PERFORMANCE PARTNERSHIP

AGREEMENT

Between the
Rhode Island Department of
Environmental Management
and the
US Environmental Protection Agency
Region 1

State Fiscal Years 2002 & 2003

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Appendices

Introduction
This is the fifth Rhode Island Performance Partnership Agreement (PPA) within the National Environmental Performance Partnership System (NEPPS) between the Rhode Island Department of Environmental Management (DEM) and United States Environmental Protection Agency – Region 1 (EPA). This agreement consists of the DEM Strategic Work Plan for Fiscal Years 2002 and 2003, Key Strategies and EPA Actions for Rhode Island for FY 2002-2003, and a Responsiveness Summary.

This PPA builds on the effort of the previous PPA to allocate resources toward environmental priorities and to focus on producing actual environmental results. It includes more specific environmental indicators and performance measures to measure progress toward our goals. Still, more work is required and will be undertaken by both DEM and EPA during the term of this new PPA to improve indicators and measures.

Parties to the Agreement
The agreement formalizes the partnership between DEM and the EPA and describes the work that they have agreed to do in the next two state fiscal years, FY 2002 and 2003 (July 1, 2001 through June 30, 2003). The effective period of the agreement shifts from a federal fiscal year timeframe (October to September) to the state fiscal year (July to June) to align the PPA with DEM's Strategic Workplan.

Scope of the Agreement
This agreement provides an overview and summary of the combined work to be undertaken by the parties. Detailed work plans for DEM are posted on the website: www.state.ri.us/dem/pubs/index.htm. There are work plans for each DEM division as well as special programs such as the Narragansett Bay Estuary Program, the Narragansett Bay Estuarine Research Reserve, and the Sustainable Watersheds program (including individual action plans for several watersheds). EPA's work plan can be found at www.epa.gov/region01.

EPA and DEM Work Plans
The DEM Strategic Work Plan for FY 2002-2003 (Appendix A) is an update of the Work Plan for 2000-2001 and is organized around seven goals. EPA New England's Office of Ecosystem Protection for Rhode Island coordinated the development of its Key Strategies and EPA Actions for Rhode Island (Appendix B) separately but parallel to DEM's and consistent with the national Government Performance and Results Act (GPRA) goals.

Both work plans address the same core issues of protecting, restoring, and sustaining Rhode Island's natural resources and ecosystems. To emphasize tangible environmental results, DEM and EPA have aligned many of their efforts under four broad goals: clean air; clean and plentiful water; livable communities; and healthy ecosystems. These mutual goals will serve as the framework for integrating programs and incorporating joint environmental indicators and performance targets.

Embedded in these goals is the recognition that they cannot, nor should they be, solely the work of our agencies. Each goal requires us to seek out and acknowledge partners and stakeholders. Today, environmental management requires the efforts of many partnerships to address non-point source pollution, region-wide air pollution, restoration and redevelopment of hazardous waste sites, urban sprawl, habitat loss, biological diversity, global climate change, and the cycling of pollutants among air, water, and land.

EPA and DEM developed the targets and indicators in this document through a joint planning process (See Appendix C – DEM-EPA Joint Targets). EPA's broad national goals are compatible with DEM's specific goals, although alignment of the objectives and goals in the two work plans is not always exact.

Some elements in the EPA work plan, for example, can be found under other goals in the DEM work plan.

Enforcement
For the DEM and EPA agreement on enforcement see Appendix D.

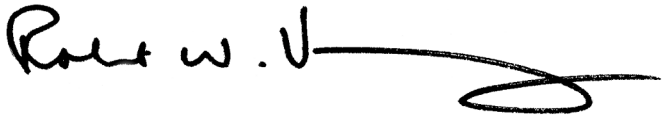
Public Participation
The DEM held meetings on June 27 and 28, 2001 at its headquarters in Providence and in South Kingstown High School, respectively and posted the Strategic Work Plan FY 2002 - 2003 on its web site to solicit comments. The Department's responses to comments from the public meetings as well as written and electronic communications can be found in the responsiveness summary appended to the Department's Strategic Work Plan for FY 2002-2003. The Department will work to implement suggestions requiring follow-up.

