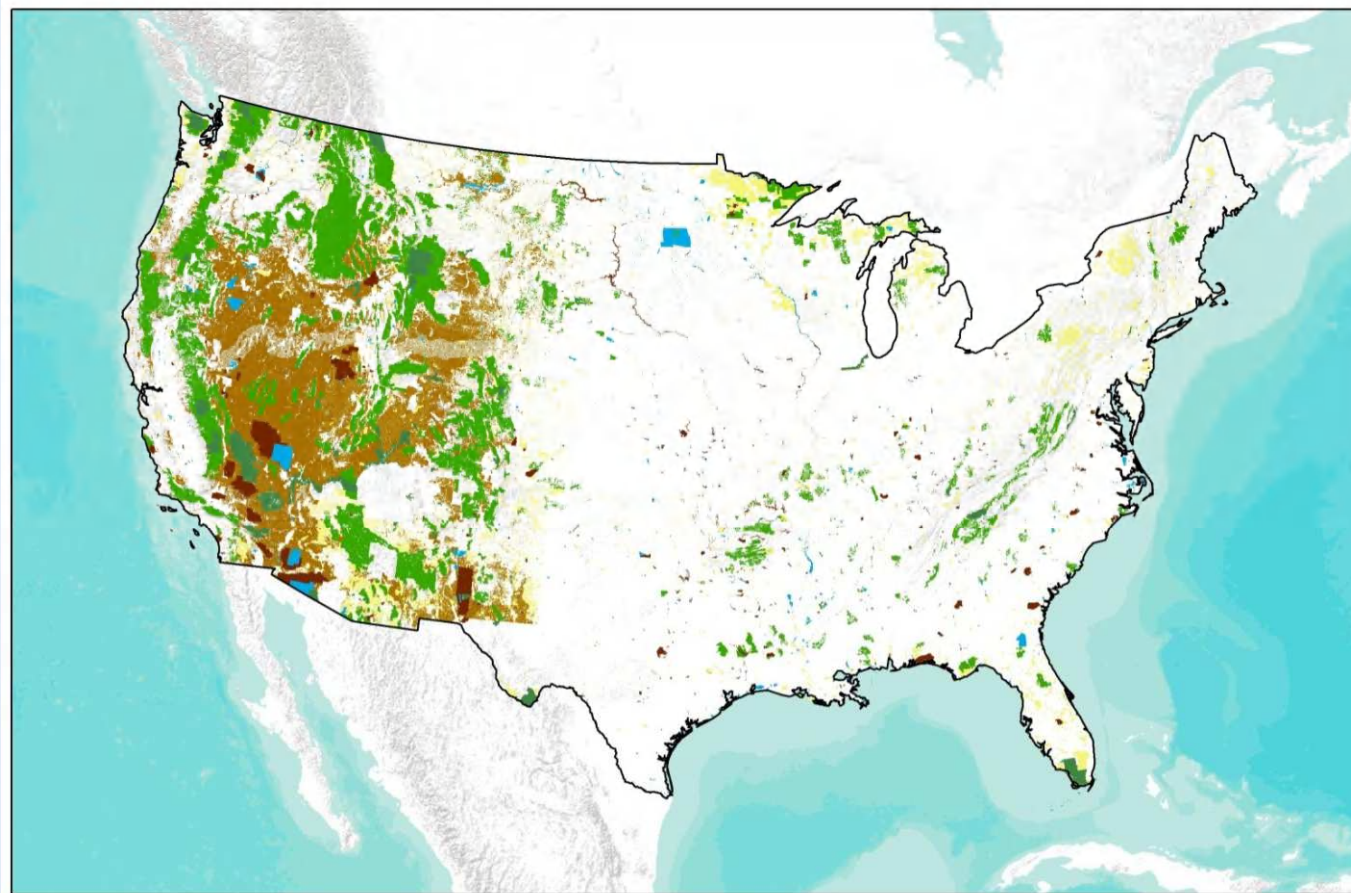


Creating Honey Corridors in Appalachia: Coal Country Beeworks



Federal Lands Map: U.S. govt. governs less than 38% percent, primarily in West



University of Idaho

World Terrain Basemap provided by ESRI

Appalachian Region

1. Most families make less than \$25,000 US dollars a year (average \$40,000)
2. High Illiteracy
3. Unemployment, except in coal mining
4. Young people migrate to cities and do not return



