

## Home Sweet Home – Student Worksheet

Students' Names: \_\_\_\_\_

Type of site: Lake \_\_\_\_\_ Pond \_\_\_\_\_ Stream \_\_\_\_\_

Location: \_\_\_\_\_

Weather: Clear \_\_\_\_\_ Cloudy \_\_\_\_\_ Rain or showers \_\_\_\_\_ Windy \_\_\_\_\_

Air temperature: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cool \_\_\_\_\_ Cold \_\_\_\_\_

Air temperature (if measured) \_\_\_\_\_

### Visual Inspection:

Color of water: Clear \_\_\_\_\_ Brown \_\_\_\_\_ Green \_\_\_\_\_ Other \_\_\_\_\_

Bottom: Rocky \_\_\_\_\_ Gravel \_\_\_\_\_ Sandy \_\_\_\_\_ Muddy \_\_\_\_\_ Plant debris \_\_\_\_\_

Are there plants around the site? : Evergreens \_\_\_\_\_ Deciduous trees \_\_\_\_\_

Shrubs \_\_\_\_\_ Grasses \_\_\_\_\_

Is the site shaded? Mostly \_\_\_\_\_ Somewhat \_\_\_\_\_ A little \_\_\_\_\_ No \_\_\_\_\_

Are there plants in the water? Cattails, etc. \_\_\_\_\_ Underwater plants \_\_\_\_\_

Plants on surface (lily pads, duckweed) \_\_\_\_\_ Algae \_\_\_\_\_

Are there overhanging banks? Yes \_\_\_\_\_ No \_\_\_\_\_

Land use surrounding site: Urban \_\_\_\_\_ Suburban \_\_\_\_\_ Agricultural \_\_\_\_\_

Commercial \_\_\_\_\_

Signs of possible pollution: Soap scum \_\_\_\_\_ Oil slick \_\_\_\_\_ Foam/suds \_\_\_\_\_

Trash (describe) \_\_\_\_\_

Other \_\_\_\_\_

Is there evidence of erosion? Yes \_\_\_\_\_ No \_\_\_\_\_

Does the water have a strange color or odor (Describe)? \_\_\_\_\_



## Water Quality Test Results

Record the results of the water quality tests that your group did. You will need to get the rest of the results from the groups who did the tests.

Dissolved oxygen: Test #1 \_\_\_\_\_ Test #2 \_\_\_\_\_

pH: Test #1 \_\_\_\_\_ Test #2 \_\_\_\_\_

Turbidity: Test #1 \_\_\_\_\_ Test #2 \_\_\_\_\_

Salinity: Test #1 \_\_\_\_\_ Test #2 \_\_\_\_\_

Water temperature: Test #1 \_\_\_\_\_ Test #2 \_\_\_\_\_

Velocity (if needed): Test #1 \_\_\_\_\_ Test #2 \_\_\_\_\_

### Habitat requirements for bluegills:

- Dissolved oxygen – greater than 5.0 mg/L
- pH – 6.5-8.5
- Turbidity – less than 50 NTU
- Salinity – prefer less than less than 5.6 ppt; since your fish were raised in fresh water, the salinity should be less than 1 ppt
- Water temperature – juveniles grow best at 22-34° C (approximately 70-90° F)
- Slow velocity – in the case of a stream, less than 20 feet/minute
- Cover, especially submerged vegetation, overhanging banks, etc.

**Is this site suitable for bluegills? Why or why not?**

**What impact might climate change, especially increased or more intense precipitation, have on the site? Think about erosion, increased nutrients, road salt, etc.**



