

Environmental Quality Incentives Program

2013 EQIP Signup

Minnesota Supplement for:
Practice Standard 313 – Waste Storage Facility

Supplemental Criteria

1. **Consult General Provision 15 for Ag Waste System payment cap information.**
2. The eligible volume of storage is the total storage volume, including the design storage volume plus freeboard as required in the standard. As outlined in Waste Storage Facility (313), the maximum design storage period is 14 months.
3. The maximum allowable storage volume is based on the current capacity of the existing facility plus up to 25% expansion.
4. Payment is limited to where the implementation of this practice will correct an existing pollution problem. As outlined by the EQIP manual, any EQIP contract that includes an animal waste storage or treatment facility will provide for the development of a CNMP prior to the implementation of the 313. MPCA's definition is used to define a pollution problem.
5. Consult General Provision 13 for **Comprehensive Nutrient Management Plan (CNMP) requirements.**
6. Consult General Provision 14 for requirements related to manure application land base and/or manure applications on land not owned or controlled by the EQIP contract holder.
7. For purposes of this practice, "waste" refers to raw manure and urine; runoff water contaminated through contact with manure and urine; milking center wastewater; and silage leachate as appropriate.
8. Silage storage facilities are not eligible components. Payment for components addressing silage leachate concerns start at the edge of the silage storage facility.
9. For livestock operations that are not or will not be permitted under the NPDES system, silage leachate systems can be funded as stand alone practices if these systems are the only livestock related practices being requested. The development of a CNMP **IS** required with a silage leachate system but the CNMP does **NOT** have to be implemented.
10. Payment is authorized for tanks that serve as foundations for buildings, however eligible costs are those associated with the storage function only. Payment is not authorized for production oriented building components.
11. Payment is authorized for feedlot relocation, with the following provisions:
 - a. The payment for relocation shall be based on the most practical and feasible waste management facility at the existing site.
 - b. Payment at the new site is only authorized for components applicable to the transfer, storage, or treatment of wastes.
 - c. Existing location is to be abandoned in an environmentally safe manner as outlined in MPCA guidelines.

- d. Operator must agree to permanently remove all livestock from the existing location along with any other designated pollution sources. The following statement shall be included in the EQIP contract: “As a condition of EQIP Payment on feedlot relocation, the producer agrees to permanently eliminate all animals and designated pollution sources at this facility. Failure to comply with this provision may result in a recovery of federal Payment funds.”
12. Payment for Waste Storage Facility (313) on operations with pollution problems less than 5 years old is not authorized.
 - a. Examples:
 - i. Producer A has had a dairy farm operation for 20 years. Producer B purchases the dairy and continues milking cows. This pollution problem is greater than 5 years old and producer B meets this eligibility requirement for Payment assistance.
 - ii. A producer has a dairy operation on farm A. He purchases farm B and moves the dairy operation to farm B where there was no previous pollution problem. Farm B would be considered a new facility and would not be eligible for Payment assistance.
13. Payment is not authorized for Waste Storage Facility (313) on operations where the system establishment is required as a result of judicial or court action. MPCA Stipulation Agreement and Schedule of Compliance (SOC) are not considered a judicial or court action, and practice implementation is still considered voluntary for EQIP eligibility purposes, even if fines have been levied by the MPCA.
14. State Conservationist approval is required for systems involving agricultural waste generated off-site.
15. Dry stack scenarios are authorized only for stacking slabs where enough bedding or organic matter is added to the manure to eliminate liquid runoff or leaching.

Scenarios

Earthen Storage Facility < 50K ft³ Storage

An earthen waste impoundment constructed to store wastes such as manure, wastewater, and contaminated runoff as part of an agricultural waste management system. This scenario has a design storage volume of less than 50,000 ft³. This practice will address soil and water quality by reducing the pollution potential for surface water and groundwater quality degradation. Earthen storage liners are addressed with another standard. Vehicular and equipment access is addressed in Heavy Use Area Protection (561). Adequately protect liner at agitation and access points.

