Assignment example

Science, Biology

Water Chemistry Water is a very important substance to mankind. Its properties and composition is mainly influenced by the surroundings. It is therefore possible to tell the source of a water sample basing on its properties. This paper shall identify the sources of three given samples of water basing on the data presented.

Site one is an agricultural area. Water from this site has high nitrate and nitrite concentrations due to agricultural fertilizers. In addition, it has low transparency due to erosion, average conductivity due to the presence of dissolved nitrate and phosphate salts from fertilizers. Biodiversity and abundance in the same water is also average, relatively lower than site three because of less favorable habitats in agricultural lands.

Site two, on the other hand, is an urban area. The Institute for Natural Resources, nd, paragraph 4 describes water from such sites to have the lowest biodiversity and abundance due to less favorable habitats, high concentration of dissolved heavy metals like Lead and Copper from industries as is the case here. The water also has the lowest pH as a result of dissolved acidic gases from the atmosphere, highest conductivity due to high concentrations of dissolved salts picked up by run-off. Furthermore, it has high Biological Oxygen Demand due to high temperatures from rooftops and pavements.

Site three is open woodland. Water from this site has the highest biodiversity and abundance due to favorable habitats, low Biological Oxygen Demand because of low temperatures, lowest conductivity due to low concentrations of dissolved salts. In addition, fecal bacteria are high due to uncontrolled wastes. The same has lowest concentrations of nitrates, phosphates, Copper,

Lead and dissolves salts due to absence of pollutants (Institute for Natural Resources, nd, par 4)

It is therefore clear that the quality of water relies on the source, natural environments are best.

Work Cited

Institute For Natural Resources n. d What Factors Affect Water Quality? Retrieved on 26th April 2014 from http://oregonexplorer. info/umpqua/WaterQuality/WaterQualityFactors