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### Runnins River Project

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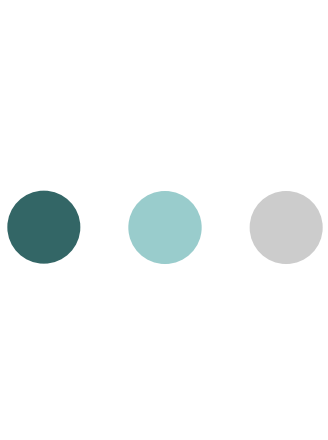
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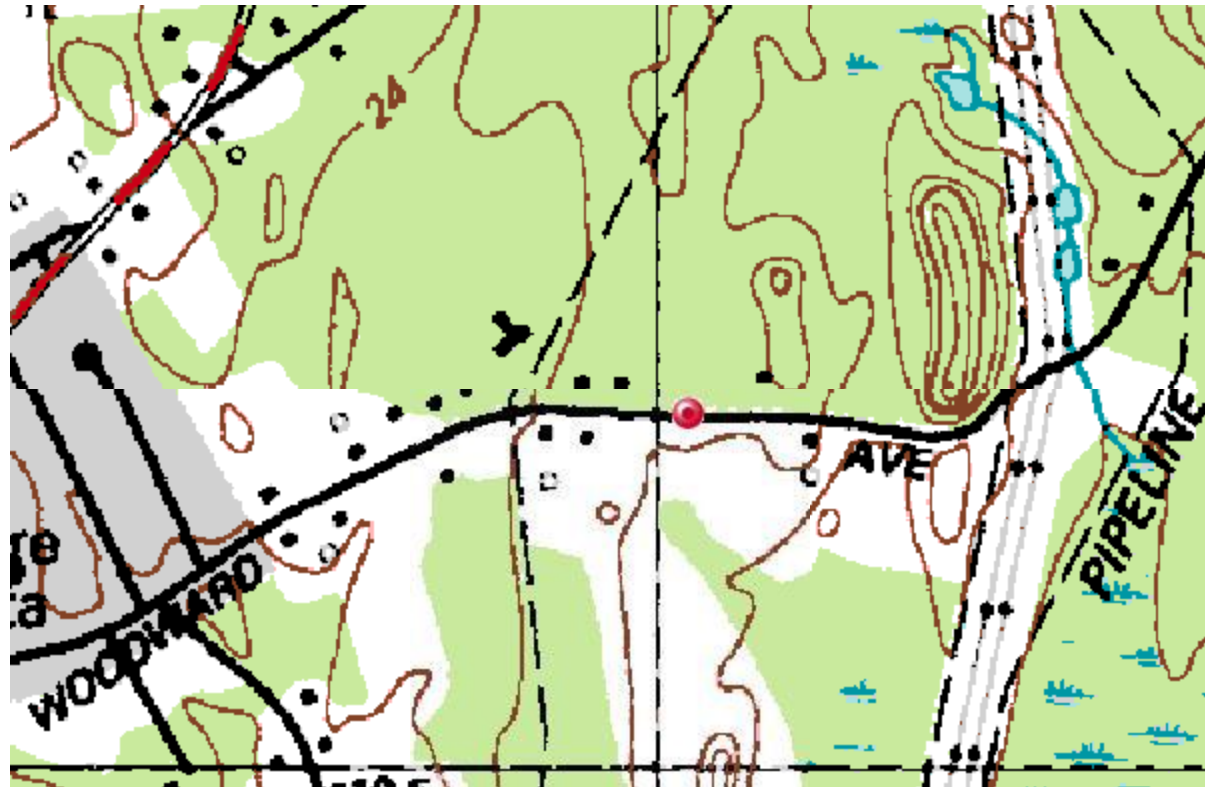
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# Runnins River Project

**By: Jacob Teixeira, Seth Sirois,  
Ashley Hurst, Laura Cota, Mikayla  
Amaral, and Stephanie Valente**

# The Runnins River





# Weather

- Cold
- Cloudy
- Drizzling





# Measuring Flow

- **String a rope across the river**
- **Divide the rope into sections**
- **After measuring the depth of the sections you put the flow meter in the middle of the section to have the Meter read the flow**
- **Repeat**



# Flow Data

- In this aspect of the of the experiment we found out the flow of the river in different portions of the river. To do this we used the flow meter. The discharge in the river was between .78 and .142. This told us if the rivers flow was normal or above or below normal. When we tested the river it was normal.



# Depth Analysis

- In the depth analysis we found out how deep the river was in sections using the flow meter.
- The flow meter has a measuring tool on it to calculate depth.
- The rivers depth was between .43 and .73 ft all the way across it.