Potential Associated Practices: Pond Sealing or Lining, Bentonite Sealant (521C), Pond Sealing or Lining, Compacted Clay Treatment (521D), Pond Sealing or Lining, Flexible Membrane (521A), Pond Sealing or Lining, Soil Dispersant (521B), Fence (382), Critical Area Planting (342), Nutrient Management (590), Waste Transfer (634), Heavy Use Area Protection (561), Roofs and Covers (367), and Solid/Liquid Waste Separation Facility (632), Waste Treatment (629) .

Earthen Storage Facility > 50K ft³ Storage

An earthen waste impoundment constructed to store wastes such as manure, wastewater, and contaminated runoff as part of an agricultural waste management system. This scenario has a design storage volume of more than 50,000 ft³. This practice will address soil and water quality by reducing the pollution potential for surface water and groundwater quality degradation. Earthen storage liners are addressed with another standard. Vehicular and equipment access is addressed in Heavy Use Area Protection (561). Adequately protect liner at agitation and access points.

Potential Associated Practices: Pond Sealing or Lining, Bentonite Sealant (521C), Pond Sealing or Lining, Compacted Clay Treatment (521D), Pond Sealing or Lining, Flexible Membrane (521A), Pond Sealing or Lining, Soil Dispersant (521B), Fence (382), Critical Area Planting (342), Nutrient Management (590), Waste Transfer (634), Heavy Use Area Protection (561), Roofs and Covers (367), and Solid/Liquid Waste Separation Facility (632), Waste Treatment (629).

Earthen Storage Facility High Water Table, all above ground

An earthen waste impoundment constructed to store wastes such as manure, wastewater, and contaminated runoff as part of an agricultural waste management system. Due to high watertable conditions, the earthen embankment is constructed on the soil surface. Earthfill is obtained within five miles off-site. This practice will address soil and water quality by reducing the pollution potential for surface water and groundwater quality degradation. Earthen storage liners are addressed with another standard. Vehicular and equipment access is addressed in Heavy Use Area Protection (561). Adequately protect liner at agitation and access points.

Potential Associated Practices: Pond Sealing or Lining, Bentonite Sealant (521C), Pond Sealing or Lining, Compacted Clay Treatment (521D), Pond Sealing or Lining, Flexible Membrane (521A), Pond Sealing or Lining, Soil Dispersant (521B), Fence (382), Critical Area Planting (342), Nutrient Management (590), Waste Transfer (634), Heavy Use Area Protection (561), Roof and Covers (367), Solid/Liquid Waste Separation Facility (632), Waste Treatment (629), Subsurface Drain (606), and Underground Outlet (620).

Above Ground Steel/Concrete < 25K ft³ Storage

An above ground circular glass lined steel or concrete structure constructed to store wastes such as manure, wastewater, and contaminated runoff as part of an agricultural waste management system. This scenario has a design storage volume of less than 25,000 ft³. This practice will address soil and water quality by reducing the pollution potential for surface water and groundwater quality degradation.

Potential Associated Practices: Fence (382), Critical Area Planting (342), Nutrient Management (590), Waste Transfer (634), Heavy Use Area Protection (561), Solid/Liquid Waste Separation Facility (632), Waste Treatment (629), and Pumping Plant (533).

Above Ground Steel/Concrete 25-100K ft³ Storage

An above ground circular glass lined steel or concrete structure constructed to store wastes such as manure, wastewater, and contaminated runoff as part of an agricultural waste management system. This scenario has a design storage volume of between 25,000 and 100,000 ft³. This practice will address soil and water quality by reducing the pollution potential for surface water and groundwater quality degradation.

Potential Associated Practices: Fence (382), Critical Area Planting (342), Nutrient Management (590), Waste Transfer (634), Heavy Use Area Protection (561), Solid/Liquid Waste Separation Facility (632), Waste Treatment (629), and Pumping Plant (533).

Above Ground Steel/Concrete >100K ft³ Storage

An above ground circular glass lined steel or concrete structure constructed to store wastes such as manure, wastewater, and contaminated runoff as part of an agricultural waste management system. This scenario has a design storage volume of greater than 100,000 ft³. This practice will address soil and water quality by reducing the pollution potential for surface water and groundwater quality degradation.

