



GLRI Funds Help Brothers Protect Water

Mark Story knew that piling manure on the ground was “just not the best thing to do.” He and his brother Brian decided to do something about it which started with a visit to their local USDA Service Center and contracting for a Comprehensive Nutrient Management Plan (CNMP). The plan was developed by a private technical service provider with financial assistance provided through the Environmental Quality Incentives Program with funding from the Great Lakes Restoration Initiative.

A CNMP is a detailed plan for how a livestock operation will store and utilize animal waste and is tailored to a single operation and the operator’s production objectives. A CNMP is the first step for any livestock owner who wants to receive USDA conservation financial assistance for implementing conservation practices for livestock.

The Story brothers have a 40-sow, farrow-to-finish hog operation and finish about 10 beef cattle a year. They also farm about 900 acres with a crop rotation that includes corn, corn silage, soybeans and wheat. Mark and Brian have taken a more active role in the operation of the farm in recent years from their father. Up until the contract for their CNMP, no one in their family had worked with NRCS or enrolled in any USDA conservation programs. After completing their CNMP, the brothers have contracted to implement a number of conservation practices that will help improve water quality.

Their farming practices have an impact on the Great Lakes, especially the land they farm along the Pine River which is a tributary in the Saginaw



Farmer Mark Story (above) operates Idle Not Farm near Breckenridge with his brother Brian.



Bay Watershed of Lake Huron. The brothers have converted from conventional tillage to conservation tillage for nearly all of the land they plant to soybeans, said Mark. They are also planting cover crops after harvesting wheat and corn silage. These practices will help keep soil in place and reduce the amount of silt and fertilizer reaching the Great Lakes. They will receive financial assistance for implementing these practices for the number of acres specified in their program contracts. In fact, this year they implemented the practices on acreage exceeding their contracted acres even though they won’t receive payments for the additional acres.

The Storys contracted to build a dry stack facility so they will no longer have to pile manure on the

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State Conservationist's Message

The Michigan Agriculture Environmental Assurance Program is closing in on its 5,000th verification. MAEAP utilizes the same philosophy of non-regulatory, voluntary conservation that guides NRCS.

The MAEAP program dates back to 1997 and was created by farmers, commodity groups, farm organizations and conservation organizations. The program's goal is to work with farmers to protect our state's natural resources. MAEAP provides educational opportunities through a plethora of educational programs throughout the year as well as accepted standards for environmental protection.

MAEAP has a network of technicians that help farmers identify environmental risks on their farms and develop a plan to address them. Finally, there is a team of MAEAP verifiers to determine if a farm meets program standards.

NRCS has been involved with MAEAP since its inception. NRCS employees serve on several of the committees that administer and promote the program. After discussions with Michigan Farm Bureau, NRCS upped its support for the MAEAP program in 2013. Farm Bureau relayed to NRCS the concerns of some of its members that it was difficult to receive NRCS financial assistance to complete needed practices for MAEAP verification.

In particular, farmers needed financial assistance for facilities to meet MAEAP requirements for safely storing and transferring fuel and agrichemicals. Both fueling facilities/secondary containment and agrichemical handling facilities are important practices for protecting ground and surface water. They are also costly. However, when farmers applied for NRCS financial

assistance to implement one of these practices for MAEAP verification they often were not selected for funding. The primary reason was that applications are selected competitively with those providing the most conservation impact selected. Applications including only one or two conservation practices were not likely to be funded.



State Conservationist
Garry Lee



Tim Rumfield received EQIP funding through the MAEAP initiative for a fueling facility on his farm near Sunfield. His farm was MAEAP verified in Cropping and Farmstead systems in 2015.

Beginning in fiscal year 2013, NRCS provided a pool of funds specifically for producers needing only one or two conservation practices to become MAEAP verified. The funding is provided as a state initiative through the Environmental Quality Incentives Program.

From 2013 to 2018, NRCS has funded 240 contracts in 48 Michigan counties through the MAEAP initiative. These contracts will provide over \$4.7 million in financial

assistance for Michigan farmers to become environmentally verified through MAEAP.

The most-contracted practices through the initiative are fueling facilities/secondary containment (194) and agrichemical handling facilities (60). Funding was also obligated for 10 well decommissionings. These conservation practices will help protect our groundwater from contamination from fuel and farm chemicals by providing dependable storage and containment during handling and fueling.

NRCS is proud to be a partner in MAEAP and wish it continued success through 5,000 verifications and beyond.

