE COSTS.** A cost-share grant under s. ATCP 50.40 may reimburse any
17 of the following costs related to sinkhole treatment:

18 (a) Costs for the design and construction of a grassed waterway or diversion to
19 direct surface runoff around a sinkhole.

20 (b) Costs for the design and construction of a grassed waterway or diversion to
21 direct surface runoff around a geologic depression to prevent the formation of a sinkhole.

22 (c) Costs for the design and construction of a modification to a sinkhole for the
23 purpose of protecting groundwater resources from contamination.

1 (3) INELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may not
2 reimburse costs for any system, component or practice that is not needed to correct an
3 identified water pollution hazard.

4 (4) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant under s.
5 ATCP 50.40 may not reimburse any costs related to sinkhole treatment unless all of the
6 following conditions are met:

7 (a) The treatment complies with all of the following that apply:

8 1. NRCS technical guide sinkhole treatment standard 725.

9 2. NRCS technical guide diversion standard 362.

10 3. NRCS technical guide grassed waterway standard 412.

11 (b) The landowner agrees to maintain the sinkhole treatment for 10 years unless
12 farming operations on the affected land are discontinued.

13 **ATCP 50.88 Streambank and shoreline protection.** (1) DEFINITION. In this
14 section, "streambank and shoreline protection" means using vegetation or structures to
15 stabilize and protect the banks of streams, lakes, estuaries or excavated channels against
16 scour and erosion, or to protect fish habitat and water quality from degradation due to
17 livestock access.

18 (2) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse any
19 of the following costs related to streambank and shoreline protection:

20 (a) Costs for permanent fencing to protect streambanks and shorelines from
21 damage by livestock.

22 (b) Costs to install rock riprap. Wood chunks, unsorted demolition material,
23 brick, plaster, blacktop and other materials that may produce leachates may not be used

1 as riprap. A cost-share grant may reimburse costs for rock and timber riprap used to
2 establish fish habitat as part of a streambank and shoreline protection scheme, provided
3 that reimbursement for fish habitat does not exceed 25% of the cost-share grant.

4 **NOTE:** Lunker structures, or rock and timber riprap, are sometimes used to
5 create fish habitat.

6
7 (c) Costs to shape streambanks or shorelines before installing protective plantings
8 or structures.

9 (d) Costs to construct or modify stream crossings that will minimize disturbance
10 of the stream channel and banks.

11 (e) Costs to establish permanent vegetative cover, or to provide temporary cover
12 until permanent cover is established. This may include costs for mulch, fertilizer and
13 other necessary materials.

14 (f) Costs for water pumps or other facilities that deliver water to livestock so that
15 livestock can be excluded from surface waters. Well construction costs may not be
16 reimbursed under a cost-share grant unless well construction is the most cost-effective
17 way to deliver water to livestock.

18 (3) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant under s.
19 ATCP 50.40 may not reimburse costs for streambank or shoreline protection unless all of
20 the following conditions are met:

21 (a) The streambank or shoreline protection complies with all of the following that
22 apply:

- 23 1. NRCS technical guide critical area planting standard 342.
- 24 2. NRCS technical guide fencing standard 382.
- 25 3. NRCS technical guide streambank and shoreline protection standard 580.

1 4. NRCS technical guide tree and shrub establishment standard 612.

2 5. NRCS technical guide heavy use area protection standard 561.

3 (b) DNR pre-approves the streambank or shoreline protection project in writing if
4 the project will create banks higher than 15 feet, measured from the stream or lake bed.

5 (c) The landowner agrees to maintain the streambank or shoreline protection for
6 10 years unless farming operations on the affected land are discontinued.

7 **ATCP 50.89 Strip-cropping.** (1) DEFINITION. In this section, "strip-cropping"
8 means growing crops in a systematic strip arrangement in which strips of grass, legumes
9 or other close growing crops are alternated with strips of clean tilled crops or fallow, and
10 in which all of the strips are established on the contour or across a slope to reduce water
11 or wind erosion.

12 (2) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse the
13 cost of establishing a strip-cropping system, including costs for the necessary removal of
14 obstructions.

15 (3) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant under s.
16 ATCP 50.40 may not reimburse the cost of establishing a strip-cropping system unless all
17 of the following conditions are met:

18 (a) The strip-cropping operations are performed, to the maximum extent feasible,
19 on the contour.

20 (b) The strip-cropping system complies with all of the following that apply:

21 1. NRCS technical guide obstruction removal standard 500.

22 2. NRCS technical guide contour strip-cropping standard 585.

23 3. NRCS technical guide field strip-cropping standard 586.

1 4. NRCS technical guide wind strip-cropping standard 589.

2 (c) The landowner agrees to maintain the strip-cropping for 10 years unless
3 farming operations on the affected land are discontinued.

4 **ATCP 50.90 Subsurface drains.** (1) DEFINITION. In this section, "subsurface"
5 drain" means a conduit installed below the surface of the ground to collect drainage water
6 and convey it to a suitable outlet.

