



Habitats and Rain Gardens: Our future of tomorrow

TEAM PROJECT: THE GREEN GUARDS

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The Cold Hard facts: Kentucky's Habitat

- Sadly habitat loss is the single most problem facing Kentucky wildlife today.
- About 95% of the land in Kentucky is privately owned.



Our teams habitat:

- **Our teams habitat will be constructed based on info from a deciduous forest type habitat. In our next few slides we will talk about the things we would like to purpose to be in our habitat. Some of things include: Birdfeeders, Bird houses, a pond, a walk bridge, flowers.**

Benefits of building a habitat:

- **Creating habitat needed by a diversity of wildlife**
- **Attracting more wildlife for observation, enjoyment, and education**
- **Increased property values**
- **Water conservation**
- **Protecting the environment by reducing the use of pesticides.**

- Our habitat plan would include a pond with various plants in it. For example Lilly pads.
- We would like our pond or water resource to sustain life with fish and frogs.



Another addition...



- We would want to put a walk bridge we will be using will come from the old Clarkson elementary habitat. If at all possible we would like to add maybe a
- nother walk bridge for more scenery.

With more time...

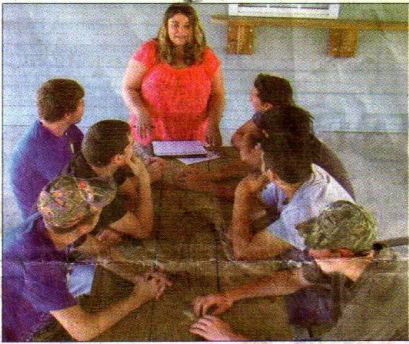
- We might have been able to look into this habitat idea and maybe go even farther with it more.
- *Although our Rain Garden is somewhat of a habitat for insects, birds, and butterflies.*
- Those were just some ideas and concepts we felt like discussing.
- And this idea will come in good use for the future.

MOTIVATIONAL AND INSPIRATIONAL SPEAKERS

- Moe Miller- Entrepreneur and Business Consultant---*how easy and possible it is to start your own business if you put forth the effort and believe your goal*
- Burt Walker- Entrepreneur and Business Consultant---*discussed concepts of business plans and models*
- Vicki Wiederkehr- Entrepreneur and author of "Cardinal Rules: Stepping Stones into Entrepreneurship"—*easy steps to have success in new business*
- Rene White- Guest Speaker from the McConnell Institute---*reviewed computer programs and walked us through procedures in PowerPoint, Word, and Excel.*
- Kindra Ewing- Grayson County Extension Office---*showed us the enviroscape*
- Matt Brown- TVA---*discussed the concepts of the green community and ways to get involved in "GOING GREEN" and Solar Power Usage.*
- Harold Miller and Dava Jo- WRECC---*discussed possible career choices*

COMMUNITY VISIBILITY

Leadership



photo/Missy Mudd

Clarkson teacher Ginger Crain discussed with students this week about their job duties for the Clarkson Community Park.

Students improve cities, earn money

By Missy Mudd
Reporter

mmudd@gcnnews gazette.com

Grayson County High Students, in partnership with the Hardin County School system, are competing to create a sustainable business model with a "green" focus.

Seven students, age 16-19 year olds, have split into two teams to accomplish improvement projects for Grayson County. The Water Boyz are working with city officials on

water conservation, and The Green Guard is working on creating a backyard habitat for the new judicial center.

Coach Ginger Crain explained there will two competitions, one held countywide and another held on a state level. The teens must present a powerpoint presentation highlighting a problem, come up with a solution, design a financial model that would be financially sound for the busi-

See Leadership On Page 3

- June: Mayor Thompson presented to the Leitchfield City Council about our program.
- June: We contacted Angie Jones, Community Education Director, to let her know about McConnell Institute's computer class and refurbishing program.
- June: We met with Keith Jones to discuss possibilities of water conservation projects.
- June: GEL-IN was mentioned in the Kentucky Living magazine.

Leadership

ness and location and also be able to help the environment.

The Best of Grayson County competition will be held on July 23 at 10 a.m. at the Clarkson Elementary School.

Winners chosen on the county level receive refurbished computers, and winners on the state level will receive new laptops.