Surface mining accounts
for 50% of all coal mining
in Appalachia



Photo by Kit Cottrell

Deforestation

- 134 acres of forest land disappears every day in KY
- Combination of residential, transportation, industrial use
- Reforestation can address pollen-nectar “deserts” and “bloom gaps” and also reinvigorate forest-based beekeeping

Forest-Based Beekeeping since 300 A.D.



Appalachian Regional Reforestation Initiative

ARRI guides:

1. Loose soil
2. High value trees
3. Slopes less than 20°
4. Four-feet of Topsoil



Photo of American chestnut: courtesy of ECU Chris Radcliffe

American chestnuts: the Redwoods of the East





Pine Branch Chestnuts, 2009
22 beehives established Nov.2010
Photo courtesy of Robert Ray

Oxydendrum Arboretum: Sourwood Trees





- Blooms in July
- Bloom lasts until Oct.
- Honey is more profitable than other varietals
- Appalachian native

Photo: www.secludedgarden.com

Goals

- 3-season bloom: redbuds, tulip poplars, black locusts, basswoods, sourwoods, wildflowers
- Pollinator mediation increases seed set on mine sites
- Modified approach in 2010 to move bees to existing juvenile sourwoods areas and incorporated sourwood seeds into flower mix
- Partnered with KY Dept. of Fish and Wildlife to plant 3.15 pounds of flower seed per acre, totaling \$33,500.00. Total=398 acres of wildflowers on three surface mine sites in eastern KY in 2009-2010.
- Education and extension on site and in communities

