Aerial Maps

We have 5 aerial photographs of the Centennial Woods area taken from 1937 to 1999. We colored these according to a key in order to compare and contrast them, thus telling us the history of the area.

• 1937 was a year of mostly farming; with small roads connect fields and farms. There was very little moving water such as streams and little housing. 40% of the land is forest.
• 1962 the forest grew in more and housing was greatly expanded. The big event of this time was the building of the road, I-89. There was 50% forested land.
• By 1974 the interstate was finished and the forest was growing back in on the farmland but the forest size actually decreased to 40%. Cutting of the forest for land use and power lines caused this.
• In 1988 the forest is growing back and increases to 45%. The power lines are there and other building developments occur.
• In 1999 there is a lot of housing and roads. There is very little bare ground and the forest has grown to 60% of the land.
• Between 1937 and 1999 the developed land increased by 20%

Human Impact and the Environmental History of Centennial Woods

Our Goal at the Governor’s Institute for Science and Technology is to quantify the human impact on the natural landscape of Centennial Woods and its water shed.
In testing soil, we dug 1m³ pits in three different locations in the forest where we quantified the different layers of soil by texture, structure, color, and pH. From our data, we determined that the soil from all layers had a consistently low pH (acidic) and deep layers of sand. This is consistent with the large amount of pines in the forest (pines grow well in sandy conditions and are able to tolerate the pH level). It is interesting to note that the pit dug in a former orchard contained the most fertile soil, and the pit dug in a bunker contained many shards of bottle glass. This again displays the large impact humans have on the environment.

At each of the water sampling sites the pH, conductivity, temperature, dissolved oxygen, width, depth, velocity, and phosphorus levels were measured. These measurements showed us how humans have affected the water systems in Centennial Woods. The water sites near the road had high levels of conductivity, and as the water system progressed the conductivity decreased. Non-point pollution and human impact has an adverse effect on this environment.

There are many species found in Centennial Woods. Here are some of the species that could be found:

Site B: White Breasted Nuthatch, Wood Thrush, Least Flycatcher.
Site C: Downy Woodpecker, Northern Cardinal, Woodland Vole.
Site D: Eastern Garter Snake, Ruffed Grouse, White Footed Mouse.