The Water Boyz plan to install water barrels at the salt waste transfer station in Leitchfield. Barrels will be buried in the ground with

waterspouts installed in them. A city truck will periodically pump water out of the barrels to water the city's landscaping.

Leitchfield Mayor William H. Thomason and students came up with the idea after a round table discussion on needs for the city.

The Green Guard started this week working on a backyard habitat for the new judicial center.

Grayson County Judge-Executive Gary Logsdon has been working in conjunction

with students on overall grounds center.

On July 6, C Bonnie Hende the group at Community Pa

The teens get hour to overha

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- July: Websites were created to share our activities and projects.
- July: We shared our projects and ideas with members of the Clarkson School staff.
- July: We met with Mayor Henderson.
- July: Mayor Henderson presented our program and activities to the Clarkson City Council and Commissioner.
- July: We met with Missy Mudd from the News Gazette.
- July: The News Gazette printed an article about our projects and activities.

More Community Involvement and Work.....

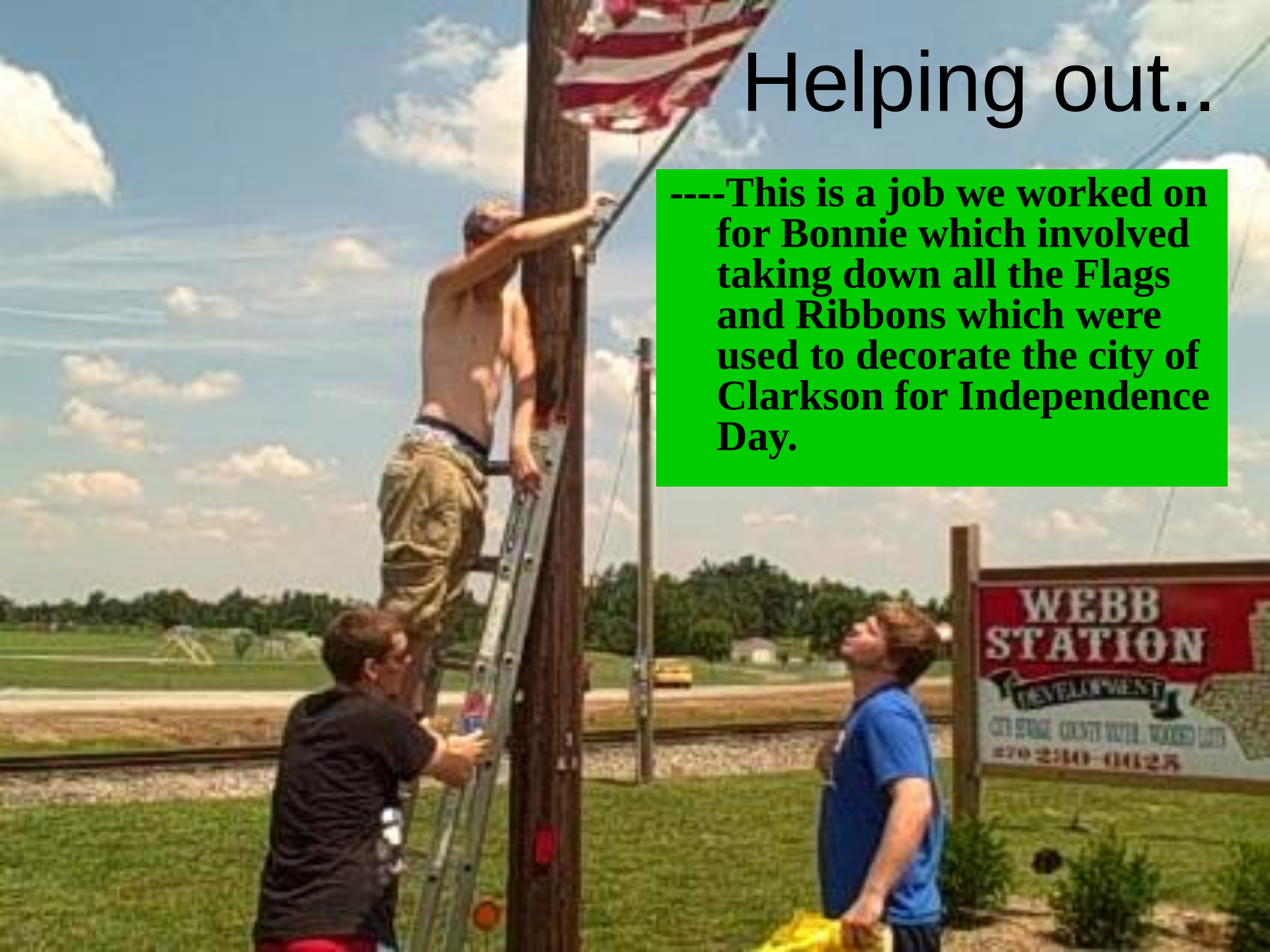
- **City Hall and Keith Jones---Playgrounds and City Park (put in the ducks)**
- **Neil and Brad Harrison---Sewage Plant and Clarkson Ball Park (Nature Trail)**
- **Judge Gary Logsdon---Landscaping at Judicial Building**
- **Bonnie Henderson---Clarkson Independence Day Flags and connective work with Neil.**





