

# Environmental Quality Incentives Program

## 2013 EQIP Signup

Minnesota Supplement for:  
Practice Standard 634 – Waste Transfer

### Supplemental Criteria

1. **Consult General Provision 15 for Ag Waste System payment cap information.**
2. Payment includes pipelines used to transfer manure or wastewater from a collection point to a storage or treatment area.
3. Waste Transfer (634) does not include collection facilities such as barn cleaners and flush systems. Buildings over reception pits or pumps are NOT eligible for Payment.
4. Waste Transfer (634) is a facilitating practice and MUST be installed in conjunction with an animal waste system.
5. All pumps are covered under Pumping Plant.
6. Concrete channel/Scrape alley is only applicable to alleys outside of barns.

### Scenarios

#### **Leachate collection system**

Installation for a wastewater transfer system that includes materials and structures to transfer silage leachate and other contaminated effluent from a 100'x50' feed storage pad by means of channels, tanks, and pipes. The leachate is then transferred through a 10" low pressure conduit to the waste storage structure and the other contaminated flow is transferred to a treatment area. This scenario includes a 2 reinforced concrete reception pits; one includes a 6" PVC Sch 40 conduit that transfer the leachate and contaminated flow to a waste storage pond; the second reinforced concrete reception pit includes a 6" PVC Sch 40 conduit to transfer the overflow to a treatment area. Reception Pit includes safety fence w/gate or solid/grated cover. The transfer conduit consists of the pipe plus the inlet structure connection and all other fittings, trench excavation and backfill, labor and equipment for installation. If pumping is required for the pipe flow velocity that needs to be contracted under PS 533, Pumping Plant

Associated practices may include: PS 313 Waste Storage Facility for storage structures; PS 533, Pumping Plant; PS 430, Irrigation Pipeline; PS 632, Solid/Liquid Waste Separation Facility; PS 468, Lined Waterway or Outlet; PS 590 Nutrient Management for waste application; PS 633, Waste Recycling; PS 635, Vegetated Treatment Area, PS 561, Heavy Use Area Protection; PS 629, Waste Treatment; PS 382, Fence; PS 606, Subsurface Drain; PS 620, Underground Outlet  
This scenario addresses the potential for surface water and groundwater quality degradation from liquid wastewater running unchecked out of silage bunkers.

#### **Milkhouse transfer system**

Installation for a wastewater transfer system that includes materials and structures to collect a design volume less than 5000 gallons of liquids from a milkhouse/parlor which is then

transferred through a 8" low pressure conduit to the waste storage structure or frequent hauled. This scenario includes a reinforced concrete manure reception pit and a 8" PVC Sch 40 conduit to transfer the manure and wastewater to a waste storage pond. Reception Pit includes safety fence w/gate or solid/grated cover. The transfer conduit consists of the pipe plus the inlet structure connection and all other fittings, trench excavation and backfill, labor and equipment for installation. If pumping is required for the pipe flow velocity that needs to be contracted under PS 533, Pumping Plant

Associated practices may include: PS 313 Waste Storage Facility for storage structures; PS 533, Pumping Plant; PS 430, Irrigation Pipeline; PS 632, Solid/Liquid Waste Separation Facility; PS 468, Lined Waterway or Outlet; PS 590 Nutrient Management for waste application; PS 633, Waste Recycling, Vegetated Treatment Area, PS 561, Heavy Use Area Protection; PS 629, Waste Treatment; PS 382, Fence; PS 606, Subsurface Drain; PS 620, Underground Outlet; PS 656, Constructed Wetland

This scenario addresses the potential for surface water and groundwater quality degradation from liquid wastewater running unchecked out of silage bunkers and off of animal feeding lots.

### **Concrete Channel/Scrape Alley**

Installation of a concrete channel that consists of a slab with curb and footing on each side of the slab for the entire length of the channel to enable the facility manager to direct liquid waste to an existing collection basin and/or waste storage facility.

