Methods

Beginning in May 2011, Lock Haven University’s Water and Soil Lab and the Centennial Academy of Sciences at Berlin worked together in an effort to safeguard their environment through vigilance and monitoring. Picture shows field site visit, students and naturalists in an effort to safeguard their environment through vigilance and monitoring. The study was intended to monitor potential areas for contamination due to natural gas extraction. However, multiple study locations exhibit pervasive AMD impairment, which is a direct result of legacy coal mining. Through active collaboration with community-based organizations, students have the opportunity to garner research experience, while providing a valuable service to the greater community. This study has far-reaching implications for policy-making in regards to the development of Marcellus Shale as a valuable energy resource while protecting the environment and preserving human health. For Bryn Mawr Drainage join. This area, located in Clearfield County, exhibits more persistent and pervasive AMD impairment in the Beech Creek Watershed and several sub-watersheds in Clearfield County. The study was intended to monitor potential areas for contamination due to natural gas extraction. However, multiple study locations exhibit pervasive AMD impairment, which is a direct result of legacy coal mining. Through active collaboration with community-based organizations, students have the opportunity to garner research experience, while providing a valuable service to the greater community. This study has far-reaching implications for policy-making in regards to the development of Marcellus Shale as a valuable energy resource while protecting the environment and preserving human health.

Special Thanks/Sponsors

Special thanks are extended to the Bald Eagle Watershed Coalition, Pennsylvania Senior Environmental Corps, Centre County Conservation District, and the Centre and Clearfield County Chapters of Pennsylvania Senior Environmental Corps.

Bryn Mawr Drainage join. This area, located in Clearfield County, exhibits more persistent and pervasive AMD impairment in the Beech Creek Watershed and several sub-watersheds in Clearfield County.

Abstract

This ongoing community-based water quality monitoring project provided students a hands-on experience with field-based methods and equipment in a real-world application, while involving and educating the greater community.

Bryn Mawr Drainage join. This area, located in Clearfield County, exhibits more persistent and pervasive AMD impairment in the Beech Creek Watershed and several sub-watersheds in Clearfield County.

Conclusions

Samples collected from the Bald Eagle Watershed Coalition and Centre County Conservation District study sites were analyzed using an XRF device. Samples from select BCW locations were analyzed using an XRF device. Additional lab analyses yielded parameters, including net acidity and net alkalinity, along with seven selected metals, including aluminum, iron, manganese, copper, calcium, magnesium, and iron. However, multiple study locations exhibit pervasive AMD impairment, which is a direct result of legacy coal mining. Through active collaboration with community-based organizations, students have the opportunity to garner research experience, while providing a valuable service to the greater community. This study has far-reaching implications for policy-making in regards to the development of Marcellus Shale as a valuable energy resource while protecting the environment and preserving human health.

Impact of AMD and Marcellus Shale Gas-Well Drilling on Surface Water Quality in Centre, Clearfield, and Clinton Counties, PA

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