**WK05 READING**

***Task 1: Summarize the main points of each section of Text I using your own words.***

**Background and problem**

* The impact of land use on water quality and biological integrity in West Branch of the Elizabeth River in New Jersey
* The purpose of the investigation is to \_determine local scale spatial and temporal variability in water quality in this area, so that watershed management initiatives can be taken. Specifically, fecal coliform, nutrients, pH, and dissolved oxygen are tested.

**The Sampling Design and Field Study**

* The sample design sites in land use in urban watersheds.
* The analysis of samples were consistent with a Quality Assurance Project Plan approved by the NJDEP.

**Test Results**

* The geometric mean of fecal coliform count exceeds the EPA standards of 200 org/100 ml at all sites.
* The mean values of total phosphorus concentration in all six sites typically exceed the criteria value (0.1 mg/l) most of the time.
* Dissolved oxygen is lower than the standard 5 mg/l at all six sites.
* Specific values of the parameters vary from site to site.

**Site Specific Discussion**

Site 1: Geese and nutrient management practices are recommended in upstream land use.

Site 2: A fertilizer management plan is recommended to reduce pH.

Site 3: The recommendation is the restoration of native species and educational outreach to the residents on non-point source pollution.

Site 4: The specific management plans include the restoration of native species and restrictive mowing of the stream corridor, and educational outreach to the residents on non-point source pollution.

Site 5: Nutrient management practices are recommended such as residential yard care practices and educational outreach.

Site 6: Sub-watershed level land use management is recommended.

**Conclusions**

* Land uses impact surface water quality.
* Reduction in vegetation by urbanization degrades the terrestrial and aquatic habitat and increases nutrient loading.
* Management practices are necessary to mitigate the impacts of land use and reduction of vegetation.

***Task 2: Identify the potential similarities and differences between Text I and the technical reports in Unit 2, and note down your points freely since there is no standardized answer.***

Similarities:

They have the same basic structure including Purpose, Method/Procedures, Results, Analysis/Discussion, Conclusion and Recommendation.

Differences:

Text I doesn't has a table of contents as a normal technical report does.