7 (2) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse the
8 cost of designing and constructing a subsurface drain as part of a manure storage system,
9 barnyard runoff control system, or erosion control system.

10 (3) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant may not
11 reimburse the cost of establishing a subsurface drain unless all of the following
12 conditions are met:

13 (a) The subsurface drain is a necessary component of a manure storage system,
14 barnyard runoff control system or erosion control system.

15 (b) The subsurface drain complies with all of the following that apply:

- 16 1. NRCS technical guide subsurface drain standard 606.
17 2. NRCS technical guide underground outlet standard 620.

18 (c) The landowner agrees to maintain the subsurface drain for 10 years unless
19 farming operations on the affected land are discontinued.

20 **ATCP 50.91 Terrace systems.** (1) DEFINITION. In this section, "terrace"
21 system" means a system of ridges and channels installed on the contour with a non-
22 erosive grade and suitable spacing.

1 (2) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse any
2 of the following costs related to a terrace system:

3 (a) Costs to install the system, including necessary costs for necessary leveling,
4 filling and obstruction removal.

5 (b) Costs to purchase and install necessary underground pipe outlets and other
6 necessary mechanical outlets.

7 (c) Costs to modify an ineffective system, unless the system has been rendered
8 ineffective because of changes in cropping patterns or equipment usage.

9 (d) Costs to establish permanent vegetative cover, or to provide temporary cover
10 until permanent cover is established. This may include costs for mulch, fertilizer and
11 other necessary materials.

12 (3) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant may not
13 reimburse terrace system costs unless all of the following conditions are met:

14 (a) The terrace system includes a stable outlet or waterway of adequate capacity.

15 (b) The terrace system complies with all of the following that apply:

16 1. NRCS technical guide critical area planting standard 342.

17 2. NRCS technical guide grassed waterway standard 412.

18 3. NRCS technical guide lined waterway or outlet standard 468.

19 4. NRCS technical guide obstruction removal standard 500.

20 5. NRCS technical guide terrace standard 600.

21 6. NRCS technical guide subsurface drain standard 606.

22 7. NRCS technical guide underground outlet standard 620.

23 8. NRCS technical guide water and sediment control basin standard 638.

1 (c) The landowner agrees to maintain the terrace system for 10 years unless
2 farming operations on the affected land are discontinued.

3 **ATCP 50.92 Underground outlets.** (1) DEFINITION. In this section,
4 “underground outlet” means a conduit installed below the surface of the ground to collect
5 surface water and convey it to a suitable outlet.

6 (2) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse the
7 cost of designing and constructing an underground outlet as part of a manure storage
8 system, barnyard runoff control system, or erosion control system.

9 (3) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant under s.
10 ATCP 50.40 may not reimburse the cost of establishing an underground outlet unless all
11 of the following conditions are met:

12 (a) The underground outlet is a necessary component of a manure storage,
13 barnyard runoff control system or erosion control system.

14 (b) The underground outlet complies with all of the following that apply:

15 1. NRCS technical guide subsurface drain standard 606.

16 2. NRCS technical guide underground outlet standard 620.

17 (c) The landowner agrees to maintain the underground outlet for 10 years unless
18 farming operations on the affected land are discontinued.

19 **ATCP 50.93 Waste transfer systems.** (1) DEFINITION. In this section, “waste
20 transfer system” means components such as pumps, pipes, conduits, valves, and other
21 structures installed to convey manure and milking center wastes from buildings and
22 animal feeding operations to a storage structure, loading area or treatment area.

1 (2) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse the
2 cost of designing and constructing a waste transfer system which is a necessary
3 component of a manure storage system, barnyard runoff control system or milking center
4 waste system funded under this chapter, provided that the waste transfer system is
5 designed and used for that sole purpose.

6 (3) INELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may not
7 reimburse the costs for any of the following:

8 (a) Portable equipment for spreading wastes on land or for incorporating wastes
9 into land.

10 (b) Buildings or modifications to buildings. This paragraph does not apply to
11 building modifications that are essential for the installation of a milking center waste
12 control system.

13 (4) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant under s.
14 ATCP 50.40 may not reimburse the cost of installing a waste transfer system unless all of
15 the following conditions are met:

16 (a) The waste transfer system complies with all of the following that apply:

17 1. NRCS technical guide manure transfer standard 634.

18 2. NRCS technical guide underground outlet standard 620.

19 (b) The landowner agrees to maintain the waste transfer system for 10 years
20 unless farming operations on the affected land are discontinued.

21 **ATCP 50.94 Wastewater treatment strips.** (1) DEFINITION. In this section,

22 "wastewater treatment strip" means an area of herbaceous vegetation that is used as part

1 of an agricultural waste management system to remove pollutants from animal lot runoff
2 or wastewater, such as runoff or wastewater from a milking center.

3 (2) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse the
4 following wastewater treatment strip costs:

5 (a) Permanent fencing to protect the wastewater treatment strip.

