**Session 2**

**Feb. 4, 2014**

**6-9pm**

**Minnehaha Creek Watershed District offices**

**Session Title:** Hydrology 101

**Before this course begins:**

* Bring to the class an article, web  page, or question about precipitation and its impacts, write a few sentences in your journal about what you found out and what additional information you would like to know about it, and why it caught your attention.

**Brief Course Description:**

Hydrology 101 is a foundation course introducing students to the fundamentals of hydrology – the science of the properties, distribution, and circulation of water. The concepts and terminology learned will be applied and built upon in subsequent coursework. Topics covered include measuring and calculating rainfall and runoff; factors influencing the movement of water; how the movement of water shapes the land and water resources; and changes in precipitation patterns and climate normals.

**Learning Goals and Assignments:**

Objective 1: Understand how rainfall, runoff, and the movement of water are described, calculated, and measured.

*Demonstration:* Journal entry

Question Stems:

* Describe how…
* List three ways to (calculate, measure, evaluate, monitor)…

Objective 2: Understand the factors that influence…

*Demonstration:* See #3

Question Stems:

* How would you summarize…
* Compare the factors that influence how water moves…

Objective 3: Understand how water shapes the land and our water resources.

*Demonstration:* Writing assignment. How does development change where precipitation goes and how does that affect our lakes, streams, and wetlands?

Question Stems

* What is the function of…
* How would you redesign…
* What could you improve about a plan to…

Objective 4: Understand how precipitation patterns are changing and how that may impact our water resources.

*Demonstration:* Writing assignment. Explain to a friend or neighbor how precipitation patterns are changing and what that means to their property, neighborhood, and nearest lake, stream, or wetland.

Question Stems:

* What improvements would you recommend…
* What could be done to minimize…
* What improvements would maximize…

**Course Requirements:**

* *Attendance and Participation:* Required. This is a foundation course.
* *Expectations for Preparation:* Bring to the class an article about precipitation and its impacts, and be prepared to explain why you selected it and what additional information you would like to know about it.
* *Assessments:* Written test demonstrating mastery of foundation concepts and terminology. Two short (one paragraph) written assignments: one that demonstrates synthesis of several topics, and one that demonstrates ability to convey technical information to the lay person.

**Before the next course begins-**

To prepare for the Stormwater 101 course

* Prior to the class, students are expected to investigate three different news articles (print or digital) covering the following topics:
  + Flooding event: where did it happen and what was the damage?
  + Impacted water quality (ground water, lakes, streams, wetlands,…)
* Rain