NORTHEAST REGIONAL CONSERVATION NEED GRANT PROGRESS REPORT ABSTRACT

Grant Number: 2007-06

Grant Title: An interactive, GIS-based application to estimate continuous, unimpacted daily streamflow at ungaged locations in the Connecticut River Basin

Grant Receipt: U.S. Geological Survey

Grant Contact Name: Stacey A. Archfield

Progress Report Abstract

This proposal is intended to address Priority RCN Topic 3: Development of Instream Flow Standards, Guidelines, and Policies though the development of a seamless, multi-state GIS-based point-and-click application that will allow users to identify a stream reach of interest in the Connecticut River basin and obtain estimated continuous daily, unregulated or "natural" streamflow at the selected location. The application spans the entire Connecticut River basin, including the states of Connecticut, Massachusetts, New Hampshire and Vermont. This work expands on a method developed for Massachusetts to estimate daily streamflows at ungaged locations. The project is divided into two tasks: 1) the refinement of the methods to include gages in the northern portion of the Connecticut River Basin, and 2) the development of a seamless, multi-state point-and-click GIS application to interactively estimate streamflow at ungaged locations in the Connecticut River Basin. To date, all project work has been completed. The development of the multi-state tool is complete and in final beta testing before being released as a publically-available, USGS-hosted website. The software tool and user manual has been published on the publically-available website: http://webdmamrl.er.usgs.gov/s1/sarch/ctrtool/index.html. The final report has been submitted for approval and a manuscript will be submitted to the journal *Environmental Modeling and Software* in January 2012 to be considered for publication.

NORTHEAST REGIONAL CONSERVATION NEED GRANT QUARTERLY REPORT

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Were planned goals/objectives achieved last quarter? Yes.

Regional Conservation Need Addressed: Priority RCN Topic 3: Development of Instream Flow Standards, Guidelines, and Policies

Progress Achieved: (For each Goal/Objective, list Planned and Actual Accomplishments)
Project Objectives: Develop an interactive point-and-click GIS application to estimate continuous, daily unimpacted streamflow at any ungaged location in the Connecticut River basin.

Planned Accomplishments	Actual Accomplishments
-> Complete draft report and submit report to journal for publication	-> Draft report has been completed and submitted for final approval.

Difficulties Encountered: None.

Activities Anticipated Next Quarter:

- Manuscript will be submitted to journal for publication

Costs:

Are you within the approved budget plan? Yes.
Are you within approved budget categories? Yes.

Signature:
Date: 01/04/12