Assessment and Revision
This agreement spans two years. Recognizing that priorities and funding may change during that period, the agreement schedules several mutual reviews to assess our programs and to revise activities based on the results of those assessments. At a minimum, we will report by February 28 in 2002 and 2003 on our progress in meeting targets and key work plan commitments. As a condition of this agreement, DEM will complete a comprehensive Quality Management Plan for the Department, including a preliminary schedule for developing and submitting Quality Assurance Project Plans over the next two years, by September 30, 2001.

Appendices
A. DEM Strategic Work Plan for Fiscal Years 2002 and 2003
B. Key Strategies and EPA Actions for Rhode Island for FY 2002-2003.
C. DEM-EPA Joint Targets
D. Enforcement Statement

Execution of Agreement

This agreement is hereby entered into this 12th day of September, 2001 and remains in effect until the 30th day of June 2003, unless amended by mutual consent.



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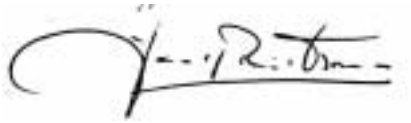

Jan H. Reitsma
Director
RI Department of Environmental Management

Appendix A

DEM Strategic Work Plan
For
Fiscal Years 2002 and 2003

State of Rhode Island
Department of Environmental Management
235 Promenade Street
Providence, RI 02908-5767
http://www.state.ri.us/dem

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Strategic Work Plan
Fiscal Years 2002 and 2003

September 2001

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Introduction

This Strategic Work Plan was developed to guide all of us at the Department of Environmental Management as we make decisions, set priorities, commit resources, coordinate with and support partners, and measure progress towards the goals we have to meet. It covers the fiscal years 2002 and 2003 (July 1, 2001 to June 30, 2003).

The Strategic Work Plan is one of a series of interrelated documents that describe the Department's work, including its mission, policy priorities, future challenges, and the results we are achieving and hope to achieve over the coming years. A brief summary of the purpose and elements of each document follows. For copies of the full Work Plan or any of its component work plans call 222-3434, Extension 4430, or visit our website at www.state.ri.us/dem

Strategic Work Plan

This document describes the Department's mission, goals and strategic priorities. The Strategic Work Plan also outlines the main objectives and strategies that will be used to move toward the long-term goals over the next two years. It does not provide details about each and every program or activity. Instead it gives a broad overview and a sense of strategic, department-wide priorities and direction. It should also allow the public, our customers and those who oversee the Department to hold us accountable.

Division and Bureau Work Plans

These work plans cover day-to-day program activities and provide much more detail about specific tasks and assignments. They are used by managers as a management tool, to keep us on track to meeting our priorities with the available resources. They provide internal accountability, as well as a means for parties with specific interests to monitor our work in more detail than the Strategic Plan allows. The plans are developed for two fiscal years, with updates in the intervening years. Results are published in semi-annual progress reports and the Department's Annual Report.

Performance Partnership Agreement (PPA) with Region I of the United States Environmental Protection Agency (EPA)

This Strategic Work Plan along with EPA's Key Strategies and Goals attached to this work plan, and DEM's Division Work Plans form the basis of the performance partnership agreement for federal fiscal years 2002 and 2003. This agreement guides the implementation of EPA funded or delegated programs and outlines the roles and responsibilities of each agency in the Partnership.

TERMS AND DEFINITIONS

Mission - Our mandate and purpose as an agency.

Goals - The long-term results we are working to achieve.

Objectives - Specific targets that get us closer to achieving our goals.

Indicators - Environmental improvements or outcomes that are consistent with our goals and objectives.

Strategies - Multiple activities organized to meet objectives and goals. Strategies may involve more than one program, division, or organization and may affect more than one media.

Performance Measures - Specific targets to verify that our work results in actual progress towards our goals and objectives, where possible in terms of actual environmental improvements.

Note: Goals, objectives, indicators and strategies may be broader in scope than what the Department by itself has the authority or capacity to address. Many environmental priorities in fact depend on partnerships. The performance measures in this work plan may focus specifically on actions to be taken by the Department, or they may include the actions of partners.

MISSION

- ***Enhance the quality of life for current and future generations by protecting, restoring and managing the natural resources of the state; enhancing outdoor recreational opportunities; protecting public health; and preventing environmental degradation.***
- ***Achieve a sustainable balance between economic activity and natural resource protection.***
- ***Motivate citizens of the state to take responsibility for environmental protection and management, based on an understanding of their environment, their dependence on it, and the ways their actions affect it.***

GOALS

Clean Air – The air throughout the state will be healthy to breathe; air pollutants will not damage our forests, land and water bodies, or adversely impact our quality of life.

