

2011 Great Lakes Restoration Initiative MINNESOTA EQIP- GLRI CONSERVATION PRACTICE PAYMENT SCHEDULE

This Conservation Practice Payment Schedule lists practices that have been authorized for payments under the Great Lakes Restoration Initiative (GLRI) in Minnesota. The schedule lists the payment rates and the program specific provisions for various practices.

The schedule consists of three parts, Program Provisions, General Provisions and Specific Provisions. The Program and General Provisions list the requirements that are applicable to all or multiple practices. The Specific Provisions list the component codes, payment rates and specific provisions for each schedule practice.

Conservation payments are only authorized for practices listed in the schedule. Non-schedule practices required for the implementation of a schedule practice shall be considered components of and subsidiary to the schedule practice.

Participants applying under the GLRI must meet all the eligibility requirements and individual program rules as prescribed through the Environmental Quality Incentives Program (EQIP) as appropriate to their individual application.

Conservation Practice Payment Methods:

PR – Payment Rate: The Payment Rate is the unit cost rate of compensation to be received by the participant. The Payment Rate for each practice or component has been established at the state level. Where a significant variance in cost data can be documented, payment rates may be developed at a county, watershed or other defined area as approved by the State Conservationist. Offices may submit updated cost information at any time, however, cost lists and payment rates will not change once any contracts have been obligated in ProTracts.

Payments based on Payment Rates do not require the participant to submit bills or receipts. However, invoices, receipts, and other supporting documentation may be required to support that the work performed meets practice standards and specifications. Offices are to follow state policy regarding collection of actual costs to support payment rate development for future years.

EQIP funds may be combined with other funds. EQIP does not pay for the same practice on the same land as any other USDA program. The participant should consult other program rules for maximum payment and other limitations.

PROGRAM PROVISIONS

1. Conservation Practice Payments are authorized for practices:
 - a. Implemented following the contents of the NRCS Field Office Technical Guide.
 - b. Implemented following the a) general provisions and b) specific provisions for each practice included in the schedule.
 - c. **Where positive environmental benefits from the benchmark condition can be documented. Payments are not authorized for, or on, existing, in place practices.**
 - d. Starting Practices – Applicants who start a practice before the contract is approved by the NRCS causes the applicant to be ineligible for financial assistance for that practice. A waiver may be granted if the practice has not been started at time of application and the practice has not been started until after the waiver is granted (see EQIP manual for further guidance).
2. Payment Rates for 2011 contracts is amount per unit as listed in this schedule. These rates are the amount the participant will receive upon completion of the practice, regardless of the cost of installing the practice. If other funding is received by the participant the total financial assistance provided may not exceed 100 percent of the total practice costs.

3. For certified Historically Underserved (HU) participants (Limited Resource Farmers, Beginning Farmers, Socially Disadvantaged Farmers) the payment rate will be HUP rate shown in this schedule. **For participants who certify as a Historically Underserved participant, field staff MUST select the HUP component in the cost list.** Checking the Limited Resource, Beginning Farmer, or Socially Disadvantaged Farmer in the ProTracts application will not automatically result in a higher payment rate.
4. Any contract with a total obligation of payments greater than \$150,000 must be signed in ProTracts by the Regional Assistant Chief. Instructions and the 2011 questionnaire will be provided by the state office when available.
5. Technical assistance through technical service providers (TSP) may be paid through contracts for FY 2011.

GENERAL PROVISIONS

1. The minimum length of a contract is 1 year beyond the completion of the final practice. Practices may not be scheduled in the final year of the contract.
2. An approved participant may choose to obtain the technical assistance required to implement their EQIP contract from **EITHER** USDA **OR** a Technical Service Provider (TSP). If the participant chooses to have USDA perform the technical assistance, non-USDA personnel through a public agency partner or private sector consultant may provide parts of those services. If the participant chooses to hire a TSP certified by the NRCS, to perform the technical assistance, the maximum amount of USDA reimbursement for that assistance is the amount listed in the EQIP contract. All services provided by a TSP are done independently. Consultations or concurrence of USDA staff is not required. TSP costs in excess of the contract amount are the responsibility of the producer.
3. Pesticides used, as a component of any practice, will be state approved for the use involved. These pesticides will also be applied according to registered uses, label directions, and other applicable federal or state regulations.
4. Soil testing - Any practice, which includes the application of liming materials, commercial fertilizer, and/or manure shall be prescribed based on a soil test no older than three years old and from a soil testing laboratory shown on Minnesota Department of Agriculture's list of approved Soil Testing Laboratories. Application rates of lime, commercial fertilizer, and manure shall be based on University of Minnesota recommendations, or from North Dakota's or South Dakota's Land Grant University.
5. Liming Materials - Lime refers to Agricultural Liming Material (ALM). All liming material must meet the label information required by Minnesota Statue Section 18C.545 and include the following: 1) ALM type and; 2) ALM quality rating (minimum pounds of effective neutralizing power (ENP) per ton).
6. Land enrolled in other conservation programs is eligible under EQIP provided EQIP does not pay for the same practice on the same land as any other USDA program. CRP land may only be offered for enrollment during the last year of the CRP contract and no EQIP practice may be applied until after the CRP contract has ended. Other program rules may prohibit the use of EQIP funds. See also 440-V- CPM 515.52F.
7. NRCS Wetland Policy as found in the General Manual 190, Part 410 must be followed. This policy provides direction to the agency for compliance with the National Environmental Policy Act (NEPA). This policy prohibits NRCS from providing technical or financial assistance to participants that will adversely affect wetlands, unless the lost functions are fully mitigated.
8. As a requirement of eligibility, participants are required to perform upland treatment actions, according to Minnesota Conservation Planning Policy, and adequately address potential adverse impacts to conservation practices. Adverse impacts to conservation practices could include, but are not limited to, increased siltation by water and/or wind borne soils, excessive runoff, degradation of vegetation practice components by pesticides transported in runoff and sediment, and degradation of wildlife habitat.

9. Practice Pre-requisites and facilitating practices: Some practices require the implementation of one or more other practices. For example, Fence (382), Pipeline (516), and Watering Facility (614) all require the participant to implement either a Prescribed Grazing System or Access Control. However, the participant is NOT required to receive a program payment for either Prescribed Grazing System or Access Control. So a Fence required to keep livestock off a Dam, does not require the participant to receive the Access Control program payment in order to receive payment for the required Fence. For this example the Access Control implementation must be documented in the participant's customer service file.
10. Participants wanting to perform practices on land they do not own, or to install practices that require permits are responsible for obtaining easements, permits, right-of-way, water rights or other permission necessary to perform and maintain the practices. Expenses incurred due to these items are not cost shared. The permission from the authority must be in writing and a copy must be provided to the NRCS field office prior to installation being made on the practice.
11. Materials – New materials must be utilized in the construction of practices, unless PRIOR approval has been granted by the State Conservation Engineer. The State Conservation Engineer has granted approval for specific used material as provided by specific practice provisions in this schedule.
12. Producers receiving EQIP funding for Nutrient Management (code 590) must demonstrate adequate land base for manure applications and insure that nutrients are managed according to NRCS standards on lands where the producers' manure will be applied, regardless of ownership*. This ensures compliance with manure application requirements of State Chapter 7020 Rules. These rules address sensitive areas, application timing, and application rates based on either the nitrogen needs of the crop as determined by nutrient budgeting or on a P205 removal basis.
 - a. CNMPs or Strategic Plans for Livestock operations should list total acres necessary to receive manure applications from all manure generated on the EQIP applicant's operation.
 - b. If the producer does not have the necessary acres, he or she must obtain written permission from others to apply or have manure applied to their land according to NRCS requirements*.
 - c. Copies of the permissions must be provided to the NRCS field office prior to construction of the above listed practices or implementation of nutrient management.
 - d. The "USDA-NRCS Agreement to Allow Manure Application" (EQIP Schedule Attachment F) should be used to obtain permissions.
 - e. It is the EQIP contract holder's responsibility to insure that manure from their operation(s) is managed according to NRCS requirements on land(s) they do not control.

