

Block Island and Green Hill Pond Watershed, RI
 EPA National Community Decentralized Wastewater Treatment Demonstration Project

University of Rhode Island
 Workplan April 1, 2002 to March 31, 2003

OBJECTIVES ACTIONS TASKS	University of Rhode Island Project Tasks and Responsibilities	Annual Activities April 1, 2002 – March 31, 2003
OBJECTIVE 1.	Develop and maintain a process to coordinate and manage the project with community involvement.	Estimated percent complete: 37%
Action 1.1	Establish and maintain a coordinated project management structure.	Maintain coordination through annual Steering Committee meeting, informal subcommittee structure, and direct communication and coordination with town wastewater management program coordinators and other town staff.
Task 1.1 a	Assist Steering Committee to finalize committee/ subcommittee structure with regular meeting schedule and list of participants. (Draft plan attached.) Support development of procedures for Committee decisions on budgeting, coordination with Councils, and public communication.	
Task 1.1 b	With Project Manager, assist in coordinating Steering Committee/subcommittees	Continue to provide support as needed.
Task 1.1 c	Meeting facilitation - need for services of URI Professional Development Office to be determined.	Not considered necessary at this time. In year 4 make final determination of need and if possible, rebudget funds to educational outreach at local, state and national levels.
Action 1.2	Coordinate project with existing State and local watershed management initiatives.	
	URI coordination ongoing through participation in South County and Pawcatuck Watershed Partnerships and RIDEM TMDL program.	Maintain coordination with agency partners and watershed partners through existing channels. Coordinate with DEM TMDL program to prepare joint recommendations for watershed management based on results of URI watershed assessment and TMDL findings.
Action 1.3	Administer project, document impacts and report progress.	
Task 1.3 a	Prepare job description for Project Manager /Fiscal Agent; assist	Participate in search for project manager.

	in search /interviews for this position and town wastewater program managers.	
Task 1.3 b	Select progress indicators and measures of success in cooperation with the Education Subcommittee and Steering Committee.	Report annual progress in terms of established progress indicators.
Task 1.3 c	Develop URI annual work plan; assist Towns to develop annual work plans.	Complete annual URI workplan update.
Task 1.3 d	Coordinate with national project partners.	Coordinate through national advisory review panel and EPA Region 1.
Task 1.3 e	Quarterly URI progress reports.	Complete and submit quarterly.

OBJECTIVE 2.	Identify wastewater treatment needs using Geographic Information System-based assessment methods and select management alternatives considering a range of land use planning techniques and wastewater treatment technologies capable of meeting resource-specific water quality goals.	Estimated percent complete: 60%
Action 2.2	Screen wastewater treatment needs using the MANAGE GIS-based assessment method.	
Task 2.2 a	Select final study area wellhead and watershed boundaries based on local resource protection priorities and water quality goals, and RI Health input. Coordinate with Project Teams to review and refine land use maps used in hotspot mapping.	Completed
Task 2.2 b	Assemble GIS coverages to include: current parcel database, digital information on septic system location and condition, water use records, DEM permits, and SPC and DEM monitoring data. Address match data where necessary.	Update GIS database to include monitoring data and septic system inspection results as needed.
	Prepare draft GHP hotspot maps for use in association meetings, DEM TMDL studies, and selection of demonstration system priorities.	Completed
	Prepare draft Block Island pollution hotspot maps	Completed
Task 2.2 c	Conduct buildout analyses for watershed and wellhead study areas in the Green Hill Pond Watershed.	Completed
Task 2.2 d	Finalize hotspot maps, ID data gaps and select hotspots for investigation of ISDS failures, repair alternatives and water quality monitoring.	Continue to use GIS coverages as needed for field investigations and monitoring design.

