Community Based Restoration Initiatives

A USDA CSREES National Integrated Water Quality Program Project

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Situation

- Rural communities in Alabama are rapidly undergoing land use changes associated with urban and suburban growth.
- Wish to maintain ‘Quality of Life’ … however there is also
  - Lack of knowledge
  - Lack of funding
  - Fear of the unknown

Our plan …

- Go to communities at the urban-rural interface and LISTEN
- What are their concerns?
- What are their priorities?
- How can we partner to help meet their goals and improve water quality?

Work with local partners to identify community interests and educational needs

Coordinate Watershed Restoration workshops to address problems (or perceived problems)

Identify potential projects that will improve local water quality and serve to educate stakeholders

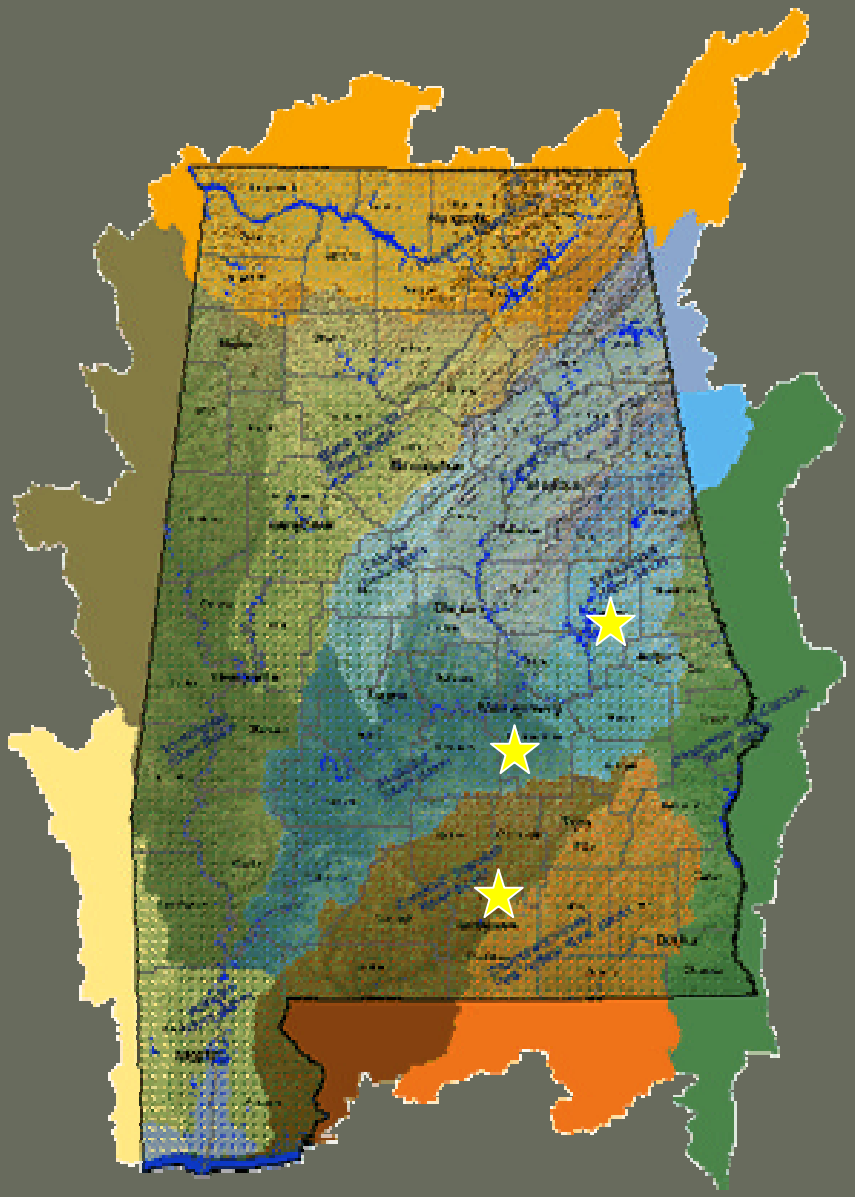
AU Landscape Architecture Environmental Studio students prepare draft designs and plans

Implement projects, evaluate success, & document lessons learned to share with other communities

