Upper Peninsula Resource Conservation and Development Council

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BURN-UP Project Receives 2008 Two Chiefs' Award

The UP RC&D Council's BURN-UP Project whose purpose is to stimulate the development of a sustainable woody biomass industry in Michigan's Upper Peninsula has received the Two Chiefs' Award from the USDA Forest Service and the USDA Natural Resources Conservation Service. The Two Chiefs' Partnership Awards recognize outstanding partnerships in forest conservation work among Conservation Districts, State Foresters, the Forest Service, and NRCS. Garry Lee, NRCS State Conservationist, and Don Howlett, Partnership Coordinator for the Hiawatha National Forest, presented plaques to the eighteen partners in Project BURN-UP (**B**iomass **U**tilization and **R**estoration **N**etwork for the **U**pper **P**eninsula) on April 17.

Garry Lee, NRCS State Conservationist, left, and Don Howlett, right, of the Hiawatha National Forest, present Bob Larson, Chairman of the U.P. RC & D Council with a plaque in recognition of receiving the Two Chiefs' Partnership Award.

BURN-UP Project Partners
Natural Resources Conservation Service
U.S. Forest Service - Hiawatha National Forest
Marquette County Conservation District
Michigan Department of Natural Resources
Michigan State University Extension
The Forestland Group, LLC
Big Creek Forestry
Marvin Nelson Forest Products, Inc.
North Dickinson County School District
Public Schools of Calumet-Laurium-Keweenaw
Michigan Technological University -
School of Forest Resources & Environmental Sciences
The Nature Conservancy
Suchovsky Logging, LLC
D & S Forestry
Marquette County
Smurfit-Stone Container Enterprises, Inc.
USFWS - Seney National Wildlife Refuge
UP Resource Conservation & Development Council

Representatives from many of these partner organizations are serving on a steering committee which provides expertise and technical support for the project. Some of these partners have been assisting the Michigan DNR Forest Management Advisory Committee to create guidelines for sustainable forest management for harvesting woody biomass. The overall purpose of the BURN-UP Project is to stimulate the development of a sustainable woody biomass industry in Michigan's Upper Peninsula via a dual approach. One approach is by promoting increased use of wood as a fuel for a wide variety of applications because of its many economic and environmental advantages over non-renewable fossil fuels. The other approach is by providing information about the environmental risks of excessive or poorly located biomass harvesting. Project BURN-UP has funded completion of eight pre-feasibility studies for school districts interested in possibly converting to biomass-fueled boilers, and is now undertaking second phase feasibility studies in some of those districts. Efforts are also underway to identify clusters of buildings that may be interested in combining forces to use woody biomass as a source of heating and/or power generation.

Two field demonstrations of biomass harvesting equipment and techniques were held in September 2008, and two more demonstrations are scheduled for September 15 and 16, 2009. Project BURN-UP maintains a website, www.upwoodybiomass.org, which serves as a source of information regarding biomass as well as activities occurring in the Upper Peninsula and elsewhere. Information on this fall's biomass harvesting demonstrations and future educational opportunities will be posted on the website as it becomes available. The website also includes a biomass exchange where producers and users of woody biomass can post information.

The Central UP Volunteer Stream Monitoring Program has Expanded!

The Central Upper Peninsula Volunteer Stream Monitoring Program began in the spring of 2007 with the goals of training volunteers to collect baseline water quality data and increasing stewardship of aquatic resources through community involvement and education. The watersheds initially targeted for this project – the Anna River watershed in Alger County and the Dead River watershed in Marquette County – were selected because of development pressure, growth patterns, nonpoint source pollution concerns, and interest from local stakeholders.

Watershed managers from the Alger and Marquette County Conservation Districts teamed up with the Upper Peninsula Resource Conservation and Development Council (UPRC&D) and Superior Watershed Partnership (SWP) to bring volunteer monitoring programs to the central Upper Peninsula. The watershed managers run the programs in their individual counties, relying upon the technical and scientific support from SWP and fiscal management from UPRC&D. This arrangement makes it possible for the one program to transcend political boundaries and bring volunteer monitoring all across the Central Upper Peninsula.

