

Legacy Sediment Removal To Protect and Restore Watershed Health in the Susquehanna River Watershed, PA



Pennsylvania
Department of Environmental Protection

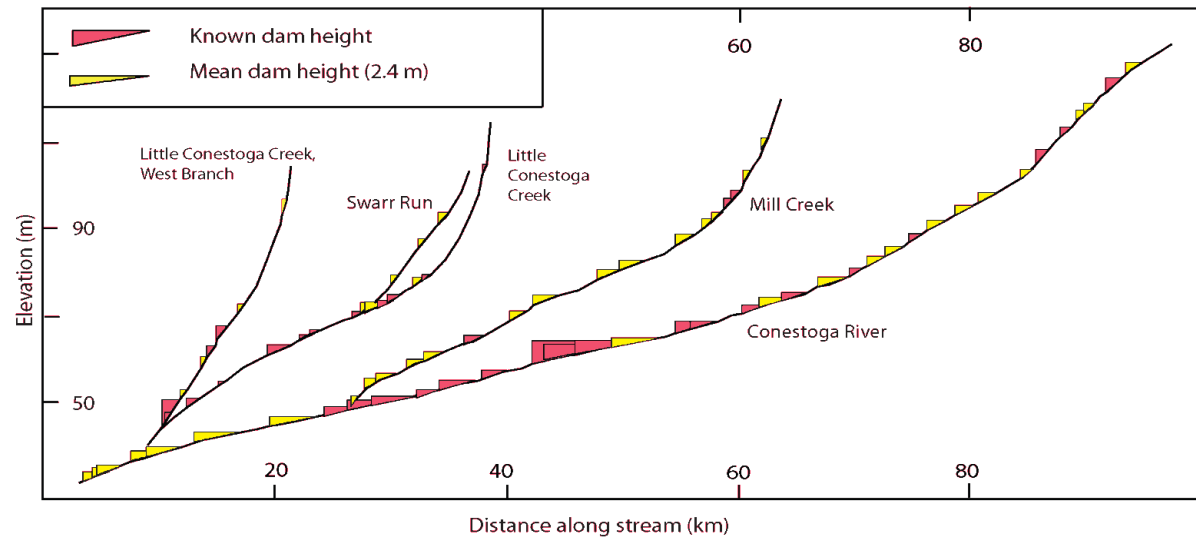
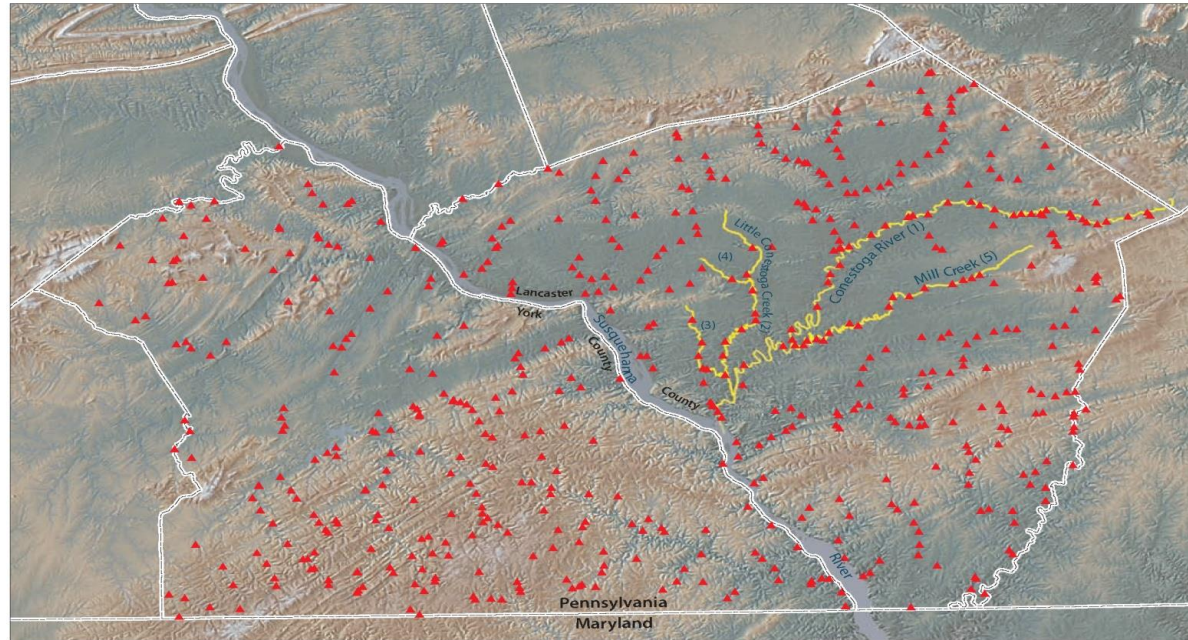
Jeffrey Hartranft and Dave Goerman