Clean and Plentiful Water - Rhode Island's rivers, lakes and coastal waters will be fishable, swimmable, and support healthy ecosystems. Surface and ground water will be clean sources of water. Adequate quantities of surface and ground water will be available for present and future uses.

Livable Communities - All Rhode Islanders will have access to the benefits of a safe and healthy environment. People and property will be reasonably protected from floods, fire, animal-borne diseases, exposure to hazardous substances, and other environmental hazards. Communities will have capacity to plan for growth in a way that minimizes environmental degradation or loss of community character, and contributes to a sustainable economy. Communities will engage in joint efforts to address challenges and opportunities they have in common.

Healthy Ecosystems - The health, diversity and integrity of Rhode Island's ecosystems will be restored, protected, enhanced and sustained.

Resource Based Industries - Agriculture, fisheries, forestry and tourism will be affordable and sustainable activities, will employ best management practices to protect common resources, and will be supported as resource stewards and key sectors of the state economy.

Abundant Open Space and Recreation - Natural and scenic landscapes will be preserved and all citizens will have easy access to well-maintained parks, forests, wildlife areas and historic sites. Open space and recreational opportunities will be available for all Rhode Islanders to enjoy.

Open and Effective Government - The Department will fulfill its mission and achieve its goals with the involvement and support of citizens and stakeholders, and to that end will continue to improve its accountability, responsiveness and service delivery.

MAJOR CHALLENGES AND STRATEGIC PRIORITIES

The Department faces many challenges that demand special attention. Some are environmental in nature, others relate to organizational strength and efficiency. Some involve short-term issues, others require a long-term strategy. Often, DEM has primary responsibility for addressing an issue, but in some cases that responsibility lies with other agencies or levels of government. One way or another they present themselves as priorities that we need to address in the next two years. The following summarizes these challenges and priorities by category, but some clearly fit in more than one category.

AIR

Energy Policy: Environmental agencies must contribute constructively to the national and regional debates about energy supplies. We must make sure that environmental quality is not sacrificed to inefficient energy consumption or generating power. To be effective, we must recognize the importance of energy availability and reliability and do our part to avoid unnecessary delays and complications. We must also develop well-documented and realistic strategies for both the supply and the demand side (clean fuels, innovative technologies, efficiency and conservation), as alternatives to backsliding on environmental standards. We must demonstrate how a sustainable energy policy can be protective of air quality, water supplies and water quality, reduce greenhouse gas emissions, *and* improve reliability and stability, *and* accommodate growth. We need to approach this as a regional and national challenge and work with our counterparts in environmental and energy agencies accordingly.

WATER

Baseline monitoring: While we are making progress on water quality, a very significant percentage of the state's waters has not yet been assessed. Baseline assessments and monitoring must be stepped up to make sure we target our limited resources to the right priorities and design effective restoration strategies. We must develop a comprehensive monitoring strategy and work with others to allocate the necessary resources for implementation by interagency, as well as public/private partnerships, including seeking additional support for volunteer monitoring efforts.

Water Quality Restoration: As required under federal law, DEM has developed an aggressive, multi-year plan to restore water quality in waters that are not meeting water quality standards (116 waterbodies identified). Funding is one major challenge, as assessment and implementation needs exceed available state and federal resources. The plan is based on an approach that considers all sources of pollution in the watershed, including nonpoint sources. Given this comprehensive approach the challenge is to get municipalities and local organizations to work together. DEM must encourage municipalities to develop stormwater management plans that will implement new stormwater regulations. This is one of the objectives of the sustainable watershed program and of the action plans that are being developed for specific watersheds. The next two years will provide a crucial test of whether this approach can restore water quality across the state.

LIVABLE COMMUNITIES

Sustainable watersheds*:* DEM has provided leadership in two pilot areas with the development of regional strategies aimed at protecting watershed resources and at planning for growth in a way that does not conflict with resource protection. The challenge in these two pilot areas (Washington County and the Woonasquatucket watershed) is to implement studies and action plans that have been developed. The further challenge is to expand the effort into additional watersheds, such as the Blackstone and Pawtuxet, to make sure that other agencies and organizations take the lead, and to get local governments, businesses and citizens to participate, which is critical because of limited state resources and to ensure long term success.

