**Water SWAT Team Meeting**

*In attendance: Art Schmidt, Kishore Rajagopalan, Rabin Bhattarai, John Berens, Lauren Excell, Stephanie Cash*

1. Discussion of upcoming joint meeting with Agriculture, Land Use, Food and Sequestration (ALUF) SWAT
   1. ALUF objectives from iCAP that pertain to Water SWAT include:
      1. Design and maintain campus landscapes in a more sustainable manner
      2. Incorporate sustainability principles more fully into Campus Master Plan
      3. Reduce nitrates in agricultural runoff and subsurface drainage by 50% from the FY15 baseline by FY22
   2. Potential topics for joint meeting:
      1. Watershed delineation and campus landscape performance report by Scott Douglas (graduate student in landscape architecture). Potential to expand study to more areas on campus.
      2. Landscape opportunities: Unused turf grass, suggested plantings for pollinators, green roofs
      3. Stormwater opportunities: rain gardens, rain barrels, testing stormwater quality
      4. Water Use Inventory: How frequently are irrigation trucks used? What is the source?
2. Greywater resources posted to Water SWAT collaborative folder (in U of I Box account)
   1. Water Reuse Handbook by Public Commission of Chicago, 2011, can be used as a reference for suggestions to developing greywater standards
   2. Summary of Illinois Plumbing Code 2014 updates (from presentation to Illinois Section American Water Works Association (ISAWWA) by Justin DeWitt)
      1. Greywater use must be approved and monitored by Illinois Department of Public Health
3. Ideas for student projects and outreach
   1. Website to gather georeferenced photos of drainage problems and other issues for F&S
      1. For example, a student could take a picture of sidewalk settling, grading to drain no longer functional and upload it to the website for F&S inventory
      2. Contact computer science students with idea to develop phone app
   2. Analysis of green roofs and solar panels
      1. Potential questions: Are there locations where green roofs would be more beneficial than solar panels and vice versa? Is it possible to have a green roof with solar panels by using shade tolerant plants such as vinca? Would it be beneficial to use vertical surfaces as green walls? How do green roofs compare to temporary plantings with simple scaffolding, such as Kudzu for temperature shading?
      2. National Renewable Energy Laboratory (NREL) has software that uses Google Earth to determine roof areas, amount of shade and other data that can be used to determine solar power potential for buildings.
      3. There are plans to tear down the green roof on BIF to build to additional stories and install solar panels on the new roof
      4. Two metereologic stations will be used on Newmark as part of a field methods class in the fall. The data can be made available from Yeh’s center.
4. Discussion of stormwater quality monitoring
   1. Water quality measurements from the USGS website for Boneyard Creek have not been updated in years
   2. Phosphorus is of special concern for agricultural fields with tile systems with no gradient and little runoff. (Phosphorus is the limiting nutrient for algae. Excessive algae growth leads to hypoxia. Phosphorus will continue to leach for 10 to 15 years after application. Phosphorus measurements should consider particulate and suspended forms.)
      1. Ideas: SSC proposal to fund collection of samples from large stormwater sewer running through campus (along Goodwin Ave). Possibility of obtaining a donated pocket sensor from companies such as YSI Inc, Hawk, Hydrolab, Ott.
      2. Potential questions: Where is the larger load per acre, in urbanized areas or agricultural fields? What is the impact of phosphorus detergents? What is the baseline level of phosphorus and how does this tie into flows? How does water quality differ in certain areas such as the Quad or 6th Street?