Bureau of Waterways Engineering and Wetlands

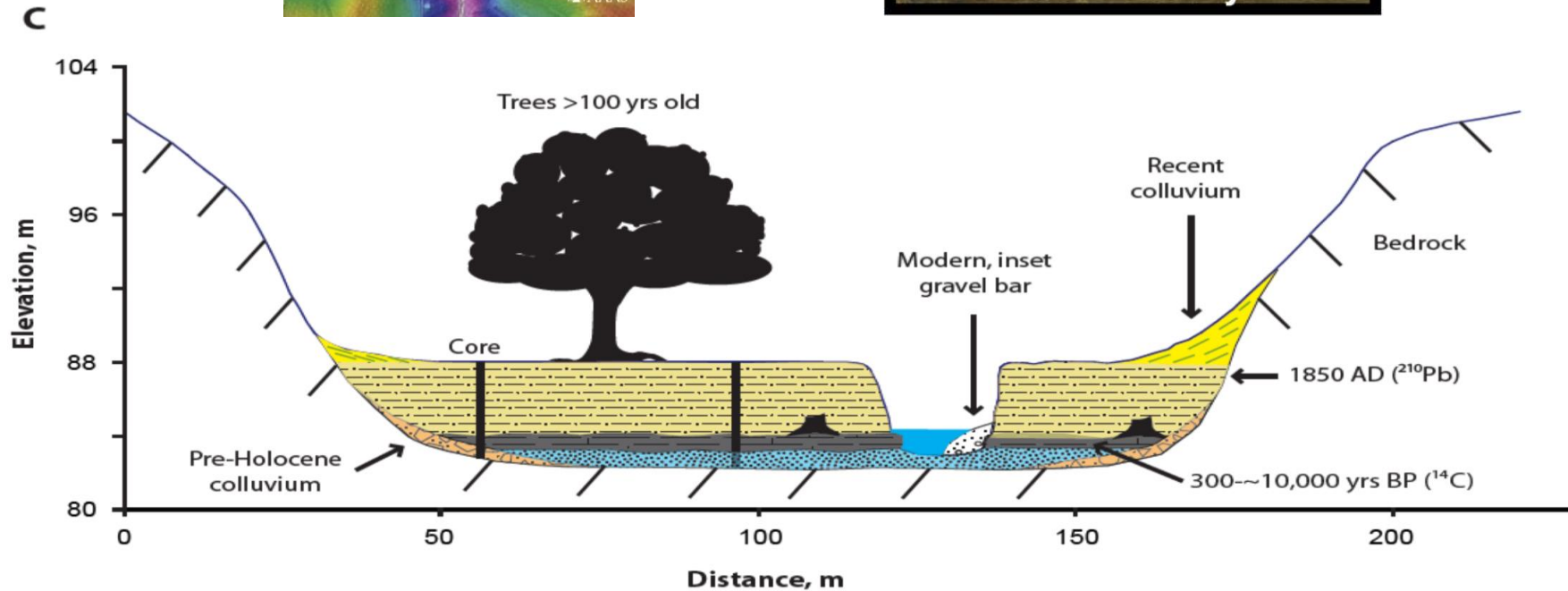
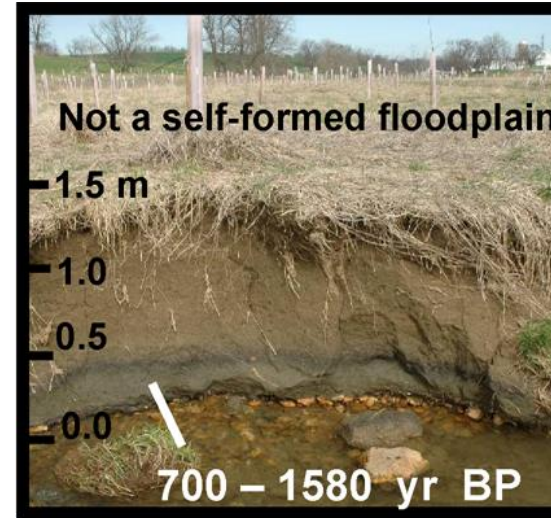
Division of Wetlands, Encroachments, and Training