Planning for Growth/Local Capacity*:* Poorly planned growth is a major source of pollution and other forms of environmental degradation. Many communities experience significant growth pressure but lack capacity and expertise to deal with it proactively and in a balanced manner. The sustainable watershed initiative has begun to develop tools for local decision-makers, such as development design manuals and model land use regulations, which are not anti-growth but provide guidance on how to steer and shape growth into appropriate places and patterns. DEM must work with other agencies and organizations, especially through the Governor's Growth Planning Council, to provide additional assistance and resources to local officials and groups, including training. We also need to develop more incentives for communities to pursue regional solutions for issues that are really regional, rather than local, in nature.

Brownfields*:* The redevelopment of vacant or underutilized properties tainted by actual or suspected contamination can have a positive environmental and economic effect on communities. This is a key element of planning for growth in the right places. DEM is working with a stakeholder group for waste/site remediation that includes EDC and is looking for innovative ways to expand the assessment, remediation and redevelopment of brownfield sites throughout Rhode Island.

Environmental Equity: Rhode Islanders have equal rights to environmental quality and protection from environmental degradation. The question is whether in fact certain communities or populations experience a disproportionate amount of

degradation or receive less than their fair share of environmental quality and improvements. The Department is developing a policy that seeks to address this question in the early stages of planning and decision-making, rather than through after-the-fact challenges to, for example, individual permit decisions. This policy requires all programs to review and if necessary adjust their practices, and the Department to report on and publicly evaluate its efforts on a regular basis.

Dam Safety: In early 2001, the Governor's Task Force on Dam Safety and Maintenance recommended many regulatory, statutory and administrative changes to help minimize risks associated with dams on Rhode Island. Among the recommendations were: a) a grant/loans program for dam repairs; b) increased involvement by municipalities to assist dam owners with repairs; c) the preparation of emergency action plans (EAPs) for all significant and high hazard dams; and d) registration of dams. Dam safety legislation will be re-introduced during the 2002 legislative session.

ECOSYSTEMS

Research and Data Management: Research and data collection, for example on Narragansett Bay, is still too fragmented and uncoordinated. DEM has been working with other agencies, organizations and academic institutions to achieve better coordination and use of limited resources, especially through the new Partnership for Narragansett Bay. A framework should be established over the next two years to formalize coordination, improve the quality and accessibility of data, and match research and management agendas.

Habitat Restoration: DEM and CRMC have successfully developed a joint plan, project priority list and decision-making structure to foster coastal habitat restoration projects. URI and DEM have undertaken complimentary work for freshwater wetlands. We also have begun to implement specific projects but funding to complete these and other projects continues to be a problem. The next two years are crucial in terms of maintaining momentum and credibility as well as ability to access significant federal funds. When dams are repaired, opportunities for fish passage and other habitat restoration will be reviewed.

Wildlife Conservation: Wild plants and animals provide aesthetic, educational, recreational, and stewardship opportunities. The Department maintains management programs for common as well as rare and endangered species.

RESOURCE BASED INDUSTRIES

Fisheries management: The Department continues to work with others to rebuild lobster, winter flounder and other populations and meet the federal Sustainable Fisheries Act 2006 deadline. The Atlantic States Coastal Fisheries Cooperative Management Act (ACFCMA) guides the activities of the Atlantic States Marine Fisheries Commission, which manages inshore fisheries. We are also working with the legislature, commercial fishing industry, and environmental groups to address long term commercial fisheries issues in a process facilitated by the URI Coastal Institute. Within the next year, significant steps must be taken to resolve urgent licensing, data collection, and management structure issues.

Eco-tourism: The Department's management areas, as well as other natural sites provide a resource for regional, national, and global tourism. The Department will work with other state and local agencies to ensure best management and conservation of natural resources.

Balancing Water Budgets

Rapid growth in the size and spread of new development and increased demands for irrigation place many stresses on water resources: greater demands for consumption, risks of spills, polluted runoff, and degraded wetlands. More and larger areas are being covered with impervious surfaces, impeding recharge of groundwater wells and reservoirs. These demands have led to water shortages and use restrictions mainly in summer in many Rhode Island communities in recent years. The Blackstone, Hunt, and Pawcatuck River systems have been dangerously low during some summer months. We are collaborating with stakeholders and state and local agencies to determine water needs and manage water use.

