

AWM106 Agricultural Sediment Fundamentals

Name	Date	Grade
------	------	-------

Lab Exercise #7 – Soil Erosion and Deposition

Lab Objective (3-5 bullets):

- Identify examples of erosion in your selected watershed.
- Evaluate the transport and deposition of the eroded soil.
- Identify erosion control practices and structures that have been implemented in that watershed to help reduce erosion.
- What other steps would you recommend to be implemented?

Lab Introduction Narrative (3-5 sentences):

Understanding the erosion, transport, and sedimentation process is critical to managing watersheds. This exercise identifies and addresses these processes at work in your selected watershed, and provides experience in formulating a management plan to deal with these problems.

Text References:

Various references used throughout the course.

Tools and Materials:

- Notepad
- Digital camera or cell phone with a camera.
- Means of transportation around a 4-square-mile area of a selected watershed.

Safety Precautions:

Procedures:

- Select a local area of at least 4 sections within a watershed of your choices.
- Collect appropriate maps of the area, including soil survey, Google Earth/Google Maps, and USGS maps if possible. All of these should be available from the internet websites accessed earlier in this course.
- Drive around the 4 sections and look for erosion examples.
- Mark them on a map, and write a brief description of each situation you find.

AWM106 Agricultural Sediment Fundamentals

- Document these examples with digital photos if possible.
- If possible, document any instances where deposition of the transported soil is found. Add this evidence to your collection.
- Similarly, identify and document example of management practices, structures, and other steps that have been implemented to address these erosion problems.
- Make recommendations that could help further reduce erosion losses.
- Prepare a report on your findings---written or in a Powerpoint presentation.
- Discuss your report with classmates and compare your results with theirs.

Maintenance of Workstation and Tools:

Summary Statement:

Examples of erosion and steps that have been taken to correct it are all around us. Learning to recognize and understand these situations is a major part of further reducing loss of valuable soil resources, and reducing the downstream impacts it may cause.

Lab Participation (10-points):

AWM106 Agricultural Sediment Fundamentals

Element	Excellent	Proficient	Partially Proficient	Below Proficient	Unsatisfactory	Points
Student Lab Participation	5 points The student is engaging thoroughly, with well thought out questions and answers.	4 points For the student to answer (or ask a question) to engage in the discussion, he/she is engaging, but sometimes is not fully explained or developed.	3 points The student's question/answer was somewhat proficient but could have been expanded upon	2 points- 1 pt. The student's answers was minimal and did not address much of the issues or topics in order to be engaging.	0 points Engagement was neither attempted nor completed	__/5
Student Lab Performance	5 points The student's actions, feedback and comments were thought-provoking and had substance	4 points The student's actions, feedback, and comments were good but could be expanded upon	3 points The student's actions, feedback, and comments made were minimal and did not provide much depth	2 points- 1 pt. The student's actions, feedback, and comments were one sentence that did not expand upon the lab topic	0 points No responses or feedback were given by student	__/5
Total points						__/ 10