IMPORTANCE OF WATERSHED CARBON

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Dissolved Organic Carbon

- Photosynthesis
- Range of Molecules < 0.45 um
- Dissolved and Particulate
- Microbial Substrate
- Protects Aquatic Fauna from UV Light
- Transporter of metals and pollutants
- Implicated in Trihalomethane Production
- Loss from Watershed represents Loss of Soil C
Does it matter from where in the Watershed it is derived?

- DOC and *E. coli* link
Carbon and Nitrogen are limiting for growth of *E. coli* in vitro.

**Figure 2.6** Biodegradability of DOC, TDN and PO₄-P under control, low, medium and high DOC concentrations. Error bars are standard deviation. Difference in lowercase letters (abc) indicate a significant difference between leaf extracts; between (xyz) grass extracts and * a significant difference between leaf and grass extracts at each quantity of initial DOC. Significant difference is α < 0.05.
y = 0.2065x + 1.9239
R² = 0.91

y = -0.0014x + 2.6254
R² = 0.53
BMP’s to keep C and N on the Landscape

- Run ON not Run OFF
- Don’t over irrigate
- Rain Harvesting – Keep water on your Land
- Rain Gardens
- Wet Cells
- Detention Ponds
- Grassy Swales
- Avoid vegetation getting into road gutters and storm drains