Working with Alabama Communities

Spotlight communities at the urban-rural interface

- City of Alexander City
- Town of Pike Road
- City of Brewton



Alabama Cooperative Extension System

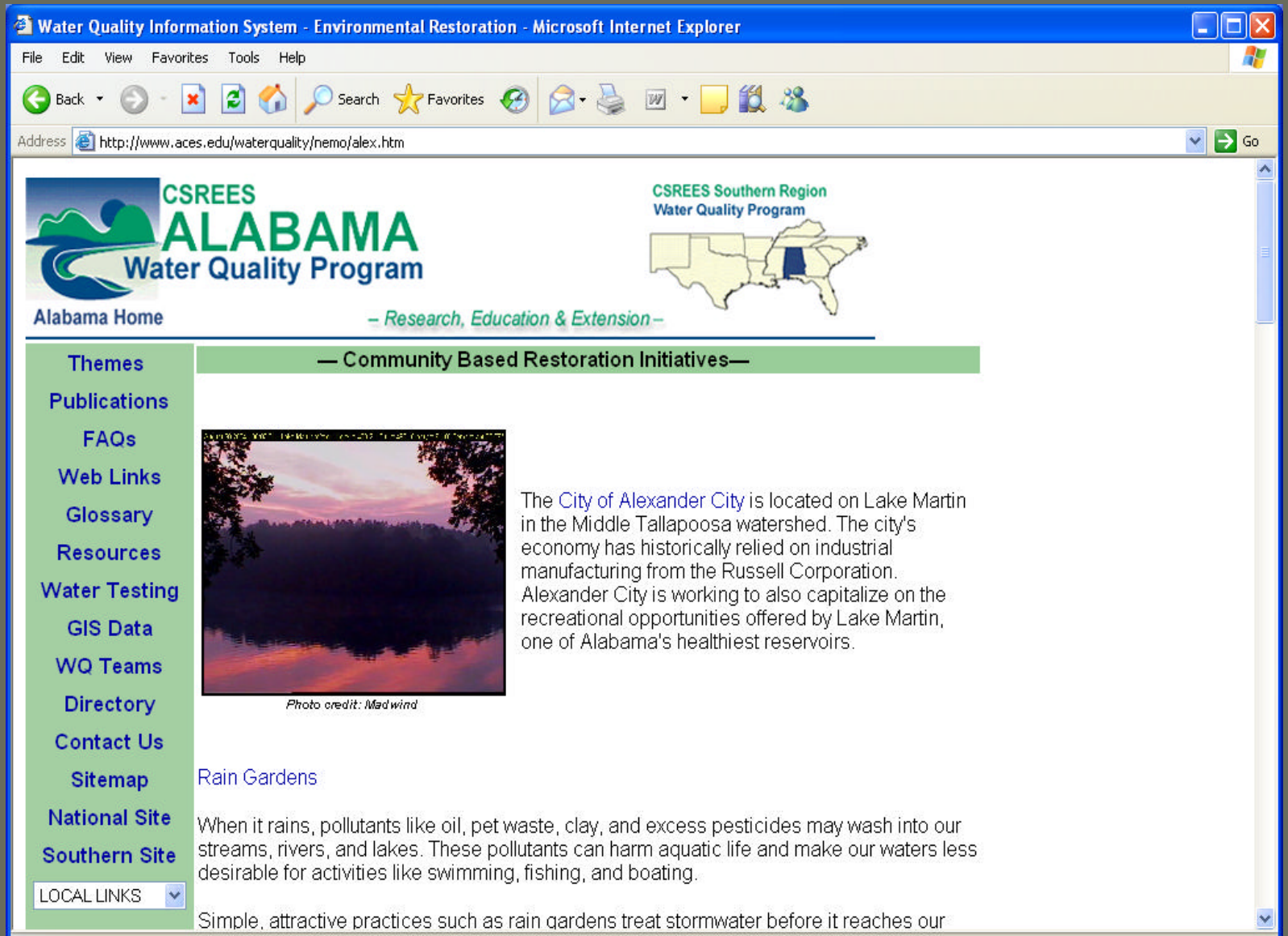
- Information on watershed planning & management techniques

- Make available workshops, seminars, web sites and other educational programs requested by communities