Water quality concerns will be addressed by preventing liquid waste from entering surface waters, and to facilitate timely land application of manure and wastewater at agronomic rates according to the CNMP. This scenario addresses the potential for surface water and groundwater quality degradation.

Associated practices may include: PS 313 Waste Storage Facility for storage structures; PS 533, Pumping Plant; PS 430, Irrigation Pipeline; PS 632, Solid/Liquid Waste Separation Facility; PS 468, Lined Waterway or Outlet; PS 590 Nutrient Management for waste application; PS 633, Waste Recycling; PS 635, Vegetated Treatment Area PS 561, Heavy Use Area Protection; PS 629, Waste Treatment; PS 382, Fence; PS 606, Subsurface Drain; PS 620, Underground Outlet; PS 656, Constructed Wetland

### **Concrete Channel/scrape alley with push-off wall at pond and safety gate**

Installation of a concrete channel that consists of a slab with a curb and footing on each side of the slab for the entire length of the channel to transfer liquid waste to a collection basin and/or waste storage facility at the end of a push-off ramp. A safety gate is installed at the end of the push-off ramp.

Water quality concerns will be addressed by preventing liquid waste from entering surface waters, and to facilitate timely land application of manure and wastewater at agronomic rates according to the CNMP. This scenario addresses the potential for surface water and groundwater quality degradation.

Associated practices may include: PS 313 Waste Storage Facility for storage structures; PS 533, Pumping Plant; PS 430, Irrigation Pipeline; PS 632, Solid/Liquid Waste Separation Facility; PS 468, Lined Waterway or Outlet; PS 590 Nutrient Management for waste application; PS 633, Waste Recycling; PS 561, Heavy Use Area Protection; PS 382, Fence

### **Concrete channel/scrape alley waste transfer to medium sized wastewater basin then through a 12" pipe to waste storage pond**

Installation of a concrete channel that consists of a slab with curb and footing on each side of the slab for the entire length of the channel to transfer liquid waste to a 4300 gallon collection basin and/or waste storage facility. The wastewater is then transferred from the basin to the waste storage pond through a 12" diameter low pressure pipeline.

Water quality concerns will be addressed by preventing liquid waste from entering surface waters, and to facilitate timely land application of manure and wastewater at agronomic rates according to the CNMP. This scenario addresses the potential for surface water and groundwater quality degradation.

Associated practices may include: PS 313 Waste Storage Facility for storage structures; PS 533, Pumping Plant; PS 430, Irrigation Pipeline; PS 632, Solid/Liquid Waste Separation Facility; PS 468, Lined Waterway or Outlet; PS 590 Nutrient Management for waste application; PS 633, Waste Recycling; PS 635, Vegetated Treatment Area, PS 561, Heavy Use Area Protection; PS 629, Waste Treatment; PS 382, Fence; PS 606, Subsurface Drain; PS 620, Underground Outlet

### **Hopper inlet with gravity pipeline to waste storage facility**

Gravity flow conduit is typically a large diameter water tight HDPE sanitary sewer pipe used to transfer manure by gravity from one location to another. The gravity transfer system typically consists of an inlet structure or hopper with an adaptor to a smooth interior large diameter HDPE pipe. The pipe conveys the slurry waste liquid between the waste collection point and a manure storage or waste treatment structure. Adequate head on the pipe flow or change in elevation must be available for the gravity system to function and should be evaluated by the design engineer. This practice includes the inlet structure, transfer pipe plus any and all other fittings, trench excavation and backfill, labor and equipment for installation.

This conduit is part of a manure transfer system for a planned waste management or comprehensive nutrient management plan. This scenario addresses the transport of liquid waste to a waste storage or treatment facility to prevent a water quality resource concern of excessive nutrients/organics and harmful levels of pathogens in surface water and/or excessive nutrients/organics in ground water.