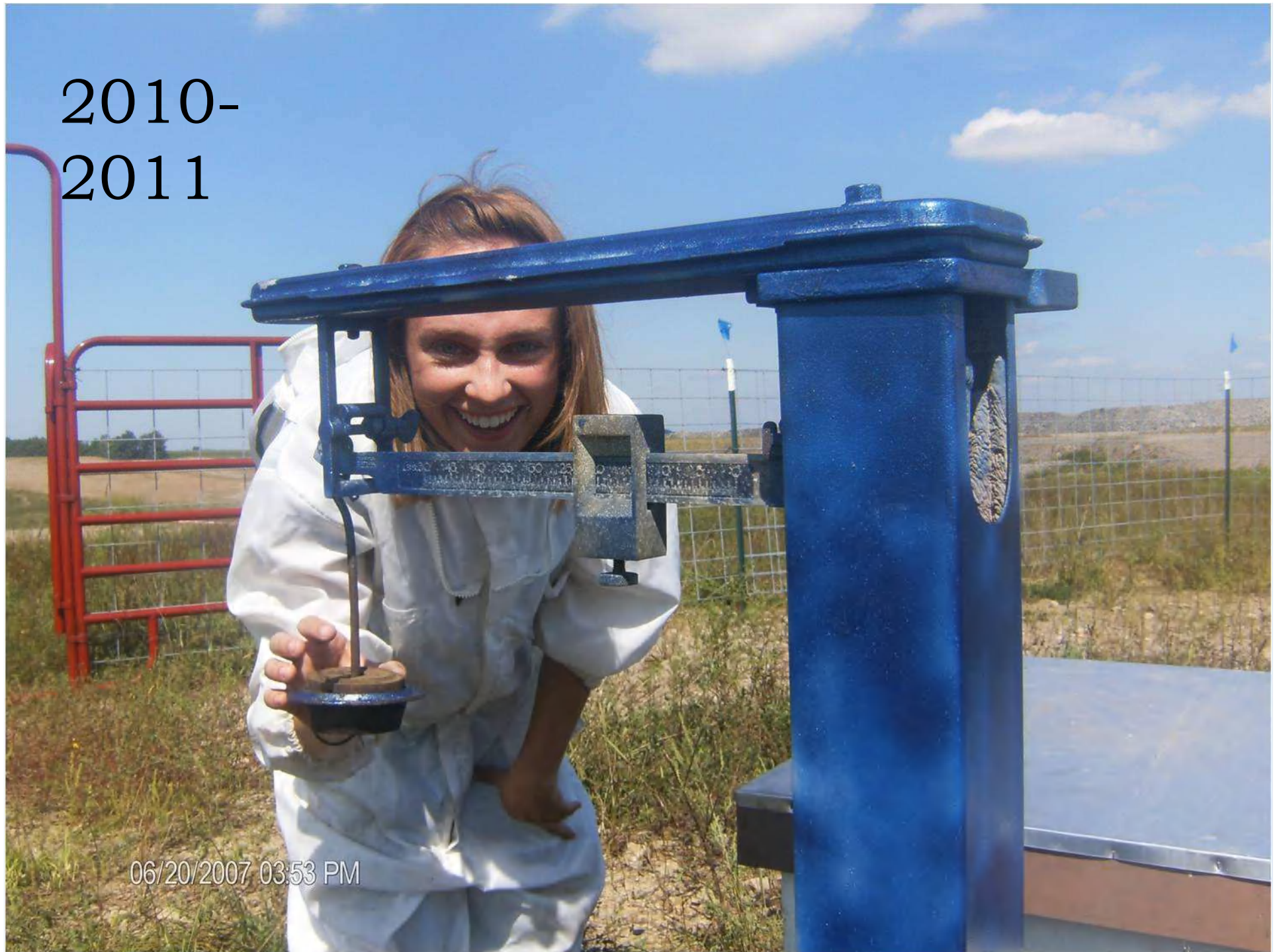
2008



2010



2010-
2011



06/20/2007 03:53 PM

Other research: native pollinators, queen production





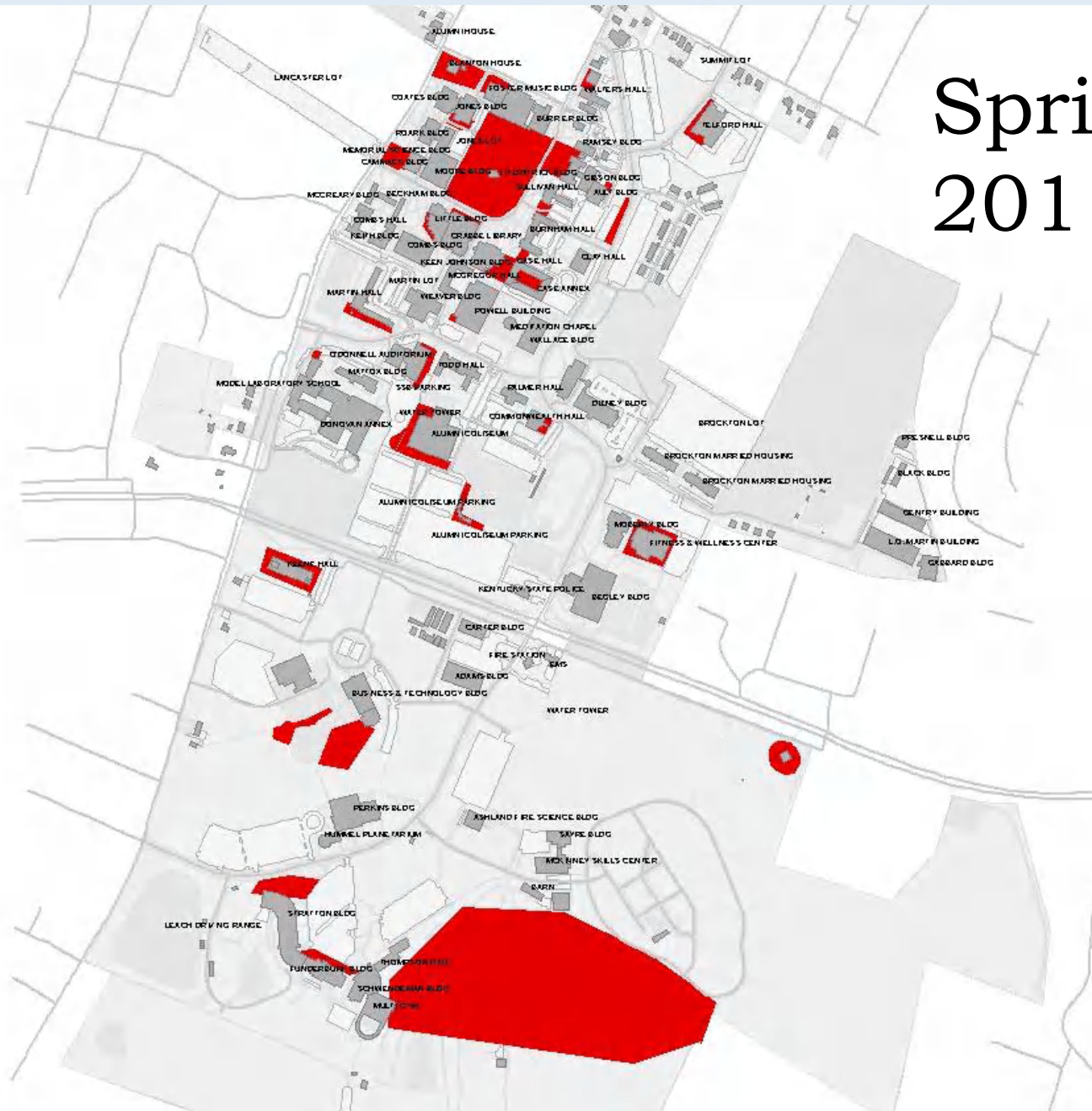
Comparisons

- 2008: 2 coal companies, 4 beeyards, 2 private grants
- 2 workshops
- Research—limited to survivor rates, basic maintenance
- Products:honey, classes
- Since 2011: 4 coal companies, 7 beeyards
- 4 on-site workshops, and one day-long bee school
- Research: NASA hive weight program, native pollinators, nutritional analysis of royal jelly
- 4 Grants
- Production: honey, queen bees, classes