jhartranft@pa.gov; 717-772-5320 and dgoerman@pa.gov; 717-772-5971

History of Stream Damming and Legacy Sediment

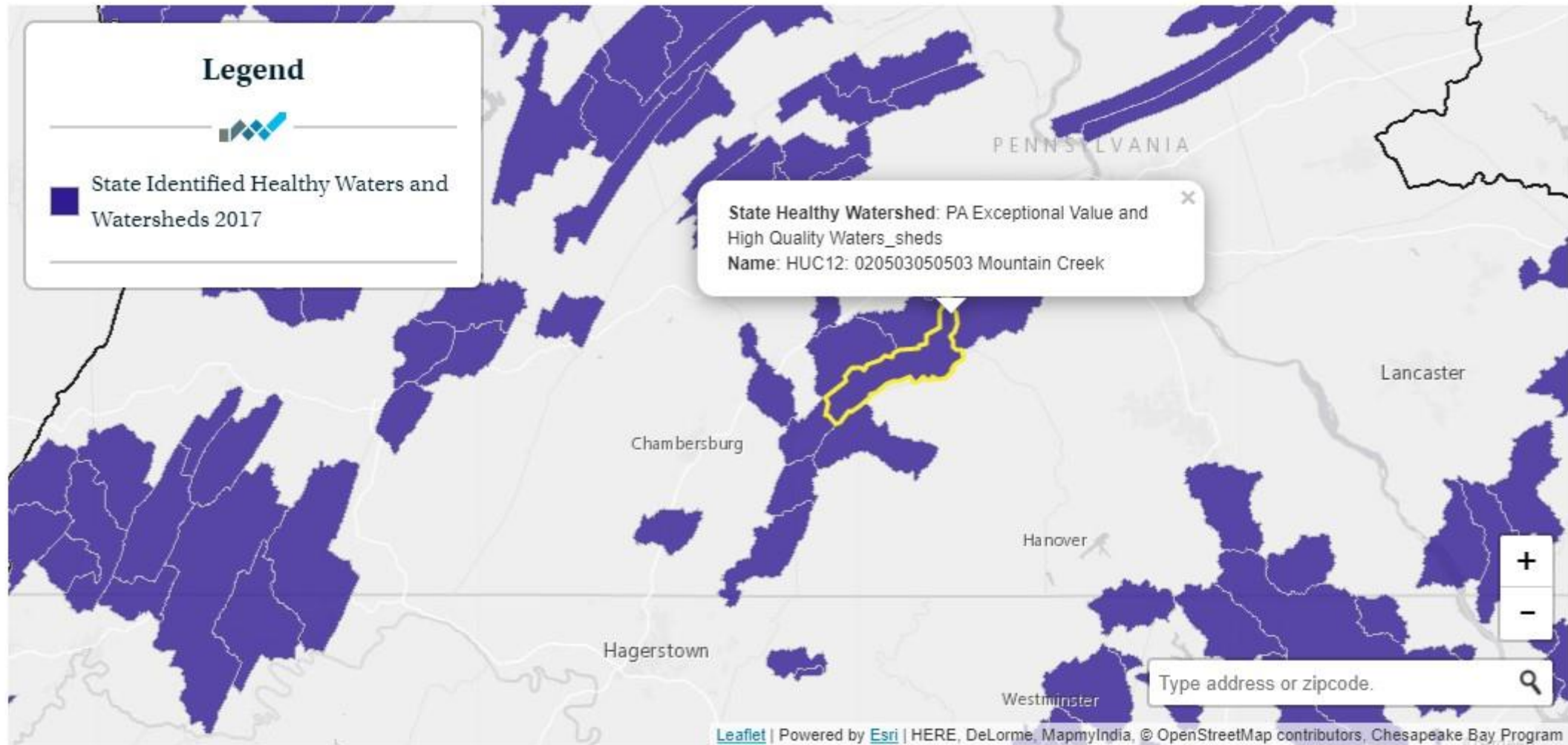


➤ The Science of Legacy Sediment

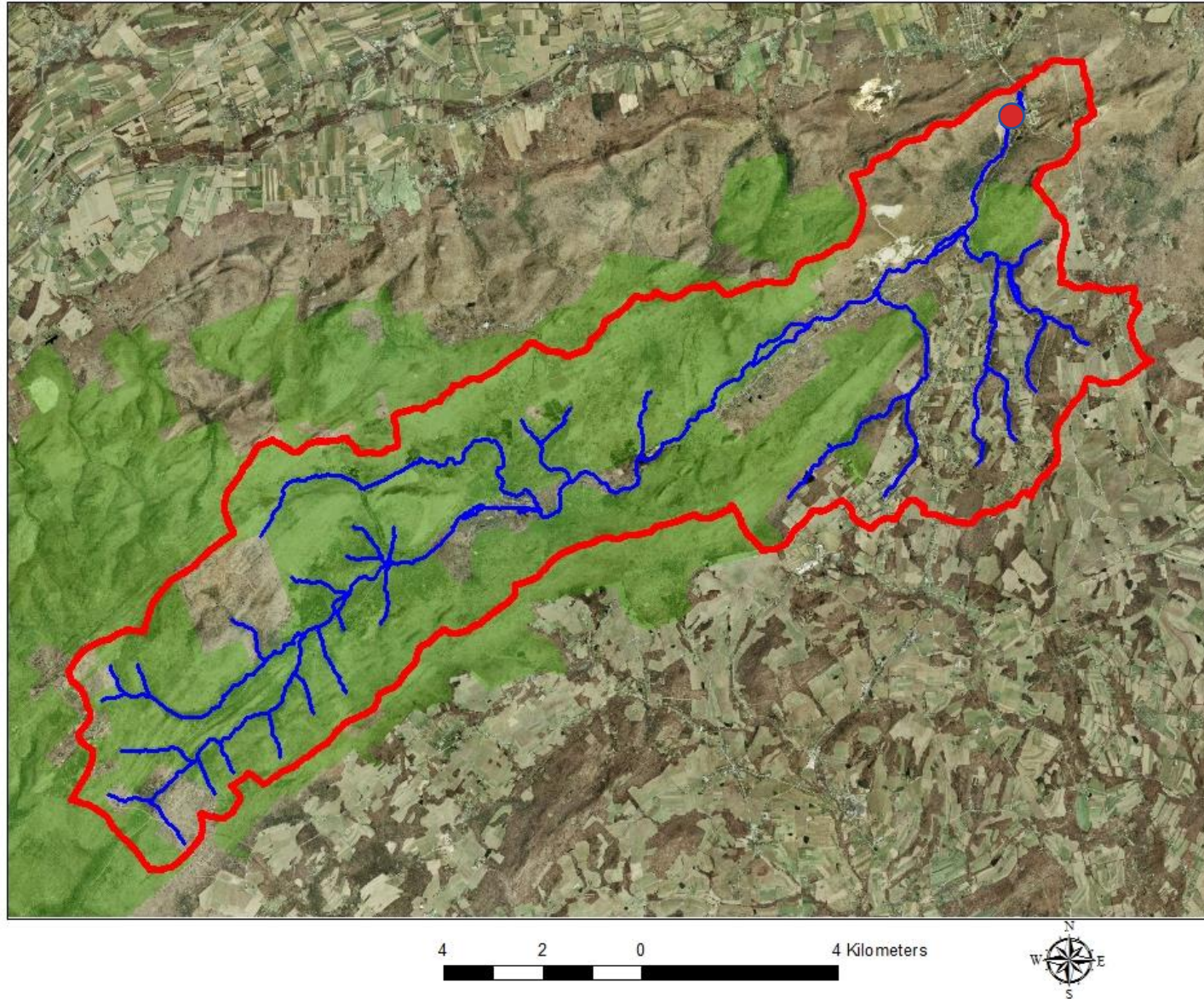


➤ Healthy Watershed – Mountain Creek