Task 2.2 e	Provide results of screening-level needs assessment to Towns in both project locations.	Finalize results in fact sheet form.
Task 2.2 f	Provide training for town staff in using GIS products in land use decisions and wastewater management planning.	Conduct at least 2 work sessions for Charlestown and South Kingstown town officials, including Conservation Commissioners and members of Planning and Zoning Boards , on use of GIS products developed in local watershed assessments. Session to include summary results and recommendations, available map products, and sample applications in town planning and development project review.
Action 2.3.	Evaluate <i>watershed-level</i> wastewater management options, including treatment technologies and land use planning and zoning techniques, to remediate existing or potential pollution ‘hot spots’ in critical resource protection areas.	
Task 2.3 a	Identify potential priority areas for advanced treatment in the Green Hill Pond Watershed; develop preliminary wastewater treatment performance standards and associated list of treatment technologies.	Finalize recommended wastewater treatment standards for Charlestown; cooperate with Planning Consultant to incorporate technical recommendations into ordinance language. In cooperation with the South Kingstown Conservation Commission, select priority protection areas and develop draft recommendations for treatment standards. Finalize based on public and town input. Develop list of recommended treatment technologies capable of achieving proposed standards.
Task 2.3 b	Evaluate alternative zoning and land development standards for new construction and redevelopment in critical areas of the Green Hill Pond Watershed.	Cooperate with project planner developing neighborhood-specific development standards. Recommend standards for control of stormwater discharges and protection /restoration of riparian buffers to complement wastewater treatment standards.
Task 2.3 c	Cooperate with project consultant in developing resource-specific guidelines for wetland buffers and stormwater control in the Green Hill Pond watershed.	
Task 2.3 d	Technical report and fact sheet on results of preliminary needs assessment and alternatives analysis for Green Hill Pond Watershed.	Finalize the watershed assessment and present results as final report and summary fact sheet.

Action 2.4	Test the assessment and predictive capabilities of Geographic Information Systems for wastewater management planning.	Compare RIGIS soils database with verified water table elevations available from soils investigations conducted at demonstration systems sites and other readily available field data. Compare usefulness of RIGIS residential categories in estimating number of homes with septic systems and individuals served vs. refinements using parcel / census data.
Task 2.4 a	Update GIS database using field data on site conditions and system condition collected under Objective 3 and provided by Town.	Update coverages as data becomes available.
Task 2.4 b	Compare field monitoring results with MANAGE pollution source risk predictions.	Compare stream data and groundwater monitoring results with predicted high risk land uses.
Task 2.4 c	Summarize limitations and appropriate use of GIS-based assessment methods for wastewater management planning.	Draft summary findings and recommendations.
OBJECTIVE 3.	Through field investigations, determine suitability for on-site wastewater treatment and identify <i>parcel-specific</i> wastewater management options in selected high-risk septic system failure areas.	Estimated percent complete: 28%
Action 3.1	Inspect septic systems in priority high-risk areas using the DEM approved inspection method.	
Task 3.1 a	Select priority neighborhoods and parcels for initial system inspection using results of the GIS-based needs assessment.	Completed through the demonstration systems selection process.
Task 3.1 b	With the project team and DEM develop a strategy to expedite inspections in target areas identifying: available staff; funds for private inspectors and pumpers; responsibilities; schedule; policy for handling failures; homeowner incentives; and public outreach with the education subcommittee.	Not applicable. Inspections proceeding as required by ordinances.
Task 3.1 c	Assist Town staff to conduct inspections as field training in the DEM-approved inspection procedure.	
Task 3.1 d	Compare inspection results with existing inspection reports where available as field check of private contractors.	Provide support to towns in establishing spot checks and other maintenance oversight procedures.