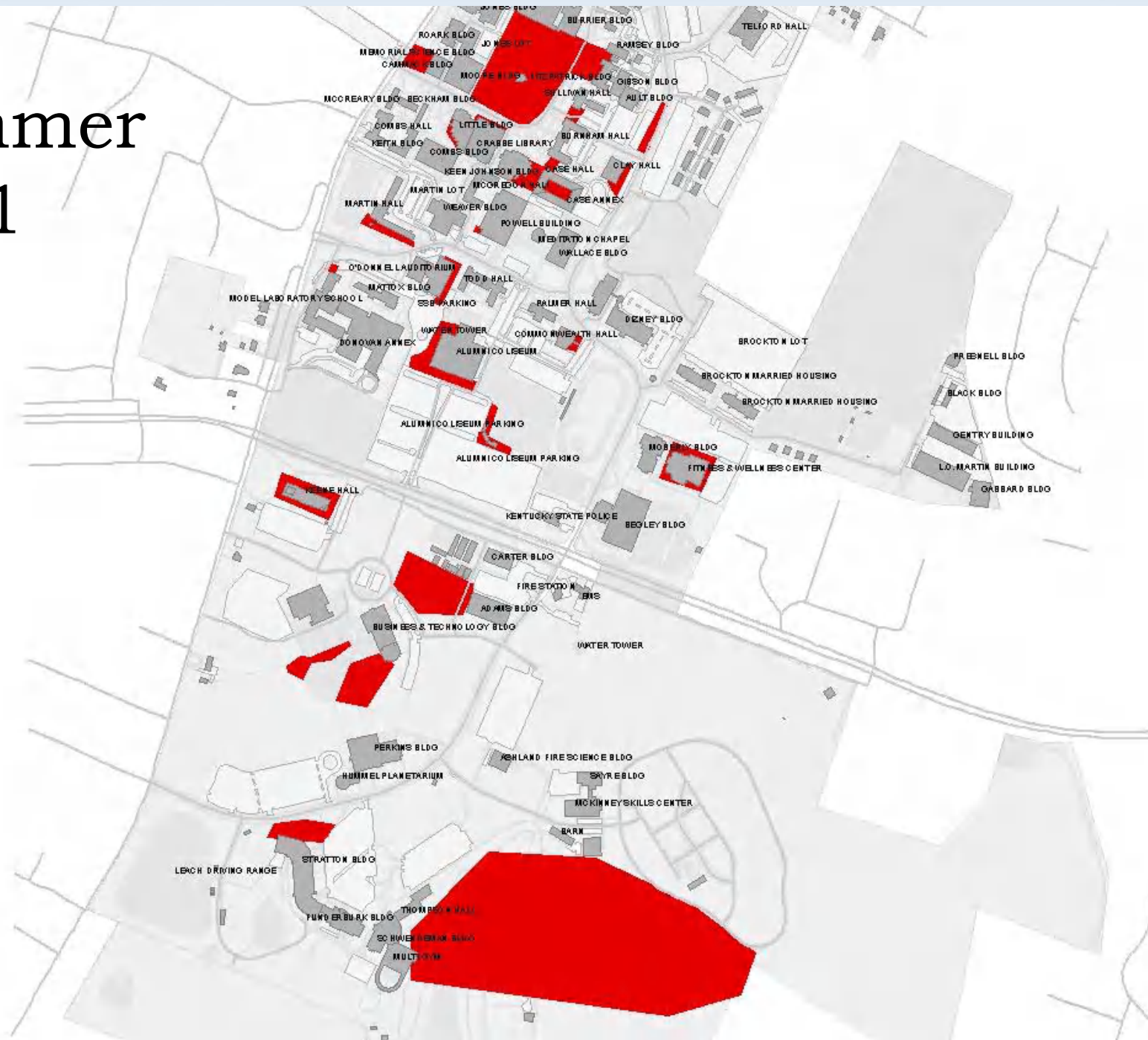
New Challenges

- Integrating 3-season bloom into public, taxpayer-financed lands such as universities, highway rights of way
- Funding
- Campus Criteria established
- Blending public desire for pastoral “aesthetic” with wildflower meadows, “trash trees” (trees with no timber value)