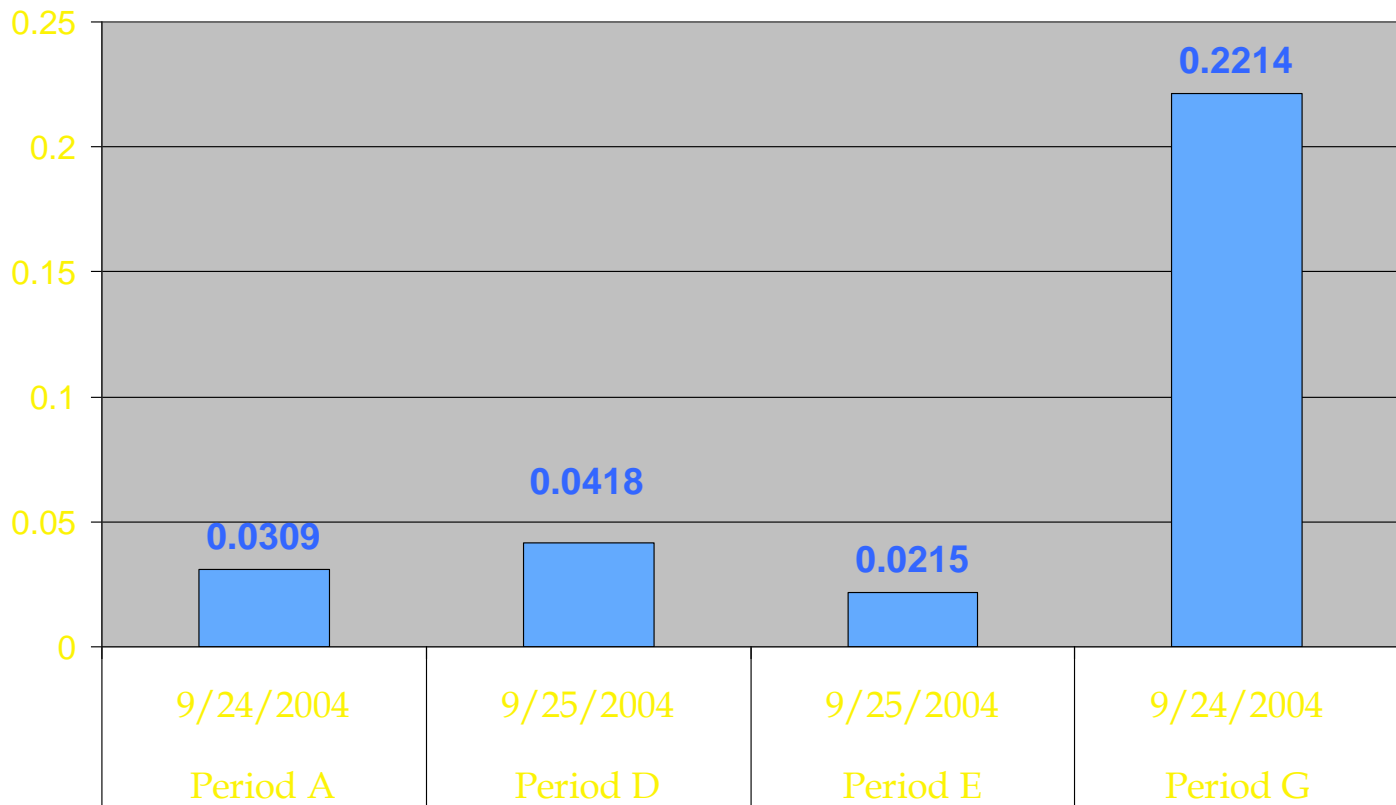
# Measuring Phosphate

- Our class used the Hach 2010 Machine and programmed it.
- We then filled the first 10ml sample cell with 10 ml of the Runnins River sample we collected.
- Then we added the contents of one PhosVer 3 Phosphate Pillows for a 10ml sample to the cell.
- We filled the second 10ml sample cell with 10ml of the Runnins River water sample.
- We used the Hach 2010 machine to read the mg/l data.
- Later we subtracted the correlation factor from this absorbance.
- Once we subtracted the correlation factor we used the  $x = (y - b) / m$  equation on the standard curve to determine the concentration.
- $X \text{ (concentration)} = Y \text{ (Corrected absorb)} - B \text{ (y-intercept)} / m \text{ (slope)}$



# Phosphate Chart

Woodward Road Average=  
0.0215 (mg/L)



# Phosphate Data

- Our phosphate data indicated a measured phosphorous level of 0.0215 per liter.





# Macro invertebrate Collection and I.D

- Collected all the water and mud into a plastic box
- To make the mud more have a more liquid like consistency we had to put alcohol or water in it
- Then each group had a spot in the box
- we then removed the macro vertebrates to observe and classify under the stereoscope
- we remove the macro vertebrates from the Petri dish and put them into a vile

# Macro Data

In the stream  
we found:

- 12 Amphipoda
- 9 Diptera: Chironomidae
- 11 Coleoptera
- 7 Trichoptera



Trichoptera



Amphipoda

# Biodiversity

•The biodiversity is that the Runnins River has free-floating aquatic plants, the fish are small, there is plenty of algae and it is green. We did find macro invertebrates but not many. They are insects, crayfish, and wormlike organisms.





# Conclusion

- **Out of this experiment we found that the river was moderately impaired.**
- **We found this by analyzing the phosphate macro invertebrates and flow data from the Runnins River.**



● ● ● | Thank You for your  
Time!



**Mrs. Borden & Mrs. Cunard  
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Mrs. McGovern**