*Requirement does not apply to manure given or sold to a manure broker who sells or gives the manure to other individuals.

SPECIFIC PROVISIONS

PRACTICE STANDARD 472 – ACCESS CONTROL

Practice	Component	Unit	PR/unit	HUP/unit
Access Control	Access Control - Livestock	ac	33	36
Access Control	Access Control – Traffic	ac	13	15

1. Payment is authorized for Access Control (472) on eligible acres, not to exceed 3 payments. The Access Control and Pollinator Management may NOT be used on the same acres.
2. Payment is only authorized on acres where access is being excluded. Management of the excluded area may include forage removal practices as described in a management plan for the area.
3. For Access Control – Livestock :
 - a. Payment is only authorized in riparian areas where the current condition shows environmental damage caused by existing livestock and the exclusion directly results in environmental benefits to perennial and intermittent streams and lakes. Payment is authorized for an excluded area averaging no more than 100 feet in width.
 - b. Payment is only authorized when livestock are present on land adjacent to the portion eligible for Access Control (472). Land that is part of a prescribed grazing plan is eligible for Access Control (472).
4. Payment for Access Control – Traffic is only authorized as a supporting practice for Filter Strips (393), or Riparian Forest Buffer (391) where traffic was previously unrestricted and is being controlled.

PRACTICE STANDARD 575 - ANIMAL TRAILS & WALKWAYS

Practice	Component	Unit	PR/unit	HUP/unit
Animal Trails & Walkways	Raised Earth	lin ft	0.76	0.91
Animal Trails & Walkways	Rock Surfacing (B)	lin ft	3.53	4.24
Animal Trails & Walkways	Rock Surfacing (C&D)	lin ft	5.20	6.24
Animal Trails & Walkways	Rock Surfacing (E&F)	lin ft	9.11	11

- 1) Payment for Livestock Travel Lanes is authorized as a facilitating component of Prescribed Grazing or water development with Access Control.
 - a) Payment is not authorized for protecting facilities within the farmstead.
 - b) Payment is limited to protection for armoring livestock lanes in dairy operations, in beef operations that use artificial insemination, and in other operations where travel lanes cross wet soils or unstable, excessively eroded sites.
 - c) See the practice standard for surfacing option specifications.

PRACTICE STANDARD 314 – BRUSH MANAGEMENT (ac)

Component	Unit	PR/unit	HUP/unit	Payment Cap
Invasive plant species – non-cropland, woody species, chemical control only.	ac	118	213	
Invasive plant species – non-cropland, woody species, mechanical and chemical control.	ac	155	280	

1. Invasive Plant Species Pest Management payment is authorized on **NON-CROPLAND UPLAND**.
 - a. For woody invasives the payment is one-time per field.
 - b. Payment is limited to those acres on which a specific pest management action has been implemented.
 - c. Land enrolled under an easement for permanent cover is not eligible for this practice.
 - d. A detailed Invasive Plant Species Pest Management plan will be developed and implemented in order to receive the payment. The plan will specify the actions that must be completed each year in order to earn that year's payment. Qualifying invasive plant species are listed on page 2 of MN Agronomy Technical Note 16, and include the MDA Invasive Species, the MDA Prohibited Noxious Weed List, the Restricted Noxious Weeds, and MDA Secondary Noxious Weeds where those secondary noxious weeds appear on a county noxious weed list. In addition, Multiflora Rose, Japanese barberry, and Honeysuckle are qualifying invasive plant species for management treatment and payment.

PRACTICE STANDARD 342 - CRITICAL AREA PLANTING

Practice	Component	Unit	PR/unit	HUP/unit
Critical Area Planting	Introduced grasses with site shaping	ac	1008	1210
Critical Area Planting	Introduced grass seeding	ac	133	159
Critical Area Planting	Native grass seeding	ac	156	187
Critical Area Planting	Construction Site planting, pre-construction	ac	163	173
Contour Buffer Strips	Lime	ton	22	26

1. Critical Area Planting (342) must be completed following an approved establishment and management plan. Payment includes site preparation, seed, seeding, and soil amendments as appropriate based on an approved plan.
2. Introduced grasses with site shaping payment includes earthwork, grading, shaping, etc. as needed when the shaping is not part of a structural practice.
3. Construction Site planting, pre-construction
 - a) The purpose of this component of the practice standard is to provide cover on cropland fields where it is necessary to construct conservation practices during months when an annual crop would normally be growing. Participants are eligible for a one time payment to allow construction of structural conservation practices to occur from May 30 to September 15. Payment may not be made more than once on the same acres.
 - b) Payments are limited to those acres that would have been planted to an annual row crop. Total payments per contract are not to exceed payment on 10 acres.
 - c) Cover Crop (340) and the pre-construction payment may not be made on the same acres.
 - d) Payment is limited to those acres where a planting is established according to an approved NRCS plan.

PRACTICE STANDARD 382 - FENCE

Practice	Component	Unit	PR/unit	HUP/unit
Fence	Barbed Wire or hi-tensile wire	ft	092	1.11
Fence	Woven Wire	ft	1.60	1.93

1. Payment is authorized for barbed wire, hi-tensile, and woven wire fences only when installed in conjunction with Prescribed Grazing or Access Control.
2. Payment for establishing fencing is limited to permanent fences utilizing new materials except the State Conservation Engineer has approved used railroad ties or highline posts when in sound condition and free from cracking or decay.
3. Payment is not authorized for removal of existing fence, clearing obstructions or removal of woody vegetation.
4. Payment includes all appurtenances, including energizers on electric fences, gates, materials and labor.
5. Payment for perimeter fences is authorized **ONLY** for expiring CRP being converted to permanent pasture or cropland being converted to permanent pasture.

PRACTICE STANDARD 393 - FILTER STRIP

Practice	Component	Unit	PR/unit	HUP/unit
Filter Strip	Single species introduced or native grass	ac	191	210
Filter Strip	Single species introduced or native grass with shaping	ac	258	291
Filter Strip	Introduced grasses and legumes	ac	170	185
Filter Strip	Introduced grasses and legumes with shaping	ac	230	257
Filter Strip	Mixed Native Grasses with or without forbs	ac	222	247
Filter Strip	Mixed Native Grasses with or without forbs with shaping	ac	282	319

1. The filter strip can be harvested once per year to promote stand density. For cool season mixtures, cut no lower than 4 inches between June 1 and September 1. For warm season mixtures, cut no lower than 6 – 12 inches (species dependent) between July 15 and August 15.
2. Grassed waterways and other ephemeral or intermittent streams within fields are eligible to have filter strips installed along them if these watercourses discharge to permanent receiving waters.
3. Payment includes seedbed preparation, seed, seeding, and soil amendments as appropriate based on an approved seeding plan.
4. For establishment weed control see Pest Management (595).
5. Payment is in addition to any payment received for Access Control on the filter strip.

PRACTICE STANDARD 396 – FISH PASSAGE

Practice	Component	Unit	PR/unit	HUP/unit
Fish Passage	Culvert Replacement on private drive	ft	397	476

1. Payment is authorized on private access roads only.
2. Payment includes excavation, backfill, and outlet protection.

PRACTICE STANDARD 666 - FOREST STAND IMPROVEMENT

Practice	Component	Unit	PR/unit	HUP/unit
Forest Stand Improvement	Release	ac	131	157
Forest Stand Improvement	Thinning	ac	134	160

3. All improvements will be accomplished according to a detailed forest management plan.
4. Payment is not authorized for pruning trees.

PRACTICE STANDARD 490 - FOREST SITE PREPARATION

Practice	Component	Unit	PR/unit	HUP/unit
Forest Site Preparation	Chemical preparation of existing cropland, grassland, sod sites	ac	22	26
Forest Site Preparation	Chemical preparation on shrub/brush sites	ac	52	63
Forest Site Preparation	Mechanical preparation of existing cropland, grassland, sod sites	ac	19	23
Forest Site Preparation	Mechanical preparation on shrub/brush sites	ac	136	164
Forest Site Preparation	Mechanical preparation – riparian sod	ea	1.96	2.35

1. Forest Site Preparation (490) should be used in conjunction with Tree and Shrub Establishment (612), Riparian Forest Buffer (391), Upland Wildlife Habitat Management (645), and Restoration And Management Of Declining Habitats (643).