Action 3.2	Determine site suitability for on-site wastewater treatment in targeted problem areas.	
Task 3.2 a	Select priority areas for lot-by-lot investigation of repair alternatives in hotspot areas in each project location.	Complete analysis of onsite wastewater treatment options for the SeaLea Colony area of Green Hill Pond, Charlestown; Roy and Mary Carpenters Beach, SK, and Rt. 1 commercial development zone, Eastern Ninigret Pond area, Charlestown. Present summary results to town officials and land owners.
Task 3.2 b	Assemble on-site investigation team with DEM and Technical Review Subcommittee.	
Task 3.2 c	Conduct site investigations as training for town staff and private sector in soil-based site evaluations and system selection; establish criteria for selecting repair and upgrade options.	
Task 3.2 d	Recommend preliminary repair/upgrade technologies for each lot in cooperation with the Technical Review Subcommittee.	
Action 3.3	Analyze and select parcel-level septic system remediation alternatives.	
Task 3.3 a	Evaluate feasibility of preliminary alternative technologies identified in Objective 3.2 (d), refine cost estimates and select upgrade/repair technologies.	Not applicable
Task 3.3 b	Cooperate with project consultant in site-specific analysis of planning and zoning options identified in Objective 2.	Provide technical support as needed.
Task 3.3 c	Cooperate with project consultant to compare effectiveness of treatment technologies with planning and zoning alternatives.	Provide technical support as needed.
Task 3.3 d	Support towns in selecting repair/upgrade solution and outlining implementation steps.	Provide technical support as needed.
OBJECTIVE 4.	Retrofit, repair or replace septic systems in high-risk 'hot spots' using a range of innovative and alternative technologies through demonstration system installations.	Estimated percent complete: 30%
Action 4.1	Repair failing systems and provide enhanced wastewater treatment in critical areas.	
Task 4.1 a	Assist towns to develop criteria for selection of demonstration systems.	Completed.
Task 4.1 b	Construct up to 24 alternative and innovative demonstration systems; 12 in Block Island and 12 in the Green Hill Pond	Complete construction of remaining demonstration systems.

	Watershed.	
	Block Island	Construction of 6 remaining demonstration systems on Block Island sites, scheduled for Spring 2002. Currently completing materials list and cost estimates.
	Green Hill Pond	Complete site surveys, design and construction of remaining 12 demonstration systems in Green Hill area, Fall 2002.
Task 4.1 c	Investigate the installation of remote telemetry devices on demonstration systems and prepare feasibility report.	Investigate use of remote telemetry with final design and construction of Green hill demonstration systems Fall, 2002.
Task 4.1 d	Develop model maintenance agreements and ownership requirements for inclusion on deeds and land evidence records, with town enforcement provisions.	Agreements for demonstration systems are in place. Model maintenance agreements will be developed this year.
Action 4.2	Retrofit existing systems with tank improvements	
Task 4.2 a	Purchase risers and filters at bulk rates and make available to residents; develop incentives to promote retrofitting.	Provide support to towns as needed; Block Island has chosen not to participate in bulk purchase program.
Task 4.2 b	Assist Block Island residents to comply with retrofit requirements through financial and technical assistance and public education.	Provide support to town as needed.
Task 4.2 c	Explore the feasibility of developing a retrofitting assistance program for the Green Hill Pond watershed.	Provide support to towns as needed.
OBJECTIVE 5.	Establish inspection-based septic system maintenance and repair ordinances, with supporting administrative procedures, technical guidance, inspection tracking database, and long term financing mechanisms.	Estimated percent complete: 35%
Action 5.1	Establish ordinances and operating procedures to accelerate implementation of septic system inspection programs.	
Task 5.1 a	Assist towns in filling staff positions:	
	Assist in search for Wastewater Specialist in Block Island;	Completed
	Assist in search for Wastewater Program Manager in South Kingstown and Charlestown.	Completed

Task 5.1 b	Provide technical support to towns in developing procedures to implement inspection program with enforcement methods. Focus on development of BI inspection procedures and schedule in year 1.	Provide technical support to South Kingstown and Charlestown in developing procedures to implement adopted inspection ordinances. Work with Block Island staff to identify successful methods and lessons learned in Block Island inspection program.
Task 5.1 c	Provide technical support to towns in adopting and implementing a coordinated program for required septic system inspections in the pilot GHP watershed.	Assist town staff to develop sequence of communication with homeowners to include notice of program adoption, first inspection notice, reminders and enforcement steps.
	<ul style="list-style-type: none"> ▪ Review draft SK wastewater management ordinance; provide technical support in public meetings; and follow up support in establishing inspection procedures and schedules 	
	<ul style="list-style-type: none"> ▪ With the GHP project team, assist the Town of Charlestown to develop procedures for required inspections and cesspool phase out. 	Provide support as needed.
Task 5.1 d	Provide technical support to SK and Charlestown in expanding the pilot GHP inspection program town-wide based on results of the mid-project evaluation.	Completed – South Kingstown and Charlestown ordinances are town-wide.
Task 5.1 e	Cooperate with towns in identifying long term funding to maintain municipal inspection programs operated by either town staff or by private contract.	Year 4
Action 5.2	Establish and maintain septic system inspection database.	
Task 5.2	Investigate opportunities for making RI-customized septic system tracking software readily accessible to other Rhode Island communities at low cost.	Requires State effort.
OBJECTIVE 6.	Establish wastewater treatment standards in the Green Hill Pond Watershed for new systems and repairs.	Estimated percent complete: 20%
Action 6.1 Block Island	Establish administrative procedures and technical guidelines to fully implement adopted wastewater treatment standards.	
Task 6.1 a	Provide technical support to the Town in implementing coordinated permit review and enforcement of performance	Completed – Town program is running well with minimal URI input; however, URI will provide technical support as needed