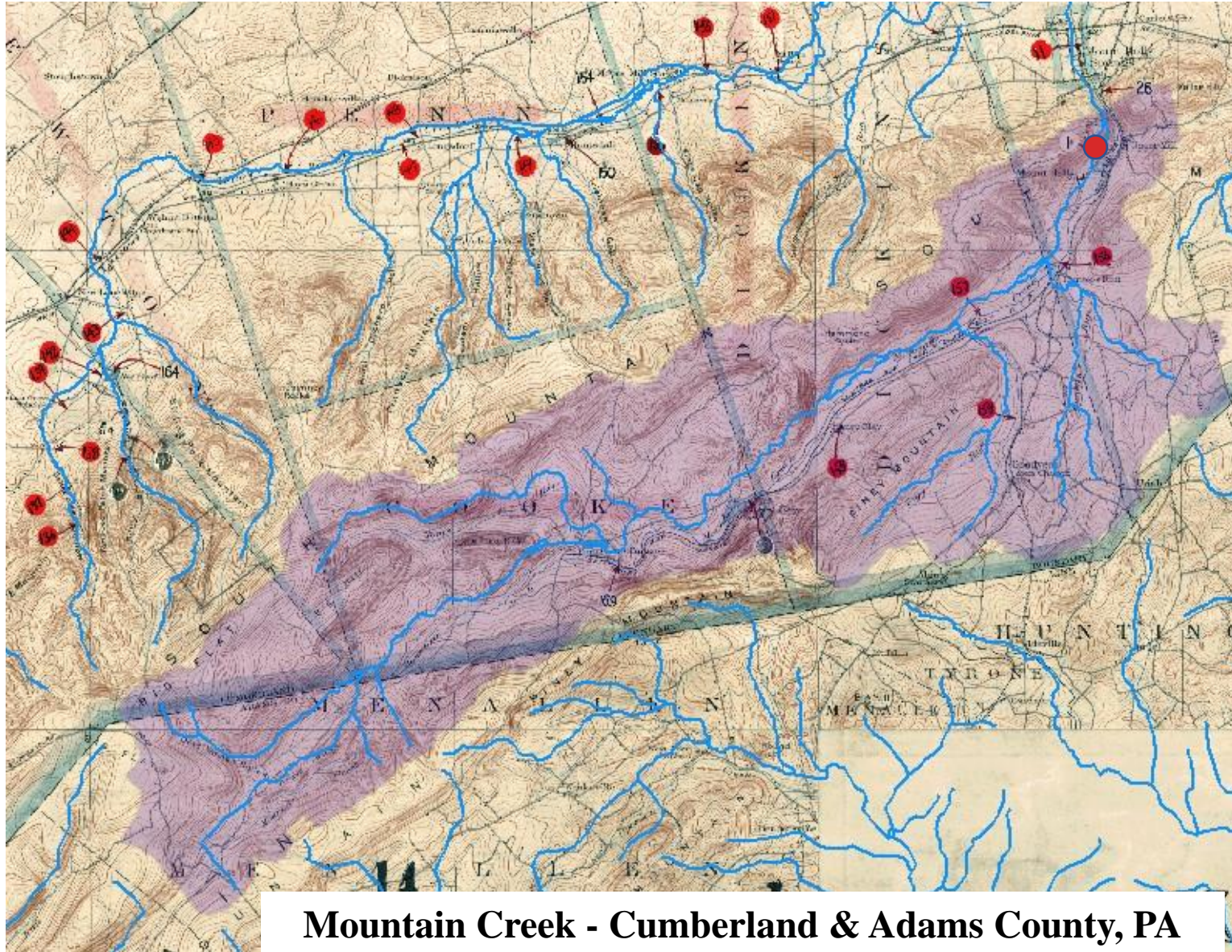
State-identified Healthy Waters and Watersheds (2017) [↗](#)



➤ Healthy Watershed – Mountain Creek



► Early 1900 PA Dam Inventory- Dam Safety Program



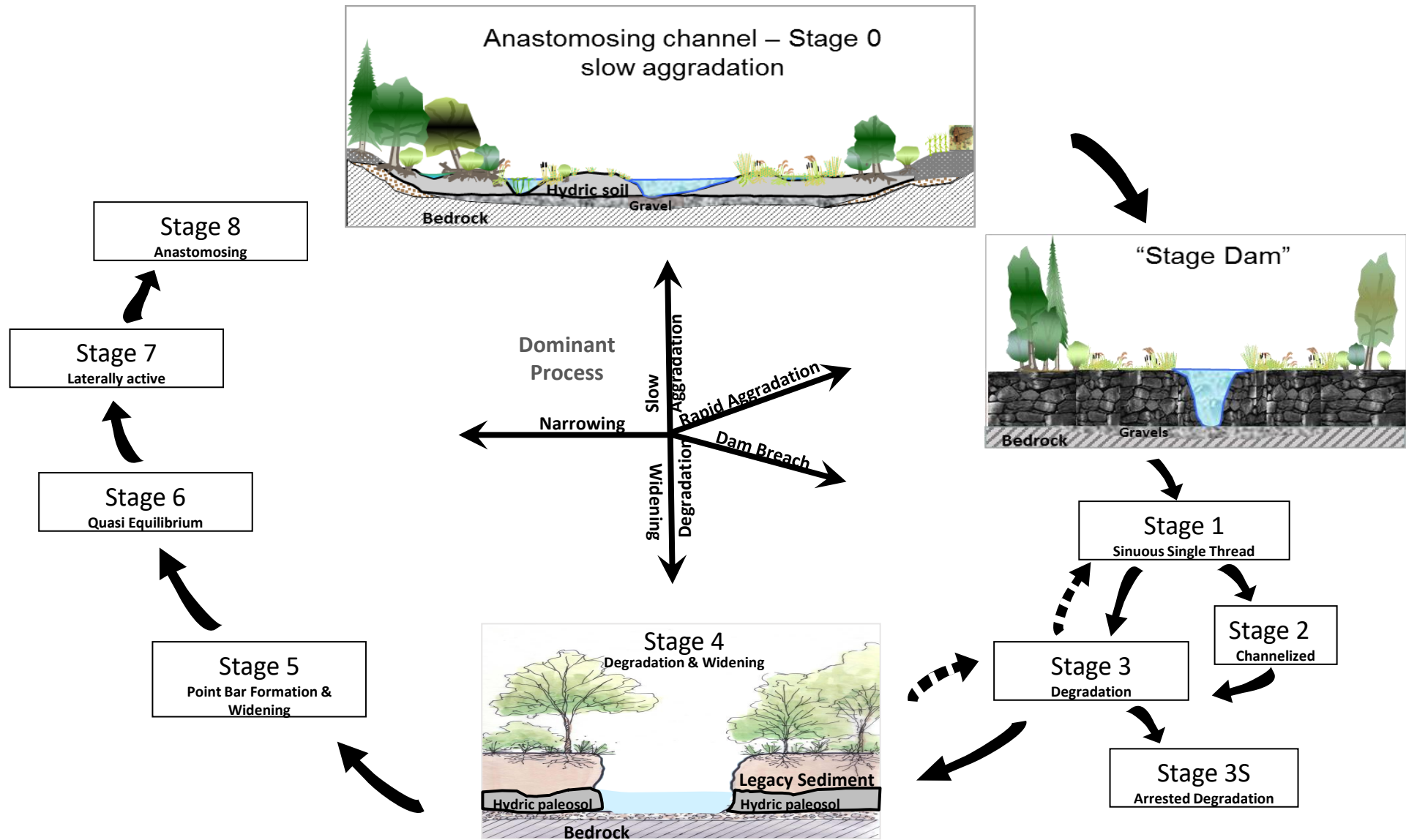
Mountain Creek - Cumberland & Adams County, PA