PRACTICE STANDARD 561 - HEAVY USE AREA PROTECTION

Practice	Component	Unit	PR/unit	HUP/unit
Heavy Use Area Protection	Pad Under a Permanent Tank - Gravel	sq ft	1.01	1.21
Heavy Use Area Protection	Pad Under a Permanent Tank - Concrete	sq ft	2.75	3.29

- 1) Payment for Heavy Use Area Protection – Pads is authorized as facilitating component of Prescribed Grazing or water development with Access Control.
 - a) Payment is not authorized for protecting facilities within the farmstead.
 - b) Payment is limited to protection for permanently placed livestock watering facilities.

PRACTICE STANDARD 315 – HERBACEOUS WEED CONTROL (ac)

Component	Unit	PR/unit	HUP/unit	Payment Cap
Establishment weed control (2 mechanical OR chemical)– grass plantings	ac	15	18	
Invasive plant species – non cropland, non woody species	ac	20	36	

- 1) Invasive Plant Species payment is authorized on **NON-CROPLAND UPLAND**. For non-woody invasives practice is authorized not to exceed 3 payments.
 - a) Payment is limited to those acres on which a specific invasive plant management action has been implemented.
 - b) Land enrolled under an easement for permanent cover is not eligible for this practice.
 - c) A detailed Invasive Plant Species plan will be developed and implemented in order to receive the payment. The plan will specify the actions that must be completed each year in order to earn that year’s payment. Qualifying invasive plant species are listed on page 2 of MN Agronomy Technical Note 16, and include the MDA Invasive Species, the MDA Prohibited Noxious Weed List, the Restricted Noxious Weeds, and MDA Secondary Noxious Weeds where those secondary noxious weeds appear on a county noxious weed list.
- 2) Weed control – per tree, rough terrain should be planned and implemented as needed only for tree establishment.

PRACTICE STANDARD 484 - MULCHING

Practice	Component	Unit	PR/unit	HUP/unit
Mulching	Fiber Blanket	sq yd	0.95	1.14
Mulching	Hay or straw mulch, anchored	sq yd	0.33	0.39

1. Mulching will be accomplished according to a detailed seeding and mulching plan.
2. Payment is authorized for either fiber blanket or hay mulch, but not both, on the same area.

PRACTICE STANDARD 590 - NUTRIENT MANAGEMENT (ac)

Component	Unit	PR/unit	HUP/unit	Payment Cap
Basic Nutrient Management	ac	7	9	3000
Basic Nutrient Management - With Manure	ac	10	12	4000
Enhanced Nutrient Management Option A	ac	9	11	3500
Enhanced Nutrient Management Option A – with Manure	ac	13	16	5000
Enhanced Nutrient Management Option B	ac	16	19	6000

1. A payment for Nutrient Management, Basic and/or Enhanced, is authorized on **CROPLAND** acres not to exceed 3 payments. Producers can choose one basic option or one enhanced option but cannot choose both a basic and enhanced option.
2. Use of an advisor certified by NRCS as a nutrient specialist is required (private sector or SWCD/TSA individual). NRCS will act as an advisor only as a last resort.
3. Irrigation Water Management (449) is a required core practice for use on irrigated land where 590 is applied.
4. Drainage Water Management (554) is a required core practice where feasible, for use on drained land where 590 is applied. Field slope must be $\leq 0.5\%$ and existing subsurface tile lines must be on the approximate contour.
5. If core practices have already been applied, they will be documented in the plan and required to be continued.
6. Erosion must be controlled as close to T as possible but at least to 6 tons per acre per year.
7. Concentrated flow erosion must be controlled/stabilized as much as possible.
8. Consult “**Nutrient Management Requirements for EQIP Contracts**” (**EQIP Schedule Attachment A1 and A2**) for detail on basic and enhanced nutrient management requirements. **Review these requirements with participants interested in Nutrient Management (590).**
9. Nutrient Management with Manure (Basic or Enhanced) payments apply to acres that had manure applied to them in the previous year or will receive manure at least once during the payment cycle. Fields receiving manure in the past that will be scheduled for no manure application because of environmental concern or soil phosphorus buildup are also eligible.
10. Certification and payment for Enhanced Nutrient Management must also meet the Basic Nutrient management requirements
11. Consult General Provision 13 for requirements related to manure application land base and/or manure applications on land not owned or controlled by the EQIP contract holder.

PRACTICE STANDARD 500 - OBSTRUCTION REMOVAL

Practice	Component	Unit	PR/unit	HUP/unit
Obstruction Removal	Clearing and Grubbing	ac	2235	2682
Obstruction Removal	Removal	Cu yd	15	18

1. Eligible when woody vegetation, debris or other unwanted material must be cleared in order to construct an enduring conservation engineering practice. This practice may not be used as a stand alone practice.
2. Measurement is to the nearest 0.1 acre of area cleared.
3. As per Fence Special Provision 4, this practice is not eligible for use with Fence.
4. Removal payment is for removal of debris where required by regulations.

PRACTICE STANDARD 512 - PASTURE AND HAY PLANTING

Practice	Component	Unit	PR/unit	HUP/unit
Pasture and Hay Planting	Broadcast legumes into existing pasture	ac	27	33
Pasture and Hay Planting	Introduced Grasses for Hay into cropland	ac	89	107
Pasture and Hay Planting	Introduced grasses for Hay into sod or CRP	ac	105	126
Pasture and Hay Planting	Native Grasses into sod or CRP	ac	135	162
Pasture and Hay Planting	Native grasses into cropland	ac	115	138
Pasture and Hay Planting	Introduced Grasses for Pasture into cropland	ac	93	111
Pasture and Hay Planting	Introduced grasses for Pasture into sod or CRP	ac	113	135
Pasture and Hay Planting	Lime	ton	22	26
Pasture and Hay Planting	Legume Interseeding	ac	34	40

1. Eligible plantings will be based on both:
 - a) An approved seeding plan and,
 - b) A detailed Forage Harvest Management or Prescribed Grazing plan.
2. Payments are limited to land being converted from annual crop production to permanent pasture or permanent hayland or to improve existing pasture.
3. Payment includes seedbed preparation, seed, seeding, and soil amendments as appropriate based on an approved seeding plan.
4. Payment is allowed for interseeding only to add a legume component to the pasture, to increase the number of grass species only if the pasture currently has 3 or fewer species of grass in the mix, or the pasture has greater than 35% bare ground.
5. Practice implementation must result in an environmental benefit.
6. Payment is not authorized for planting hay in crop rotation.
7. Payment is not authorized for clearing rocks or obstructions from the area to be seeded
8. Payment is not authorized for converting lands with greater than 10% woody vegetation into pasture or hayland.
9. **See General Provisions 4 & 5** regarding soil testing and liming.
10. For establishment weed control see Herbaceous Weed Control (315).

