

## Final Report

**Title:** Riparian Forest Buffers for Trout Habitat Improvement

**Team:** Phyllis Bongard, Extension Educator, Agriculture Production/Water Quality  
Gary Wyatt, Extension Educator, Agriforestry

**Partner:** Brian Nerbonne, Trout Habitat Specialist, Minnesota DNR

**Summary:** The purpose of this project was to develop an educational program to promote the benefits of riparian forest buffers (RFBs). A literature review, set of five fact sheets and a related website have been developed, educational outreach meetings were held and a demonstration was established on an existing DNR-designated trout stream, the Vermillion River in Dakota County. Next steps can include organized demonstration tours and development of an independent walking tour at the river site. Plans are already underway to monitor stream temperature and trout population changes in the shaded portion of the stream as the trees mature and compare those results to an adjacent non-shaded area.

### Completed:

- **Educational program & materials**
  - Literature review of the benefits, design, establishment and maintenance of RFBs (available on request; also will be available on website)
  - A set of five fact sheets (final editing stage with Communications Team):
    - Benefits of Riparian Forest Buffers
    - Design of Riparian Forest Buffers
    - Establishment of Riparian Forest Buffers
    - Maintenance of Riparian Forest Buffers
    - Financial Assistance Opportunities for Riparian Forest Buffers
  - Website is ready to go online; waiting for final versions of fact sheets:  
[www.extension.umn.edu/buffers](http://www.extension.umn.edu/buffers)
  - Educational meetings held in March at the Dakota County Extension and Conservation Center
    - Residents along Vermillion River identified and invited
    - Program included the following presentations
      - Water quality and wildlife benefits of RFBs (Phyllis)
      - Trout habitat improvement with RFBs (Brian)
      - RFB design basics and options (Phyllis)
      - Tree selection, planting and maintenance for RFBs (Gary)

- Income opportunities: financial assistance and marketable crops (Gary)
- Participant evaluations (32 participants; 78% response rate)
  - Positive shift toward increased learning (benefits, design, plant selection)
  - Positive shift toward increased practices (install buffer, manage growth)
  - Largest perceived constraint for installing buffer: Cost
- **Forest buffer demonstration** established with collaboration from Minnesota DNR on the Vermillion River (designated trout stream) in Dakota County
  - A total of 450 trees and shrubs planted and protected with mulch and tree shelters with volunteer help from Friends of the Mississippi, Trout Unlimited and Boy Scouts of America on two major planting dates (September, 2009 and May, 2010).
    - Obtained \$2500 from the Vermillion River Watershed Joint Powers Organization for additional trees & shrubs and plant protection for the spring planting
    - Site preparation completed prior to both planting dates (vegetation control with glyphosate)
  - Promotional/informational sign created for parking lot on-site

**Opportunities for engagement:** There are opportunities to engage other community organizations that we hadn't included in the original plans. The Cannon River Watershed Partnership and the Scott County Watershed Management Organization are interested in getting involved with educational tours and utilizing the fact sheets.