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**Date: 1/17/2017**

**Instructor’s Name: Lindsey Nieratka**

**Assignment: SCIE211 Phase 1 Lab Report**

**Title: Human Impacts on the Sustainability of Groundwater**

**Instructions:** You will need to write a 1-page lab report using the scientific method to answer the following question:

· If current human development does not change, will groundwater sustainability be affected?

**When your lab report is complete, post it in Submitted Assignment files.**

**Part I:** Using the time progression of industrialization and human development, fill in the data table below to help you write up your lab report.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Time Period | Impact to Forest | Groundwater Levels | Saltwater Intrusion | Farming | Industrial development | Population |
| 1800s | Large Forests | Lots of Groundwater | No salt water intrusion | Small farms | No cities | Limited housing |
| 1900s | Decreased by 50% | Decreased by 50% | Ocean moved into groundwater | Farms are larger, but there are fewer | Exceptional growth of cities and industrial development | Substantial increase in housing |
| 2000s | Decreased by 90% | Decreased by 90% | Greater movement of ocean into ground water | Same number of farms, but size decreased by 20% | Industial development decreased by 10-15% | Housing development decresed 10-15% |
|  |  |  |  |  |  |  |

**Part II:** Write a 1-page lab report using the following scientific method sections:

* **Purpose**
  + State the purpose of the lab.
* **Introduction**
  + This is an investigation of what is currently known about the question being asked. Use background information from credible references to write a short summary about concepts in the lab. List and cite references in APA style.
* **Hypothesis/Predicted Outcome**
  + A *hypothesis* is an educated guess. Based on what you have learned and written about in the Introduction, state what you expect to be the results of the lab procedures.
* **Methods**
  + Summarize the procedures that you used in the lab. The Methods section should also state clearly how data (numbers) were collected during the lab; this will be reported in the Results/Outcome section.
* **Results/Outcome**
  + Provide here any results or data that were generated while doing the lab procedure.
* **Discussion/Analysis**
  + In this section, state clearly whether you obtained the expected results, and if the outcome was as expected.
  + Note: You can use the lab data to help you discuss the results and what you learned.

Provide references in APA format. This includes a reference list and in-text citations for references used in the Introduction section.

Give your paper a title and number, and identify each section as specified above. Although the hypothesis will be a 1-sentence answer, the other sections will need to be paragraphs to adequately explain your experiment.