

#### Clients

ECS – GEC JV

U.S. Army Corps of  
Engineers Huntington D.

ES Project No. 15158

#### Key Services Provided

- Mussel Surveys
- Endangered Species
- Agency Coordination
- Biological Assessment

#### Project Duration

2021–Present

#### Project Cost

\$125,000

#### Key Staff

Ryan Schwegman  
Brian Carlson  
Greg Zimmerman

## MUSSEL SURVEY FOR PUBLIC SERVICE DISTRICT STREAMBANK PROTECTION

Kanawha County, West Virginia



***View of Elk River and failing streambank at the project location***

The United States Army Corps of Engineers (USACE) proposes streambank protection measures along 1,520 linear feet of the right-descending bank of the Elk River in Kanawha County, WV. Bank erosion and potential loss of wastewater infrastructure have been observed at two separate reaches of the Elk River. The project is required to prevent loss of the wastewater line and lift station and maintain services for residents within the Elk Valley Public Service District. Because of the proposed instream work associated with the project, the West Virginia Division of Natural Resources (WVDNR) and the United States Fish and Wildlife Service (USFWS) required a mussel survey.

The Phase 1 and Phase 2 mussel surveys were completed by a federally permitted malacologist and our commercial dive team. During these surveys, 720 live mussels of 15 species were collected within the project survey areas, including two live federally endangered snuffbox (*Epioblasma triquetra*) and two “proposed threatened” (as of January 2022) round hickorynut (*Obovaria subrotunda*) mussels. The location for each individual was logged in the field using a sub-meter accurate GPS, and coordinates were immediately provided to the WVDNR and USFWS.

After completing the mussel surveys, EnviroScience and USACE initiated formal consultation with USFWS to further facilitate project completion.