Associated practices may include: PS 313 Waste Storage Facility for storage structures; PS 533, Pumping Plant; PS 430, Irrigation Pipeline; PS 632, Solid/Liquid Waste Separation Facility; PS 468, Lined Waterway or Outlet; PS 590 Nutrient Management for waste application; PS 633, Waste Recycling; PS 561, Heavy Use Area Protection; PS 629, Waste Treatment; PS 382, Fence; PS 606, Subsurface Drain; PS 620, Underground Outlet

### **Large Pipe Only ( $\geq 18"$ dia)**

Gravity flow conduit is typically a large diameter water tight HDPE sanitary sewer pipe used to transfer manure by gravity from one location to another. The gravity transfer system typically consists of an existing inlet structure or hopper with attachment to a smooth interior large diameter pipe. The pipe conveys the slurry waste liquid between the waste collection point and a manure storage or waste treatment structure. Adequate head on the pipe flow or change in elevation must be available for the gravity system to function and should be evaluated by the design engineer. This practice includes the pipe attachment to an existing inlet structure and all other fittings, trench excavation and backfill, labor and equipment for installation.

This conduit is part of a manure transfer system for a planned waste management or

comprehensive nutrient management plan. This scenario addresses the transport of liquid waste to a waste storage or treatment facility to prevent a water quality resource concern of excessive nutrients/organics and harmful levels of pathogens in surface water and/or excessive nutrients/organics in ground water.

Associated practices may include: PS 313 Waste Storage Facility for storage structures; PS 533, Pumping Plant; PS 430, Irrigation Pipeline; PS 632, Solid/Liquid Waste Separation Facility; PS 468, Lined Waterway or Outlet; PS 590 Nutrient Management for waste application; PS 633, Waste Recycling; PS 561, Heavy Use Area Protection

### **High pressure flow conduit (>100 psi)**

High pressure flow conduit is typically a PVC pipeline used to transfer wastewater or manure slurry by pumping from one production location to a storage or treatment location. High pressure flow PVC transfer pipelines can be between 3" and 30" diameter and are designed for a pumping pressure of more than 100 psi. The high pressure transfer system typically consists of an inlet structure or hopper connected to a smooth interior PVC pipe sized to deliver the design flow. This practice includes the pipe plus the inlet structure connection and all other fittings, trench excavation and backfill, labor and a equipment for installation.

This conduit is part of a manure transfer system for a planned waste management or comprehensive nutrient management plan. This scenario addresses the transport of liquid waste to a waste storage or treatment to prevent a water quality resource concern of excessive nutrients/organics and harmful levels of pathogens in surface water and/or excessive nutrients/organics in ground water.

Associated practices may include: PS 313 Waste Storage Facility for storage structures; PS 533, Pumping Plant; PS 430, Irrigation Pipeline; PS 632, Solid/Liquid Waste Separation Facility; PS 468, Lined Waterway or Outlet; PS 590 Nutrient Management for waste application; PS 633, Waste Recycling; PS 635, Vegetated Treatment Area PS 561, Heavy Use Area Protection; PS 629, Waste Treatment; PS 382, Fence; PS 606, Subsurface Drain; PS 620, Underground Outlet; PS 656, Constructed Wetland

### **Medium Pipe Only (<18" dia but >6")**

Low pressure flow conduit is typically a PVC pipeline used to transfer wastewater or manure slurry by pumping from one production location to a storage or treatment location. Low pressure flow PVC transfer pipelines can be between 3" and 30" diameter and are designed for a pumping pressure of no more than 100 psi. The low pressure transfer system typically consists of an inlet structure or hopper connected to a smooth interior PVC pipe sized to deliver the design flow.

This practice includes the pipe plus the inlet structure connection and all other fittings, trench excavation and backfill, labor and a equipment for installation.

This conduit is part of a manure transfer system for a planned waste management or comprehensive nutrient management plan. This scenario addresses the transport of liquid waste to a waste storage or treatment to prevent a water quality resource concern of excessive nutrients/organics and harmful levels of pathogens in surface water and/or excessive nutrients/organics in ground water.

