

PRIORITY TOPIC NUMBER & TITLE:	1. RIPARIAN AREA REGULATION ADOPTION PROJECT
SUGGESTED COST ESTIMATE RANGE:	\$35,000 - \$65,000
PROJECT PERIOD:	18 months, October 1, 2007 - March 31, 2009
LIS2003 COMMITMENTS SUPPORTED:	<ul style="list-style-type: none"> • By 2004, Connecticut and New York will assess the amount of riparian forest buffer n their portions of the Long Island Sound watershed using available land use/land cover. • Through watershed planning efforts, the states will encourage the establishment of targets to expand the percentage of riverine miles with forested buffers.
BACKGROUND	<ul style="list-style-type: none"> • The LISS Nonpoint Source and Watersheds Work Group has been charged with developing strategies to protect and restore riparian buffer areas in accordance with the LIS 2003 Agreement. To date, the Work Group has supported work that has resulted in the development of a GIS dataset of existing riparian buffers, a Riparian Toolbox Website, and an on-site study of the impacts of the loss of riparian are in the lower Connecticut River. This proposal will continue the focus on riparian area protection.
EXPECTED OUTCOMES:	<ul style="list-style-type: none"> • A community or a number of adjoining communities in a watershed will agree to adopt one or more regulations to protect Riparian Areas in its municipality. Both the regulation and the adoption process will be documented and serve as a model for other communities.
EXPECTED METHODOLOGY:	<ul style="list-style-type: none"> • The recipient will select a willing community or communities in the near coastal areas of Connecticut or the Long Island Sound watershed communities of New York. • A formal land use education and regulation adoption process will accompany the development of a riparian area (buffer) protection regulation. • The process will include, if necessary, the revision to the Plan of Conservation and Development (Comprehensive Plan) to support the regulation. • The regulation will be cognizant of impacts to existing and potential residential, commercial, and agricultural land uses. Flexibility of regulation adoption and administration over time and incentives for adoption will be investigated. • The project team will meet regularly with the NPS and Watershed Work Group on the direction and conduct of the project. • Outreach to the target area will be conducted.
DELIVERABLES:	<ul style="list-style-type: none"> • Preferable: Adopted Riparian Area Protection Regulation; Acceptable: Developed Riparian Area Regulation proposed for adoption • Process documentation (Case Study) • LISS community outreach • Quarterly progress reports (format will be provided) • Presentations (as requested) to committees, managers, and stakeholders • A QAPP is not required for this project
PRIORITY TOPIC CONTACT:	<p>Walter Smith (Work Group Committee Co-Chair) 344 Merrow Road; Tolland, CT 06268 860-871-4040 walter.smith@ct.usda.gov</p>

PRIORITY TOPIC NUMBER & TITLE:	2. ENHANCEMENT AND APPLICATION OF A DECISION SUPPORT TOOL TO FACILITATE NITROGEN LOAD REDUCTIONS IN THE LONG ISLAND SOUND REGION
SUGGESTED COST ESTIMATE RANGE:	\$50,000-\$75,000
PROJECT PERIOD:	12 months, October 1, 2007 - September 30, 2008
LIS2003 COMMITMENTS SUPPORTED:	<ul style="list-style-type: none"> • By 2014, achieve a 58.5 % reduction in the total enriched load of nitrogen to LIS from point and nonpoint sources within the New York and Connecticut portions of the watershed, as defined by the December 2000 document – <i>A Total Maximum Daily Load Analysis to Achieve Water Quality Standards for Dissolved Oxygen in LIS</i>. • Continue to report every two years on the health of Long Island Sound through ecological indicators, including measures of living resources, water quality, landscape changes, and community involvement (Section VII.1 of LIS2003).
BACKGROUND	<ul style="list-style-type: none"> • With nitrogen reduction targets established for Long Island Sound, there is a need to evaluate the effect of changes in the watershed, such as new development and implementation of Best Management Practices (BMPs), on nitrogen loading. There is also a need to evaluate different nitrogen load reduction scenarios and options to facilitate regional and local planning for implementation. • Under EPA Grant No. LI-97286104, the LISS supported the development of a decision support tool to facilitate nitrogen load reductions. The project involved application of the Arc View-based Generalized Watershed Loading Functions (AVGWLF) model to estimate baseline total nitrogen loadings, combined with an Excel spreadsheet tool to assess changes in nitrogen loadings through the application of BMPs. The final report submitted under that grant is available upon request.
EXPECTED OUTCOMES:	<ul style="list-style-type: none"> • An enhanced decision support tool to assess the impact of land use and management practices in the New York and Connecticut portions of the Long Island Sound watershed on nitrogen loading to Long Island Sound. • The application of the decision support tool will incorporate estimates of Best Management Practices (BMPs) that have been implemented in the New York and Connecticut portions of the Long Island Sound watershed to predict their effect on nitrogen loading to Long Island Sound. • The tool will retain an easy to use user interface.
EXPECTED METHODOLOGY:	<ul style="list-style-type: none"> • The investigator will enhance and apply a decision support tool to facilitate nitrogen load reductions that was prepared under EPA Grant No. LI-97286104. The project involved application of the Arc View-based Generalized Watershed Loading Functions (AVGWLF) model to estimate baseline total nitrogen loadings, combined with an Excel spreadsheet tool to assess changes in nitrogen loadings through the application of BMPs. The final report submitted under that grant is available upon request. • Desired enhancements include, but are not limited to: <ul style="list-style-type: none"> ○ increasing the AVGWLF outputs by developing a 1990 baseline and 2002 “current” condition of nitrogen loading that incorporates the land use covers and estimates of specific types of BMPs and their performance that existed or were implemented at that time; ○ running AVGWLF to include municipal land cover boundaries as well as watershed land cover boundaries so that the effect of BMPs could be estimated on a political and watershed basis;

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	<ul style="list-style-type: none"> ○ making BMP cost estimates on a consistent annualized basis; ○ refining the BMP cost and effectiveness estimates used in the Excel spreadsheet based on a review of local conditions and data; ○ identifying the number of persons in the “public sewer category” in the Excel spreadsheet; and ○ improving the ability to make periodic land cover changes and account for them in the spreadsheet tool.
DELIVERABLES:	<ul style="list-style-type: none"> ● An enhanced decision support tool for nitrogen load reduction tracking and planning, along with accompanying documentation. The project final report will document the results of the work and include a user’s guide for its application suitable for local land use officials. ● Quarterly progress reports (format will be provided) ● Presentations (as requested) to committees, managers, and stakeholders.
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