Potential Associated Practices: Fence (382), Critical Area Planting (342), Nutrient Management (590), Waste Transfer (634), Heavy Use Area Protection (561), Solid/Liquid Waste Separation Facility (632), Waste Treatment (629), and Pumping Plant (533).

Drystack, earthen floor, no wall

This scenario consists of a dry stack facility with compacted earthen floor without side walls.

This scenario is intended for dryer material such as poultry litter. The purpose of this practice is to properly store manure and other agricultural by-products until they can be hauled away from the site for proper disposal or utilization on land at agronomical rates. This practice will address soil and water quality by reducing the pollution potential to soil, surface water and ground water.

Potential Associated practices: 342-Critical Area Planting, 362-Diversion, 561-Heavy Use Area Protection, 367-Roofs and Covers, 558-Roof Runoff Structure, 317-Composting Facility, 633-Waste Recycling, 634-Waste Transfer, 635-Vegetated Treatment Area

Dry stack, earthen floor, wood wall

This scenario consists of a dry stack facility with compacted earthen floor with wooden walls, posts and a concrete curb. This scenario is intended for dryer material such as poultry litter. The purpose of this practice is to properly store manure and other agricultural by-products until they can be hauled away from the site for proper disposal or utilization on land at agronomical rates. This practice will address soil and water quality by reducing the pollution potential to soil, surface water and ground water.

Potential Associated practices: 342-Critical Area Planting, 362-Diversion, 561-Heavy Use Area Protection, 367-Roofs and Covers, 558-Roof Runoff Structure, 317-Composting Facility, 633-Waste Recycling, 634-Waste Transfer, 635-Vegetated Treatment Area

Dry Stack, earthen floor, concrete wall

This scenario consists of a dry stack facility with compacted earthen floor with concrete walls.

This scenario is intended for dryer material such as poultry litter. The purpose of this practice is to properly store manure and other agricultural by-products until they can be hauled away from the site for proper disposal or utilization on land at agronomical rates. This practice will address soil and water quality by reducing the pollution potential to soil, surface water and ground water.

Potential Associated practices: 342-Critical Area Planting, 362-Diversion, 561-Heavy Use Area Protection, 367-Roofs and Covers, 558-Roof Runoff Structure, 317-Composting Facility, 633-Waste Recycling, 634-Waste Transfer, 635-Vegetated Treatment Area

Dry Stack, concrete floor, no wall

This scenario consists of a dry stack facility with reinforced concrete floor without side walls. This scenario is intended for situations where consistency of manure or geographical conditions prohibit earthen floors. The purpose of this practice is to properly store manure and other agricultural by-products until they can be hauled away from the site for proper disposal or utilization on land at agronomical rates. This practice will address soil and water quality by reducing the pollution potential to soil, surface water and ground water.

Potential Associated practices: 342-Critical Area Planting, 362-Diversion, 561-Heavy Use Area Protection, 367-Roofs and Covers, 558-Roof Runoff Structure, 317-Composting Facility, 633-Waste Recycling, 634-Waste Transfer, 635-Vegetated Treatment Area

Dry Stack, concrete floor, wood wall

This scenario consists of a dry stack facility with reinforced concrete Floor with pressure treated wood walls. This scenario is intended for situations where consistency of manure or geographical conditions prohibit earthen floors. The purpose of this practice is to temporarily, properly store manure and other agricultural by-products until they can be hauled away from the site for proper disposal or utilization on land at agronomical rates. This practice will address soil and water quality by reducing the pollution potential to soil, surface water and ground water.

Potential Associated practices: 342-Critical Area Planting, 362-Diversion, 561-Heavy Use Area Protection, 367-Roofs and Covers, 558-Roof Runoff Structure, 317-Composting Facility, 633-Waste Recycling, 634-Waste Transfer, 635-Vegetated Treatment Area

Dry Stack, concrete floor w/ modular block wall

This scenario consists of a dry stack facility with concrete floor with modular blocks stacked 2 high for a walls on 3-sides. This scenario is intended for stackable material. The purpose of this practice is to properly store manure and other agricultural by-products until they can be hauled away from the site for proper disposal or utilization on land at agronomical rates. This practice will address soil and water quality by reducing the pollution potential to soil, surface water and ground water.