6 (b) Costs to establish permanent vegetative cover in the wastewater treatment
7 strip, or to provide temporary cover until permanent cover is established. This may
8 include costs for mulch, fertilizer and other necessary materials.

9 (c) Costs to shape, smooth or prepare the wastewater treatment strip before
10 establishing a permanent vegetative cover.

11 (3) DESIGN, CONSTRUCTION AND MAINTENANCE STANDARDS. A cost-share grant
12 under s. ATCP 50.40 may not reimburse wastewater maintenance strip costs unless all
13 the following conditions are met:

14 (a) The wastewater treatment strip complies with all the following that apply:

- 15 1. NRCS technical guide critical area planting standard 342.
- 16 2. NRCS technical guide fencing standard 382.
- 17 3. NRCS technical guide livestock exclusion standard 472.
- 18 4. NRCS technical guide mulching standard 484.
- 19 5. NRCS technical guide wastewater treatment strip standard 635.

20 (b) The landowner agrees to maintain the wastewater treatment strip for 10 years
21 unless farming operations on the affected land are discontinued.

22 **ATCP 50.95 Water and sediment control basins.** (1) DEFINITIONS. In this
23 section:

1 (a) "Manure storage facility" has the meaning given in s. ATCP 50.62(1)(c).

2 (b) "Water and sediment control basin" means an earthen embankment or a ridge
3 and channel combination which is installed across a slope or minor watercourse to trap or
4 detain runoff and sediment. "Water and sediment control basin" does not include a
5 manure storage facility or a structure designed to collect runoff and sediment from
6 concentrated animal feedlots.

7 (2) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse the
8 cost of designing and constructing a water and sediment control basin, including practices
9 necessary to protect the basin from livestock.

10 (3) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant may not
11 reimburse the cost of installing a water and sediment control basin unless all of the
12 following conditions are met:

13 (a) The water and sediment control basin complies with all of the following that
14 apply:

- 15 1. NRCS technical guide critical area planting standard 342.
- 16 2. NRCS technical guide fencing standard 382.
- 17 3. NRCS technical guide water and sediment control basin standard 638.
- 18 4. NRCS technical guide underground outlet standard 620.

19 (b) The landowner agrees to maintain the water and sediment control basin for 10
20 years unless farming operations on the affected land are discontinued.

21 **ATCP 50.96 Waterway systems.** (1) DEFINITION. In this section, "waterway"
22 system" means a natural or constructed waterway or outlet that is shaped, graded and

1 covered with a vegetation or another suitable surface material to prevent erosion by
2 runoff waters.

3 (2) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse any
4 of the following costs related to a waterway system:

5 (a) Costs for site preparation, grading, shaping and filling.

6 (b) Costs to establish permanent vegetative cover, or to provide temporary cover
7 until permanent cover is established. This may include costs for mulch, fertilizer and
8 other necessary materials.

9 (c) Costs for the necessary removal of obstructions, the necessary installation of
10 subsurface drains and underground outlets, and the necessary installation of machinery
11 crossings.

12 (3) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant under s.
13 ATCP 50.40 may not reimburse costs for a waterway system unless all of the following
14 conditions are met:

15 (a) Waterways are permanently covered by vegetation or other suitable surface
16 materials to prevent erosion. Close-sown small grains, annual grasses or mulches may be
17 used for temporary protection if followed by an appropriate permanent vegetative cover.

18 (b) The system complies with all of the following that apply:

19 1. NRCS technical guide critical area planting standard 342.

20 2. NRCS technical guide fencing standard 382.

21 3. NRCS technical guide grassed waterway standard 412.

22 4. NRCS technical guide mulching standard 484.

23 5. NRCS technical guide obstruction removal standard 500.

1 6. NRCS technical guide subsurface drain standard 606.

2 7. NRCS technical guide underground outlet standard 620.

3 (c) The landowner agrees to maintain the waterway system for 10 years unless
4 farming operations on the affected land are discontinued.

5 **ATCP 50.97 Well decommissioning.** (1) DEFINITION. In this section, "well
6 decommissioning" means permanently disabling and sealing a well to prevent
7 contaminants from reaching groundwater.

8 (2) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse
9 costs to design and implement a well decommissioning, including costs to fill the well,
10 seal the well, and shape the land to protect the abandoned wellhead from precipitation
11 and runoff.

12 (3) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant under s.
13 ATCP 50.40 may not reimburse the cost of well decommissioning unless the well
14 decommissioning complies with all of the following that apply:

15 (a) NRCS technical guide well decommissioning standard 351.

16 (b) Section NR 812.26, related to well and drillhole decommissioning.

17 **ATCP 50.98 Wetland development or restoration.** (1) DEFINITION. In this
18 section, "wetland development or restoration" means the construction of berms, or the
19 destruction of tile line or drainage ditch functions, to create or restore conditions suitable
20 for wetland vegetation.

21 (2) ELIGIBLE COSTS. A cost-share grant under s. ATCP 50.40 may reimburse any
22 of the following costs related to the development or restoration of wetlands:

23 (a) Costs for earth moving to construct or remove berms, levees or dikes.