PRACTICE STANDARD 595 - PEST MANAGEMENT (ac)

Component	Unit	PR/unit	HUP/unit	Payment Cap
Pest Management on cropland	ac	5.68	10	3000
Apple orchards – level 1 IPM	ac	230	277	3000
Apple orchards – level 2 IPM	ac	359	430	4500

2. Pest management on **CROPLAND** is authorized not to exceed 3 payments.
3. To receive the Cropland payment, Pest Management on cropland must be fully implemented on all acres scheduled for payment by the end of the EQIP contract. Consult “**Pest Management Requirements for FY 2011 EQIP Contracts,**” (EQIP Schedule Attachment C1), review these requirements with applicants interested in Pest Management (595), and append the requirements to contracts containing Pest Management (595).
4. The NRCS will not provide technical assistance on pest management on cropland payment. Assistance must be provided by a private sector pest management specialist certified by NRCS.
5. IPM Orchards. Orchards are defined as apples including other pome and/or stone fruit
6. ¹ Level one IPM for apple orchards includes development and implementation of annual 595 Pest Management Plans; scouting and monitoring; use of economic thresholds; equipment calibration and recordkeeping. See Attachment C2, **Pest Management Requirements for Minnesota Apple Orchards** for FY 2011 EQIP contracts for detail and additional requirements.
7. ²Level two IPM for Orchards includes all level 1 requirements plus use of pheromone disruptors, inoculum reduction practices and other biologically based or cultural pest controls. Use pesticides having a low or very low human hazard rating as determined by the NRCS Windows Pesticide Screening Tool (WIN-PST) or the IPM Institute’s Pesticide Risk Mitigation Engine (PRiME) tool. Or install mitigation practices for pesticides having intermediate or high site specific risks as identified by WIN-PST or PRiME. See **Pest Management Requirements for Minnesota Apple Orchards** for FY 2011 EQIP Contracts for detail and **additional requirements.**
8. Use of a consultant is required. Consultants must be trained and have experience in Orchard Pest management. Additionally, the consultant must be certified by one of the following: Certified Crop Advisor (CCA) in Minnesota or surrounding states; National Association of Independent Crop Consultants (NAICC); ARPAC Professional Agronomist (CPag); or NRCS Technical Service Provider certified in Pest Management (595)

PRACTICE STANDARD 516 - PIPELINE

Practice	Component	Unit	PR/unit	HUP/unit
Pipeline	Shallow Bury (0.5-2 ft) – less than 1.25 inch pipe	lin ft	1.78	2.13
Pipeline	Shallow Bury (0.5-2 ft) - 1.25 inch pipe or greater	lin ft	2.08	2.50
Pipeline	Surface Pipe – less than 1.25 inch pipe	lin ft	0.81	0.97
Pipeline	Surface Pipe - 1.25 inch pipe or greater	lin ft	1.11	1.34
Pipeline	Deep Bury – less than 1.25 inch pipe	lin ft	2.33	2.80
Pipeline	Deep Bury - 1.25 inch pipe or greater	lin ft	2.64	3.17
Pipeline	Rural Water Connection	ea	6566	7880
Pipeline	Directional boring	Ft	8.41	10

1. Payment is authorized when required as a component of a Prescribed Grazing System or water development with Access Control.
2. Payment is not authorized when the pipeline will be used for any part of a human domestic water supply.

PRACTICE STANDARD 528 - PRESCRIBED GRAZING

Practice	Component	Unit	PR/unit	HUP/unit
Prescribed Grazing	Prescribed Grazing	ac	37	44

1. A payment is authorized on eligible acres, not to exceed 3 payments.
2. A detailed prescribed grazing plan is required.
3. Prescribed Grazing is not authorized for operations with less than 10 animal units (One animal unit = 1000 pounds) or for less than 15 acres.
4. Prescribed Grazing is only eligible for permanent pasture/grassland (not hayland or cropland that is intermittently grazed).
5. Woodlands not currently pastured are NOT eligible for Prescribed Grazing.
6. Wetland types 3-8 are NOT eligible for Prescribed Grazing. Acreages of these wetlands within pastures shall not be included in the payment acres.
7. Participants are eligible for the Prescribed Grazing payment as a stand alone practice or in combination with other conservation practices used in the management of livestock such as Pasture and Hay Planting, Fence, and other similar practices. However, they are not eligible for payments for Nutrient Management and Pest Management on the same acres as Prescribed Grazing.

PRACTICE STANDARD 533 - PUMPING PLANT

Practice	Component	Unit	PR/unit	HUP/unit
Pumping Plant	New Well (pump, pitless, pres tank controls)	ea	3265	3919
Pumping Plant	Pump & Pressure Tank Upgrade	ea	2080	2496
Pumping Plant	Pressure Tank Only Upgrade	ea	1003	1203
Pumping Plant	Windmill	Ea	5180	6217
Pumping Plant	Solar Pump system, head less than 100 feet	ea	3094	3713
Pumping Plant	Solar Pump system, head 100 feet or greater	ea	6829	8194
Pumping Plant	Nose or Sling Pump	ea	435	523

- 1) Payment is for permanently placed pumps and pumping equipment. Payment for New Well; Pump & Pressure tank upgrade; Pump/Pressure Tank only upgrade; Solar Pumps; Nose or Sling Pump, and Windmill require a Prescribed Grazing system or Access Control to be performed by the participant.
 - a) Portable pumps such as, nose pumps, sling pumps and solar pumps are eligible when there is no other feasible alternative for pumping water to livestock.
 - b) Water systems for human use are not eligible.
 - c) Payment under “ New Well “ includes the pump, riser pipe, pitless adapter or well pit, pressure tank, controls, and wiring.
 - d) Payment under “Pump/Pressure Tank Upgrade” include the pump, pressure tank, controls, and wiring.
 - e) Payment under “Pressure Tank Upgrade” include the pressure tank, controls and wiring.

PRACTICE STANDARD 643 - RESTORATION AND MANAGEMENT OF DECLINING HABITATS

Practice	Component	Unit	PR/unit	HUP/unit
Restoration and Management of Declining Habitats	Red & white pine planting using seedlings	tree	3.11	3.74
Restoration and Management of Declining Habitats	Red & white pine planting using transplants	tree	3.25	3.90
	Tree Shelter	ea	3.49	4.19
	Animal repellent or Bud Caps	tree	0.15	0.18
	Tree Shelter – browse control	ea	24	29

1. A detailed plan is required, in accordance with the specifications outlined in the NRCS practice standard.
2. Payment rate for Red & White pine includes trees, planting, and establishment weed control..
3. For tree seedbed preparation see Forest Site Preparation (490).
4. Tree shelters are permitted with hardwood plantings only.
5. For tree seedbed preparation see Forest Site Preparation (490).

PRACTICE STANDARD 391 - RIPARIAN FOREST BUFFER

Practice	Component	Unit	PR/unit	HUP/unit
Riparian Forest Buffer	Riparian forest buffer	tree	1.66	1.93
Riparian Forest Buffer	Direct seeding	ac	471	546
Riparian Forest Buffer	Tree Shelter	ea	3.49	4.19
Riparian Forest Buffer	Animal repellent or Bud Caps	tree	0.15	0.18
Riparian Forest Buffer	Tree Shelter – browse control	ea	24	29
Riparian Forest Buffer	Weed Control - per tree, rough terrain	tree	3	3.60

1. Payment is for establishing woody cover. Establishing woody cover shall follow the limits listed in Tree/Shrub Establishment (612). Short Rotation Intensive Culture or Wood Farming is **NOT** eligible for payment under Riparian Forest Buffer (391).
2. Payment rate for Riparian forest buffer includes trees, planting, and establishment weed control.
3. For site preparation, use Forest Site Preparation (490) as a facilitating practice, except for Direct Seeding. Direct Seeding payment includes site preparation, seed, and seeding.
4. Tree shelters are permitted with hardwood plantings only.

PRACTICE STANDARD 578 - STREAM CROSSING

Practice	Component	Unit	PR/unit	HUP/unit
Stream Crossing	Stream Crossing	In ft	33	40

1. Payment is authorized only for crossings installed in conjunction with Prescribed Grazing or Access Control.
2. All Federal, State, and Local laws and regulations must be followed and needed permits obtained prior to construction.