	standards under Section 506 of the zoning ordinance.	by request.
Task 6.1 b	Develop technical guidelines for system selection, design, installation, operation, and maintenance.	Develop detailed recommendations for Charlestown and South Kingstown as part of recommended treatment standards. Coordinate with New Shoreham wastewater management specialist to review adequacy of technical guidelines for Island.
Task 6.1 c	Develop procedures to coordinate state and local septic system permit review.	Completed in Block Island. Work with SK and Chas staff to coordinate State permit review as needed.
Task 6.1 d	Revise the site vulnerability rating method as necessary based on field information.	Work with Block Island wastewater management specialist to evaluate suitability of existing method; consider findings in developing recommendations for treatment standards in South Kingstown and Charlestown.
Task 6.1 e	Update the town list of state-approved treatment technologies as needed.	Update as needed based on current list of DEM-approved technologies and results of system monitoring.
Task 6.1 f	Cooperate with the town in developing long-term financing mechanism to support the town wastewater management program.	Year 4
Action 6.2 Green Hill Pond	Develop and adopt risk-based wastewater treatment standards using the Block Island approach as a model.	
Task 6.2 a	Provide technical support to South Kingstown and Charlestown in selecting treatment standards for upgrade of existing systems, repairs and new construction.	In cooperation with the Charlestown Wastewater Management Commission and other town officials, finalize recommendations for treatment standards. Develop draft treatment standards for South Kingstown, work with the Conservation Commission and other town officials to finalize.
Task 6.2 b	Investigate options for incorporating standards into South Kingstown and Charlestown ordinances and subdivision regulations.	Provide technical support as needed in Charlestown and South Kingstown.
Task 6.2 c	Develop list of wastewater technologies capable of achieving specified treatment levels.	Develop list of technologies based on treatment standards
Task 6.2 d	Draft ordinance and subdivision amendments; develop public education materials in conjunction with Objective 11; and conduct pre-hearing workshops and public hearings.	Provide educational and technical support as needed.

Task 6.2 e	Provide technical support to South Kingstown and Charlestown in administering treatment standards and coordinating permitting with State agencies.	Provide technical support as needed.
Action 6.3	Revise zoning and land development regulations to incorporate planning and zoning methods to minimize nonpoint source pollution impacts.	
Task 6.3 a	In the Green Hill Pond Watershed prepare amendments to zoning ordinances and land development regulations to incorporate neighborhood-specific land development standards selected under Task 2.3 b.	Provide technical support as needed.
Task 6.3 b	Provide technical support to Charlestown and South Kingstown in developing amendments to zoning ordinances and land development regulations to incorporating wetland buffer protection standards selected under Task 2.3 c .	Develop draft recommendations for stormwater management and riparian buffer protection in conjunction with wastewater treatment standards. Finalize in cooperation with Charlestown and South Kingstown local officials.
Task 6.3 c	Provide support to towns in developing public information materials in support of proposed amendments, related educational outreach, and participation in pre-hearing workshops and public hearings.	Assist in developing educational fact sheets, participate in pre-hearing workshops, and provide expert testimony at public hearings. Ordinance adoption dependent on Town Council action but possible dates Fall 2002 in Charlestown; Spring 2003 South Kingstown.
OBJECTIVE 7	Encourage the participation in, and expansion of existing financial assistance programs as homeowner incentives to retrofit, repair or replace on-site wastewater systems in accordance with risk-based performance standards.	Estimated percent complete: na
Action 7.1	Promote use of low interest loans for system improvements through the Rhode Island Community Septic System Loan Program (CSSLP).	
Task 7.1 a	Adopt or expand low-interest loan programs for homeowners under the RI Clean Water Finance Agency (CSSLP).	Town responsibility; URI to provide technical support as needed.