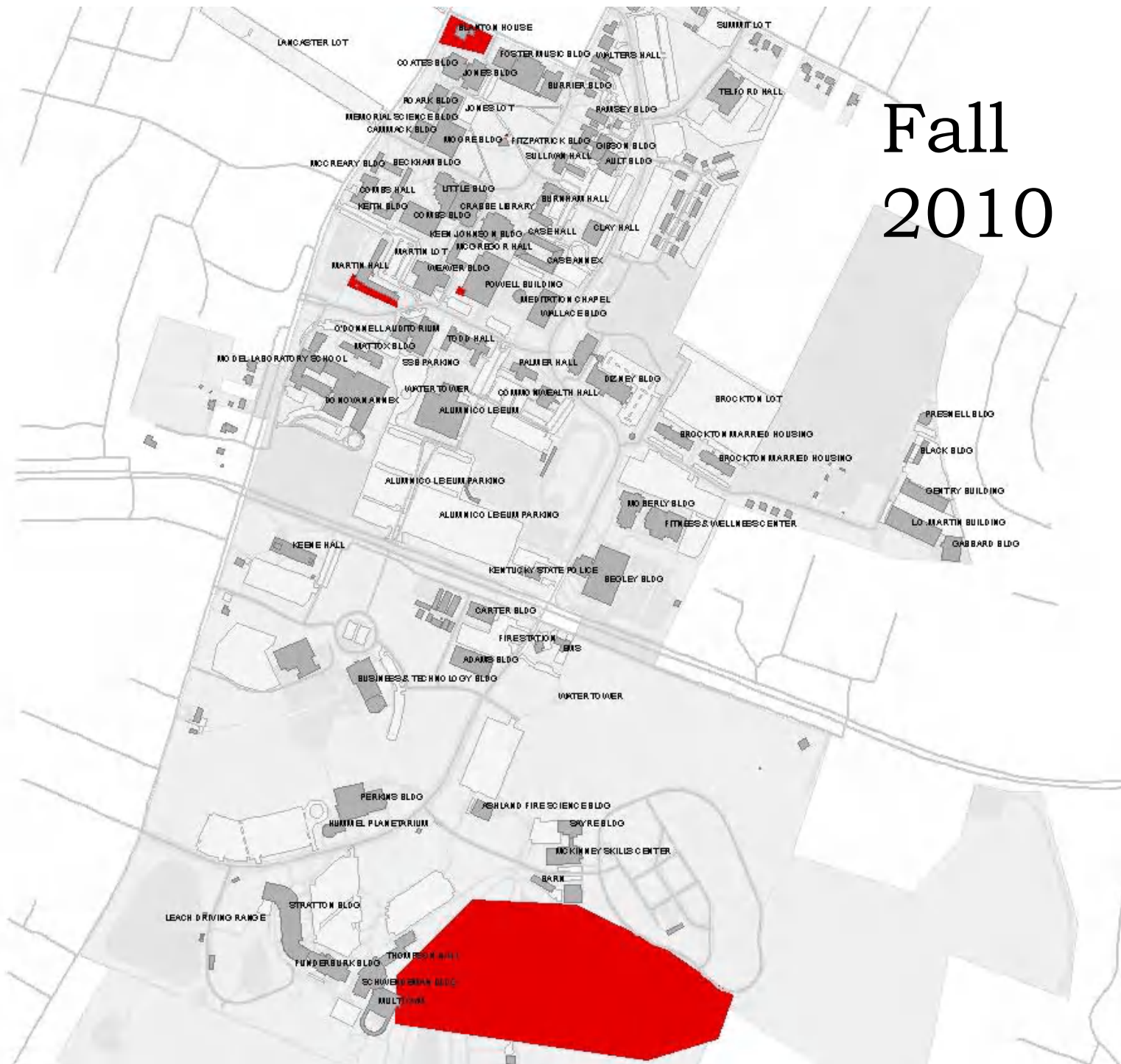
Spring 2011



Summer 2011



Fall 2010



Campus Criteria

- EKU: 20,000 dollars to re-landscape with pollinator habitat, emphasis on fall foliage
- Reduces mowing, maintenance
- Signs to educate/inform public about wildflower areas
- Adopt-a-hive program, 2012 led by Nan Campbell
- Integrate bee culture into Eastern Kentucky University Earth Days curriculum



A photograph of the Eastern Kentucky University sign. The sign is a dark brown rectangular plaque with white text. It is set against a backdrop of trees with vibrant autumn foliage in shades of orange, red, and yellow. A large evergreen tree is visible behind the sign. In the foreground, there is a low stone wall and a grassy area with a square metal grate.

EASTERN KENTUCKY UNIVERSITY

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Further Acknowledgments

- Foundation for the Preservation of Honey Bees grant
- Steele-Reese Foundation
- Pine Branch Coal, International Coal Group, James River Coal
- Kentucky Foundation for Women grant
- Kentucky Governor's Office for Ag Development
- Dr. Richard Scott

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