PRACTICE STANDARD 395 - STREAM HABITAT IMPROVEMENT

Practice	Component	Unit	PR/unit	HUP/unit
Stream Habitat Management and Improvement	Fish lunger structure – set of 3	ea	544	653
Stream Habitat Management and Improvement	Woody debris dam	ft	3.88	4.65
Stream Habitat Management and Improvement	Structures –Weirs, barbs	site	408	489

1. No special provisions.

PRACTICE STANDARD 580 - STREAMBANK AND SHORELINE PROTECTION

Practice	Component	Unit	PR/unit	HUP/unit
Streambank and Shoreline Protection	Streambank and Shoreline Protection - Bioengineering	sq ft	1.20	1.43
Streambank and Shoreline Protection	Cable concrete	sq ft	7.50	9
Streambank and Shoreline Protection	Stream barbs	cu yd	48	57
Streambank and Shoreline Protection	Riprap	sq ft	4.32	5.18

1. No special provisions.

PRACTICE STANDARD 612 - TREE/SHRUB ESTABLISHMENT

Practice	Component	Unit	PR/unit	HUP/unit
Tree and Shrub Establishment	Conifer seedlings	tree	0.61	0.73
Tree and Shrub Establishment	Conifer transplants or Short rotation planting	tree	0.83	1.00
Tree and Shrub Establishment	Direct Seeding	ac	383	459
Tree and Shrub Establishment	Hardwood planting	tree	0.75	0.89
Tree and Shrub Establishment	Conifer containers 500 trees or less	tree	2.42	2.91
Tree and Shrub Establishment	Conifer containers >500 trees	tree	1.74	2.09
	Tree Shelter	ea	3.49	4.19
	Animal repellent or Bud Caps	tree	0.15	0.18
	Tree Shelter – browse control	ea	24	29

1. Payment rate includes cost of seedlings, planting, and establishment weed control.
2. The following species of trees may be approved providing they are adapted to the soil, climatic and moisture conditions, and the site: White spruce, black spruce, red pine, jack pine, white pine, sugar maple, soft maple, basswood, green ash, white ash, cottonwood, red oak, black cherry, black walnut, and white oak. Other species may be approved if recommended by the technician.
3. Solid plantings should not be more than 1000 or less than 400 trees per acre.
4. Weed Control for establishment will be accomplished within 12 months from planting.
5. For site preparation, use Forest Site Preparation (490) as a facilitating practice, except for Direct Seeding. Direct Seeding payment includes site preparation, seed, and seeding.
6. Tree shelters are permitted with hardwood plantings only.

PRACTICE STANDARD 645 - UPLAND WILDLIFE HABITAT MANAGEMENT

Practice	Component	Unit	PR/unit	HUP/unit
Upland Wildlife Habitat Management	Tree & shrub planting - seedlings	tree	2.86	3.44
Upland Wildlife Habitat Management	Tree & shrub planting – direct seeding	ac	383	459
Upland Wildlife Habitat Management	Tree & shrub planting - transplants	tree	3.55	4.26
Upland Wildlife Habitat Management	Introduced grasses and legumes	ac	50	60
Upland Wildlife Habitat Management	Switchgrass planting	ac	85	101
Upland Wildlife Habitat Management	Native grasses/forbs conventional planting into crop	ac	122	147
Upland Wildlife Habitat Management	Native grass/forbs conventional planting into grass	ac	142	170
Upland Wildlife Habitat Management	Native grasses/forbs no-till planting	ac	98	118
Upland Wildlife Habitat Management	Pollinator habitat management – EQUIP ONLY	ac	15	18
Upland Wildlife Habitat Management	Pollinator mix natives, conventional planting into crop	ac	204	245
Upland Wildlife Habitat Management	Pollinator mix natives, conventional planting into grass	ac	224	269
Upland Wildlife Habitat Management	Pollinator mix natives, no-till planting into soybeans	ac	180	216
Upland Wildlife Habitat Management	Lime	ton	22	26
Upland Wildlife Habitat Management	Hibernaculum	ea	698	837
Upland Wildlife Habitat Management	Conifer containers 500 trees or less	ea	4.40	5.28
Upland Wildlife Habitat Management	Conifer containers >500 trees	ea	3.72	4.46
	Tree Shelter	ea	3.49	4.19
	Animal repellent or Bud Caps	tree	0.15	0.18
	Tree Shelter – browse control	ea	24	29

1. Tree/shrub plantings under Upland Wildlife Habitat Management shall be on sites of 10 acres or less
2. per contract. Tree/shrub plantings greater than 10.0 acres per contract will be planned and payment made in accordance with practice standard Tree Planting - 612.
3. For introduced grasses and legumes, a soil test during the year of seeding or the preceding two calendar years is required to determine the needs of commercial fertilizer and liming materials. The rate of application of commercial fertilizer and lime shall be no more than 100% of the recommended rate per acre of total available plant food. Small grain nurse crops must be left unharvested until August 1 of the establishment year to be eligible for Payment reimbursement.
4. Practices will be protected from mowing, grazing, and uncontrolled fire for the duration of the contract unless specifically identified in the management plan.
5. Payment is only authorized when a Wildlife Management Plan has been developed that identifies the species being addressed and needed practices.
6. Payment rate for grass includes seedbed preparation, seeding, seed, and soil amendments as appropriate based on an approved plan.
7. Payment rate for trees includes cost of all trees, planting, in-row weed control, and vegetative covers between rows as planned.
8. For tree site preparation see Forest Site Preparation (490).
9. For weed control for grass seedings see Herbaceous Weed Control (315).
10. Tree shelters are permitted with hardwood plantings only.

11. Pollinator habitat payment is authorized on all eligible 645 acres, not to exceed 3 payments. To receive the payment the management plan must meet the 645 standard AND the Pollinator guidelines to accomplish season long flowering on the enrolled field. Meeting these requirements will necessitate the use of native plant materials.

PRACTICE STANDARD 614 - WATERING FACILITY

Practice	Component	Unit	PR/unit	HUP/unit
Watering Facility	Summer – manufactured tanks	gal	0.97	1.16
Watering Facility	Watering Facility - winter - Less than 150000 lb herd weight	ea	708	849
Watering Facility	Watering Facility - winter - Greater than 150000 lb herd weight	ea	928	1113
Watering Facility	Storage Tank	gal	0.69	0.83

1. Payment is authorized when required as a component of a Prescribed Grazing System or water development with Access Control.
2. Payment is not authorized for Watering Facilities within the area of the farmstead or feedlots.
3. Payment is authorized for winter watering facilities only when necessary for wintering livestock on the pasture. Only one frost-free watering facility may be cost shared for each 120 acres of pasture.
4. Water systems for human use are not eligible.
5. The use of used heavy equipment tires in the fabrication of watering facilities is approved.

PRACTICE STANDARD 642 - WELL

Practice	Component	Unit	PR/unit	HUP/unit
Well	Well Drilling	ft	24	29

1. Payment is authorized when required for providing stock water as a component of Prescribed Grazing or water development with Access Control (472).
2. Pumps associated with Well are under Practice 533, Pumping Plant.
3. Payment is not authorized for dry wells.

ATTACHMENT A1 – Basic Nutrient Management (590) Requirements for FY 2011 EQIP Contracts