Streams in the Dead River watershed in Marquette Township are being monitored because new subdivisions and big box stores have created more impervious surface. In the fall of 2007 nearly 500 linear feet of Brickyard Creek was reconstructed to prepare the site for Lowe's Home Improvement Store. The highway is also a major contributor of nonpoint source pollution from the sand and salt that are used to maintain winter roads. Other urban streams including Nordwald and Wolner Creeks are being monitored for similar reasons. Approximately six volunteers make up the Dead River watershed monitoring team. Conducting stream habitat assessments and macroinvertebrate sampling north and south of the US-41 crossing of Brickyard Creek is helping volunteers and local stakeholders gauge the impacts of non-point source pollution on the aquatic community. Results so far have prompted leaders to consider land-use zoning that protects riparian areas.

MiCorp volunteers Luke Wojicik, Claire Twohey, and Becky Marjonen sample a stream in the Dead River watershed.

MiCorp volunteers sampling the Anna River, May 2008.

Volunteer monitoring in Alger County is focused on two headwater tributaries of the Anna River, a state designated coldwater fishery in the 30,350 acre Munising Bay Watershed. The Anna suffers from severe sedimentation and the monitoring is intended to help evaluate the success of best management practices being implemented with a Clean Michigan Initiative grant. In the three monitoring sessions held so far, seven trained volunteers conducted habitat assessments and collected macroinvertebrate samples upstream and downstream of two badly eroding road stream crossings that are scheduled to be replaced in 2009.

In the spring of 2008 the monitoring program expanded into Baraga County to assist local stakeholders in collecting baseline water quality data on the Huron River watershed. The Huron River watershed is mostly wilderness; however land use dynamics in the last ten years have resulted in increased parcelization, development of riparian land for secondary homes and camps, ore prospecting along the Marquette Iron Range, and use of secondary access roads by off road vehicles. The goal of the stakeholders is to study the river and develop a plan that will improve, protect, and restore water quality and aquatic habitat in the Huron River watershed. Over 24 volunteers were trained in the MiCorps protocol to collectively monitor 10 sites in the 61,000 acre (95 square miles) watershed.

MiCorp volunteers Bob Jensen and Kathy Peters sample Brickyard Creek in the Lower Dead River Watershed.

Volunteer monitoring expanded to include the Huron River in Baraga County. Shown above are some of the 24 volunteers that were trained in the MiCorp protocol.

The MiCorps protocol is also being used in the 130,000 acre (203 square miles) Big Two Hearted River watershed as part of the watershed management plan developed by SWP through a DEQ 319 grant. In all, over 30 volunteer monitors have participated in trainings, habitat assessments, sample collections and macroinvertebrate identification in four major watersheds in Marquette, Alger, Baraga and Luce counties in the northern Upper Peninsula. Contacts within the Two Hearted Chapter of Trout Unlimited also helped the Superior Watershed Partnership promote the MiCorps program to interested stakeholders in the Millecoquins watershed in Mackinac County. After only three monitoring sessions the sampling results aren't conclusive yet, but the widespread interest and involvement of the volunteers promises to meet the goals of increased awareness and stewardship.

The preceding article was written by Central UP Volunteer Stream Monitoring Project Leaders, Liz Coyne and Sarah Janda. Liz is the Watershed Manager for the Alger Conservation District, and Sarah is the Assistant Administrator for the Marquette County Conservation District.

Operation Windbreak

In August 2008, the UP RC&D Council approved a new project sponsored by the Chippewa East Mackinac Conservation District (CEMCD) named "Operation Windbreak". The project actually began about ten years ago. At that time it was focused primarily on farmstead windbreaks. The Conservation District was interested in expanding the project with the goal of establishing windbreaks on major roads in Chippewa County which were needed to improve driving conditions in winter weather and increase highway safety. They have joined with several partners to address this need including the Michigan Department of Transportation (MDOT), Chippewa County's Office of Emergency Services, the USDA Natural Resources Conservation Service (NRCS), Cloverland Electric Cooperative, Waste Management, and the Chippewa County Road Commission. Over 40 miles of exposed roadways have been identified as priority sites for planting windbreaks.

