***Water Dawgs* Pre-Training Program Survey**

About this survey

This survey was designed to determine what you already know about freshwater science and water quality monitoring. We will ask you to complete the questionnaire again at the end of the training so that we can assess how our participants have learned and how the program leaders have been able to convey the main goals of the program.

This is not a “test”, and you will not be “graded” on your performance.

The survey has questions about a wide variety of topics that will be covered in this program. You should complete all questions on your own and to the best of your ability. It’s okay if you need to leave some answers blank or if you must guess.

Overarching goals of the *Water Dawgs* Summer Training Program:

1. Students will be able to describe the effects of urbanization on water quality.
2. Students will be able to explain the importance of water quality monitoring in maintaining stream ecosystem health.
3. Students will become proficient in Adopt-A-Stream water quality monitoring protocols.
4. Students will receive career professional development, particularly for careers in STEM.

**Part 1** (5 questions total):

*Instructions for Part 1: These questions are open-ended, please answer each to the best of your ability in the space provided.*

1. How would you expect urbanization to affect the following three water quality parameters in streams, compared to reference streams (in other words, healthy streams in non-urban areas)? For example, would these parameters be higher or lower compared to reference streams? If you can, explain why you chose the answer you did.
   1. Dissolved oxygen
   2. Conductivity
   3. The relative proportions of mayflies (Ephemeroptera), stoneflies (Plecoptera), and caddisflies (Trichoptera) in an assessment of macroinvertebrates
2. What are three careers that use knowledge of freshwater science or water health as a part of their job?
3. When testing for nutrient concentrations in stream water (for example, nitrogen or phosphorus), we typically collect and analyze at least two samples for each nutrient. Why might scientists want to collect and analyze more than one sample?

1. Your town just built a new dog park right beside your neighborhood stream. When you take your dog to the new park, you realize that no one is picking up their dog waste! How might this dog park affect the water quality of your local river? Explain **what** you think will happen to the water quality because of the park and **why** (try to be as specific as possible).
2. Why is it important to test for *E. coli* in our waterways?

**Part 2** (4 questions total):

*Instructions for Part 2: These questions are open ended, please answer each to the best of your ability in the space provided.*

1. What are you most excited for in this training program? In other words, what expectations do you have for this training program?
2. What science knowledge or skills would you like to improve upon during this training program?
3. What are topics would you like to learn the most about during this training program?

1. Is there anything you want the instructors to know about you that might help you learn better or that will help them make the program a better experience for you?

**Part 3** (12 questions total):

*Instructions for Part 3: This survey contains 12 statements about your confidence in doing things related to freshwater science and water quality monitoring. For each question, think about how confident you would be in carrying out a given task. There are no right or wrong answers. These are just your own thoughts and feelings about these topics.*

For each statement in the survey, select one of the following choices based on:

* If you are TOTALLY CONFIDENT that you can do the task.
* If you are VERY CONFIDENT that you can do the task.
* If you are FAIRLY CONFIDENT that you can do the task
* If you are ONLY A LITTLE CONFIDENT that you can do the task.
* If you are NOT AT ALL CONFIDENT that you can do the task.

1. How confident are you that you could help analyze a set of water quality data (i.e., look at the relationship between nutrients and flow)?

| Totally confident | Very  confident | Fairly confident | Only a little confident | Not at all confident |
| --- | --- | --- | --- | --- |

1. How confident are you that you will be successful in a college science class?

| Totally confident | Very  confident | Fairly confident | Only a little confident | Not at all confident |
| --- | --- | --- | --- | --- |

1. How confident are you that after reading an article about river water quality, you could explain its main points to another person?

| Totally confident | Very  confident | Fairly confident | Only a little confident | Not at all confident |
| --- | --- | --- | --- | --- |

1. How confident are you that you could help conduct a stream habitat assessment (in other words, a visual stream assessment)?

| Totally confident | Very  confident | Fairly confident | Only a little confident | Not at all confident |
| --- | --- | --- | --- | --- |

1. How confident are you that after watching a video documentary dealing with some aspect of water quality, that you could write a summary of its main points?

| Totally confident | Very  confident | Fairly confident | Only a little confident | Not at all confident |
| --- | --- | --- | --- | --- |

1. How confident are you that you could succeed in a STEM major (e.g., biology, chemistry, engineering, math, computer science) in college?

| Totally confident | Very  confident | Fairly confident | Only a little confident | Not at all confident |
| --- | --- | --- | --- | --- |

1. How confident are you that you could describe some qualifications for a career in STEM?

| Totally confident | Very  confident | Fairly confident | Only a little confident | Not at all confident |
| --- | --- | --- | --- | --- |

1. How confident are you that you could help measure nutrients (nitrate or phosphorus) in a stream?

| Totally confident | Very  confident | Fairly confident | Only a little confident | Not at all confident |
| --- | --- | --- | --- | --- |

1. How confident are you that you could succeed in pursuing a career in STEM?

| Totally confident | Very  confident | Fairly confident | Only a little confident | Not at all confident |
| --- | --- | --- | --- | --- |

1. How confident are you that you could tutor another student in a subject matter related to freshwater science?

| Totally confident | Very  confident | Fairly confident | Only a little confident | Not at all confident |
| --- | --- | --- | --- | --- |

1. How confident are you that you could help conduct a macroinvertebrate bioassessment of a stream?

| Totally confident | Very  confident | Fairly confident | Only a little confident | Not at all confident |
| --- | --- | --- | --- | --- |

1. How confident are you that you will be successful in your next high school science class?

| Totally confident | Very  confident | Fairly confident | Only a little confident | Not at all confident |
| --- | --- | --- | --- | --- |