Farm Viability: Development pressures continue to erode Rhode Island's agricultural base. Farm viability has benefited greatly from direct marketing techniques such as roadside stands and farmer's markets. In the next two years the Department will continue to work with farmers improve farm viability through innovative marketing and during drought. The Department supports conserving agriculturally significant land.

OPEN SPACE AND RECREATION

Open Space Protection: At the current rate of development and land consumption in Rhode Island many communities will approach build-out by 2020, if not earlier. Opportunities to protect farms, forested land, significant habitat, or to provide for parks and recreational amenities will become less frequent and affordable. To meet the Governor's goals and the public's expectation as expressed in support for the $34 million bond issue, DEM, together with local, federal, and private sector partners, must further step up land protection efforts, with a target of at least 3,000 additional acres protected per year. Priority will be given to preserving significant natural features and to aggregating conserved areas.

Capital Asset Management*:* A recent capital asset management study identified 102 projects totaling $6.3 million in repair and replacement projects at parks and beaches that need immediate attention. The report also identified options for a stable funding system to restore and maintain high priority assets. The Department will complete a study of forestry facilities in the coming year and examine options for long term asset protection funding in light of the legislative prohibition on fees.

OPEN AND EFFECTIVE GOVERNMENT

Outreach and public education: Although DEM has greatly increased public participation in the last two years through open houses, stakeholder groups and roundtables, the Department has never recovered from the dismantling of its outreach and education office. The Department needs to develop a plan for strengthening and integrating the remaining outreach and education functions throughout the Department.

Pollution Prevention: Preventing waste and contamination from being generated produces greater environmental health benefits, faster and at lower cost. The Department has been committed to pollution prevention and has made progress in particular through its Office of Technical and Customer Assistance. To get more and better results, and to make smarter use of our resources, we must find ways to broaden and intensify this effort across more programs. In conjunction with Pollution Prevention Week in September, the Department will identify one or more companies to receive the Governor's Award for Excellence in Pollution Prevention for outstanding accomplishments in reducing or eliminating pollution at the source.

Permit streamlining: The Department is giving priority to implementing recommendations made by the wetlands permitting task force, including a series of rule changes to improve the predictability of the process and shorten the time frames for decisions. Task forces reviewing the ISDS and Waste Site Remediation programs will complete their work within the next six months. Additional permit programs need to be reviewed based on feedback received from interested parties.

Environmental Excellence and Leadership: Voluntary compliance or performance that goes beyond compliance is a potentially important component of our environmental protection efforts. As is the case with pollution prevention, better results can be achieved at lower cost. Success and credibility depends on industry leadership and actual results. On the government side, effective outreach and public education as well as meaningful incentives and rewards are key. DEM recently started a stakeholder process to develop such a program.

Enforcement: DEM must be prepared to respond quickly and effectively to high priority situations. Triaging cases and complaints rather than attempting a 100 percent response rate is likely to produce better environmental results. To speed up corrective actions, parties must be notified of problems as soon as they are identified. Significant noncompliance must be deterred by appropriate penalties. Any reduction in penalties must be consistent with clear and formally adopted criteria, and must be supported in writing. We will continue to make changes to rules and practices to achieve these improvements.

Workforce Changes: Nearly 30 percent of the state workforce, including management, will become eligible for retirement in the next few years. Preparing for this change, the Department has an opportunity to reevaluate our organizational structure, encourage new talent, train new leadership from within, and develop a recruitment strategy.

Dredging: DEM must do its share to make sure that much needed dredging projects can move forward after far too many years of political and regulatory impasse. DEM must use its mandate to protect water quality and fisheries to ensure proper implementation of these projects and to do its part to avoid unnecessary delays and complications. In addition to better internal and interagency coordination of the permitting process, an infrastructure is needed that individual applicants cannot provide. Elements include inventories of dredging and potential disposal sites, both in-water and upland. DEM must support CRMC as the lead agency on dredge management, and must, in the short term, focus its own efforts on upland disposal options, dewatering facilities, viable beneficial reuse options, and permit streamlining.

Information Systems/E-Government: The Department is implementing a new system which not only allows it to process permit applications more efficiently but can also provide online access to application status, as well as environmental data and maps to help applicants complete applications. We will have to prove in the coming year that this system actually produces the promised benefits. In addition, we need to plan ahead for the next two years with on-line submittal of permit applications as well as on line registration for boating and hunting and fishing licenses.