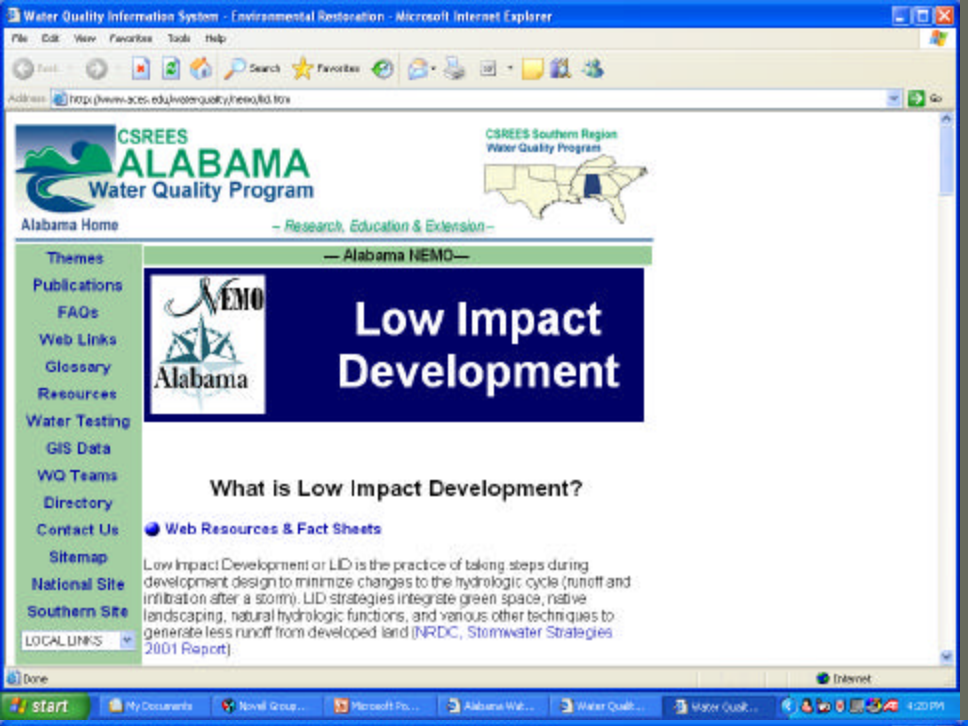
Watershed Restoration Workshops

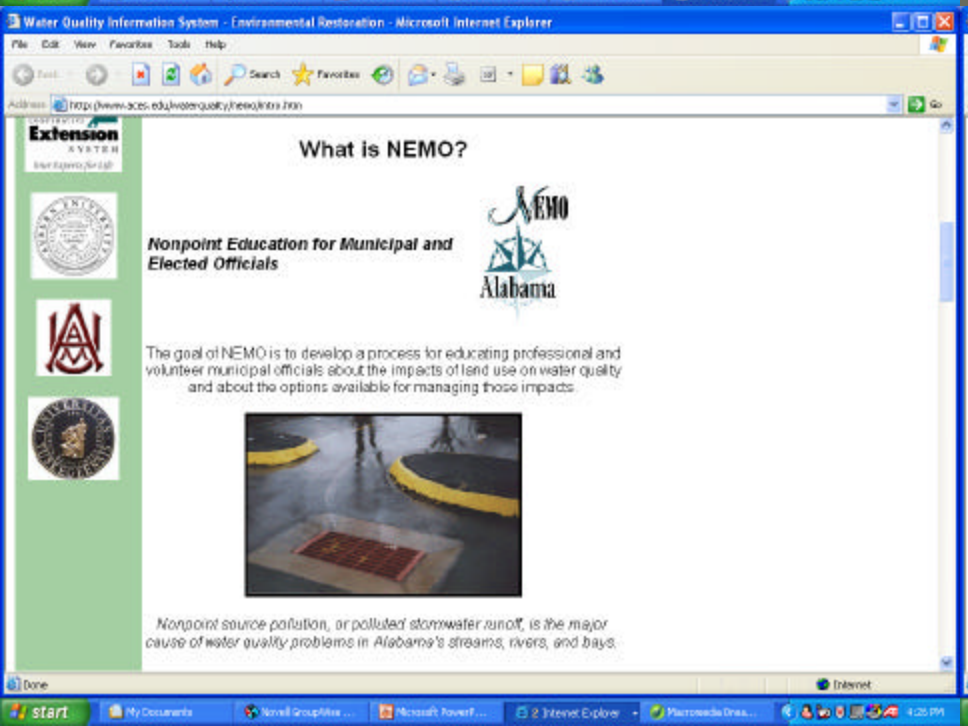
- Stormwater BMP Academy (2)
- Introduction to Stream Restoration (2)
- Watershed Academy (1)