Task 7.1b	Explore options for limited grants for system repairs and retrofits in critical resource areas where advanced treatment systems are needed / required. Investigate possibility of institutionalizing local loan or grant program to supplement State CSSLP loan funds and Community Development Block Grants.	
Task 7.1 c	Provide technical support to the towns in prioritizing the use of CSSLP funds and partial grants (including demonstration system selection) based upon pollution risks in critical areas.	Not applicable -CSSLP funds available to all; towns have not requested assistance on priorities for use of project loan/grant funds. Scope of work already specifies low income and high risk location.
Action 7.2	Develop financial programs and other incentives to encourage system improvements.	
OBJECTIVE 8	Through training and technology transfer, build capacity of town staff/consultants to effectively administer septic system management programs, and of local wastewater professionals to design, construct and maintain alternative on-site wastewater technologies.	Estimated percent complete: 38%
Action 8.1	Train town staff and others to conduct soils-based site evaluations.	
Task 8.1 a	With cooperation of town staff, field test RI DEM soil-based site evaluation procedure on Block Island and adapt as necessary for the three communities.	Continue to monitor installed wells and evaluate results. Summarize preliminary findings and draft revisions to soil based siting procedure. Graduate student assigned to this project, Charlie Morgan will be completing the field study and graduating in December 2002. URI will try to continue well sampling with other students or possibly Island volunteers. Expect to use research sites for soil morphology on-site soil evaluation workshops.
Task 8.1 b	Provide technical support to town staff in review of septic system applications, site evaluations ,and technology selection. In Block Island, URI will meet with the Wastewater Specialist to review applications and address site-specific issues on a monthly	Provide technical support as needed.

	basis and by phone technical support.	
Task 8.1 c	Support town staff in creating local training and certification/ registration programs for site evaluators to supplement minimum State-required training as needed. URI will investigate need for town registration of site evaluators.	Offer soil evaluator classes, Spring, 2003.
Task 8.1 d	Assist RI DEM to adopt the soil-based site evaluation method. Offer training workshops for site evaluators through the Onsite Wastewater Training Center.	Year 4 - 5
Action 8.2	Design and conduct training in system inspection, design, installation, repair, and maintenance.	
Tasks 8.2 a	Design and conduct technical training for town staff and wastewater professionals. Training will be provided through established courses and development of new courses as needed.	Classes and educational programs ongoing.
Tasks 8.2 b	Institutionalize training through curriculum development transferable Statewide.	Refine Onsite Wastewater Training Center program of classes and workshops as needed.
Tasks 8.2 c	Identify mechanisms for maintaining training continuity and continuing education requirements for wastewater professionals.	Continue to cooperate with RI DEM to design training programs and offer additional training incentives.
OBJECTIVE 9	Monitor and evaluate the performance of alternative technologies installed as demonstration systems.	Estimated percent complete: 20%
Action 9.1	Document the performance of alternative wastewater technologies used in this project, and their respective operation and maintenance needs.	
Task 9.1 a	Establish a sampling and monitoring protocol for 24 demonstration systems constructed under this project (4 times per year, over a period of three years).	Finalize sampling and monitoring QUAP for advanced treatment systems.
Task 9.1 b	Continue sampling and monitoring 12 existing demonstration systems located in the Green Hill Pond watershed and other nearby Rhode Island coastal areas. (3 times per year, on a seasonal basis)	Maintain sampling and monitoring schedule.