➤ Legacy Sediment Streambank Characteristics

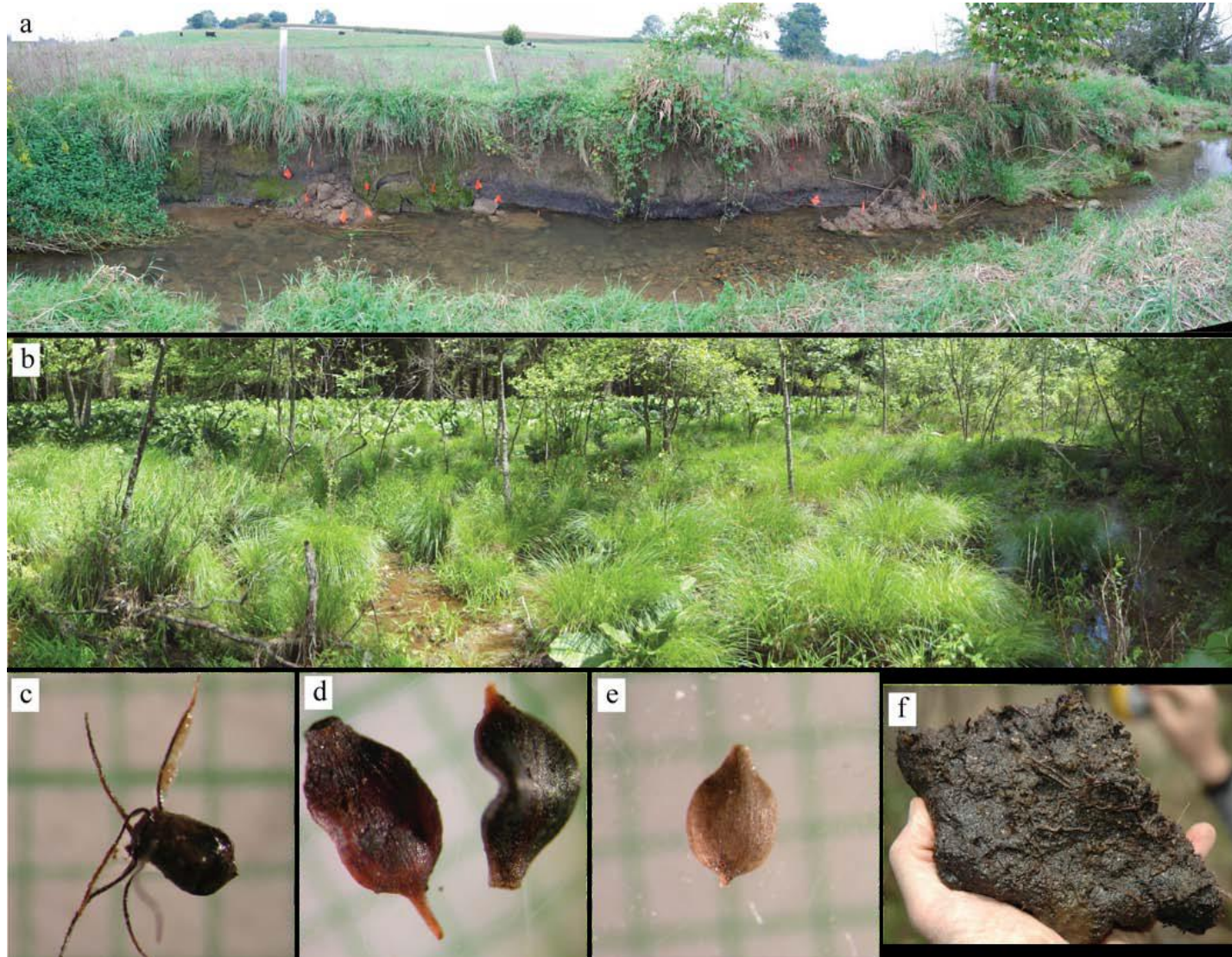


Mountain Creek - Cumberland & Adams County, PA

Channel Evolution & High Functioning Aquatic Ecosystems



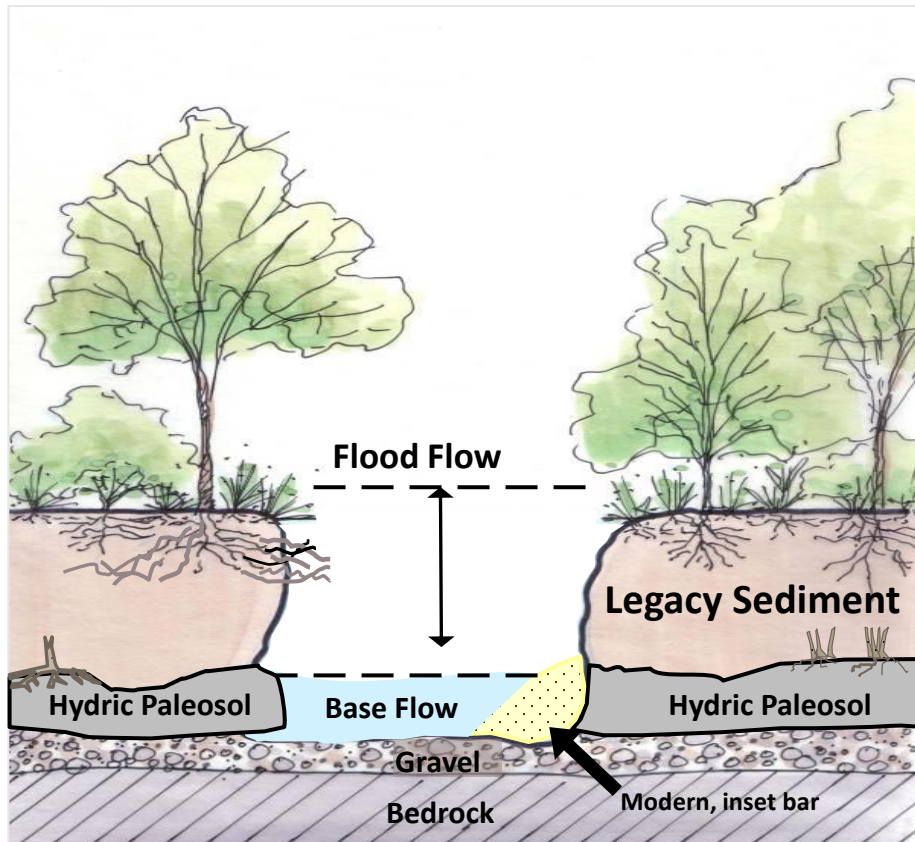
► Evidence of the Natural Potential & Restoration Targets