“Migrations” Topic of USDA Black History Event

America’s Great Migration, when African Americans moved away from the south in pursuit of greater economic opportunity and civil freedoms, started around 1916 and continued for several decades. Less well known is an ongoing reverse migration of African Americans from the Northeast and Midwest back to southern cities like Atlanta.

“Migrations” was the theme for the USDA Black History Month Event presented in East Lansing by Taalib El Amin. El Amin, a life-long resident of Grand Rapids has a diverse background in education and business including earning a business degree from Grand Valley State and a teaching certificate for African studies from Eastern Illinois University.

The Great Migration was made up primarily of rural unskilled workers moving to cities outside of the south to obtain jobs in factories, said El Amin. While many African Americans found jobs in the north, opportunities for social and economic mobility were severely limited. Blacks routinely were only allowed to purchase homes in designated areas and were subjected to over-policing. As a result of these and many other issues, African



Black History Month guest speaker Taalib El Amin talked to USDA staff about African American migrations in the United States in East Lansing on Feb. 28.

Americans began moving from northern cities back to the south beginning in the 1960s and 70s, El Amin said.

In the contrast to the Great Migration, the reverse migration includes many well-educated professionals, seeking to leave the city for new African American suburbs in areas like Atlanta. An

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GLRI Funds Help Brothers Protect Water

ground. The dry stack includes a concrete pad and a roof to prevent hog and cattle manure from running off into surface water or polluting ground water. To address another resource concern, construction has already begun on an agrichemical handling facility. This structure safely stores fertilizers and pesticides, providing containment in the event of leak or spills during storage or when filling sprayers.

Technical assistance from NRCS and certified technical service providers, along with financial assistance provided through the Great Lakes Restoration Initiative allowed the Storys to address a variety of important resource concerns on their farm. “I couldn’t ask for a better group of people to work with,” said Mark.



Midland County District Conservation Boyd Byelich stands beside an agrichemical handling facility under construction on the Story farm.

Wood Products and the Future of the Forest Industry

by Bill Cook, MSU Extension Forester/Biologist

Northern forests have many species of trees, each with different physical qualities of wood, as well as habitat requirements. People have learned how to make a stunning variety of products from the cornucopia of environmentally-friendly raw materials. Wood is a vital part of the global bioeconomy and that importance is likely to grow, especially in the context of climate change.

Wood Products

Most people recognize common wood products, such as dimensional lumber, paper products, cardboard boxes and oriented-strand board, often called flakeboard or chipboard. Not to be under-rated, these common products have fascinating manufacturing processes and the supply chain that harvests the raw material is more complex than most people might imagine.

However, did you think the label on the back of your Levi's was leather? Think again! It's latex-infused paper, made in Michigan, so is the cover of the National Geographic magazine and most of our textbook paper. Even the artificial vanilla in your ice cream may have come from a pulp mill.

Ever been to a meeting where you need to wear a "Hello, my name is . . ." sticker? The part that's thrown away is a major paper product from another Michigan mill.



Railroad ties and utility poles are also made in Michigan. Most of us cannot even turn our lights on in the morning without some basic wood products.

High-end musical instruments, such as violin bows, guitars and banjos have wood parts specially selected from spruce, maple and other trees from the northern forests.

Ever made cupcakes with paper cups, tossed away a brown fast food bag or received a bag at fancy clothing stores with twisted paper handles? All these, and hundreds of other items are products of Michigan's forest industry.

Anti-tumor, anti-ulcer, anti-oxidant, treatment of malaria and medicines that are used to inhibition HIV replication all are made of extractives from trees.

Cellulosic nanofibers and nanocrystals have a wide range of applications, such as absorbents, high-tech insulation and sound

boards, 3-D printing, electronics, flexible LCD monitors, shampoos, foams, paints, glues and nearly endless ways to replace plastic.

Clothing, textiles, candy wrappers, cat litter, tape, essential oils, chemicals, heating, cooling, electricity, "plastic" bags, seals and gaskets, snowshoes, tape, Corian countertops and many other items are made using wood. The list goes on.

Cross-laminated timbers, composites and other

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"Migrations" Topic of USDA Black History Event

estimated 500,000 African Americans have moved from the Detroit area to the south. In addition to professionals seeking more opportunities, many African American retirees moved south to be closer to family or to escape the city, El Amin said.

The program also included the early history of African American farmers in Michigan. El Amin told attendees there were black farmers in Michigan as early as 1830 and by 1900 there were over 600,

farming over 38,000 acres of land.