Helping out..

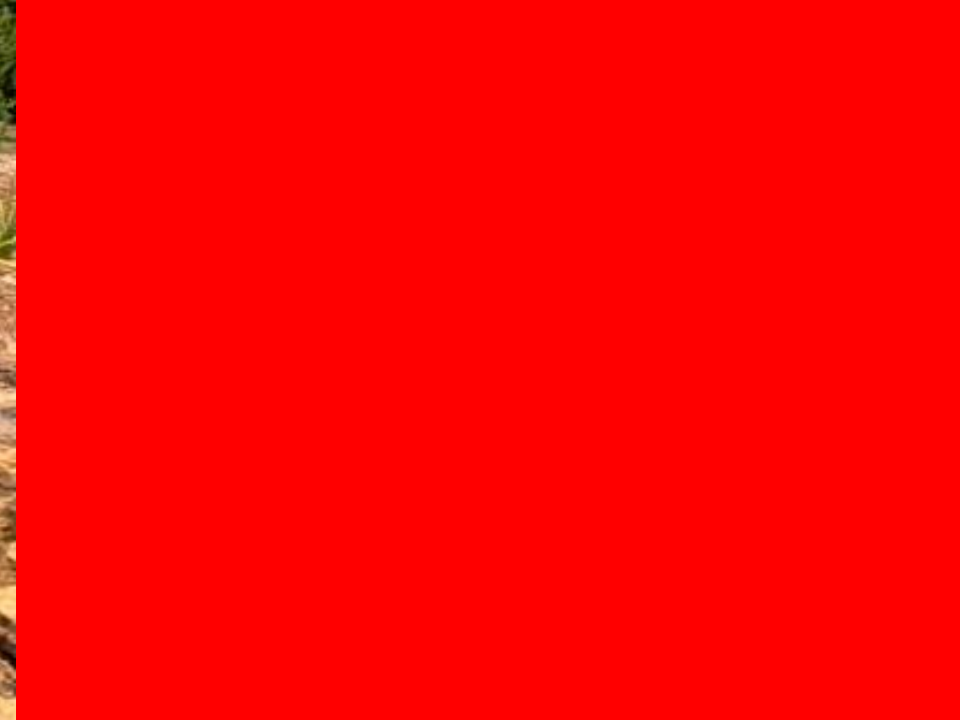
----This is a job we worked on for Bonnie which involved taking down all the Flags and Ribbons which were used to decorate the city of Clarkson for Independence Day.



Field Trips...

Salato

- We took the trip to Salato which taught us a lot about habitats and the environment and was very interesting and helped us on our habitat plan and... most important its where we got the idea of the rain garden.
- We would like our rain garden to be submitted towards the **2010 RAIN GARDENS BEFORE 2010**



Field Trips...

MTD

- We took a trip to Leitchfield's MTD (Modern Transmission Development) and went through an informative tour of the plant.
- We learned many interesting things involving renewable resources and recycling uses and the many benefits recycling has.
- For example MTD use to empty all their daily waste into their dumpster and dump it into the landfill which at some points they said they would have to empty it daily.
- Then they went to recycling and reusing their renewable resources in various ways and after their effort they went from as far as emptying their waste daily to emptying it once every 3 months.







Field Trips...

