

# Environmental Quality Incentives Program

## 2013 EQIP Signup

Minnesota Supplement for:  
Practice Standard 521A – Pond Sealing or Lining, Flexible Membrane

### Supplemental Criteria

1. Consult General Provision 15 for Ag Waste System payment cap information.

### Scenarios

#### **Flexible Membrane - with geotextile**

Installation of a flexible geosynthetic membrane liner, uncovered, to reduce seepage from ponds or waste storage impoundment structures. Practice implementation includes a geotextile or soil cushion to protect the liner from subgrade damage. Associated practices include Pond (378), Waste Storage Facility (313), Aquaculture Pond (397). Heavy Use Area Protection (561) should be used for agitation ramps and pads. The typical scenario assumes a 70'x181' bottom dimensions, 2:1 side slopes, 8ft depth and anchor trench around the perimeter (assumed 4' in material length for the anchor). This results in approximately a 1/2 acre surface area of pond/storage area.

#### **Flexible Membrane with geotextile and liner venting**

Installation of a flexible geosynthetic membrane liner, uncovered, to reduce seepage from ponds or waste storage impoundment structures. Practice implementation includes a geotextile or soil cushion to protect the liner from subgrade damage, and liner venting. Associated practices include Pond (378), Waste Storage Facility (313), Aquaculture Pond (397). The typical scenario assumes a 70'x181' bottom dimensions, 2:1 side slopes, 8ft depth and anchor trench around the perimeter (assumed 4' in material length for the anchor). This results in approximately a 1/2 acre surface area of pond/storage area. Use Subsurface Drain (606) for a drainage system. Heavy Use Area Protection (561) should be added for agitation ramps and pads.

#### **Flexible Membrane - intimate contact**

Installation of a flexible geosynthetic membrane liner (typically 60mil), uncovered, to reduce seepage from ponds or waste storage impoundment structures. Practice implementation includes no geotextile underneath to provide direct contact with subgrade soils. Associated practices include PS378 Pond, PS313 Waste Storage Facility and PS397 Aquaculture Pond. Heavy Use Area Protection (561) should be added for agitation ramps and pads.

#### **Flexible Membrane - medium weight liner (30-45mil)**

Installation of a medium weight flexible geosynthetic membrane liner, uncovered, to reduce seepage from ponds or waste storage impoundment structures. Typical thickness of 30 - 45 mil.

Practice implementation includes no geotextile underneath to provide direct contact with subgrade soils. Associated practices include PS378 Pond, PS313 Waste Storage Facility and PS397 Aquaculture Pond. Heavy Use Area Protection (561) should be added for agitation ramps and pads.

### **GCL Liner**

Installation of a geosynthetic clay liner to reduce seepage from ponds or waste storage impoundment structures. Practice implementation includes 1 foot of soil cover for liner protection. Associated practices include PS378 Pond, PS313 Waste Storage Facility. Heavy Use Area Protection (561) should be added for agitation ramps and pads.