Task 9.1 c	Perform required maintenance on monitored demonstration systems and document operation and maintenance needs.	Continue maintenance /performance monitoring.
Task 9.1 d	Conduct laboratory analysis at the URI Water Quality Lab; interpret and summarize treatment performance results.	URI Watershed Watch lab will continue to analyze samples and report results following monitoring schedule.
Task 9.1 e	Summarize and document treatment performance and operation and maintenance information for community and State decision-makers, EPA, and system owners through annual reporting.	Publish at least one peer-reviewed paper on results of system performance; present results of performance monitoring at national or regional professional meetings at least two times during the year.
Task 9.1 f	Make results available to national audiences through publications and presentations.	
Action 9.2	Monitor and document the pollutant renovation capability of shallow drainfields.	
Task 9.2 a	Design and instrument field study of nitrogen renovation in unsaturated zones underlying shallow drainfields and adjacent control plots at 4 selected demonstration systems.	Finalize project design and sampling procedures.
Task 9.2 b	Collect soil water percolate and grass clippings twice monthly during the warm months and every two months during the cool/cold season. Conduct study over a two year period.	Proceed with study.
Task 9.2 c	Conduct laboratory analyses for nutrients; interpret and summarize results.	Proceed with study.
Task 9.2 d	Summarize and document treatment performance results for community and State decision-makers, EPA, and system owners.	Year 4
Task 9.2 e	Make results available to national audiences through publications and presentations.	Summarize preliminary results.
Action 9.3	Document owner satisfaction with alternative technologies.	
Task 9.3 a	Develop homeowner-friendly manuals describing the alternative and innovative technologies used in this project.	Develop fact sheet set on alternative technologies.
Task 9.3 b	Survey owners of alternative technologies to determine their perceptions of and satisfaction with alternative system function,	Year 4

	reliability, and performance.	
Task 9.3 c	Evaluate and summarize survey results for EPA, community and State decision-makers, and other groups.	Year 4
OBJECTIVE 10	Design and implement a monitoring program to track water quality trends in surface and ground waters, and provide results of this monitoring and related local research in an accessible format to local decision makers and the general public.	Estimated percent complete: 18%
Action 10.1	Design and implement a watershed monitoring program.	
Task 10.1 a	Assist towns to assemble a monitoring subcommittee and in coordinating its activities. Separate local monitoring groups may be formed for Green Hill and Block Island. Agency members will provide advisory review and technical assistance.	Continue to coordinate with Salt Pond Coalition, Committee for the Great Salt Pond, and agency partners to develop annual monitoring plans. Recruit new water quality monitors through URI Watershed Watch outreach efforts.
Task 10.1 b	Assist monitoring groups to design a monitoring program coordinated with existing monitoring activities and exploring involvement of volunteers. Types of monitoring may include: <ul style="list-style-type: none"> • Shoreline and watershed surveys (to be conducted by DEM TMDL program in Green Hill and coordinated with project). • Groundwater sampling of existing wells in Block Island. • Stream bacteria, flow and habitat monitoring by RIDEM TMDL program and SPC stormwatchers. • Pond water quality sampling, • Eelgrass mapping and habitat evaluation, • Private tap water testing. • Water quality/boater surveys to determine compliance with no-discharge regulations in the Great Salt Pond, BI. URI will assist the Salt Ponds Coalition (SPC) to develop a coordinated monitoring plan for Green Hill Pond and develop a QA/QC plan for the SPC. Similar support is available to New Shoreham and Committee for the Great Salt Pond by request.	Update annual monitoring plan. URI Watershed Monitoring will include: Dockside monitoring at 4 Green Hill Pond sites, 3 Ninigret Pond sites for temperature, chlorophyll, salinity, nutrients and bacteria according to the Watershed Watch schedule. One –in-pond monitoring site will be added for Green Hill Pond.
Task 10.1 c	Towns and local monitoring groups will oversee the monitoring program and organize volunteers.	Not applicable

