



**Resource Protection Group, Inc. – Reston Stream Monitoring  
PROGRESS REPORT**

**For Period Apr 1, 2021 through Jun 30, 2021**

**PROJECT NUMBER:** GC21LM00TZA0000

**PERSONNEL:** Brendan M. Foster

**COOPERATOR:** Resource Protection Group, Inc.

**START DATE:** October 1<sup>st</sup>, 2020

**END DATE:** September 30<sup>th</sup>, 2025

**OBJECTIVES:**

This monitoring program seeks to measure and evaluate system-wide hydrologic, water-chemistry, and ecologic responses to enhanced stream restoration practices, with a focus on the stream environments and practices employed in Snakeden Branch and The Glade, in Reston, Virginia. Specifically, this program will:

1. Initiate and conduct precipitation, streamflow, water-quality, and ecological monitoring at multiple locations in the Snakeden Branch and The Glade for:
  - a. Two years before enhanced stream restoration practices are implemented,
  - b. Two years during implementation of enhanced stream restoration practices, and
  - c. Two years after implementation of enhanced stream restoration practices;
2. Make all monitoring data available to other researchers and the public expeditiously via the USGS National Water Information System Web Interface (NWISWeb; <https://waterdata.usgs.gov>) and other formal data outlets; and
3. Provide peer-reviewed documentation of the findings of the monitoring program.

**PROGRESS DURING PERIOD:**

**SITES:**

1. Continuous hydrologic and water-quality measurements continue to be collected and transmitted in real-time at all monitoring stations with minimal issues or fouling.

2. Routine servicing (cleaning and calibration checks of all equipment) were completed at all stations.
2. Discrete water sampling commenced at Snakeden Branch and The Glade. Samples were sent to the USGS National Water Quality Laboratory and USGS Kentucky Sediment Laboratory for analyses.
3. Spring 2021 benthic macroinvertebrate and physical habitat surveys were completed. Benthic macroinvertebrate samples were sent to outside laboratory for sorting and taxonomic identification. Habitat data has been compiled.
4. USGS is working closely with Dominion Energy to acquire AC power to the stream monitoring stations. Proposed routes for both The Glade and Snakeden Branch stream monitoring stations have been flagged. Surveys and easements have been completed and acquired. Procurement of these power lines are underway.

**DATA:**

1. Real-time continuous provisional data continues to be served on NWISWeb.
  - Site ID 0164578734 Snakeden Branch above Lake Audubon:  
[https://waterdata.usgs.gov/va/nwis/uv/?site\\_no=0164578734&agency\\_cd=USGS](https://waterdata.usgs.gov/va/nwis/uv/?site_no=0164578734&agency_cd=USGS)
  - Site ID 0164579522 The Glade near Howland Drive:  
[https://waterdata.usgs.gov/va/nwis/uv/?site\\_no=0164579522&agency\\_cd=USGS](https://waterdata.usgs.gov/va/nwis/uv/?site_no=0164579522&agency_cd=USGS)
  - Site ID 385536077204401 Meteorological station at Glade Rec Area:  
[https://waterdata.usgs.gov/va/nwis/uv/?site\\_no=385536077204401](https://waterdata.usgs.gov/va/nwis/uv/?site_no=385536077204401)
2. Final timeseries records have been approved through April 8<sup>th</sup>, 2021.

***PLANS FOR NEXT QUARTER:***

1. Continue servicing trips for Reston stream monitoring stations and precipitation gage.
2. Continue discrete water sampling.
3. Conduct first fish survey (Summer 2021)
4. Acquire AC power for stream monitoring stations.