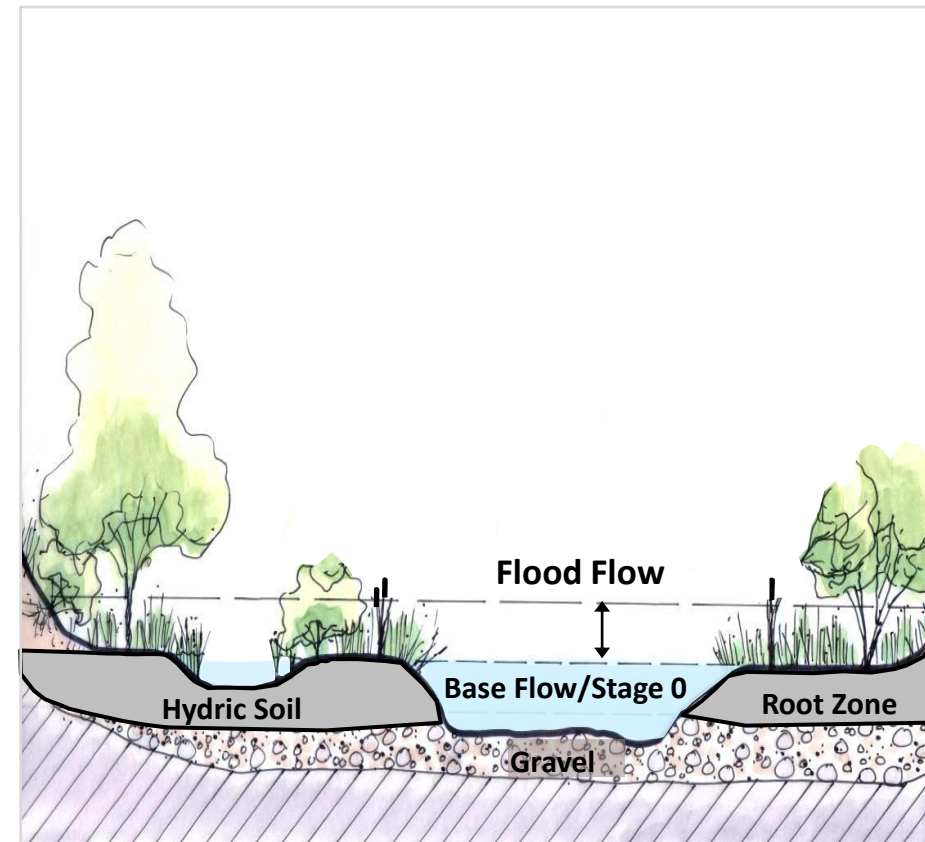
from Merritts, et. al. 2012

Legacy Sediment Removal and Aquatic Ecosystem Restoration Best Management Practice

