



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

For Period Jan 1, 2021 through Mar 31, 2021

PROJECT NUMBER: GC21LM00TZA0000

PERSONNEL: Brendan M. Foster

COOPERATOR: Resource Protection Group, Inc.

START DATE: October 1st, 2020

END DATE: September 30th, 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. Reston Association Design Review Board application was presented to the board and the public. The application was approved as-presented.

2. Stream monitoring stations for Snakeden Branch and The Glade were deployed.
3. Precipitation gage was deployed.
4. Air temperature sensor was moved from precipitation gage to The Glade stream monitoring station to avoid biased data from heat radiating upward from the paved surfaces surrounding the precipitation gage.
5. USGS is working closely with Dominion to acquire AC power to the stream monitoring stations. The proposed route has been flagged at the Glade stream monitoring station. Additional surveys and easements are being acquired by Dominion for the Snakeden Branch stream monitoring station.

DATA:

1. Real-time continuous data collection for all monitoring stations commenced.
2. Real-time continuous data is being served on NWIS.
 - Site ID 0164578734 Snakeden Branch above Lake Audubon:
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
 - Site ID 385536077204401 Meteorological station at Glade Rec Area:
https://waterdata.usgs.gov/va/nwis/uv/?site_no=385536077204401
3. Project webpage was created and is being served. The project page contains the basic information of the project and its objectives as well as links to the real-time continuous data webpages on NWIS.
 - <https://www.usgs.gov/projects/RestonStreams>

PLANS FOR NEXT QUARTER:

1. Servicing trip for Reston stream monitoring stations and precipitation gage for routine cleaning and calibration checks.
2. Discrete water sampling to begin.
3. First benthic macroinvertebrate and physical habitat Spring survey.
4. Acquire AC power for stream monitoring stations.