- 1) **Control sheet, rill, ephemeral gully, and wind soil losses** to 6 tons per acre per year or less on land receiving manure or commercial fertilizer applications.
- 2) **Develop a Long Range Strategic Nutrient Management Plan** using the NRCS baseline or Comprehensive Nutrient Management Plan (CNMP) templates by the end of the 1st cost shared year of nutrient management.
- 3) **Develop annual nutrient management plan prior to implementation** (October 1 if fall or winter applications are planned and by April 1 if spring or summer applications are planned). Annual plans apply to the 2nd and 3rd year of cost-shared nutrient management but can also be developed in conjunction with (long range) strategic plans.
- 4) **Determine crop N, P₂O₅ and K₂O nutrient needs**
 - a) ***Collect soil samples during the 1st year of cost-shared nutrient management.** However existing soil tests (no older than 3 to 4 years) may be used if the samples were collected and analyzed according to NRCS guidelines (1 composite sample per 5-20 acres in complex terrain and 1 composite sample per 20-40 acres in uniform terrain). The samples must be analyzed at a soil-testing lab certified by the Minnesota Department of Agriculture (MDA).
 - b) ***Collect manure samples each time a storage structure is emptied for application.** Have analyzed by a manure testing laboratory certified by the MDA.
 - c) ***Annually develop realistic yield goals using the last five years' yields.** Drop the lowest yield, and average the four remaining yields.
 - d) ***Determine planned fertilizer or manure application rates after accounting for all nutrients available to crops from soil, previous legumes or prior manure applications.**
 - e) Use University of Minnesota (UM) fertilizer recommendations as found in the most recent version of **BU-6240-GO Fertilizer Recommendations for Agronomic Crops in Minnesota** (or analogous crop specific bulletins).
 - f) ***Base manure application rates on crop nitrogen nutrient budgeting on most fields.** Base manure application rates on crop P₂O₅ removal on fields within 300 feet of lakes, streams, protected wetlands and field edge drainage ditches if those fields have soil test phosphorus values greater than 21 ppm BrayP1 (16 ppm Olsen) and do not have acceptable width filter strips (NOTE: A single year rate can be based on crop nitrogen needs provided subsequent manure applications do not occur until excess P has been removed by succeeding crops).
- 5) **Commercial Fertilizer Timing and Form**
 - a) No Applications
 - On frozen ground and/or actively thawing ground in early spring.
 - On frequently flooded fields during peak flooding periods.
 - b) Fall Applications for spring seeded crops.
 - **Do not fall apply commercial N fertilizer** (inorganic or approved organic) **in Southeastern Minnesota and/or statewide on coarse textured soils** (textural classes of sandy loams, loamy sands and sands) **and/or on fields with less than 36 inches of soil over fractured bedrock.**
 - ****Acceptable forms of N for fall applications in South Central Minnesota** are anhydrous ammonia (AA) with N-Serve; or incorporated ESN.
 - ****Acceptable forms of N for fall applications in Southwestern, West-Central and Northwestern Minnesota** are incorporated ESN; Urea incorporated within 2 days to a depth of at least 3 inches (Agrotain or N-Serve is required if incorporated after 2 days); or anhydrous ammonia (AA) placed at a depth of at least 4 inches (also consider an N inhibitor).
 - For acceptable fall N applications noted above, N must be applied after soil temperatures at a 6 inch depth stabilize below 50°F. <http://gis.mda.state.mn.us/maps/csgsoil.htm>

- c) Spring Pre-plant or sidedress applications
 - Use sidedress or split applications of commercial N fertilizer (inorganic or approved organic) on irrigated crops.
 - Use a nitrogen stabilizer on labeled crops for spring preplant or early sidedress N applications (excludes ESN) on coarse-textured soils. Organic operations are exempt unless the inhibitor is approved for organic use.
 - ******Incorporate spring broadcast applications of Urea and UAN solution within 2 days or use a nitrification or urease inhibitor with the application and incorporate within 10 days (inhibitor must be labeled for the appropriate N form and crop).
- 6) **Manure application**
- a) Apply manure uniformly and calibrate manure application equipment at time of application.
 - b) No manure applications:
 - Within 25 feet of lakes, perennial and intermittent streams and public water wetlands or within 300 feet when ground is frozen, snow-covered, or actively thawing or within 300 feet when applying with a traveling gun or center pivot.
 - Within 50 feet of water supply wells, mines, quarries, sinkholes receiving surface runoff or other direct conduits to groundwater.
 - On soils classified by NRCS as “frequently” flooded (floods 50-100 times in 100 years) during usual peak flood periods.
 - On in-field grassed waterways (unless a variance is granted) or in Road Ditches
 - c) Inject or incorporate manure within 24 hours within 300 feet of surface waters **OR** install a 100-foot wide grass filter strip along surface waters and a 50-foot strip along intermittent streams and drainage ditches.
 - d) Inject or incorporate manure within 24 hours on land upslope from and within 300 feet of water supply wells, mines, quarries, surface tile intakes, sinkholes receiving surface runoff or other direct conduits to groundwater.
 - e) Inject or incorporate manure within 2 days on frequently flooded soils during times when flooding is infrequent.
 - f) Delay fall manure applications on coarse textured soils (loamy sand and sand soils) until soil temperatures at a 6 inch depth stabilize below 50°F.
 - g) Delay spring manure applications on any field until active thawing and runoff events have passed.
 - h) Maintain a minimum separation of 15 inches between bottom of incorporated or injected manure and fractured bedrock or high water tables
 - i) Winter manure applications on frozen or snow-covered ground
 - Do not apply solid manure if sheet and rill soil losses greater than 4 tons/acre/year.
 - Do not apply liquid manure if sheet and rill soil losses greater than 2 tons/acre/year
 - Check with County Feedlot Officers for wintertime restrictions on CAFOs requiring NPDES permits. No applications may be allowed.
7. **Keep annual field specific records** of crops, yields, and commercial fertilizer and manure applications (including application dates, rates, timing, nutrient content, and method of application and incorporation).
8. **Certify completion and submit required documentation by August 31**
- a) **1st year nutrient management required documentation (minimum):**
 - Signed form 590b containing all required information or signed form 590b attached to other documents that contain the required information.
 - Long Range Strategic Plan with all required maps, evaluations, documents and calculations.
 - Soil Test Results and Manure Analyses
 - Copies of manure applicator calibrations worksheets
 - b) **2nd and 3rd year nutrient management required documentation (minimum):**
 - Signed form MN-CPA-046 containing all required information or signed MN-CPA-046 form attached to other documents that contain the required information.
 - Manure Analyses
 - Updated soil test results if necessary.

- Manure applicator calibration worksheets if applicable.

***Consult NRCS Conservation Practice Standard Nutrient Management (Code 590) for detail.**

****Does not apply to organic operations. Approved Organic N fertilizer sources must not contain N in the nitrate form if fall applied. All approved organic fertilizer N sources must be incorporated within 5 days of application.**

***** For purposes of this fact sheet a crop year begins immediately after harvest of the preceding crop or forage and extends though harvest of the planned crop.**

Page 3 of 4
November 2010

GLEBA

1st YEAR EQIP BASIC NUTRIENT MANAGEMENT ACTIVITIES SCHEDULE AND CERTIFICATION

Producer Name _____

Plan Date _____

Crop Year _____

1. Complete Farm Inventory by:
(Forms MN-CPA 40, 41, 42, and 43 or equivalent)
2. Calculate Realistic Yield Goals by:
3. Complete soil sampling and analysis by:
4. Complete manure sampling and analysis by:
5. Calibrate application equipment by:
6. Begin keeping field specific records by:
7. Develop Long Range Strategic Nutrient Mgmt plan by:

Scheduled Date:	Assisted By:	Completed Date:

8. Follow all commercial fertilizer and manure application form, timing, placement and incorporation requirements as listed on Attachment A1.

I certify that ALL activities listed above have been completed according to NRCS guidance.

Producer Signature _____

Date _____

I certify that activities listed above have been completed to the best of my knowledge as presented to me by the aforementioned producer.

TSP Signature _____

Date _____

ATTACHMENT A2 – Enhanced Nutrient Management (590) Requirements for FY 2011 EQIP Contracts**1) Enhanced A without Manure Option**

- Meet all Basic Requirements
- All commercial nitrogen fertilizer (inorganic or approved organic) is applied within 14 days of spring seedings or following spring seedings. Applications of fall commercial phosphorus fertilizer (such as DAP and MAP) that also include nitrogen are allowed provided they are deep banded; the total nitrogen applied does not exceed 23 pounds per acre; and the application is made after soil temperatures at a 6 inch depth stabilize below 50°F.
- Use one or more of the following techniques to monitor results of the nutrient management strategy:
 - nitrogen rate test strips (see Nutrient Management Initiative protocols)
 - pre-season soil nitrate test
 - nitrogen tissue tests
 - chlorophyll readers
 - corn basal stalk analyses
 - Land-based, aerial or satellite sensing of relative plant health/vigor
 - Yield monitoring.

2) Enhanced A with Manure Option

- Meet all Enhanced A without Manure Option requirements
- All manure (including composted and digested manure) and commercial nitrogen and phosphorus fertilizer (inorganic or organic) applications incorporated within 24 hours or sub-surface applied.
- No manure (including composted and digested manure) applications on fields with STP levels exceeding 50 ppm Bray P1 or exceeding 35 ppm Olsen (used when pH >7.3 or for calcareous soils with > 2% calcium carbonate).
- No manure (including composted and digested manure) applied in the fall until soil temperatures at a 6-inch depth stabilize under 50° F.