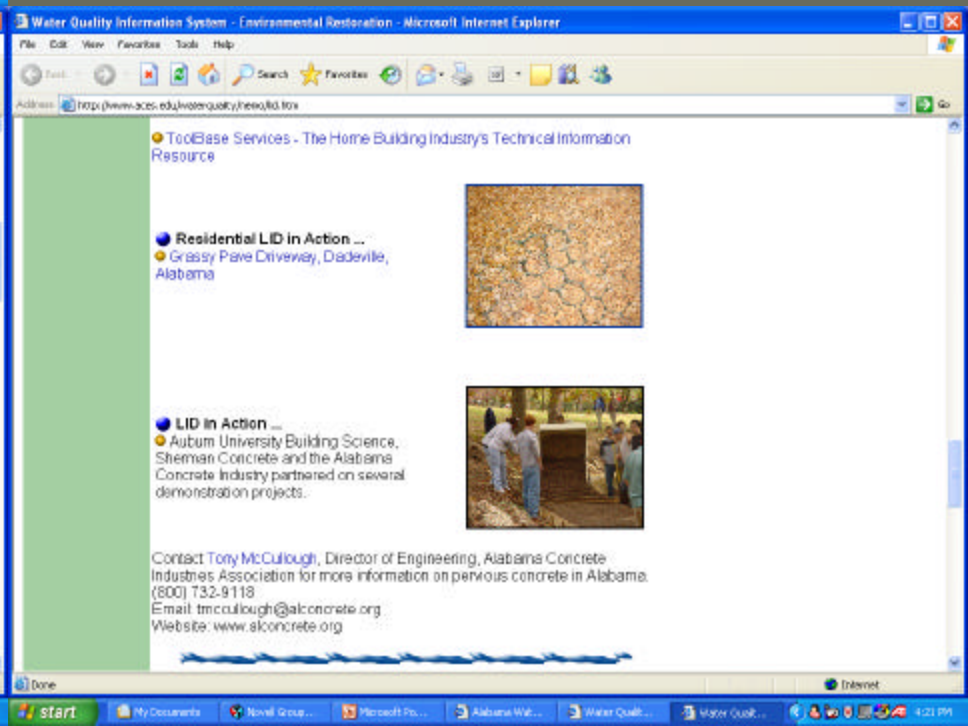
On-line Resources



Watershed management resources, demonstration projects, and local contacts that may help communities and watershed groups

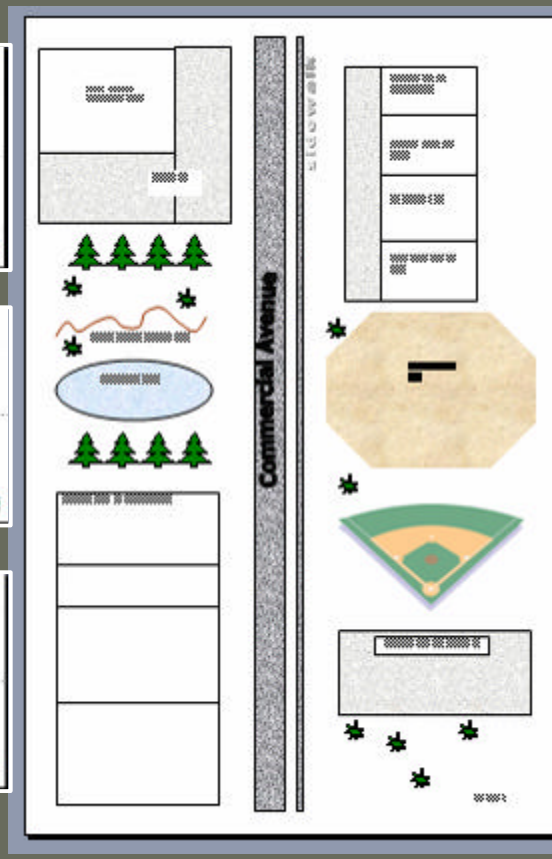






LID Play

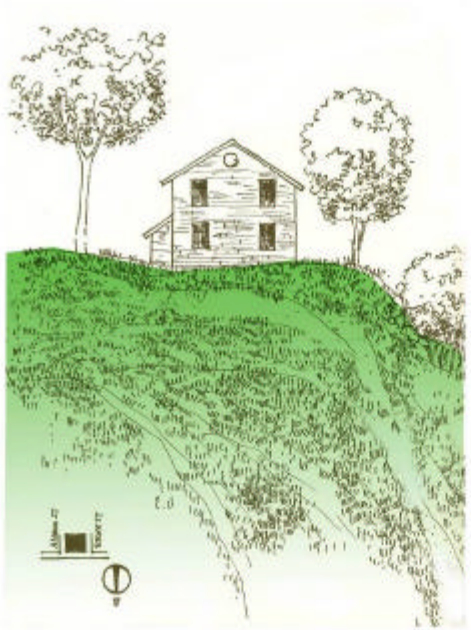
- Interactive land use & planning activity



