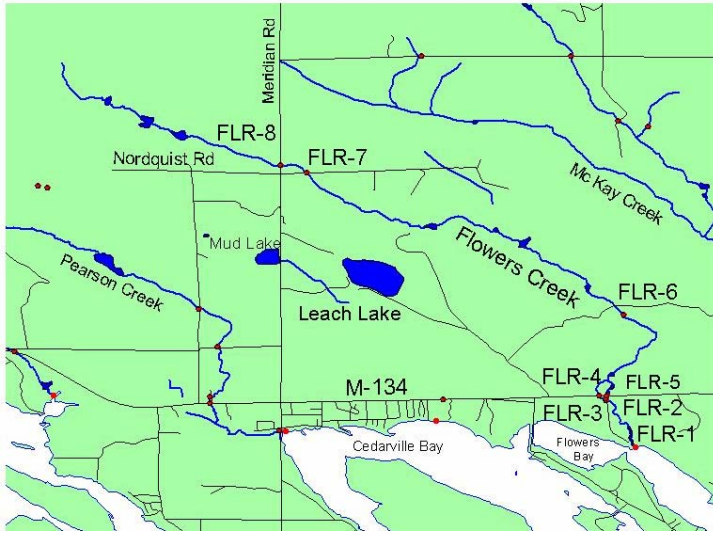


# Flowers Creek

At Flowers Bay Road (north)  
FLR-3



Upstream



Downstream



# Flowers Creek

At Flowers Bay Road (north)  
FLR-3

**Flowers Creek at Flowers Bay Road (north crossing)**

**Site I.D.:** FLR-3

**GPS Coordinates:** N 45.99983  
W 84.32178

**Township:** Clark

**County:** Mackinac

**Adjacent Landowners:** Private

**Road Information**

**Jurisdiction:** MCRC

**Surface:** Gravel

**Width at Crossing:** 20 feet

**Maintenance:** Year around

**Low point:** Other

**Drainage Control Features:** None

**Approach Length:** Left: 1.75 miles  
Right: 0.25 mile

**Slope:** Left: 1-5 percent  
Right: 1-5 percent

**Ditch/shoulder vegetation:** Left: Heavy  
Right: Heavy

**Average Width of Grade:** 33 feet

**Runoff Path:** Ditch

**Stream Characteristics**

**Average Width:** Upstream: 7 feet  
Downstream: 5 feet

**Average Depth:** Upstream: 4 inches  
Downstream: 4 inches

**Average Current:** Upstream: Slow  
Downstream: Slow

**Substrate Type:** Upstream: Sand/gravel  
Downstream: Sand/gravel

**Adjacent Wetlands:**

Adjacent Wetlands: No

**Visible Down Cutting:** No

**Culvert Information**

**Culvert Type:** Single

**Length:** 41 feet

**Diameter:** 4 feet

**Material:** Galvanized

**Condition:** Good

**Culvert Flow:** Clear

**Fish Passage Problem:** Yes—perched

**Fill Depth:** Inlet: 6 inches  
Outlet: 6 inches

**Embankment Slopes:** Inlet: 1:1  
Outlet: 1:1

# Flowers Creek

At Flowers Bay Road (north)  
FLR-3

## Conditions and Treatment

### Erosion Conditions

- Streambank erosion beside crossing
- Pool formation at culvert outlet
- Sand/soil over crossing

### Recommended Treatment

- Replace culvert with bottomless culvert or bridge
- Restore vegetation to stabilize crossing
- Install structures to divert road runoff into ditches
- Stabilize lower streambank

**Erosion Severity Rating:** Moderate (27)

**Overall Condition Rating:** Severe

**Cost:** See BMP Cost Tables

**Comments:** This culvert serves the main creek channel, but it is perched to the extent that the main discharge diverts away from it and along Flower Bay Road to cross through FLR-2. The culvert at this location (FLR-3) needs to be removed and replaced with a larger, bottomless culvert and the riparian vegetation near the crossing restored to stabilize the entire crossing. Structures should be installed along Flower Bay Road to divert road runoff into vegetated ditches before entering the creek.