3) Enhanced B Option

- Meet all Basic Requirements
- All commercial nitrogen fertilizer (inorganic or approved organic) applied within 14 days of spring seedings or following spring seedings. Fall deep banded applications of commercial phosphorus fertilizer (such as DAP and MAP) that also include nitrogen are allowed provided the total nitrogen applied does not exceed 23 pounds per acre and the application is made after soil temperatures at a 6 inch depth stabilize below 50°F.
- Geo-referenced grid soil sampling that includes phosphorus and potassium (maximum grid size - 5 acres).
- All commercial phosphorus and potassium fertilizer (except for starter) is variable rate applied.
- Create management zones no larger than 10 acres using soil sample analyses, geo-referenced digitized yield maps, and digital soil survey information. Results of previous monitoring (e.g. chlorophyll readings, tissue tests and/or geo-referenced land-based, aerial or satellite sensing of relative plant health/vigor) can also be used to help refine or define management zones.
- Total commercial phosphorus (inorganic or approved organic) applications limited to maximum 23 lbs. in a single year when Soil Test Phosphorus Levels (STP) exceed 30 ppm Bray P1 or exceed 20 ppm Olsen (used when pH >7.3 or for calcareous soils with > 2% calcium carbonate).
- Geo-referenced yield maps corresponding at a minimum to grid or zone sizes.

Documentation

- **Submittal of signed and completed Form MN-CPA-046 Practices Certification/Recordkeeping form Revised 11/10 or submittal of other recordkeeping forms along with signed MN-CPA-046 (complete sections of the 046 not addressed by the alternative recordkeeping form).**

- **Soil test results (part of basic nutrient management requirements) for individual fields (maps showing grid sampling results if implementing enhanced option B).**
- **Monitoring results.**
- **Management zone and fertilizer application maps for enhanced option B.**

GLEBA

ATTACHMENT C1 - PEST MANAGEMENT REQUIREMENTS FOR FY 2011 EQIP CONTRACTS

- **Participants with EQIP contracts containing pest management components must fully implement items 1-22 listed below by the last year of the contract.**
- Implementation can be phased in for multi-year contracts. The payments are released in each scheduled payment year after the producer has certified completion of all required pest management operations.

1st year of scheduled pest management for multi-year contracts

1. Schedule 1st year activities on the attached job sheet 595b and complete those activities by o/a Aug. 31.
2. Review existing pest management program (Form MN-CPA-024) and submit to NRCS.
3. Calibrate application equipment before mixing and loading pesticides at the beginning of each season and any time nozzle type is changed. Replace worn nozzle tips and hoses and faulty gauges.
4. Keep field specific detailed pest management records which indicate fields, soil type(s), soil test results, crops, identified pest problem, control applied, date applied and results of control. Also indicate brand name, EPA registration number, active ingredient and rates applied if pesticides are used. Submit records to NRCS.
5. Conduct a self-assessment of farmstead susceptibility to chemical handling by using **AG-PC-5696-S FARM*A*SYST Fact Sheet #2, “Reducing the Risk of Groundwater Contamination by Improving Pesticide Storage and Handling,”** and **FARM*A*SYST Worksheet #2, “Assessing the Risk of Groundwater Contamination from Pesticide Storage and Handling.”** Submit assessment to NRCS upon request.
6. Identify sensitive areas or features where special care will be necessary when managing pests. Those areas or features include:
 - a. shallow soils over water tables and fractured bedrock
 - b. coarse textured soils and other soils with a high NRCS pesticide leaching or runoff rating
 - c. wells
 - d. sinkholes
 - e. surface waters
 - f. tile inlets
 - g. other areas identified as sensitive in wellhead protection plans, local comprehensive water plans, county geologic atlases or regional hydrogeologic assessments or NRCS’ Sensitive Aquifers soil interpretation .
7. Read and follow all label requirements when using chemical control treatments (i.e., setback and rate reductions for atrazine or restrictions based on depth to water table for acetachlor).
8. Follow recommended BMPs when using pesticides designated by the MDA as common detection.
9. Store, handle, transport, mix, and dispose of all pesticides, pesticide containers, unused pesticides and rinsate in accordance with state law and safe handling procedures. This includes the following:
 - a. Prevent backsiphoning of pesticides into wells and other water supplies by utilization of a fixed airgap or other Minnesota Department of Agriculture (MDA) or Minnesota Department of Health approved anti-backsiphoning device.
 - b. Do not mix or load pesticides or clean application equipment near wells. Follow Minnesota Rule Chapter 4725 (Well code) for safe separation distances (150 feet without safeguards).
 - c. Do not mix or load pesticides or clean equipment within 150 feet from a sinkhole, streambed, lake, wetland, water impoundment, river or similar area.
 - d. Store pesticides only in the original labeled container, separated from other products such as food, feed and seed, and in a locked building having appropriate warning signs.
 - e. Recycle triple rinsed or pressure rinsed rigid plastic containers through the Empty Pesticide Container Collection and Recycling Program (if available in your area).
12. Use NRCS' Windows Pesticide Screening Tool (WIN-PST) to determine relative potential for planned pesticides to move off-site and impact non-target species. Submit results to NRCS.

13. Certify that scheduled activities have been completed on NRCS job sheet 595b and submit to NRCS o/a August 31st of the 1st crop year of pest management.

Remaining years of scheduled pest management

Follow provisions 3, 4 and 7 through 10 above.

14. Have a certified TSP regularly scout to properly identify pest conditions, need for control, and timing of control (frequency is dependent upon pest). Submit results of scouting and recommendations based on scouting to NRCS.
15. Select plant varieties resistant to pests and adapted to growing seasons and hardiness in respective areas of the state. **Variety Trials of Selected Farm Crops**, published annually by the Minnesota Agriculture Experiment Stations or UMN can be consulted for information on hardiness and resistance to certain pests.
16. Use product effectiveness or efficacy tables to help select most effective control if pesticides are used. The UMN Extension Service (UMES) annually publishes bulletins describing control effectiveness of various pesticides (i.e., **Cultural and Chemical Weed Control in Field Crops**).
17. Consider economic injury level (EIL) and economic treatment level thresholds when determining if control is necessary. EILs and treatment level thresholds are available from UMES for select pests. Indicate threshold levels used for insects and diseases.
18. Promote crop and forage tolerance to pests by:
 - a. planting in a timely manner
 - b. providing proper nutrients, water, and soil conditions that favor rapid establishment and vigorous growth.
19. Use disease free and weed free seed to prevent introduction of pests into fields.
20. Do not use pest management alternatives with a WIN-PST human hazard rating of “High” or “Extra high” for leaching (ILP) on land within Drinking Water Supply Management Areas (DWSMAs) having high or very high vulnerability to contamination.
21. Do not use pest management alternatives with a WIN-PST human hazard rating of “Extra high” for leaching (ILP) on land within the boundaries of vulnerable Source Water Assessment Areas where groundwater is the water supply.
22. In other locations change pest management procedures if current or proposed procedures result in a WIN-PST rating of intermediate or higher for human toxicity. Changes include one or more of the following:
 - a. using low end of label rate ranges
 - b. timing of applications to reduce potential for movement in runoff or leaching
 - c. band applying or spot treating where appropriate
 - d. using companion crops, cover crops and crops residues, when appropriate, to suppress weed growth
 - e. using crop cultivation and shallow tillage operations to control annual and biennial weed seedlings
 - f. installing additional erosion and runoff control measures to minimize off-site movement of applied pesticides
 - g. establishing vegetated buffer areas which separate normal crop production practices from sensitive features such as sinkholes, wells, streams, lakes, waterways and tile inlets.
23. Consider and select multiple pest control techniques based on effectiveness, cost and environmental impact. Options include chemical, biological and mechanical. Evaluate the effectiveness of the techniques used.
24. Certify that planned activities have been completed on form MN-CPA-046 and submit to NRCS o/a August 31.