Typical Existing Conditions



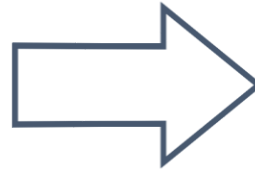
Proposed Restoration



➤ Legacy Sediment Removal Results @ Big Spring Run

Typical Existing Conditions

9/13/2011



Restoration

07/27/2012



► Legacy Sediment Removal Results @ Big Spring Run

April 22, 2018

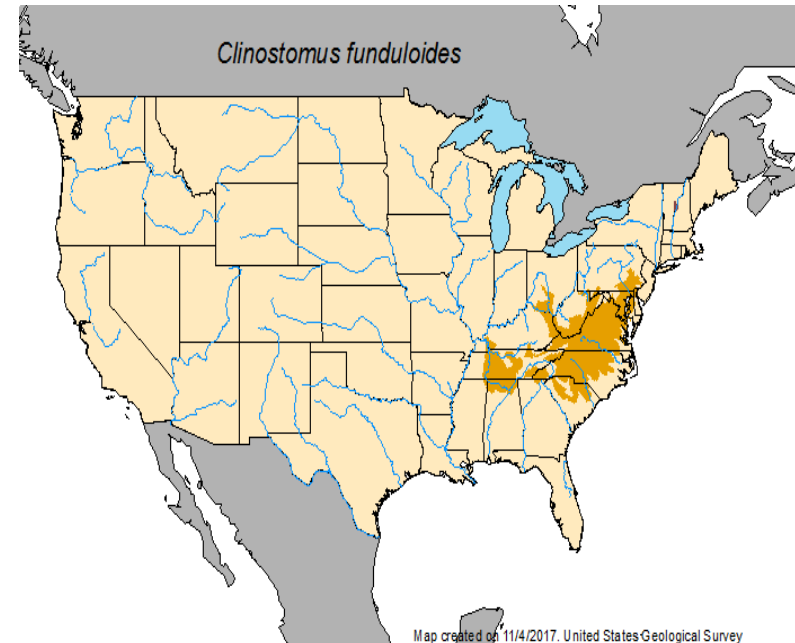


Courtesy Franklin and Marshall College

▶ Legacy Sediment Removal Results @ Big Spring Run



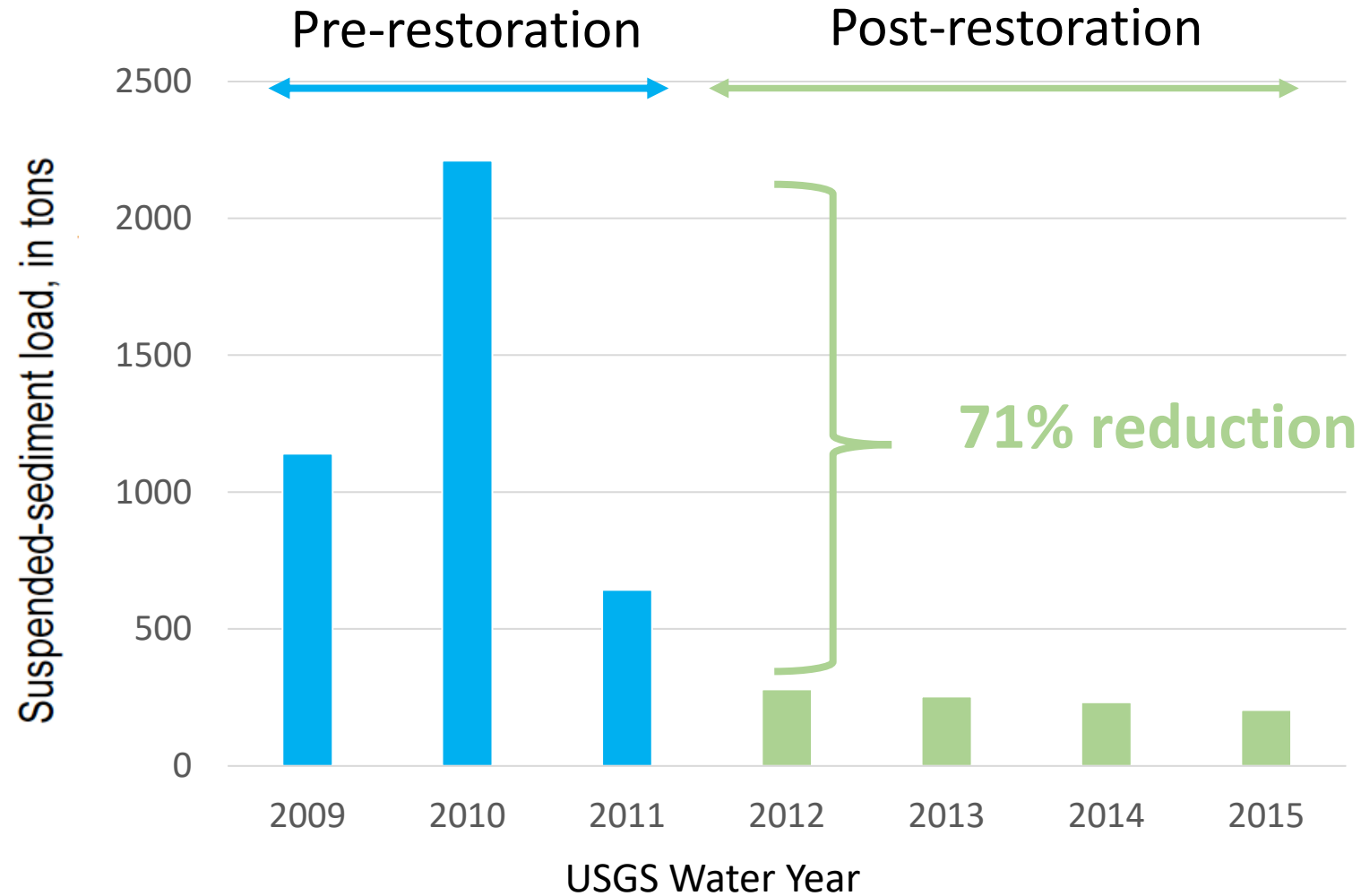
rosyside dace (*Clinostomus funduloides*)



