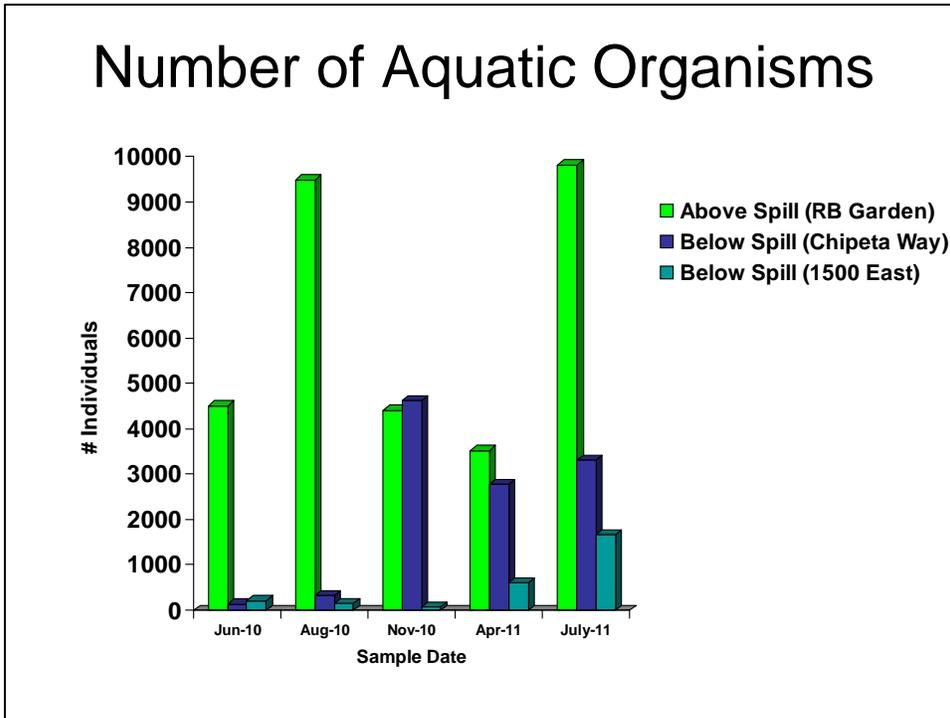


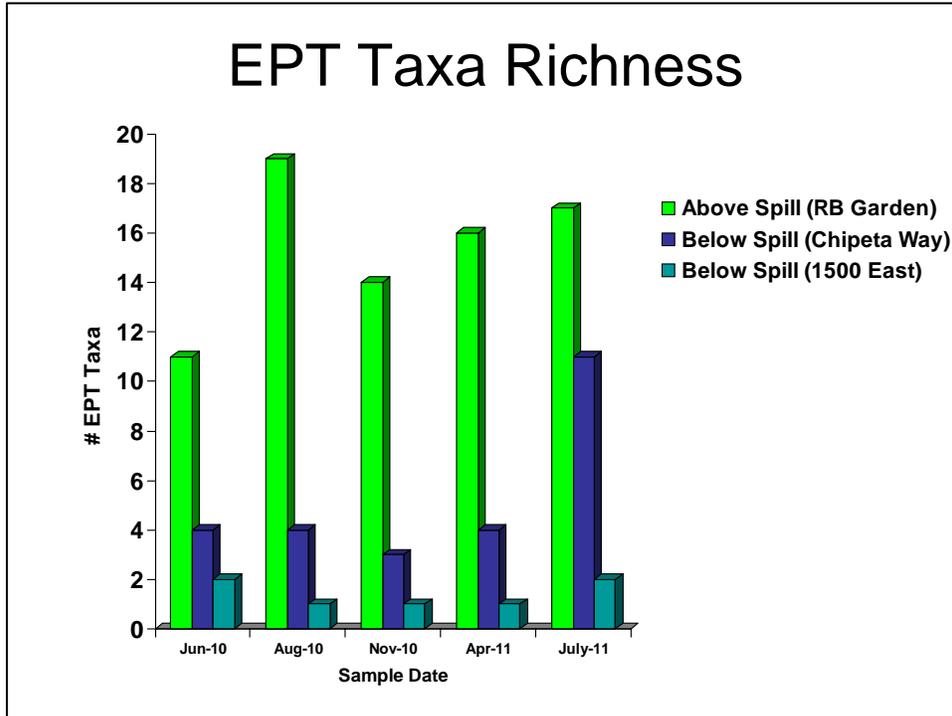
Taxa richness is a tally of how many different kinds of organisms are present. It's a good metric to compare broad community diversity and structure. However, it lacks the ability to describe the composition of the community. For example, how many groups are pollutant-tolerant versus intolerant? Although we'd expect some diversity reduction from upstream to downstream due to some 'urban-effect', the degree it appears in RBC is beyond that effect. For example, the Chipeta Way site is located only 500 yards downstream of the Red Butte garden site, yet on average contains half the number of richness.