1ST YEAR EQIP PEST MANAGEMENT ACTIVITIES SCHEDULE AND CERTIFICATION

Producer Name

Plan Date

Crop Year _____

1. Complete and submit inventory of pest management activities (Form MN-CPA-024 or equivalent).
2. Calibrate Equipment.
3. Begin keeping field specific records.
4. Assess farmstead susceptibility to chemical handling using FARM*A*SYST Worksheet #2.
5. Identify areas sensitive to chemical control (See Form MN-CPA-047) and submit to NRCS
6. Perform and submit WIN-PST evaluations of current or proposed chemical treatments to NRCS.

Scheduled Date:	Assisted By:	Completed Date:

7. Read and follow all label requirements when using chemical controls
8. Follow recommended BMPs when using pesticides designated by the Minnesota Department of Agriculture (MDA) as common detection
9. Prevent backsiphoning of pesticides into wells and other water supplies by utilization of a fixed airgap or other MDA or Minnesota Department of Health approved backsiphoning device.
10. Do not mix or load pesticides or clean application equipment near wells. Follow Minnesota Rule Chapter 4725 (Well code) for safe separation distances (150 feet without safeguards).
11. Do not mix or load pesticides or clean application equipment within 150 feet from a sinkhole, streambed, lake, wetland, water impoundment, river or similar area.
12. Store pesticides only in the original labeled container, separated from other products such as food, feed and seed, and in a locked building having appropriate warning signs.
13. Recycle triple rinse or pressure rinse rigid plastic containers through the Empty Pesticide Container Collection and Recycling Program (if available in your area).

I certify that ALL activities listed above have been completed according to NRCS guidance

Producer Signature

Date

I certify that activities listed above have been completed to the best of my knowledge as presented to me by the aforementioned producer.

TSP Signature

Date

ATTACHMENT C2 PEST MANAGEMENT REQUIREMENTS FOR MINNESOTA APPLE ORCHARDS FOR 2011 EQIP CONTRACTS

IPM Plan Development

- Prepared by consultant trained and experienced in Orchard Pest Management.
- Prepared prior to implementation.
- Includes:
 - Review of existing pest management program (Form MN-CPA-024 can be used).
 - Description of operation including aerial photos or maps and location of permanent pesticide mixing, loading, storage and supply areas.
 - Evaluation of mixing, loading, storage and handling procedures using Farm*A*Syst Fact Sheet #2, “Reducing the Risk of Groundwater Contamination by Improving Pesticide Storage and Handling,” and FARM*A*SYST Worksheet #2, “Assessing the Risk of Groundwater Contamination from Pesticide Storage and Handling.”
 - Identification of sensitive water features and sensitive species in and around the orchard including
 - shallow soils over water tables and fractured bedrock
 - coarse textured soils and other soils with a high NRCS pesticide leaching or runoff rating
 - wells, sinkholes and tile inlets
 - surface waters
 - other areas identified as sensitive in wellhead protection plans, local comprehensive water plans, county geologic atlases or regional hydrogeologic assessments or NRCS’ Sensitive Aquifers soil interpretation.
 - WIN-PST or PRiME Risk analysis of proposed chemical pest controls.
 - Recommend mitigation practices for proposed chemical controls having medium (intermediate) or higher risk of harm to non-target species.
 - Planned pest management to include type, timing and number of monitoring activities; threshold information to use to make control decisions; and proposed controls.
 - NRCS-MN-MN-CPA -047 can be used as a partial plan template. A complete plan template can be provided upon request.

General Pest Management

- Pest control decisions are based on scouting, monitoring, available threshold information and use of appropriate software to determine disease and insect susceptible periods.
- Multiple pest control techniques are used including cultural, biological and mechanical.
- Pollinator habitat for beneficial insects and native bees is protected or enhanced. Habitat includes:
 - Plants flowering throughout the growing season – see Pollinator Habitat Job sheet for NRCS in WI
 - Nesting areas

Scouting and Monitoring

- Frequency and type of scouting and monitoring and pest spectrum to scout or monitor for is based on “Integrated Pest Management Manual for Minnesota Apple Orchards “ 2nd edition, Sept. 2007 Minnesota Department of Agriculture. Level 1 IPM requires scouting and monitoring identified in that manual as Moderate IPM/Reduced Pesticide Program (e.g. 16 orchard visits comprising 75 monitoring events). Level 2 IPM requires scouting and monitoring identified in that document as Advanced IPM/Minimal Pesticide Program (e.g. 26 orchard visits comprising 95 monitoring events).
- Use of on-farm weather monitoring devices and Leaf wetness monitoring.
- Effectiveness monitoring of selected controls.

Pesticide Management

- Handling
 - Store, handle, transport, mix, and dispose of all pesticides, pesticide containers, unused pesticides and rinsate in accordance with state law and safe handling procedures.
 - Prevent backsiphoning of pesticides into wells and other water supplies by utilization of a fixed airgap or other Minnesota Department of Agriculture (MDA) or Minnesota Department of Health approved anti-backsiphoning device.
 - Do not mix or load pesticides or clean application equipment near wells. Follow Minnesota Rule Chapter 4725 (Well code) for safe separation distances (150 feet without safeguards).
 - Do not mix or load pesticides or clean equipment within 150 feet from a sinkhole, streambed, lake, wetland, water impoundment, river or similar area.
 - Store pesticides only in the original labeled container, separated from other products such as food, feed and seed, and in a locked building having appropriate warning signs.
 - Recycle triple rinsed or pressure rinsed rigid plastic containers through the Empty Pesticide Container Collection and Recycling Program (if available in your area).
- Calibrate application equipment at least annually including spray card coverage pattern assessments.
- Read and follow all label requirements.
- Follow recommended BMPs when using pesticides designated by the MDA as common detection.
- Chemical controls do not negatively impact beneficial organisms or natural pest enemies.
- Use reduced risk products
 - Do not use pest management alternatives with a WIN-PST human hazard rating of “High” or “Extra high” for leaching (ILP) on land within Drinking Water Supply Management Areas (DWSMAs) having high or very high vulnerability to contamination.
 - Do not use pest management alternatives with a WIN-PST human hazard rating of “Extra high” for leaching (ILP) on land within the boundaries of vulnerable Source Water Assessment Areas where groundwater is the water supply.
 - Level 2 IPM for orchards also requires mitigation when using products having an intermediate or higher rating for human toxicity. Mitigation could include one or more of the following:
 - Use low end of label rate ranges
 - Spot treatments and or use of SmartSprayer technology
 - Establishing vegetated buffers between orchards and sensitive features

Mechanical, Cultural and Biological Controls for level 2 IPM

- Includes
 - Use of controls such as pheromone disruptors including mating disruptors, pheromone traps including pheromone attract and kill, and/or granulosis virus to aid in insect pest management.

2of3

- Inoculum reduction program (e.g. clean sweeping/raking under trees and or applying lime and/or urea after leaf fall)
- Physically remove and destroy branches, canes, vines and limbs infested with insect or disease pests.
- Destroy brush piles from winter pruning, mummified fruit, and dead wood from trees. Use a flail mower to destroy leaves and pruning residues 1" diameter and smaller.
- Release of beneficial organisms
- Ground covers in drive rows

- Prevent weeds from going to seed.
- Mowing under trees (Avoid mowing during bloom and petal fall where mowing destroys habitat for pollinators and beneficial organisms. Some mowing may be necessary to assist in the control of mice and voles.).
- Post leaf drop mowing

Required Records and Certification

- Records of all scouting/monitoring throughout the season.
- Documentation of yearly pesticide spray equipment calibration and spray-card coverage assessment
- Records of all pesticide applications to include effectiveness.
- Records of yearly pruning.
- Certify that planned activities have been completed on form MN-CPA-046 o/a August 31.

Training

- Attend IPM training at a Tree Fruit IPM School (e.g. Michigan State or Univ. of Minnesota Tree Fruit School); and/or Wisconsin Apple Growers Association IPM Field Day.

GLEBA