Task 10.1 d	Provide technical support to local monitoring groups through volunteer monitor training and equipment, lab support, and data analysis and interpretation, and development of QA/QC plan for Salt Pond Coalition (SPC). URI Watershed Watch will train SPC volunteers to conduct expanded sampling at existing sites, as described above. URI will also shift resources from sample analysis to development a coordinated monitoring program for GHP and the SPC QA/QC plan.	Continue to train volunteers, analyze samples and make results available. Finalize surface water monitoring Quality Assurance Plan.
Task 10.1 e	Coordinate design of the monitoring program with state and federal partners including the RIDEM TMDL program. Investigate opportunities for obtaining EPA technical support in “fingerprinting” bacteria types to determine sources.	Coordinate with DEM TMDL staff to present final results and recommendations for the Green Hill Pond watershed.
Task 10.1 f	Provide Watershed Watch monitoring results in a user-friendly format for use in Salt Pond Coalition newsletters, Watershed Watch annual reports, and an annual report of water quality on Block Island. Coordinate with New Shoreham in investigating innovative methods to report results annually to community residents.	Summarize Watershed Watch monitoring data in user-friendly format for publication. Work with BI to prepare annual environmental report incorporating this and other data.
Action 10.2	Summarize results of research on the capacity of coastal shoreline areas to attenuate groundwater nitrogen inputs from septic systems and make available to local decision makers.	
	Review current literature on natural shoreline functions and best management practices for riparian areas applicable to project communities.	Complete literature review. Develop fact sheet on nitrogen removal function of coastal wetland buffers.
	Review results of field research on the capacity of coastal shoreline areas to attenuate nitrogen inputs and evaluate usefulness for local decision makers.	Make fact sheet summary available through the Salt Pond coalition newsletter, CRMC newsletter, Bay Journal, and other existing publications.

	Develop educational materials for Town officials for use in workshops for Town board members and other local decision makers.	
	Distribute educational products through workshops, displays, presentations, existing newsletters or other means as opportunities arise.	
OBJECTIVE 11	Design and carry out an outreach program to promote adoption of wastewater management practices and report project accomplishments to local, State, and national audiences.	Estimated percent complete: 35%
Action 11.1	Build local awareness of, support for, and compliance with local wastewater management programs.	
Task 11.1 a	Establish an Education Subcommittee of the Steering Committee. On a routine basis URI staff will work with local education subcommittee members and local Project Team members.	Continue to work with local groups from each community to update and implement education plans.
Task 11.1 b	Design and implement an outreach strategy targeted to specific audiences within Block Island and Green Hill Pond, such as homeowners, renters, tourists, and business owners.	Update education plan and implement specific components as needed. Update series of wastewater management program fact sheets for each town.
Task 11.1 c	Conduct workshops on wastewater system design, function, maintenance, repair, retrofitting, advanced treatment options and technology selection through the URI On-Site Wastewater Training Center as one component of the outreach strategy. Workshops for homeowners will be coordinated through the RI Home*A*Syst Program.	Schedule and conduct workshops for homeowners, town officials, and other audiences based on interest. Coordinate with towns to target key audiences. Incorporate information about newly adopted or proposed ordinances in SK and Charlestown workshops.
Task 11.1 d	Develop and distribute educational materials for targeted groups, exploring a variety of methods for delivering information, from newspapers to workshops.	Support town staff in developing fact sheets and other educational materials to support specific needs of wastewater management programs. Building support for approval of new ordinances and helping residents understand program requirements are priorities.

Task 11.1 e	Develop and maintain project web site with project methods, activities and products designed for a variety of audiences. Create links to municipal, nonprofit watershed organizations, and other related web sites nationally, including sister demonstration projects nationally.	Establish format for expanded website with the towns and implement changes.
Action 11.2	Document project impacts and convey results locally and nationally.	
Task 11.2 a	Develop strategy for demonstrating project methods, results, and accomplishments. The primary target audience is municipalities and community groups.	Completed
Task 11.2 b	Summarize project methods, results and accomplishments through annual accomplishments summarized in fact sheet format.	Prepare project update annually. Make available on the web.
	Develop final products to include: 1) case study of how the Block Is./Green Hill Pond and the Town of South Kingston programs were developed. 2) documentation of the GIS/GPS/CAD technology/methodology used to map and evaluate parcels to determine risk and appropriate on-site system. 3) description of the process and methodology used to set performance-based wastewater treatment standards for new systems and repairs. 4) documentation on establishing a septic system database and methods used to track inspections, permits, maintenance and repairs, and other records.	Year 4 – 5
Task 11.2 c	Make project methods and educational products available in a readily accessible format for small communities.	Begin putting example educational products on the website.

Task 11.2 d	Make project methods, educational products, results, and accomplishments available to national audiences through the project website, publications and presentations.	Ongoing