



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

For Period Jul 1, 2023 through Sep 30, 2023

PROJECT NUMBER: GC23LM00TZA0000

PERSONNEL: Brendan M. Foster

COOPERATOR: Resource Protection Group, Inc.

START DATE: October 1st, 2020

END DATE: September 30th, 2027

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, air temperature, streamflow, water-quality, and ecological monitoring at multiple locations in Snakeden Branch and The Glade through September 30, 2027.
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 at end of study.

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.

3. Discrete water sampling continued at Snakeden Branch and The Glade. Samples were sent to the USGS National Water Quality Laboratory and USGS Kentucky Sediment Laboratory for analyses.
4. Worked with mussel team to deploy mussels in Snakeden Branch and The Glade.

DATA:

1. Real-time continuous provisional data continues to be served in near real-time on NWISWeb.
 - Site ID 0164578734 Snakeden Branch above Lake Audubon:
<https://waterdata.usgs.gov/monitoring-location/0164578734/#parameterCode=00065&period=P7D>
 - Site ID 0164579522 The Glade near Howland Drive:
<https://waterdata.usgs.gov/monitoring-location/0164579522/#parameterCode=00065&period=P7D>
 - Site ID 385536077204401 Meteorological station at Glade Rec Area:
<https://waterdata.usgs.gov/monitoring-location/385536077204401/#parameterCode=00045&period=P7D>
2. Ratings for The Glade and Snakeden Branch have been expanded at Snakeden Branch and The Glade.
3. Stream monitoring cameras continue to serve imagery of Snakeden Branch and The Glade:
 - Site ID 0164578734 Snakeden Branch above Lake Audubon:
https://apps.usgs.gov/hivis/camera/0164578734_VA_Snakeden_Br_above_Lake_Audubon_Reston
 - Site ID 0164579522 The Glade near Howland Drive:
https://apps.usgs.gov/hivis/camera/0164579522_VA_The_Glade_nr_Howland_Dr
5. Summer 2023 fish surveys completed.

PLANS FOR NEXT QUARTER:

1. Continue servicing trips for Reston stream monitoring stations and precipitation gage.
2. Continue discrete water sampling including storm sampling.
3. Prepare and publish official USGS data release for all 2022 ecological surveys (benthic macroinvertebrates, habitat, and fish).
4. Conduct fall 2023 benthic macroinvertebrate sampling and physical habitat surveys.
5. Work with mussel team to coordinate mussel activities.