Education Summary- APEGNB

Throughout May and June 2017, NWAI successfully completed science-based field trips with at least one class from every school in the watershed. Classes from Gibson-Neill, Barker’s Point, Harold Sappier, Stanley Consolidated, Nashwaak Valley School, and the Fredericton Christian Academy were taken into the field to learn about the Nashwaak and the watershed. A total of just under 300 students were reached through this preliminary education program.

Field trips were two hours long, with three components; a watershed lesson, an erosion, stabilization and restoration lesson, and a biology lesson. The first activity used a watershed model to illustrate what a watershed is, and how pollution or contamination in one small area of the watershed can influence and affect the entire area. Students had the opportunity to interact with the model, coming up with sources of pollution, and mixing up “polluted” water and pouring it into a tributary to watch how it affected the watershed as a whole.

The second activity was a lesson on riverbank erosion, and the various methods of restoration. Students walked along the riverbank, examining the different areas where vegetation had stabilized the soil, learned about what erosion is, the physical causes of erosion, looked at areas where there was low and moderate erosion, and looked at a severely eroded area. Students learned about the restoration projects that NWAI is working on, including silver maple planting throughout the floodplain, and willow planting along the banks for soil stabilization and erosion prevention. Finally, in examining the severely eroded portion of bank, students learned about the engineering survey that was completed on the area, and about the various engineering techniques that will be used to restore the bank in that area.

The final activity was a biology lesson on benthic macroinvertebrates, which is taught through a critter dipping activity. Students were given nets and instruction on how best to find bottom-dwelling critters, then collected their critters in a large tank so that all students could see what had been found. Students then learned about invertebrate morphology, life cycles, identification, and about pollution tolerance and benthic macroinvertebrate bioindication of water quality.

Finally, students were sent home with a worksheet containing some fun activities to sum up all of the topics that were covered on the field trip.