Update: The July 2011 sample reveals improvements (increases) in invertebrate diversity in the oil-impacted site locations.



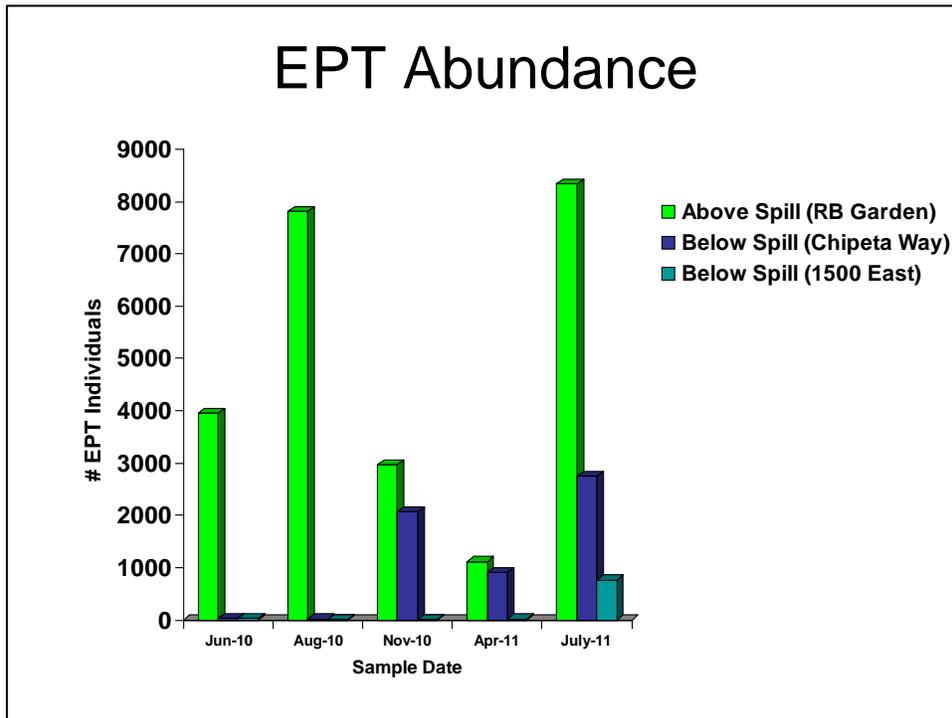
This measure is tallying how many aquatic organisms were collected. Note the improvement in the Chipeta Way site since November 2010 while the 1500 E (Miller Park) location continues to be very reduced. Bear in mind that the individuals counted in the Chipeta Way location predominately consist of three taxa (mayfly, blackfly, and midge) which comprise 97% of the sample compared to 79% above the spill. In other words, this location is improving in overall numbers, however the diversity in the community is relatively homogenous.

Update: The most dramatic improvements to the overall number of aquatic organisms for the July 2011 sample was found at the 1500 East location.



EPT Taxa Richness is a tally of how many (E)phemeroptera, (P)lecoptera, and (T)richoptera groups were collected. Ephemeroptera (mayflies), Plecoptera (stoneflies), and Trichoptera (caddisflies) groups are generally more sensitive to various types of pollutants and other changes to their environment. This measure provides a better understanding of the community composition at each site. Notice that many of the more sensitive taxa (groups) have not recovered in locations affected by the oil spill.

Update: The July 2011 sample estimates that EPT diversity at the Chipeta Way location nearly tripled since April 2011. Additionally, the 1500 East location adds another EPT taxon.



EPT abundance is the number of individuals collected representing EPT groups. Notice in November 2010, the Chipeta Way site begins to populate with some EPT taxa. However, the EPT population is predominately dominated by one taxon, Baetis mayfly, which represents 98% of EPT while only representing 68% of EPT above the spill. Additionally, the 1500 East location has yet to establish any EPT population.

Update: The July 2011 sample reveals that the EPT population has increased in the oil-impacted sites from year over year. The 1500 East location has established a Baetis population; while the Chipeta Way location experienced increased EPT abundance overall. However, 92% of the Chipeta Way EPT taxa abundance is attributed to Baetis; whereas 63% of EPT taxa is attributed to Baetis above the spill. This suggests the newest EPT taxa have yet to gain a comparable population at this location.