The USDA Black History Month program is presented by the NRCS Michigan Civil Rights Advisory Committee and the Black Special Emphasis Program. Greenstone Farm Credit Services hosted the event and NRCS District Conservationist and Black SEPM Dextrin Dorsey served as the discussion moderator and emcee.

NRCS Participate in Farmer Conferences



District Conservationist Boyd Byelich staffs the NRCS exhibit at the Michigan Family Farm Conference held at Kalamazoo Valley Community College on Feb. 9.



NRCS hosted a workshop at the Northern Michigan Small Farm Conference in Acme on Jan. 26. District Conservationist Pepper Bromelmeier (above) gave a soil health demonstration to kick it off.

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Wood Products and the Future of the Forest Industry

uses, from bridges to furniture. The nation's largest single continuous press particle board plant will soon open in the northern Lower Peninsula. You might find that product in your next Ikea purchase.

Come the month of March and the NCAA basketball tournament, more people become aware that the floor, new each year, is made by a company in the Upper Peninsula.

Michigan has one of the country's largest manufacturers of those wooden battens in window blinds, using basswood. It's also a major producer of wood-using furniture.

Future of the Forest Industry

The need to substitute renewable resources for non-renewables is urgent because there is too much atmospheric carbon, other pollutants and related problems with many raw materials. Forests and wood products have a very important role to play.

Research and development of new uses for wood

keeps going. Think about things such as car body parts, tires, water and pop bottles, personal care products and high-rise buildings. In fact, wood has replaced steel for an increasing number of tall modern buildings, some as tall as nineteen stories.

Many new wood innovations may not be particularly flashy, but they make significant enhancements towards products and processes that reduce fossil fuel use, increase human safety, clean environments and lead to healthier communities and economies.

Wood has always been integral to human society and visions of a sustainable future will continue to include wood. However, there will be many ways to use wood that we currently just don't see, and that's pretty exciting.

This article was published by Michigan State University Extension. For more information, visit <http://www.msue.msu.edu>.

Mapping of Lansing Loamy Plains Refined

- Grand Rapids MLRA Staff

The project to refine mapping of the Lansing Loamy Plains area of Mid-Michigan was designed to address deficiencies in the dense till data for landforms associated with Capac and Conover soils and to resolve inconsistent mapping concepts between counties within the Lansing Loamy Plains.. Review of available data suggested that dense soil material exists within 2 meters of the soil surface in some portions of the Lansing Loamy Plains; however, this material was not recognized in the published soil surveys of the area. Dense soil material affects rooting depth, infiltration, available water capacity,, and soil loss tolerance, and the design of conservation practices for surface water management and waste and chemical storage facilities. It also affects the interpretation, design, and construction of forestry, recreation, and urban projects.

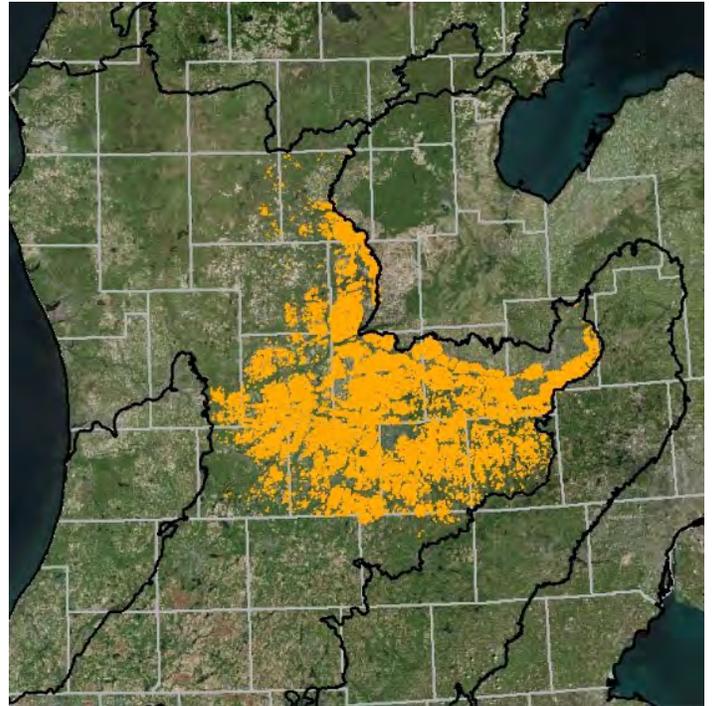
Key Outcomes

- Improved data and identified dense material for over 418,000 acres.
- Laboratory samples and saturated hydraulic conductivity measurements improved upon previous values for many important physical and chemical properties.
- Created consistent mapping by resolving county mis-joins and establishing two new map units which are distinguished by physiographic breaks and not county boundaries.