Leitchfield Recycling Center

- On our trip to the recycling center we learned about Keith Jones encounters and movements into trying to involve the city of Leitchfield more with recycling.
- And we learned more about how the recycling process itself works.



Field Trips...

Water Treatment Plant

- Out of all the trips we've taken, the trip to the Water Treatment Plant was our favorite and most interesting.

- **STAGES OF THE WATER TREATMENT PROCESS.**
- **HOW THEY TREAT IT.**
- **HOW THEY CLEAN IT.**
- **HOW LONG THEY HAVE TO SUPERVISE THE PLANT AND THAT THE PLANT IS UNDER WATCH 24/7–365.**
- **ABOUT TIBITITY LEVELS OF THE WATER.**
- **SURPRISINGLY GRAYSON COUNTY HAS SOME OF THE CLEANEST WATER STATE WIDE...LAST YEAR THEY RANKED IN THE TOP 3.**

- **Tibitivity Level** ---unit which measures how clean your water is.
 - We learned that the state of KY enforces your water tibitivity level to be at least .3 or less.
- They were running a .03 while we were there. So were able to drink .3 water and its at .03----which is outstanding.



Alliance with the Waterboyz....



---Throughout this program we The GREEN Guards have been working together a lot with the Waterboyz in all kinds of ways to help out the green community.





----For example we helped The WaterBoys with their *Water-Barrel* Project.



Energy Inventory

- [E:\INVENTORY.doc](#)
- *We did an energy inventory on this school and made a report on how the school could save energy.*

**4 Copiers
40 Printers
171 Computers
20 Refrigerators
36 Televisions
1 Dishwashers
4 Stoves/fryers
1 Vending machine
19 Microwaves
40 Air conditioners**



- Communicated with local citizens about recycling, reducing, and reusing.
- Hoping to save items from going to the local landfill station by placing them to sell on eBay.
- Any items not sold on eBay will then be donated the GCMS football team for a yard sale. Any items not sold there will be sent to the Wilson Youth Church Group for donation.



GREEN ISSUES

- We looked around the community to find ways to help and address issues.
- We found issues with habitat loss and water pollution.

SOLUTION:

Another project!?

-----The Green guards decided to take on two projects and combine the habitat and rain garden as one. We had a hard time finding native plants around here so it led us to believe that we could start a plant selling business of plants native to these parts..

Design a plan for a rain garden and then construct it in front of the Clarkson school

Our Rain Garden

- A rain garden is a planted area that allows rainwater runoff from urban areas like roofs, driveways, walkways, and compacted lawn areas the opportunity to be absorbed into conservation purposes instead of running straight to the sewage drains or polluting nearby creeks and streams.

This is another example...



---This is a picture of
the one in Salato.



So we took off with it...

-----We did a Percolation Test to see just how deep the area needed to be to have fertile enough for the rain garden to be successful.



.....Our Goal was to dig it into a ramped-like shape to bring the water from the pipes down into the garden and back up into the front. And we used the mulch as a anti-overflowing device because it absorbs water good and it is also a good fertilizer for the plants and attracts insects.







When we started with it this is pretty much what it looked like....it wasn't nothing special and that tree in the slide before was about completely dead....and it was affecting the rest of this area.

And this was a useful and helpful way to transform this area for the better.



- These are some more pictures of us trying to get the soil fertile and arrange it to where we can start planting and creating it.























---Us constructing the pipe used to direct the rainwater to the deeper part of the rain garden.









FINISHED PRODUCT



Possibilities.....

- We think another rain garden would become of great use around the old hospital in Leitchfield and maybe we could persuade someone to make this possible in the future.



Sources:

- *Bluegrass Pride*
- *Salato*
- *The Entrepreneurial leaders and guest speakers we had helped us a lot and accounted for around $\frac{1}{2}$ to $\frac{3}{4}$ of our information.*

Social Networking Site

- Together the three of us ended up with 653 points, 32 groups, 231 friends, and 551 activities.

Entrepreneurialship

- Throughout this program our group has really thought and explored about going out and starting our own potential business.
- Its inspired us and made us believe that we can actually do stuff like this in the future.
- And we created a business plan for business were wanting to start which involves selling native plants.
- We were glad to be a part of it this summer.