Potential Associated practices: 342-Critical Area Planting, 362-Diversion, 561-Heavy Use Area Protection, 367-Roofs and Covers, 558-Roof Runoff Structure, 317-Composting Facility, 633-Waste Recycling, 634-Waste Transfer, 635-Vegetated Treatment Area.

Dry Stack, concrete floor, concrete wall

This scenario consists of a dry stack facility with reinforced concrete floor and concrete walls. This scenario is intended for situations where consistency of manure or geographical conditions prohibit earthen floors. The purpose of this practice is to properly store manure and other agricultural by-products until they can be hauled away from the site for proper disposal or utilization on land at agronomical rates. This practice will address soil and water quality by reducing the pollution potential to soil, surface water and ground water.

Potential Associated practices: 342-Critical Area Planting, 362-Diversion, 561-Heavy Use Area Protection, 367-Roofs and Covers, 558-Roof Runoff Structure, 317-Composting Facility, 633-Waste Recycling, 634-Waste Transfer, 635-Vegetated Treatment Area

Concrete Tank, buried <5K

This scenario consists of installing a small concrete tank with a design storage volume of less than 5,000 CF that is totally or partially buried and has solid lid with several openings for direct loading from heavyuse area, gutter cleaner or gravity pipe. Manure is held for 3 to 14 day on smaller operations or transfered to larger storage facility or direct land applied. Design volume does not include freeboard. This practice will address soil and water quality by reducing the pollution potential to soil, surface water and ground water.

Potential Associated Practices: Pond Sealing or Lining, Bentonite Sealant (521C), Pond Sealing or Lining, Compacted Clay Treatment (521D), Pond Sealing or Lining, Flexible Membrane (521A), Pond Sealing or Lining, Soil Dispersant (521B), Fence (382), Critical Area Planting (342), Nutrient Management (590), Access Road (560), Waste Transfer (634), Heavy Use Area Protection (561), Roof and Covers (367), Solid/Liquid Waste Separation Facility (632), Diversion (362), Subsurface Drain (606), Pumping Plant (533),and Underground Outlet (620).

Concrete Tank, buried 5K<15K

This scenario consists of installing a concrete tank that has a design storage volume from 5,000 to 14,999 CF that is totally or partially buried and has an open top. The tank can also be under an animal facility with the top cover of either slats or solid concrete lid/floor. Design volume does not include freeboard.

Potential Associated Practices: Pond Sealing or Lining, Bentonite Sealant (521C), Pond Sealing or Lining, Compacted Clay Treatment (521D), Pond Sealing or Lining, Flexible Membrane (521A), Pond Sealing or Lining, Soil Dispersant (521B), Fence (382), Critical Area Planting (342), Nutrient Management (590), Access Road (560), Waste Transfer (634), Heavy Use Area Protection (561), Roof and Covers (367), Solid/Liquid Waste Separation Facility (632), Diversion (362), Subsurface Drain (606), and Underground Outlet (620).

Concrete Tank, Buried 15K<25K

This scenario consists of installing a concrete tank that has a design storage volume from 15,000 to 24,999 CF. The tank is totally or partially buried and has an open top. It can be under an animal facility with the top cover being slats or concrete lid/floor. The design volume does not include freeboard. This practice will address soil and water quality by reducing the pollution potential to soil, surface water and ground water.

Potential Associated Practices: Pond Sealing or Lining, Bentonite Sealant (521C), Pond Sealing or Lining, Compacted Clay Treatment (521D), Pond Sealing or Lining, Flexible Membrane (521A), Pond Sealing or Lining, Soil Dispersant (521B), Fence (382), Critical Area Planting (342), Nutrient Management (590), Access Road (560), Waste Transfer (634), Heavy Use Area Protection (561), Roof and Covers (367), Solid/Liquid Waste Separation Facility (632), Diversion (362), Subsurface Drain (606), Pumping Plant (533) and Underground Outlet (620).

Concrete Tank, Buried 25K<50K

This scenario consists of installing a concrete tank that has a design storage volume from 25,000 to 49,999 CF. Tank is totally or partially buried and has an open top. Tank can be under a animal facility with the top cover being slats or concrete lid/floor. The design volume does not include freeboard. This practice will address soil and water quality by reducing the pollution potential to soil, surface water and ground water.