1 (b) Costs for earth moving to fill in portions of drainage ditches.

2 (c) Costs to destroy portions of tile lines.

3 (d) Costs to establish vegetative cover to develop or restore wetlands, consistent
4 with the practice goals.

5 (3) DESIGN, CONSTRUCTION AND MAINTENANCE. A cost-share grant under s.
6 ATCP 50.40 may not reimburse wetland development or restoration costs unless all of
7 the following conditions are met:

8 (a) The wetland development or restoration complies with NRCS technical guide
9 wetland restoration standard 657.

10 (b) The landowner agrees to maintain the wetland restoration practice for at least
11 10 years.

12 **EFFECTIVE DATE.** Except as otherwise provided in this rule, this rule shall take
13 effect on the first day of the month following publication in the Wisconsin administrative
14 register, as provided under s. 227.22(2)(intro.), Stats.

15

16 Dated this _____ day of _____, _____.

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STATE OF WISCONSIN
DEPARTMENT OF AGRICULTURE,
TRADE AND CONSUMER PROTECTION

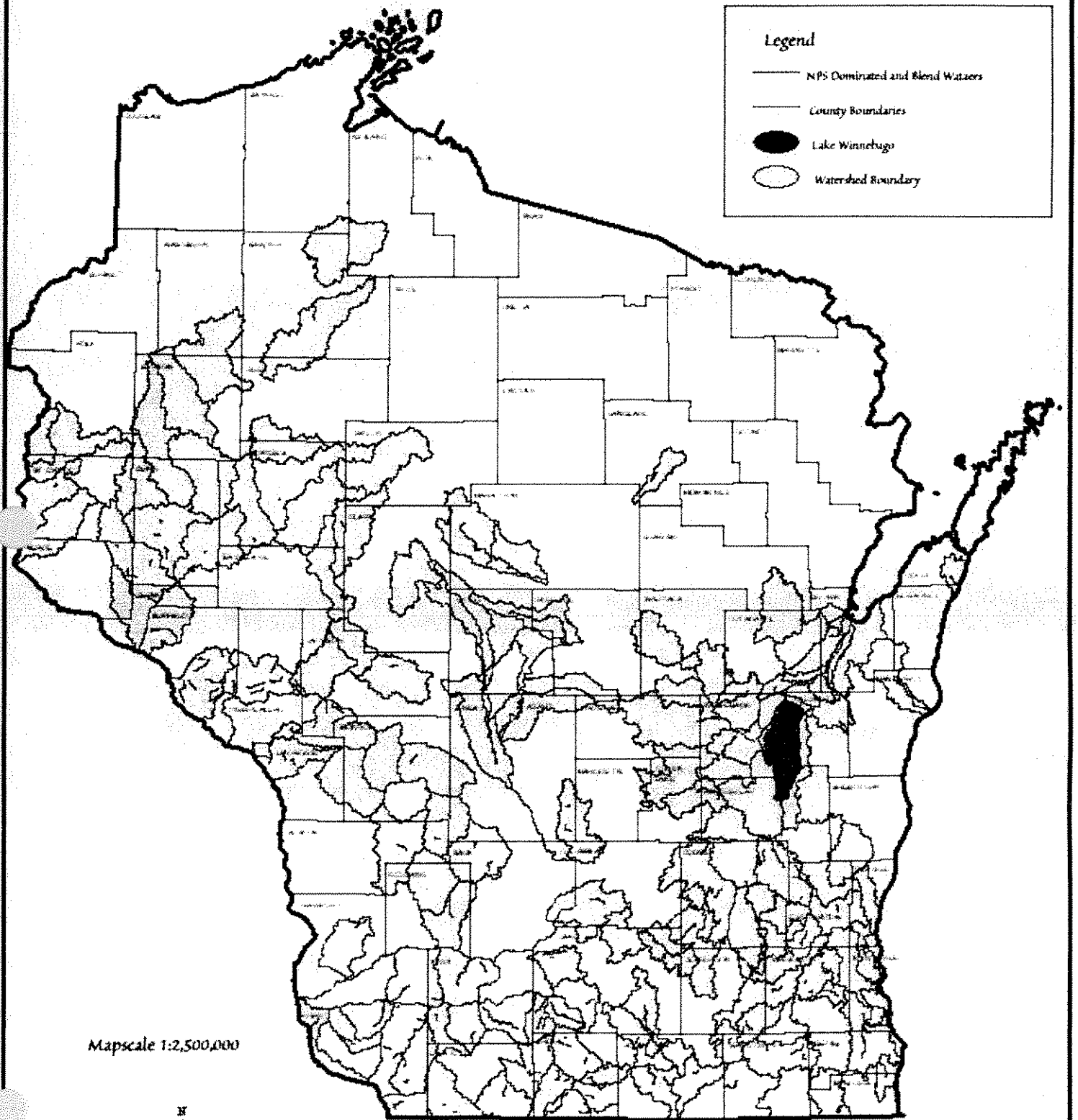
By _____
James E. Harsdorf
Secretary

Appendix A

Watersheds draining to impaired waters ("303(d) list")

Wisconsin Department of Natural Resources

Watersheds Draining to 303(d) Waters* with Nonpoint Impacts



Mapscale 1:2,500,000



0 30 60 90 Miles

* The 303(d) waters are still under review.
This map is provided as DRAFT only.

