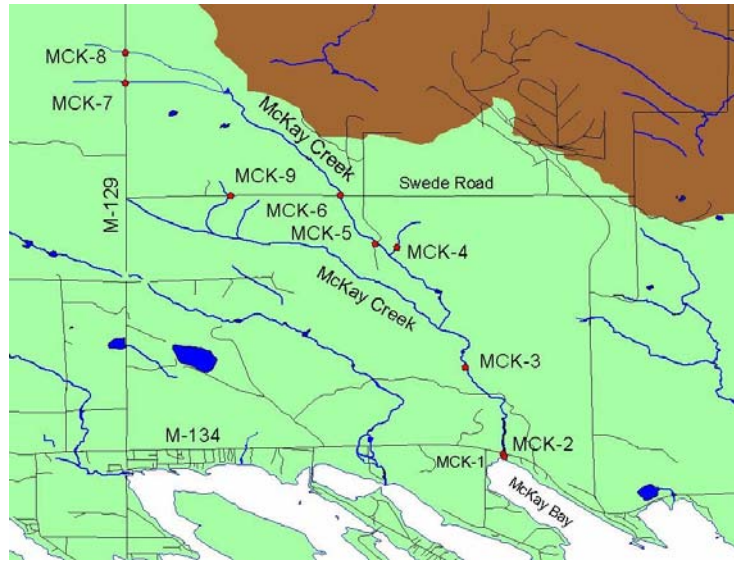


# McKay Creek

At Swede Road (east)  
MCK-6



Upstream



Downstream



# McKay Creek

At Swede Road (east)  
MCK-6

**McKay Creek at Swede Road (east)**

**Site I.D.:** MCK-6  
  
**GPS Coordinates:** N 46.0431  
W 84.3262  
  
**Township:** Clark  
  
**County:** Mackinac  
  
**Adjacent Landowners:** Private

**Road Information**

**Jurisdiction:** MCRC  
  
**Surface:** Paved  
  
**Width at Crossing:** 21 feet  
  
**Maintenance:** Year around  
  
**Low point:** At stream  
  
**Drainage Control Features:** None  
  
**Approach Length:** Left: 0.4 mile  
Right: 0.1 mile  
  
**Slope:** Left: 5 percent  
Right: 5 percent  
  
**Ditch/shoulder vegetation:** Left: Heavy  
Right: Heavy  
  
**Average Width of Grade:** 82 feet  
  
**Runoff Path:** Ditch

**Stream Characteristics**

**Average Width:** Upstream: 6 feet  
Downstream: 8 feet  
  
**Average Depth:** Upstream: 6 inches  
Downstream: 6 inches  
  
**Average Current:** Upstream: Moderate  
Downstream: Moderate  
  
**Substrate Type:** Upstream: Sand  
Downstream: Gravel

**Adjacent Wetlands:**

**Adjacent Wetlands:** No  
  
**Visible Down Cutting:** Yes

**Culvert Information**

**Culvert Type:** Twin  
  
**Length:** 21 feet  
  
**Diameter:** 4 feet  
  
**Material:** Galvanized  
  
**Condition:** Good  
  
**Culvert Flow:** Clear  
  
**Fish Passage Problem:** Yes—perched  
  
**Fill Depth:** Inlet: 11 inches  
Outlet: 11 inches  
  
**Embankment Slopes:** Inlet: 1.5:1  
Outlet: 1.5:1

## McKay Creek

At Swede Road (east)  
MCK-6**Conditions and Treatment****Erosion Conditions**

- Embankment erosion
- Culvert outlet erosion
- Pool formation at culvert outlet
- Sand/soil over crossing

**Recommended Treatment**

- Replace culverts with single bridge or bottomless culvert
- Stabilize embankment slopes with vegetation
- Install runoff diversion structures

**Erosion Severity Rating:** Moderate (24)**Overall Condition Rating:** Severe**Cost:** See BMP Cost Tables

**Comments:** This crossing needs to be replaced with a longer, bottomless culvert and with the steep embankment stabilized with heavy vegetation. 6 ft top width = 2 ft bottom width/2 x 10 long gully x .055 tons/cu. ft. soil weight / 10 years = .22 tons/year