Potential Associated Practices: Pond Sealing or Lining, Bentonite Sealant (521C), Pond Sealing or Lining, Compacted Clay Treatment (521D), Pond Sealing or Lining, Flexible Membrane (521A), Pond Sealing or Lining, Soil Dispersant (521B), Fence (382), Critical Area Planting (342), Nutrient Management (590), Access Road (560), Waste Transfer (634), Heavy Use Area Protection (561), Roof and Covers (367), Solid/Liquid Waste Separation Facility (632), Diversion (362), Subsurface Drain (606), and Underground Outlet (620).

Concrete Tank, Buried 50K<75K

This scenario consists of installing a concrete tank that has a design storage volume from 50,000 to 74,999 CF. Tank is totally or partially buried and has an open top, however it can be under an animal facility with the top cover with slats or concrete lid/floor. The design volume does not include freeboard. This practice will address soil and water quality by reducing the pollution potential to soil, surface water and ground water.

Potential Associated Practices: Pond Sealing or Lining, Bentonite Sealant (521C), Pond Sealing or Lining, Compacted Clay Treatment (521D), Pond Sealing or Lining, Flexible Membrane (521A), Pond Sealing or Lining, Soil Dispersant (521B), Fence (382), Critical Area Planting (342), Nutrient Management (590), Access Road (560), Waste Transfer (634), Heavy Use Area Protection (561), Roof and Covers (367), Solid/Liquid Waste Separation Facility (632), Diversion (362), Subsurface Drain (606), and Underground Outlet (620).

Concrete Tank, Buried 75K<110K

This scenario consists of installing a concrete tank that has a design storage volume from 75,000 to 109,999 CF. Tank is totally or partially buried and has an open top. Tank can also be under an animal facility with the top cover using slats or concrete lid/floor. The design volume does not include freeboard. This practice will address soil and water quality by reducing the pollution potential to soil, surface water and ground water.

Potential Associated Practices: Pond Sealing or Lining, Bentonite Sealant (521C), Pond Sealing or Lining, Compacted Clay Treatment (521D), Pond Sealing or Lining, Flexible Membrane (521A), Pond Sealing or Lining, Soil Dispersant (521B), Fence (382), Critical Area Planting (342), Nutrient Management (590), Access Road (560), Waste Transfer (634), Heavy Use Area Protection (561), Roof and Covers (367), Solid/Liquid Waste Separation Facility (632), Diversion (362), Pipeline (516), Subsurface Drain (606), and Underground Outlet (620).

Concrete Tank, Buried 110K or >

This scenario consists of installing a concrete tank that has a design storage volume from 75,000 to 109,999 CF. Tank is totally or partially buried and has an open top. Tank can also be under an animal facility with the top cover using slats or concrete lid/floor. The design volume does not include freeboard. This practice will address soil and water quality by reducing the pollution potential to soil, surface water and ground water.

Potential Associated Practices: Pond Sealing or Lining, Bentonite Sealant (521C), Pond Sealing or Lining, Compacted Clay Treatment (521D), Pond Sealing or Lining, Flexible Membrane (521A), Pond Sealing or Lining, Soil Dispersant (521B), Fence (382), Critical Area Planting (342), Nutrient Management (590), Access Road (560), Waste Transfer (634), Heavy Use Area Protection (561), Roof and Covers (367), Solid/Liquid Waste Separation Facility (632), Diversion (362), Pipeline (516), Subsurface Drain (606), and Underground Outlet (620).

Composted Bedded Pack, Earthen Floor, Concrete Wall

A composted bedded pack facility is constructed to store wastes as part of an agricultural waste management system. This practice will address soil and water quality by reducing the pollution potential for surface water and groundwater quality degradation.

Potential Associated Practices: Fence (382), Nutrient Management (590), Waste Transfer (634), Heavy Use Area Protection (561), and Roofs and Covers (367).

