

NHDOT SPR2 PROGRAM

RESEARCH PROGRESS REPORT

Project # SPR 42372H		Report Period Year 2021 <input type="checkbox"/> Q1 (Jan-Mar) <input type="checkbox"/> Q2 (Apr-Jun) <input type="checkbox"/> Q3 (Jul-Sep) <input checked="" type="checkbox"/> Q4 (Oct-Dec)	
Project Title: Water Quality Test Site and Public Outreach at the I-89 Sutton Rest Area			
Project Investigator: Tom Ballestero Phone: 603.862.1405		E-mail: tom.ballestero@unh.edu	
Project Start Date: 5/5/2021	Project End Date: 1/31/2024	Project schedule status: <input checked="" type="checkbox"/> On schedule <input type="checkbox"/> Ahead of schedule <input type="checkbox"/> Behind schedule	

Brief Project Description:

NHDOT has been and will continue to construct water quality best management practices to meet stormwater runoff quality regulations. The size of the measures required often extend beyond the available right-of-way (ROW) and require the acquisition of private property. These measures also require maintenance to remain effective. NHDOT would benefit from solutions that require less space, that can be constructed in our linear ROWs, and be very low or zero maintenance. The current construction project, Sutton 42419, will explore the design, construction, efficiency, and monitoring of smaller, linear water quality measures that will require very little to no maintenance.

Another potential component to this project is public outreach. Due to the location of this test site there is an opportunity to share this research with the public who stop to use the rest area. This outreach may help the public understand the reason NHDOT constructs these features along the highways and may influence others to think about storm runoff and the impact it can have on the environment.

Progress this Quarter (include meetings, installations, equipment purchases, significant progress, etc.):

In situ, real time probes for temperature and conductivity continue to log water quality. Storms were targeted for sampling with automated samplers until winter weather began. The automated samplers were removed in December 2021 and will be re-installed once winter weather passes. Previous real-time data is being reduced and synthesized.

Items needed from NHDOT (i.e., Concurrence, Sub-contract, Assignments, Samples, Testing, et):

Nothing at this time. When construction is scheduled, we need to be apprised in order to remove monitoring equipment.

Anticipated research next three (3) months:

Continue site monitoring, water analyses, data reduction/synthesis, and assistance with system designs.

Circumstances affecting project:

Nothing outstanding at this time. Construction will affect monitoring, as anticipated.

Tasks (from Work Plan)	Planned % Complete	Actual % Complete
Task 1 Set-up Pre-construction Monitoring equipment and sample	100	100
Task 2 Provide design details for stormwater systems	100	100
Task 3 Set-up Post-construction Monitoring equipment and sample	0	0
Task 4 Assist with development of public outreach materials	0	0
Task 5 TAG Meetings and Quarterly Reports	20	20
Task 6 Final Report	0	0

Barriers or constraints to implementing research results

Nothing to report at this time.