Erosion Analysis and Database Management Using The Flowlink Storm Monitoring System

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Company Organization Description

Created in 1909, the BREC is part of Texas A&M AgriLife Research, the state research agency affiliated with the Texas A&M System. Of the 13 off-campus research and extension centers that preforms research and delivers education programs such as:

1. Ensuring a safe and affordable food supply
2. Saving and restoring the environment
3. Strengthening the economy

BREC shares research facilities with the Grassland Soil and Water Research Laboratory of the USDA/ Agricultural Research Service (ARS). Texas AgriLife Research and ARS scientists have worked cooperatively in Temple for over 80 years. BREC research programs also include scientists from the Natural Resource Conservation Services. The synergism between the BREC and Grassland scientists is a principle reason for the success of the Temple laboratory. Research programs from both agencies are closely linked and scientist leverage sharked resources and capitalize on the strengths of one another.

BREC Staff

USDA Agronomist, Dr. Jim Kiniry, talking with children from science camp

Internship Objectives

- I wanted an internship that would incorporate my education as well as one that would expand on those concepts in real life scenarios.
- I also knew that working in an environmental field require continuous learning, so I wanted an environment with a long standing history of science-based solutions that continues to enhance local and global environmental quality. I desired a facility full of professionals that would act as mentors and career examples, and being part of the Texas A & M University System ensures that level of respect and professionalism I have grown to admire.
- Lastly, my most important incentive for taking this position was due to the closeness of my hometown, which will allow my results to directly and positively impact my local community and the surrounding areas.

Belton Lake

Fort Hood Soldiers Practicing Along Belton Lake

Description of Experience

This summer I had the opportunity to work and study under the supervision of Dr. June Wolfe at Texas A&M AgriLife Research & Extension Center (Blackland) in Temple, Texas, as a Technical Assistant in the Water Science laboratory. During this period I honed my database management skills and improved my lab sediment assessment practices that I learned in several of my BESC courses. My duties involved calculating current storage capacities and projected longevity of water resources, conducting volumetric analysis of sedimentation rates and deposition, and determining long-term effectiveness of erosion-reducing conservation practices implemented in the Killeen/Temple/Fort Hood Area. On one occasion I was given the opportunity to work outside the lab with other scientists in the nearby departments to educate children from a local science oriented summer camp.

ISCO Data Logger

Sediment Lab Samples

Tank Maneuvering

Gulley on Fort Hood Practice Range

Relationship to Career Goals

This internship enabled me to pursue my career as a research and field hydrologist by enabling me to sharpen my skills as both a lab and field assistant and also as a database manager. Additionally, I established invaluable network connections within the Texas A&M AgriLife Research/ USDA circle. Once my undergraduate degree is completed this fall, I plan to continue my education in graduate school where I can further expand my knowledge of hydrology which will allow me to assist and improve the quality of water both locally and on the global scale

References

- “Blackand Research & Extension Center.” *Blackland Research Extension Center.* Web. 22 July 2013.
- “Texas Water Resources Instituted.” *Water Quality*. Web. 22 July 2013.
- “Fort Hood Sentinel Photos.” *Fort Hood Sentinel Photos*. Web. 22 July 2013.

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