Appendix B

Summary of UWEX soil test recommendations (for selected crops)

Nutrient and Pest Management Program,
University of Wisconsin-Extension

Manure info.



Approx. 1st & 2nd year available nutrient content with 2nd year in brackets []

N N P₂O₅ K₂O

manure incorporated by 1st year
manure not incorporated by 2nd year

Dairy manure
Solid (lb/ton) 3 [1] 4 [1] 3 [0] 8 [1]
Liquid (lb/1000 gal) 8 [3] 10 [3] 8 [1] 21 [3]

Beef manure
Solid (lb/ton) 4 [1] 4 [2] 5 [1] 8 [1]
Liquid (lb/1000 gal) 10 [4] 12 [4] 14 [2] 23 [3]

Swine manure
Solid (lb/ton) 4 [1] 5 [1] 3 [1] 7 [1]
Liquid (lb/1000 gal) 22 [8] 28 [5] 15 [3] 26 [3]

Poultry manure
Solid (lb/ton) 13 [2] 15 [3] 14 [2] 9 [1]
Liquid (lb/1000 gal) 35 [7] 41 [7] 38 [7] 25 [3]

Manure output

Animal and size	lb/day	tons/year
Dairy (1400 lb)	120	21.9
Beef (1250 lb)	75	13.7
Swine (200 lb)	13	2.4
Poultry (4 lb)	0.21	0.038

Determining manure application rate:

Step 1: Figure load size:

Weight spreader in tons	Solid or semi-solid
90% tank capacity in gallons	Liquid

Step 2: Determine field acreage:

$$\frac{\text{field length (ft)} \times \text{field width (ft)}}{43,560 \text{ ft}^2/\text{a}} = \text{acres}$$

Step 3: Calculate manure application rate:

$$\left[\frac{(\# \text{ of loads}) \times (\text{load size})}{\text{Field acreage}} \right] = \# \text{ tons or gallons / acre}$$

Guideline for unincorporated manure:

Do not apply more than 25 tons of solid daily manure per acre or its phosphorus equivalent per year

	Dairy	Beef	Swine	Poultry
Solid (tons)	25	14	25	5
Liquid (gallons)	9000	5000	5000	2000

Harvest info.

Nutrients removed by crop at harvest

P₂O₅ K₂O
lb/acre lb/acre

Crop	P ₂ O ₅ (lb/acre)	K ₂ O (lb/acre)
Alfalfa ¹ / red clover, 1 ton/a	13	50
Barley ¹ , 50 bu/a	19	13
Corn		
Grain (1 bu = 56 lb @ 15.5% moisture)	40	25
90-110 bu/a	45	30
110-130 bu/a	55	35
130-150 bu/a	60	40
150-170 bu/a	4	11
Silage, 1 ton/a		
Oats ¹		
Grain, 100 bu/a (1 bu = 32 lb @ 13% moisture)	25	19
Straw, 1 ton/a	5	30
Potatoes ¹ , 100 cwt/a	13	58
Sorghum ¹ , 1 ton/a	15	58
Soybeans ¹ , 40 bu/a (1 bu = 60 lb @ 13% moisture)	35	40
Wheat ¹		
Grain, 50 bu/a (1 bu = 60 lb @ 13% moisture)	31	19
Straw, 1 ton/a	3	40

¹Nitrogen removal by alfalfa (1 ton) is 60 lb and by soybeans (40 bu) is 115 lb.

Source: University of Wisconsin Extension unless noted
1 From Modern Corn Production, S.R. Alrich, et al., 1988
2 From Minnesota Extension Bulletin 262

Converting pounds harvested to bushels with % moisture content corrections:

Shelled Corn

$$\left[\frac{\text{lbs harvested} \times (1 - \% \text{ moisture in corn})}{47.32} \right] = \text{bu @ 15.5\% moisture}$$

Ear corn

$$\left[\frac{\text{lbs harvested} + \text{number from chart below} \times \text{bu @ 15.5\% moisture}}{\text{moisture \%} \times 15.15} \right] = \text{bu}$$

moisture % 15 15.5 16 17 18 19 20 21 22 23 24 25 26 27
equal to 68.1 68.6 69.2 70.4 71.6 72.8 74.1 75.4 76.6 78.0 78.4 80.7 82 83.4

Soybeans or wheat

$$\left[\frac{\text{lbs harvested} \times (1 - \% \text{ foreign matter})}{\text{adjusted lbs harvested} \times 13} \right] = \text{bu soybeans @ 13\% moisture}$$

$$\left[\frac{\text{adjusted lbs} \times (1 - \% \text{ moisture})}{52.2} \right] = \text{bu wheat @ 0\% moisture}$$

