**Water Quality Numbers Webquest – Chemical factors**

Go to the Website <http://www.h2ou.com/h2wtrqual.htm> to find out what the water quality data we have gathered actually means to the quality of drinking water and the habitat for wildlife such as fish

**pH**

1. What does pH stand for? What does it actually measure?
2. Describe the pH scale including the following terms, basic, acidic, and neutral.
3. Name 2 factors that affect the pH of water?
4. What is the pH range of tolerance for most fish species?

**Ammonia**

1. What is the level of tolerance of fish to Ammonia?
2. What do oxygen pH and temperature have to do with the toxicity of ammonia?
3. What is the source of most Ammonia in water?

**Nitrate**

1. Where is most of the Nitrogen in the world found?
2. Describe 3 ways which Nitrate gets into water systems.
3. Describe 3 effects of Nitrate on water.
4. What is the range of acceptable Nitrate in water in regards to the health of fish and other wildlife?

**Dissolved Oxygen**

1. How does oxygen get into water?
2. What produces most of the earth’s oxygen?
3. What is the lowest level of D.O. required for Northern Pike to survive?
4. What is the effect of Oxygen on the taste of water?

**Phosphate**

1. What happens in water if too much phosphate is present? What is the ‘fancy’ name for this?
2. Name for significant sources of phosphate in our water systems.
3. What is the maximum allowable amount of phosphate in healthy water bodies (in mg/L)?

**Temperature**

1. Describe 3 important impacts of different water temperatures on fish behaviour.

**Summary Questions**

Comment on the water quality of our site if you only had chemical factors to examine. Discuss pH, dissolved oxygen, Ammonia, Phosphate, Nitrate, and temperature. Use the website for understanding healthy ranges.

Comment on any significant differences between upstream and downstream data. What might be causing the differences in your opinion.

Write a 100 word conclusion (min) regarding the quality of Regina’s urban water according to the chemical factors.