Watershed Awakening

Connecting College and Community to a Shared Place

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History and Context at Calvin College

• Academically Based Service-Learning as the entrée to sustainability

• Led to the creation of the Calvin Environmental Assessment Program (CEAP)

• Served as a catalyst for significant institutional change at multiple levels within the college
CEAP: an evolving conversation leading to action

- Planktonic algae decline
- Massive fish die-off
- Stench
- Community complaints

- Biology CEAP project
- Cause: algal bloom & proliferation of O$_2$-using bacteria
- CEAP poster session

- English CEAP project
- Neighborhood newsletter
- Calls from community & altered behavior
- Plaster Creek Watershed working group

- Engineering CEAP project
- Storm water treatment system
- New earthen berm & detention pond

- Cause: N & P runoff from urban fertilizers
What is a Watershed?
Watersheds are topographical and hydrological units that integrate the landscape into nested sets of drainages.
Calvin College Alumni
Living within the Plaster Creek Watershed

Over 3200 Calvin College alumni reside within the watershed of Plaster Creek.
Plaster Creek Watershed

Basic statistics:
- Length: approx. 14 miles
- Watershed area: 58 mi$^2$
- Governmental units: 9 (4 municipalities & 5 townships)
Greatest Concerns for Plaster Creek?

• Sedimentation
• Potential pathogens
• Nutrients
• Thermal pollution
• Toxic substances
Plaster Creek Focus Strategies

- Undergraduate teaching and research
- Community partnerships
- Grant funded projects related to sustainability education
- Public education and outreach
- Native landscapes/consulting
Lessons Learned

- Watersheds are great integrators/entry points for environmental stewardship.
- Use strengths/identity of institution to develop action strategy.
- Community partnerships reach more diverse audiences.
- Goal of higher education is more than classroom education of students.