

# Montague Agriscience & FFA

## Residential Impact on Buttermilk Creek



### Community Partners

- Weesies Brothers Garden Center & Landscaping
- West Michigan Landscape Association
- Buttermilk Creek Residents
- City of Montague

### Skills learned:

- Civic & Community Responsibility
- Teaching Residents to be stewards
- Transplanting, seed, and cultivating
- Being stewards of our environment
- Developing educational material



### Student Learning Outcomes

Students learn how to identify problems and causes of erosion during storms.

Students researched, developed, published, and circulated educational materials related to storm-water and the benefits or managing storm water. Students conducted storm water assessments on residential property to help identify needs of the area.

Students designed management plans that included native plantings, rain barrels and removal on invasive species. Recommendations to homeowners on how to better hand storm water from approved practices were also made. Students learned to identify, plants and transplant native species in appropriate areas around Butter Milk creek. Students also evaluated the surrounding water-

shed and discovered that a lot of the sedimentation and erosion problems happened before getting to the residential areas. The residential area was only one piece of the problem. With the ridge washout of buttermilk creek it gave students an impressive look at the power of storm water when it isn't managed properly.

Students have develop long term goals that allow

**Montague High School**  
**2013-14 School Year:**

- 780 Students
- 30 Teachers
- 25 Classrooms
- Earth Ecology, Biology, Greenhouse Supervised Agriculture Experience Projects

homeowners to have a stake in the condition of the creek and the sediments that end up in White lake.





## 2013-2014 School Year Project Timeline

Earth Ecology classes decided to develop a project to help reduce the sediments going into White Lake from ButterMilk Creek.

Greenhouse Class Select native plants and start them in the greenhouse.

Storm Water assessment training

Students attended and constructed rain barrel workshops during earth week that were used to train other students.

Developed Educational pieces to inform the residents

March

April

May

Proposals by students presented in class

B-Creek Washes out Eiler's Rd



**Targeted four residential areas of buttermilk creek and mapped the watershed and developed a storm water assessment plan.**



Greenhouse Class Select native plants and started plants in the greenhouse and ordered plugs.



Second Montague FFA Day of Service launched with -  
 Middle School Planting Native trees  
 High school students planting Native species in school landscapes.  
 Middle school and high school students worked together preparing demonstration garden areas and courtyards that address storm water issues related to buttermilk creek.