The Brick family
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Greenleaf, WI
Figure 1. Some of the ditching and leveling shown here was done by Gene Brick using his farm tractor and small machinery.

Figure 2. Success of a drainage operation like this requires careful planning. The Brick's worked closely with soil conservation service and extension specialists to get the job done right.

Figure 3. Gene and Helen Brick planned the kitchen remodeling shown here.
It takes 20 years to build a reputation and five minutes to ruin it. If you think about that, you’ll do things differently.

- Warren Buffet
Demonstration farms look for ways to improve soil health.
Inter-seeding red clover in corn
Great Lakes Restoration Initiative: Edge-of-Field Monitoring

What is EOF monitoring?

Quality benefits of conservation practices.

What does EOF monitoring measure?

Data collected at edge-of-field sites:

- Runoff quantity and flow: determines how much water passes by each site
- Meteorological data: precipitation, air temperature, relative humidity, solar radiation, soil temperature, and soil moisture
- In-situ water quality: temperature, pH, specific conductance, dissolved oxygen, turbidity, nitrate and phosphate (via sensors)
- Sediment and nutrients: samples are analyzed for suspended sediment, chloride, nitrate plus nitrite, ammonium, total Kjeldahl nitrogen, orthophosphate, and total phosphorus

Loads and yields are calculated by combining sample concentrations and runoff quantity to determine the amount of each constituent leaving the field. This is critical for evaluating the effectiveness of conservation practices.

The image at right shows an example hydrograph illustrating how the discharge, or volume of water passing through a streamgage (red line), changes as the result of accumulating rainfall (blue dotted line). The bottles shown are the water-quality samples collected at each time point (green circles). Note the change in water clarity during the peak discharge of the runoff event.
Bazooka manure applicator
Low Disturbance Manure Application
Triticale, tillage radish and winter pea
• 3.1 ton DM Triticale
• 9.9 ton Corn Silage
• Total of 13 ton DM harvested in 2016
February 19th & Cover Crop field is still working!
4 miles of waterways
Challenges:

- Application of manure
- Controlling the quality of contracted field work
- Seeding cover crops
- Soil compaction
- Educating others about new practices
Land management goals - 5 year plan:

- Reduce commercial fertilizer by 90%
- Plant cover crops on all fields owned and contracted
- Limit the focus of the agronomist to soil health
- Work with the DNR and other agencies in revising 590 nutrient management plans
Thank you!