Calculating acres harvested:

$$\text{acres harvested} = \frac{[\text{row length (ft)} \times \text{row width (ft)} \times \# \text{ of rows harvested}] + 43,560 \text{ ft}^2/\text{acre}}$$

Example with corn harvested by combine:

Step 1: 12,560 lbs corn harvested @ 21.35% moisture
12,560 lbs x (1 - 21.35) + 47.32 = 209 bu of corn @ 15.5% moisture

Step 2: Four-row harvester: 16 rows, each 30 inch row is 1210 feet long
30 inches = 2.5 feet
(1210 ft x 2.5 ft x 16 rows) + 43,560 ft²/acre = 110 acres

Step 3: 209 bu of corn + 110 acres = 190 bu/acre

Fertilizer analysis

	N-P-K
Nitrogen	
Anhydrous ammonia	82-0-0
Ammonium nitrate	34-0-0
Urea	46-0-0
UAN solution - 28 and 32% (Urea ammonium nitrate)	28-0-0
Aqueous ammonia	32-0-0
Ammonium sulfate (AMS)	26-0-0
	21-0-0-24(S)
Phosphorus	
Triple superphosphate (TSP)	0-46-0
Diammonium phosphate (DAP)	18-46-0
Monammonium phosphate (MAP)	11-52-0
Ammonium polyphosphate liquid	10-34-0
Ammonium polyphosphate	15-62-0
Potassium	
Potassium chloride (muriate of potash)	0-0-60 to 62
Potassium sulfate	0-0-50-18(S)
Potassium-magnesium sulfate	0-0-22-22(S)-11(Mg)
Potassium nitrate	13-0-44

1 gallon water weighs 8.3 lbs
1 gallon UAN (28% N) weighs 10.6 lbs

Conversions

multiply by column 2

Take column 1	column 2	To get column 3
acre (a)	43,560	square feet (ft ²)
acre (a)	0.405	hectare (ha)
square mile (mi ²)	640	acres (a)
cubic yard (yd ³)	27	cubic feet (ft ³)
bushel (bu)	7.48	gallons (gal)
bushel (bu)	1,244	cubic feet (ft ³)
bushel (bu)	8	gallons - dry
bushel (bu)	9.31	gallons - liquid
ounces (oz)	28.6	milliliters (ml)
gallon (gal)	3.78	liters (l)
gallon (gal)	128	fluid ounces (fl oz)
gallon (gal)	4	quart (qt)
acre-foot	43,560	cubic feet (ft ³)
acre-foot	325,851	gallons (gal)
chain (ch)	66	feet (ft)
chain (ch)	4	rods (r)
rod (r)	16.5	feet (ft)
mile (mi)	5280	feet (ft)
ton (short)	2,000	pounds (lb)
ton (long)	2,230	pounds (lb)
gallon/acre (gal/a)	9,354	liters/hectare (l/ha)
miles/hour (mph)	88	feet/minute (ft/min)
pounds/acre (lb/a)	1.12	kilograms/hectare (kg/ha)
P ₂ O ₅ (lb)	0.44	P (lb)
K ₂ O (lb)	0.83	K (lb)
ppm-pow layer (6 in)	2	lb/acre (lb/a)
ppm-top soil (12 in)	4	lb/acre (lb/a)

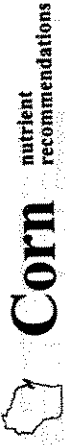
To get column 1, divide column 3 by column 2

NUTRIENT MANAGEMENT

FAST FACTS

Nutrient and Pest Management Program (NPM), University of Wisconsin-Extension. Call (608) 265-2660 for additional copies. 3/97

indicates information pertains to Wisconsin only.



Corn

nutrient recommendations

Organic matter (%)	Soil texture		Other Soils Yield potential
	Sands or loamy sands	Non-impacted	
< 2	170	200	150
2.0 - 4.9	110	160	120
5.0 - 20	100	120	90
> 20	80	80	80

To determine yield potential consult UNEX publication A209 or contact your agronomist or county agent. * Indicates non-sandy soils with low organic matter. Yield potential should use the high/very high recommendation.

Grain

Yield goal (bu/a)	Soil test level of the field				Ex
	Very Low	Low	Optimum	High	
71-90	60-90**	50-70*	30	15	0
91-110	70-100*	60-80*	40	20	0
111-130	75-105*	65-85*	45	23	0
131-150	85-115*	75-95*	55	25	0
151-170	90-120*	80-100*	60	30	0
171-190	100-130*	90-110*	70	35	0
191-210	105-135*	95-115*	75	40	0

LBS / A C R E O F P₂O₅ T O A P P L Y

Yield goal (t/ha)	Soil test level of the field				Ex
	Very Low	Low	Optimum	High	
71-90	50-80**	40-65**	25	15	0
91-110	55-85**	45-70**	30	15	0
111-130	60-90**	50-75**	35	15	0
131-150	65-95**	55-80**	40	20	0
151-170	70-100**	60-85**	45	20	0
171-190	75-105**	65-90**	50	20	0
191-210	80-110**	70-95**	55	25	0

Use higher values on sandy or organic soils. ** Use lower values on sandy or organic soils.

