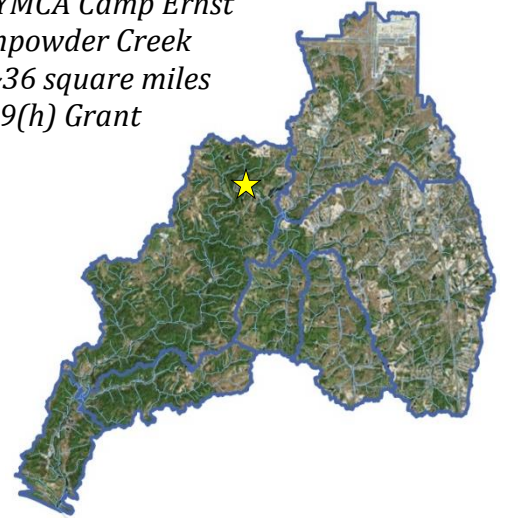


# YMCA Bankfull Wetland

**Project Location:** YMCA Camp Ernst  
**Watershed:** Gunpowder Creek  
**Drainage Area:** ~36 square miles  
**Funding:** 319(h) Grant



**Description:** As one of the first implementation projects of the Gunpowder Creek Watershed Plan, this wetland provides habitat and water quality benefits, as well as reduced streambed disturbance by offloading flow that would otherwise contribute to channel erosion.

## Project Highlights:

- The wetland restores ~5 to 7 acre-feet of floodplain storage in a previously disconnected floodplain.
- Historic USGS gage data suggest the wetland should decrease the frequency of streambed disturbance by up to ~20%.
- In-stream sediment mobility monitoring validates the critical flow estimate ( $Q_{critical}$ ) for this site, which was used to optimize the design to maximize the in-stream benefits associated with this project.



**Habitat:** Wetlands provide habitat for a wide variety and abundance of wildlife and plants.



**Receiving Stream:** Gunpowder Creek is listed as impaired on Kentucky's 303(d) list for sediment, bacteria, and nutrients.

## Educational Opportunities:

Interactions with nature leave lasting impressions and memories on local youth attending Camp Ernst. The wetland will provide an outdoor classroom supplemented by signage and learning stations.



**Sediment Mobility Monitoring:** Data collection using cork gage, bed load sampler, and spray-painted particles confirms wetland performance.

**Construction:** Substantial completion fall of 2016, with planting in spring of 2017