The CEMCD conducted a pilot project in the spring of 2008. With the help of volunteers, 1500 trees were planted along nine miles of high risk areas on the right-of-ways of both I-75 and M-129. They planted two rows of white spruce which adapted well to the heavy clay soils and local climate. Tree mats were used on each tree for weed control, and the trees were marked with wooden stakes to reduce the chances that they would be accidentally mowed down. Over the winter, more priority planting areas for this spring were identified. Last month, another 1800 trees were planted along I-75 and M-28. Survival rates for the trees planted in 2008 were excellent, with only about 100 trees having to be replaced. They also planted 300 trees at the airport this spring.

For maximum effectiveness, some of the future windbreaks may have to be located on private property which borders the high risk traffic corridors. The Conservation District will be working with private landowners to determine if cost share funds in USDA Farm Bill programs could be used to help defray costs to those landowners. The District has a goal of helping plant 2 miles of public windbreak (highway right-of-way) and 5 miles of private windbreak each year.

In addition to helping improve driving conditions on adjacent roadways, well designed windbreaks can also reduce home energy costs, protect livestock, increase wildlife habitat, provide aesthetic value to the landscape, reduce dust and noise, and increase property values.

Volunteers planted 1800 trees during April 2009.

Trees planted through Operation Windbreak along M-129 just south of Sault Ste. Marie. White spruce trees are planted in two rows with tree mats for weed control & stakes to protect from accidental mowing.

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Vision

The Upper Peninsula Resource Conservation & Development Council will promote the conservation of the natural resources of the Upper Peninsula for the benefit of its current and future residents. The Council will strive for a balance between the management of natural resources to protect the environment, and the implementation of economic development activities in order to sustain economy for the region. We will identify resource conservation and land use issues, and work with local communities to address these concerns.

Scrap Tire Cleanup in Menominee County

A pile of over 4,142 scrap tires in Menominee County was removed, thanks to Holly Wendrick, Groundwater Technician with the Delta Conservation District. The Upper Peninsula RC&D Council assisted the District with the preparation of a grant proposal that was accepted by the Michigan Department of Environmental Quality. The amount of the grant was $11, 236.

U.P. Environmental Services of Bark River hauled the tires down to CM Rubber Technologies in Coleman, Michigan. The total weight of the scrap tires removed was 41.42 tons! In addition, 220 rims were removed and recycled

Waste tires and waste tire stockpiles, if ignited, burn very hot and are very difficult to extinguish. This is due to the 75% void space present in a whole waste tire, which makes it difficult to extinguish these kinds of fires with water or to eliminate the oxygen supply. In addition, the doughnut-shaped tire casings allow air drafts to stoke the fire. A large tire fire can smolder for several weeks or even months, sometimes with dramatic effect on the surrounding environment. The air pollutants from fires include dense black smoke which impairs visibility and soils painted surfaces. Toxic gas emissions include polyaromatic hydrocarbons, CO, SO_2, NO_2, and HCl. The heat from tire fires also causes some of the rubber to break down into an oily material. Prolonged burning increases the likelihood of surface and groundwater pollution by the oily material. Using water to extinguish a tire fire is often a futile effort, since an adequate water supply is frequently unavailable.

Tire piles are excellent breeding grounds for mosquitoes. Because of the shape and impermeability of tires, they may hold water for long periods of time providing sites for mosquito larvae development.

Many thanks to Holly and the Delta Conservation District for all of their efforts on this worthwhile project.

A portion of the pile of 4,142 scrap tires which were removed from one farm in Menominee County.

Mission

To foster partnerships among diverse stakeholders that support a healthy environment and economy for the Upper Peninsula.