Phosphate

Yield goal (t/ha)	Soil test level of the field				Ex
	Very Low	Low	Optimum	High	
< 16	80-110*	70-90*	50	25	0
16 - 20	95-125*	85-105*	65	30	0
20 - 25	115-145*	105-125*	85	40	0
> 25	130-160*	120-140*	100	50	0

LBS / A C R E O F P₂O₅ T O A P P L Y

Use higher values on sandy or organic soils. ** Use lower values on sandy or organic soils.

Very high category does not exist for soil test phosphorus.

Use higher values on sandy or organic soils.

Use lower values on sandy or organic soils.

If > 50% residue cover remains on the surface, increase N requirement for corn by 30 lb N/acre for the first two years.

If P levels exceed 150 ppm, do not apply additional P, except for a maximum of 20 lbs/a of starter P₂O₅ for row crops.

N should be applied as single sidedress application or as split applications.



Alfalfa

nutrient recommendations

Yield goal (t/ha)	Soil test level of the field				Ex
	Very Low	Low	Optimum	High	
1.5-2.5	55-75*	45-65*	25	10	0
2.6-3.5	65-85*	55-75*	35	15	0
3.6-4.5	80-100*	70-90*	50	25	0
4.6-5.5	95-115*	85-105*	65	30	0
5.6-6.5	105-125*	95-115*	75	35	0
6.6-7.5	120-140*	110-130*	90	45	0

LBS / A C R E O F K₂O T O A P P L Y

Yield goal (t/ha)	Soil test level of the field				Ex
	Very Low	Low	Optimum	High	
1.5-2.5	135-150**	125-135**	100	50	25
2.6-3.5	185-200**	175-185**	150	75	40
3.6-4.5	235-250**	225-235**	200	100	50
4.6-5.5	285-300**	275-285**	250	125	60
5.6-6.5	335-350**	325-335**	300	150	75
6.6-7.5	385-400**	375-385**	350	175	90

Very high category does not exist for soil test phosphorus. * Use lower values on sandy or organic soils. ** Use lower values on sandy or organic soils.

Where an alfalfa stand is to be maintained for more than three years increase the annual top-dressed K₂O by 20%.

Apply 30 lb N/acre in the seeding year if grown on soils with less than 2% organic matter.

Apply 40 lb N/acre for legume pasture on sandy soils and 20 lb N/acre on soils with less than 2% organic matter.

Where barley or oats are seeded with legume forage, reduce N for the small grain by 50%.

Legume N credits

Very high category does not exist for soil test phosphorus. * Use lower values on sandy or organic soils. ** Use lower values on sandy or organic soils.

Legume crop

Nitrogen credit

Forages

First Year Credit

190 lb N/acre for good stand (more than 70% alfalfa or more than 4 plants/ft²)

160 lb N/acre for fair stand (50 - 70% alfalfa or 1.5 - 4 plants/ft²)

130 lb N/acre for poor stand (less than 30% alfalfa or less than 1.5 plants/ft²)

80% of alfalfa credit for similar stands

50 lb N/acre, following a good or fair stand.

Second Year Credit

80-120 lb N/acre

60-100 lb N/acre

50-80 lb N/acre

Green manures¹

Sweet clover

Alfalfa

Red clover

Soybeans

40 lb N/acre

Vegetable Crops

Peas, snap beans & lima beans

20 lb N/acre



Soybean

nutrient recommendations

Yield goal (bu/a)	Soil test level of the field				Ex
	Very Low	Low	Optimum	High	
15-25	30	30	20	10	0
26-35	35	35	25	15	0
36-45	45	45	35	20	0
46-55	55	55	45	25	0
56-65	60	60	50	30	0
66-75	70	70	60	35	0
76-85	80	80	70	35	0

LBS / A C R E O F P₂O₅ T O A P P L Y

Yield goal (t/ha)	Soil test level of the field				Ex
	Very Low	Low	Optimum	High	
15-25	60-75**	35-50**	20	10	0
26-35	70-85**	45-60**	30	15	0
36-45	80-95**	55-70**	40	20	0
46-55	90-105**	65-80**	50	25	0
56-65	100-115**	75-90**	60	30	0
66-75	110-125**	85-100**	70	35	0
76-85	120-135**	95-110**	80	40	0

Very high category does not exist for soil test phosphorus. * Use lower values on sandy or organic soils. ** Use lower values on sandy or organic soils.

Legume N credits

Very high category does not exist for soil test phosphorus. * Use lower values on sandy or organic soils. ** Use lower values on sandy or organic soils.

Legume crop

Nitrogen credit

Forages

First Year Credit

190 lb N/acre for good stand (more than 70% alfalfa or more than 4 plants/ft²)

160 lb N/acre for fair stand (50 - 70% alfalfa or 1.5 - 4 plants/ft²)

130 lb N/acre for poor stand (less than 30% alfalfa or less than 1.5 plants/ft²)

80% of alfalfa credit for similar stands

50 lb N/acre, following a good or fair stand.