Farmers and planners can use the updated data on the depth to dense materials to make more informed decisions about drainage and irrigation. Conservation planners can use the improved data to help farmers identify areas of limited rooting depth and lower available water capacity and to locate areas where fertilizer and pesticide application may need to be adjusted due to low infiltration rates.

Soil survey staff will continue to work with local

field staff, partner agencies, and the public to create similar improvements to soil survey data in other areas. This data will address current land use concerns.



Approximately 418,000 acres of Capac and Conover soils were updated in the Lansing Loamy Plains. Orange represents the updated areas.

Grand Rapids MLRA Office

Major Land Resource Area Soil Survey Offices are part of the NRCS Soil Science Division. The one MLRA office in Michigan is located in Grand Rapids. The Grand Rapids office is assigned to Soil Survey Region 12, which has its administrative office in Amherst, Mass.

MLRA staff primarily work on national projects such as the National Cooperative Soil Survey. This work includes updating and improving the information available on the Web Soil Survey. They also assist states with their technical soil service workload in coordination with the state soil scientist and area resource soil scientists.



Upcoming Events - Upcoming Events - Upcoming Events - Upcoming Events

March

- 5 Great Lakes Forage & Grazing Conference, 9 a.m. to 4 p.m., Agroliquid - St. Johns, for more information go to events.anr.msu.edu
- 8 Tree & Shrub Planting Workshop, 1 - 3 p.m., Lake County Historical Society - Baldwin, for more information call 231/757-3707
- 9 Fruit Tree Pruning Workshop, 9:30 a.m. to 12:30 p.m., Gladwin District Library - Gladwin, for more information call 800/642-7353 or email info@releafmichigan.org
- 12 Agriculture for Tomorrow Conference, 9:15 a.m. to 3:30 p.m., Bay de Noc Community College - Escanaba, for more information and to register go to events.anr.msu.edu
- 12 Southeast MI Winter Vegetable Meeting, 8:30 a.m. to 2:30 p.m., Dundee Village Office - Dundee, for more information go to events.anr.msu.edu
- 14 Wildlife Habitat & Your Property, 6 p.m. to 8:30 p.m., MidMichigan College - Harrison, for more information go to www.midmich.edu or call 989/386-6625
- 14 Soil Fertility Workshop, 11 a.m. to 3 p.m., Mosier Well Drilling - Cassopolis, for more information go to cassccdistrct.org or call 269/228-7084
- 14 Oceana Asparagus Day, 9 a.m. to 3 p.m., New Era Reformed Church - New Era, for more information go to events.anr.msu.edu or call 231/873-2129
- 15 Tri-County Advanced Soil Health Workshop, 8 a.m. to 3 p.m., Kissel Building - West Unity, Ohio, for more information go to www.hillsdalecd.org or call 517/849-9890 ext. 3
- 20 Farming for the Future Conference, 8:30 a.m. to 3 p.m., Van Buren Conference Center - Lawrence, for more information and to register go to vanburenced.org or call 269/657-4030

March ctd.

- 20 West Central Spring Horticulture Meeting, 9 a.m. to 4:15 p.m., New Era Reformed Church - New Era, for more information go to events.anr.msu.edu
- 26 The Energy Farming Program: The Importance of Soil Life, 8 a.m. to noon, Hillsdale County MSU Extension - Hillsdale, for more information call 517/849-9890 or email hillsdalecd@macd.org
- 28 Forest Health & Invasive Species, 6 p.m. to 8:30 p.m., MidMichigan College - Harrison, for more information go to www.midmich.edu or call 989/386-6625
- 30 Forest Invasive Species Prevention Workshop, 10 a.m. to 1:30 p.m., Woodland Acres Bird Hunting Preserve - St. Johns, for more information go to www.eventbrite.com or email erin.jarvie@macd.org

April

- 3 Timber Tax Workshop, 5:30 p.m., Northern Water Casino - Watersmeet, for more information call 906/875-3765
- 11 Putting Your Woods to Work, 6 p.m. to 8:30 p.m., MidMichigan College - Harrison, for more information go to www.midmich.edu or call 989/386-6625

May

- 4 Spring Stream Monitoring, for more information contact the Ingham Conservation District at 517/676-2290 or go to www.inghamconservation.com/events



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