



## Ford Center Water Quality Management Demonstration Area

2008-2012

This project involved the improvement of 31 sites on the Michigan Technological University, Ford Center and Research Forest at Alberta, located 9 miles south of L'Anse in Michigan's Upper Peninsula. Fifteen of these sites, representing a variety of techniques, are located along or near MI Snowmobile Trail 8 near the Sturgeon River, and Bocco, Ogemaw, and Plumbago Creeks. Interpretive signs have been constructed that describe what water quality improvements were made at particular locations in these often visited areas.

**Grant Amount: \$ 158,520**

**Match Funds: \$ 59,480**

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**Total Amount: \$ 218,000**

### Best Management Practices:

- 3 stream crossing culverts
- 16 cross drainage culverts
- 3 timber bridges
- 11 log water bars at 5 locations
- 15 rock check dams at 4 locations
- Ditching and grading at 3 locations
- 1 road closure
- 2 portable PVC pipe mats
- 1 portable bridge



### Annual Load Reductions:

- Sediment: ~59 tons
- Phosphorus: 51 pounds
- Nitrogen: 105 pounds



**Sturgeon River Watershed in Baraga County, MI**

### I&E Activities:

- Hands on BMP construction for 75 Michigan Tech forestry students
- Field tour with 15 members of Michigan conservancies
- Field tour with 7 members of UP Chapter of Society of Professional Surveyors
- Field tour with 50 members of MI Society of American Foresters
- Field tour with 35 USFS personnel
- Field tour with 25 Purdue undergraduates
- Installation of 14 BMP interpretive signs



### Partners involved:

- School of Forest Resources & Environmental Science
- FW3376 Forest and Environmental Resource Management Class
- FW3150 Timber Harvesting Class
- Michigan Tech Facilities Management
- Michigan Tech Recreation Department
- Ford Center and Research Forest
- USDA Forest Service, Forest Products Laboratory
- Society of American Foresters
- Sigma Rho Fraternity, Alpha Chapter



**Site 40 Before:** Culvert washed out; erosion from large gullies formed on forest road, with surface flows towards Sturgeon River.



**Site 40 After:** Installation of new 18" cross drainage culvert with rock stabilization and spillway, two log water bars, five rock check dams, seed and mulch, after proper grading.



**Site 35 Before:** Heavy erosion from washouts on forest road, with sediment and surface water flowing towards Ogemaw Creek.



**Site 35 After:** Installation of three log water bars, proper grading, seed and mulch.