AU Landscape Architecture

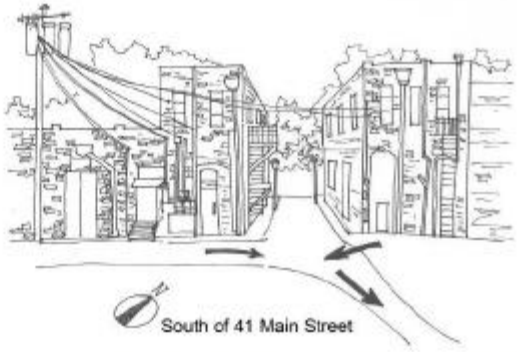
- Incorporate communities into their Environmental Studio
- Students lead Community Charrettes
- Assess existing conditions & listen to community concerns
- Prepare draft plans to address water quality issues – ‘BluePrints’

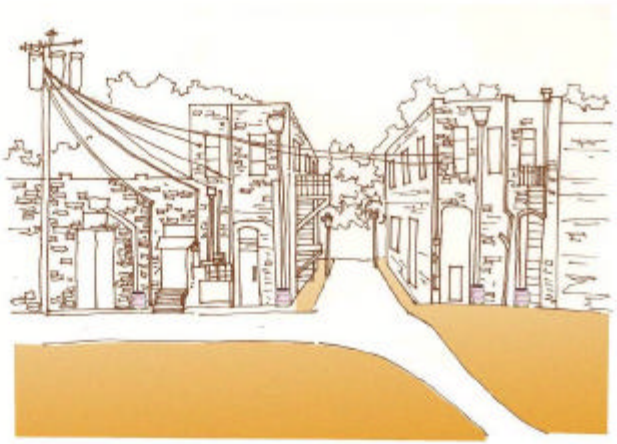
Rain gardens catch runoff from parking areas, driveways, walkways and roofs, allowing stormwater to slowly filter into the soil rather than flow directly into landscape, storm drains, ponds or lakes. This allows 30% more water to soak into the ground and recharge our underground water supplies. It also reduces the amount of polluted runoff entering our waterways.

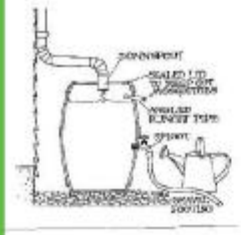


Rain barrels are containers or systems which collect and store water from rooftops for later use, helping stormwater drainage, which is frequenting channeled into nearby streams and rivers,carrying pollutants and other contaminants into neighboring ecosystems.

Saving rainwater by rain barrels is also an ancient practice. rainwater can be used for watering landscape and other use in the house, as well.







Permeable pavement offers some definiteadvantages over traditional paving. A significant contribution is the ability to reduce effective impervious area, which has a direct connection with downstream drainage systems. When heavy rains happen, permeable pavement area will work magnificently in help storm water drainage.

Implementation

- Assisting with designs and outreach

Rain Garden example: City of Alexander City, Middle Tallapoosa Clean Water Partnership, Tallapoosa County Extension System, Lake Watch of Lake Martin, Boys and Girls Club, and AU Landscape Architecture Department

Rain Gardens

- Alexander City – 3 highly visible sites
  - Radney Middle School
  - Benjamin Russell High School
  - Sport Plex

Benjamin Russell High School

Junior Master Gardeners

Total Costs

Items	Amount
Pipe (PVC and Slotted drain tile with sock)	$1,140
#10 screenings (sand for soil amendments)	$310
Organic soil amendment and Hardwood mulch	$1,470
Mulch Hay and Bahia Grass seed	$47.50
Native Plants	$585.70
City Crew to help …	*Priceless*
TOTAL	**$3,553.50**

Extending the Project

- BMP tours
- Presentations to City Councils, Alabama NPS Conference, University classes, Grocery Store line, just about anywhere we get invited!

Lessons Learned

- Keep plants watered
- Follow up maintenance after big rains

Lessons Learned

- Community Education
  - Newspaper articles
  - Tours
  - Incorporated in local school programs

Next Steps …

- Spring Semester 2005
  Town of Pike Road
- Fall Semester 2005
  City of Brewton

Who Wins?

- AU Landscape Architecture students get to experience real world problems and suggest innovative solutions

Who Wins?

- Rural communities in Alabama facing new problems associated with land use changes

Who Wins?

- Local decision makers – they look good for partnering with students to improve their community's Quality of Life.

Who Wins?

Local Water Quality!

"Start small with do-able projects to build momentum, then tackle the giants."

– John Glasier, Lake Watch of Lake Martin