Associated practices may include: PS 313 Waste Storage Facility for storage structures; PS 533, Pumping Plant; PS 430, Irrigation Pipeline; PS 632, Solid/Liquid Waste Separation Facility; PS 468, Lined Waterway or Outlet; PS 590 Nutrient Management for waste application; PS 633, Waste Recycling; PS 635, Vegetated Treatment Area; PS 561, Heavy Use Area Protection; PS

629, Waste Treatment; PS 382, Fence; PS 606, Subsurface Drain; PS 620, Underground Outlet; PS 656, Constructed Wetland

### **Small Pipe Only ( $\leq 6''$ )**

Low pressure flow conduit is typically a PVC pipeline used to transfer wastewater or manure slurry by pumping from one production location to a storage or treatment location. Low pressure flow PVC transfer pipelines can be between 3" and 30" diameter and are designed for a pumping pressure of no more than 100 psi. The low pressure transfer system typically consists of an inlet structure or hopper connected to a smooth interior PVC pipe sized to deliver the design flow.

This practice includes the pipe plus the inlet structure connection and all other fittings, trench excavation and backfill, labor and a equipment for installation.

This conduit is part of a manure transfer system for a planned waste management or comprehensive nutrient management plan. This scenario addresses the transport of liquid waste to a waste storage or treatment to prevent a water quality resource concern of excessive nutrients/organics and harmful levels of pathogens in surface water and/or excessive nutrients/organics in ground water.

Associated practices may include: PS 313 Waste Storage Facility for storage structures; PS 533, Pumping Plant; PS 430, Irrigation Pipeline; PS 632, Solid/Liquid Waste Separation Facility; PS 468, Lined Waterway or Outlet; PS 590 Nutrient Management for waste application; PS 633, Waste Recycling; PS 635, Vegetated Treatment Area PS 561, Heavy Use Area Protection; PS 629, Waste Treatment; PS 382, Fence; PS 606, Subsurface Drain; PS 620, Underground Outlet; PS 656, Constructed Wetland

### **Concrete lined sloped sides basin**

Installation for a wastewater collection system that includes materials and structures to collect liquids of a design volume greater than 10000 gallons such as silage leachate, lot runoff and other contaminated liquid effluent. This may include curbs, screens, precast manholes, sumps or catch basins. The wastewater will typically be transferred from the collection basin to a vegetated treatment area through a gravity or low pressure flow conduit.

Associated practices may include: PS 313 Waste Storage Facility for storage structures; PS 533, Pumping Plant; PS 430, Irrigation Pipeline; PS 632, Solid/Liquid Waste Separation Facility; PS 468, Lined Waterway or Outlet; PS 590 Nutrient Management for waste application; PS 633, Waste Recycling; PS 634, Vegetated Treatment Area; PS 561, Heavy Use Area Protection; PS 629, Waste Treatment; PS 382, Fence; PS 606, Subsurface Drain; PS 620, Underground Outlet; PS 656, Constructed Wetland

This scenario addresses the potential for surface water and groundwater quality degradation from liquid wastewater running unchecked out of silage bunkers and off of animal feeding lots.

### **Earth/Clay lined sloped sides basin**

Installation for a wastewater collection system that includes materials and structures to collect liquids of a design volume greater than 10000 gallons such as silage leachate, lot runoff and other contaminated liquid effluent. This may include curbs, screens, precast manholes, sumps or catch basins. The wastewater will typically be transferred from the collection basin to a vegetated treatment area through a gravity or low pressure flow conduit.

Associated practices may include: PS 313 Waste Storage Facility for storage structures; PS 533, Pumping Plant; PS 430, Irrigation Pipeline; PS 632, Solid/Liquid Waste Separation Facility; PS 468, Lined Waterway or Outlet; PS 590 Nutrient Management for waste application; PS 633, Waste Recycling; PS 634, Vegetated Treatment Area; PS 561, Heavy Use Area Protection; PS 629, Waste Treatment; PS 382, Fence; PS 606, Subsurface Drain; PS 620, Underground Outlet; PS 656, Constructed Wetland

This scenario addresses the potential for surface water and groundwater quality degradation from liquid wastewater running unchecked out of silage bunkers and off of animal feeding lots.