Composted Bedded Pack, Concrete Floor, Concrete Wall

A composted bedded pack facility is constructed to store wastes such as manure, wastewater, and contaminated runoff as part of an agricultural waste management system. This scenario is intended for situations where consistency of manure or geological conditions prohibit the use of earthen floors. This practice will address soil and water quality by reducing the pollution potential for surface water and groundwater quality degradation.

Potential Associated Practices: Fence (382), Nutrient Management (590), Waste Transfer (634), Heavy Use Area Protection (561) and Roofs and Covers (367).

Reinforced Concrete liner with waterstop

A reinforced concrete lined waste impoundment with waterstop constructed to store wastes such as manure, wastewater, and contaminated runoff as part of an agricultural waste management system. This scenario has a design storage volume of 168,302 ft³(1,258,900 gals). Concrete liner is used where a clay material is not available. This practice will address soil and water quality by reducing the pollution potential for surface water and groundwater quality degradation. Vehicular and equipment access is addressed in Heavy Use Area Protection (561).

Potential Associated Practices: Pond Sealing or Lining, Compacted Clay Treatment (521D), Pond Sealing or Lining, Flexible Membrane (521A), Fence (382), Critical Area Planting (342), Nutrient Management (590), Waste Transfer (634), Heavy Use Area Protection (561), Roofs and Covers (367), and Solid/Liquid Waste Separation Facility (632), Waste Treatment (629), Subsurface Drain (606), Underground Outlet (620), Pumping Plant (533)

Reinforced Concrete liner without waterstop

A reinforced concrete lined waste impoundment without waterstop constructed to store wastes such as manure, wastewater, and contaminated runoff as part of an agricultural waste management system. This scenario has a design storage volume of 168,302 ft³(1,258,900 gals). This practice will address soil and water quality by reducing the pollution potential for surface water and groundwater quality degradation.

Potential Associated Practices: Pond Sealing or Lining, Compacted Clay Treatment (521D), Pond Sealing or Lining, Flexible Membrane (521A), Fence (382), Critical Area Planting (342), Nutrient Management (590), Waste Transfer (634), Heavy Use Area Protection (561), Roofs and Covers (367), and Solid/Liquid Waste Separation Facility (632), Waste Treatment (629), Subsurface Drain (606), Underground Outlet (620), Pumping Plant (533)

ATTACHMENT E

MANURE AND WASTEWATER STORAGE AND HANDLING EVALUATION CHECKLIST	Checked ✓	Concern Identified ✓
1. Facility Description	NA	NA
2. Surface Water Pollution Assessment		
<ul style="list-style-type: none"> • Is all contamination runoff stored or adequately treated? (NRCS Standard) 		
<ul style="list-style-type: none"> • Are all roofs and drainage areas to open lots diverted away or included in storage volume computations? (NRCS Standard 313) 		
3. Odor Assessment		
4. Storage Facilities:		
<ul style="list-style-type: none"> • Is the manure storage volume adequate to meet Manure Management Plan requirements? (NRCS Standard 313) 		
<ul style="list-style-type: none"> • Are there apparent structural concerns? 		
<ul style="list-style-type: none"> • Is there loss of manure due to excessive seepage? 		
<ul style="list-style-type: none"> • Do water tests from well indicate any potential seepage issues? 		
<ul style="list-style-type: none"> • Does perimeter tile discharge indicate seepage (discoloration, odor)? 		
<ul style="list-style-type: none"> • Is there proper setback from wells? (MN Rules Chapter 4725.4450) 		
<ul style="list-style-type: none"> • Are safety signs, fences, grates, etc., present where needed? 		
<ul style="list-style-type: none"> • Are temporary stockpiles properly sited? (MPCA Guidelines) 		
<ul style="list-style-type: none"> • Is livestock watering equipment in good repair and not leaking? 		
5. Ground Water Pollution Potential		
<ul style="list-style-type: none"> • Are special geologic conditions accounted for? (NRCS Standard 313, MPCA Karst Guidelines) 		
6. For dairy operations, is the milk parlor wash water properly handled? (NRCS Standard)		
7. Is silage leachate properly handled? (NRCS Standard)		
8. Are animal mortalities handled properly?		
9. Does the O&M Plan address operational and safety aspects of the planned structures (NRCS Standard 313)?		
10. Does the facility have an Emergency Response Plan?		