Second Year Credit

80-120 lb N/acre

60-100 lb N/acre

50-80 lb N/acre

Green manures¹

Sweet clover

Alfalfa

Red clover

Soybeans

40 lb N/acre

Vegetable Crops

Peas, snap beans & lima beans

20 lb N/acre

Special Situations

Where an alfalfa stand is to be maintained for more than three years increase the annual top-dressed K₂O by 20%.

Apply 30 lb N/acre in the seeding year if grown on soils with less than 2% organic matter.

Apply 40 lb N/acre for legume pasture on sandy soils and 20 lb N/acre on soils with less than 2% organic matter.

Where barley or oats are seeded with legume forage, reduce N for the small grain by 50%.

Special Situations

Conservation tillage

If > 50% residue cover remains on the surface, increase N requirement for corn by 30 lb N/acre for the first two years.

High P soils

If P levels exceed 150 ppm, do not apply additional P, except for a maximum of 20 lbs/a of starter P₂O₅ for row crops.

Sandy soils

N should be applied as single sidedress application or as split applications.

Exceptions

Reduce credit by 50 lb N/acre on sands and loamy sands.

Reduce credit by 40 lb N/acre if less than 6 inches of regrowth after last harvest.

No credit on sands and loamy sands.

Use 20 lb N/acre credit if field has less than 6 inches of growth before tillage.

No credit on sands and loamy sands.

Soil test level of the field

Very Low

Low

Optimum

High

Very High

Ex

LBS / A C R E O F P₂O₅ T O A P P L Y

Other Soils Yield potential

Low/medium

High/very high

LBS / A C R E O F N T O A P P L Y

Soil texture

Sands or loamy sands

Non-impacted

Impacted

Soil texture

Sands or loamy sands

Non-impacted

Impacted

Soil texture

Sands or loamy sands

Non-impacted

Impacted

Soil texture

Sands or loamy sands

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Soil texture

Sands or loamy sands

Non-impacted

Impacted

Soil texture

Sands or loamy sands

Non-impacted

Impacted

Soil texture

Sands or loamy sands

Appendix C

Nutrient management plan checklist

To assist in following Wisconsin's nutrient management standard

NUTRIENT MANAGEMENT PLAN CHECKLIST

For Following Wisconsin's NRCS 590 Nutrient Management Standard

02/09/01

County name: _____ Date Plan Submitted: _____ Growing season year NM plan is written for _____
(from harvest to harvest)

Name of qualified nutrient management planner Circle the planner's qualification: 1-NAICC; 2-CCA; 3-ARCPACS –Agronomist, Crop Specialist, Crop Scientist, Soil Specialist, or Soil Scientist; 4-DATCP approved training course; 5- Other credentials approved by DATCP	Planner's business name, address, phone:	
	Cropland Acres	Name of farmer receiving nutrient management plan: Circle relevant program or ordinance: County ordinance, DNR watershed, USDA, DATCP, NR 243 - NOD, NR-243 - WPDES

590 Requirement	Provided By	Location in NM plan/Comments	
		Yes	No
1. Farm Aerial Photographs or Maps a. Photos or map indicate field boundaries and field ID numbers? b. Fields with manure spreading restrictions are identified?	Conservation staff	a. b.	a. b.
2. Soil Survey Maps a. Are soil series and slope consistent with the plan?	Conservation staff	a.	a.
3. Soil Test Reports (conservation staff may require hard copy with NM plan) a. Are all the soil test reports from an approved lab? b. Have all fields been tested within the last four years? c. Is soil sample size 5 acres or less per sample? d. Does the soil test field ID correspond with the NM plan field ID? e. Are yield goals identified (for P2O5 & K2O recommendations)? f. Have the predominant soil series for each field been identified?	Farmer and Consultant	a. b. c. d. e. f.	a. b. c. d. e. f.
4. Written Plan Components for individual field nutrient recommendations a. Crop to be grown and previous crop grown are indicated? b. Nutrient recommendations are indicated? c. Legume and manure credits are indicated? d. Manure application rates and spreading sites are indicated? e. Additional fertilizer needs are indicated?	Farmer and Consultant	a. b. c. d. e.	a. b. c. d. e.
5. Are fields receiving manure or organic byproducts less than or equal to "T"?	Conservation staff will determine based on conservation plan on file. Farmer & the consultant may require a new assessment if rotations and tillage have changed.	a. -	a.
6. Farm Information Sheet items for manure quantity and spreader capacity: a. Animal numbers, average weight, confinement, consistency b. Estimated annual manure production and amount collected c. Does the manure available correspond to the manure used?	Farmer and Consultant	a. b. c.	a. b. c.

I certify that the nutrient management plan represented by this checklist complies with Wisconsin's NRCS 590 nutrient management standard.

Signature of qualified nutrient management planner _____