Switchgrass = S Fertilized = F Harvested = H

Prairie = P Unfertilized = UnF Unharvested = UnH

### Landscape Data Sheet – Large Scale

Name(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

School District:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Instructor/Fellow:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ School/Location Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Block Code: \_\_\_\_\_\_\_ Plot Treatment Description (Ex: P F UnH): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Before the Block of Plots was installed, what was the state of the site?

 lawn old field other:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. If the Block of Plots was installed in a lawn, was the lawn treated with fertilizer and/or broadleaf weed killer where the block was installed?

 Fertilizer: YES NO Weed Killer: YES NO

1. If the Block of Plots was installed in a lawn, is the surrounding lawn currently being treated with fertilizer and/or broadleaf weed killer?

 Fertilizer: YES or NO Weed Killer: YES or NO

Refer to the key to land cover categories and examples to help you identify land cover types on satellite images. After marking each grid with the color associated with the dominant land cover category, COUNT how many grids are in each:

**Land Cover Category and corresponding color key # of Grids % Land Cover**

**Farm \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_**

**Residential \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_**

**Pavement \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_**

**Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_**

**Soil \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_**

**Prairie \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_**

**Woods \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_**

**Water \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_**

**Other (Describe): \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_**

 **Total \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_100\_\_\_\_\_**

**Measure in millimeters (mm),** the distance from the center of the bioenergy block to the **closest**:

**Farm \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Residential \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Pavement \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Building \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Soil \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Prairie \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Woods \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Water \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Other \_\_\_\_\_\_\_\_\_\_\_\_\_**

Compile the class average for large scale % land cover for each land type and for the distance from the center of the bioenergy block to each land cover type. Submit this data along with the answers to questions 1 - 4 to the GK-12 website using the online google docs form.

Switchgrass = S Fertilized = F Harvested = H

Prairie = P Unfertilized = UnF Unharvested = UnH

### Landscape Data Sheet – Small Scale

Name(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

School District:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Instructor/Fellow:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ School/Location Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Block Code: \_\_\_\_\_\_\_ Plot Treatment Description (Ex: P F UnH): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Designate one person in each group to be the data recorder (groups of 3- one data recorder, two water levelers)**

**Part 1: Measuring Slope**

Group Number (1, 2, 3, or 4) \_\_\_\_\_\_

**Your group’s direction is** (N,S,E,W) \_\_\_\_\_\_

Level of vial 1 (edge of block; in meters):

Level of vial 2 (along transect; in meters):

Distance between vial 1 & 2 on transect (in meters):

**Calculating Slope (calculation can be done in the classroom by using the initial and final elevations recorded for the transect)**

Elevation: start (vial 1) \_\_\_\_\_ - Elevation: end (vial 2)\_\_\_\_\_\_ = Change in elevation \_\_\_\_\_\_\_

Change in elevation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = Slope

Distance traveled:

Slope = \_\_\_\_\_\_\_\_\_

**Part 2: Summarizing Land Cover Surrounding Bioenergy Blocks**

**Circle the dominant land cover type at each location along your transect:**

**0 m** Farm Lawn Hard Surface Building Bare Ground Field Woods Water

**10 m** Farm Lawn Hard Surface Building Bare Ground Field Woods Water

**20 m** Farm Lawn Hard Surface Building Bare Ground Field Woods Water

**30 m** Farm Lawn Hard Surface Building Bare Ground Field Woods Water

**40 m** Farm Lawn Hard Surface Building Bare Ground Field Woods Water

**50 m** Farm Lawn Hard Surface Building Bare Ground Field Woods Water

Total: \_\_\_\_ \_\_\_\_ \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ \_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_

**Summarizing Land Cover (back in classroom-all groups working on one block get together)**

**Total Quadrats in your block (from all four directions) that falls into each Land Cover type:**

**Group** Farm Lawn Hard Surface Building Bare Ground Field Woods Water

**1** \_\_\_\_ \_\_\_\_ \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ \_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_

**2** \_\_\_\_ \_\_\_\_ \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ \_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_

**3** \_\_\_\_ \_\_\_\_ \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ \_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_

**4** \_\_\_\_ \_\_\_\_ \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ \_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_

Block total (from all four groups):

**Total** \_\_\_\_ \_\_\_\_ \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ \_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_

How many quadrats were sampled from your block (add up all categories in the “total” row)? \_\_\_\_\_\_\_

**Convert to Percent Land Cover Type**

 Example: Total Quadrats in Farm-6, Total Number of Quadrats- 24

 6 / 24 \*100= 25%

 Total Quadrats in Each **Category /** Total **# of Quadrats** Sampled **% Land Cover**

Farm \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_%

Lawn \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_%

Hard Surface \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_%

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_%

Bare Ground \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_%

Field \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_%

Woods \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_%

Water \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_%

For each block of plots submit the small scale % land cover as well as the compass direction and slope for each transect to the GK-12 website using the online google docs form.