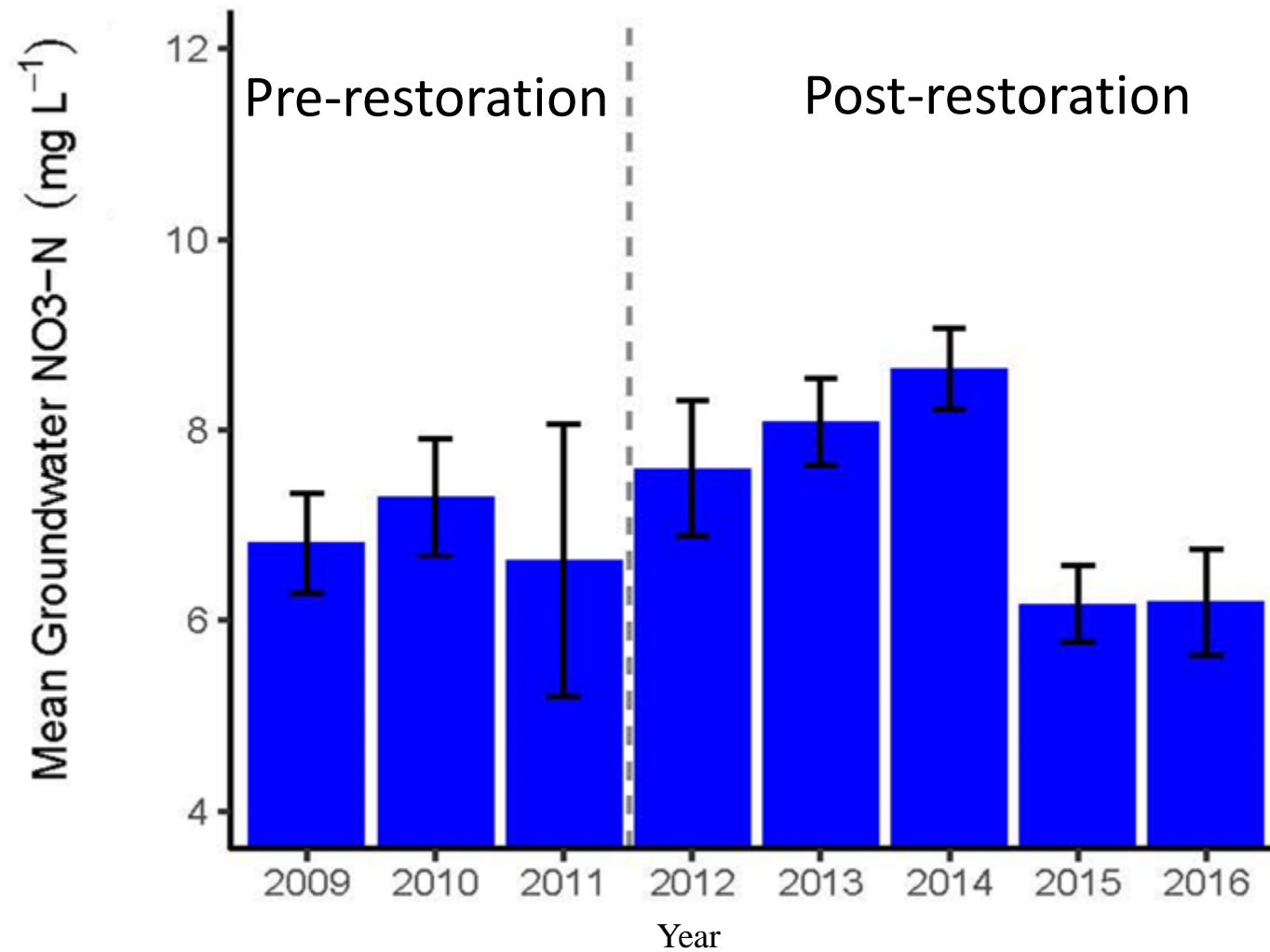
Native
Range

This species prefers headwater streams typical of cold water fishes and gravelly riffles for spawning.

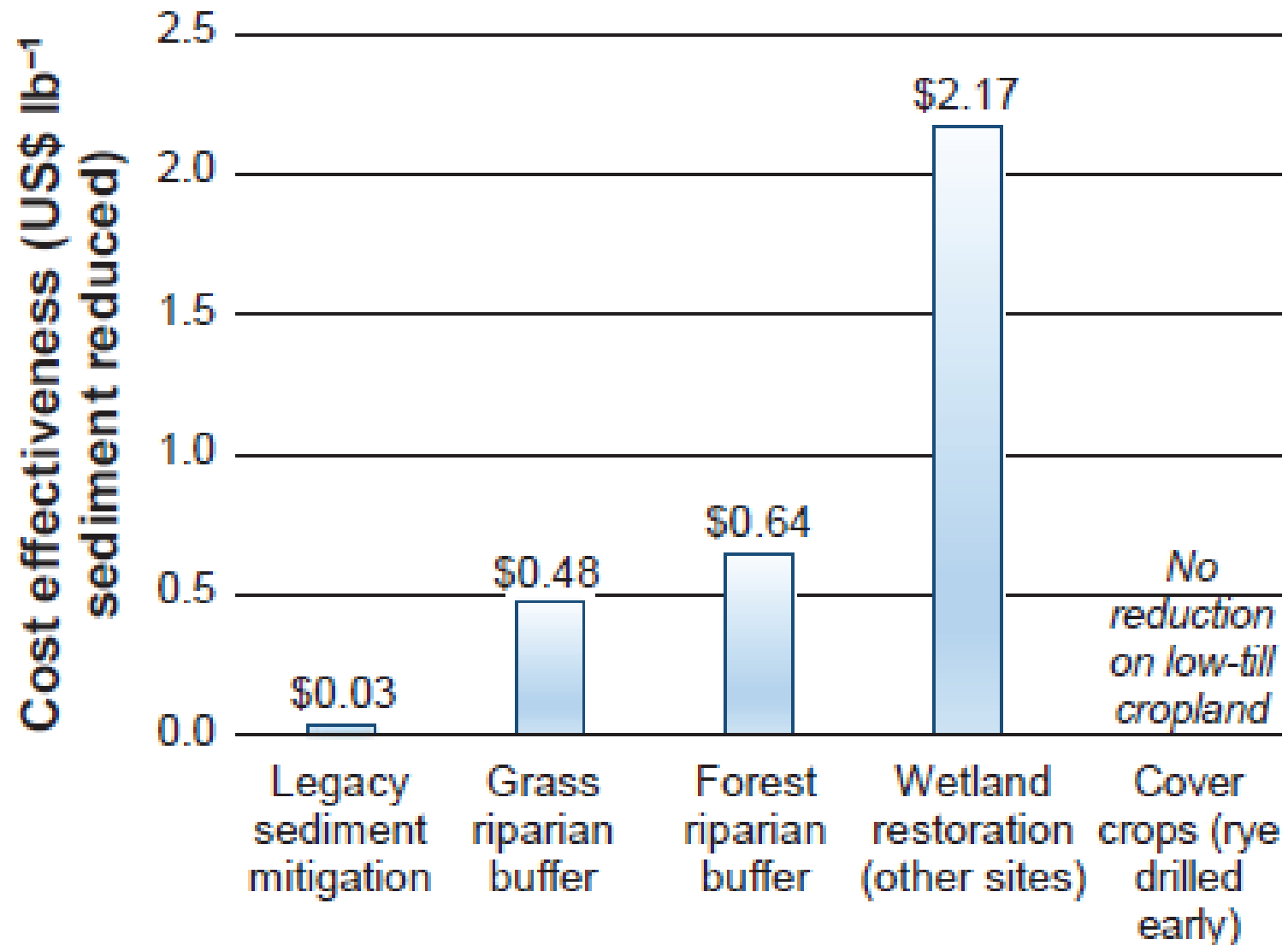
Legacy Sediment Removal Results @ Big Spring Run



Legacy Sediment Removal Results @ Big Spring Run



► Cost-effectiveness Results @ Big Spring Run



► Contacts & Questions

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