Clean Air

The air throughout the state will be healthy to breathe, and air pollutants will not damage our forests, land and water bodies.

Conditions, Trends and Objectives

The burning of fossil fuels, industrial processes and many other activities that contribute to modern life release many harmful by-products. Since each adult breathes over 3,000 gallons of air per day, even small amount of pollutants can invade and harm the body. Acid rain and ozone threaten the environment and the buildup of carbon dioxide and other greenhouse gases contributes to global warming, putting our ecosystems, farms, forests and communities at risk. The Department will focus efforts in the next two years on reducing ozone, fine particles, toxic air pollutants, and greenhouse gases in our state.

Ozone

Levels of carbon monoxide (CO), nitrogen oxides (NO_x), sulfur dioxide and lead in Rhode Island's air have fallen to well below national health standards as a result of cleaner cars, cleaner fuels and other air pollution control programs. The number of unhealthy days as measured by the one-hour ozone standard has been trending down over the last 20 years.

Despite improvements in the long-term trend, however, the state's air regularly exceeds the eight-hour standard for ground level ozone during warm weather. Ozone can cause coughing, chest pain, and throat irritation in healthy people and can trigger asthma in sensitive individuals. The enhanced vehicle Inspection/Maintenance (I/M) program is the State's main strategy for reducing tail pipe emissions of the volatile organic compounds (VOCs) and NO_x that form ozone. Last year testing of 545,458 cars resulted in repairs that reduced emissions from the highest polluters by 65% for VOCs, 45% for NO_x and also 79% for CO. The state will refine the I/M program through improvements such as testing vehicles' on-board diagnostic systems and expansion of the program to include heavy-duty diesel vehicles. Through such instate efforts and by working with the Ozone Transport Commission and other regional air pollution collaboratives to abate ozone and ozone precursors carried by wind from other states, the Department hopes to meet the more stringent federal ozone standard by 2007.

Methyl-Tertiary-Butyl-Ether (MTBE)

Since 1995, Rhode Island has taken part in the federal reformulated gasoline program, which assures cleaner gasoline is delivered to our area. However, a component of reformulated gasoline, MTBE, worsens groundwater contamination when gasoline is spilled or leaked. Rhode Island is working with other states in the region to find a safe and affordable alternative to MTBE that maintains the air quality benefits from reformulated gasoline without exacerbating groundwater contamination problems.

Fine Particles

Public health data show that fine airborne particles that lodge deep in the lungs cause illness and even death in sensitive individuals. The Department is expanding and improving the recently installed particle monitoring network and implementing a program to reduce fine particle emissions from diesel trucks.

Greenhouse Gas (GHG) and a Comprehensive Energy Policy

A comprehensive regional energy policy is needed to address concerns such as possible fuel or energy shortages, rising energy prices, air and water quality, and global climate change. Climate change is a real and potentially significant concern for Rhode Island and the Northeast region. It can be averted, and energy cost and availability can be stabilized, if we reduce dependence on fossil fuels, develop cleaner fuels, renewable sources and cleaner technologies, and adopt energy efficiency and conservation as major elements of our energy strategy. The Governor, DEM and the State Energy Office are sponsoring a greenhouse gas stakeholder group of energy companies, industry, commerce, non-profits and government agencies to develop a statewide Greenhouse Gas Action Plan. The plan will recommend cost effective ways to reduce greenhouse gas and air pollutant emissions. The Department will also work with its environmental and energy counterparts in the region to develop realistic proposals for a balanced and sustainable energy policy.

Toxic Pollutants

Toxic air pollutants can pose acute and chronic human health impacts. DEM is conducting monitoring at five metropolitan Providence locations that will quantify air toxics problems and provide data to EPA to design urban air toxics monitoring systems throughout the country. Mercury and other intermedia pollutants will be included in Department programs to eliminate or control toxics.

Clean Air

Objectives

1. By 2007, meet health standards for ozone while maintaining healthful air quality for particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide, and lead.
2. Ensure that toxic air pollutants, directly or through transport to land or water, do not pose an unreasonable risk to public health.
3. Balanced and sustainable energy policies that considers reducing Greenhouse Gas emissions and improves air quality.
4. Ensure that the air quality does not impair quality of life for residents.
5. Participate in regional programs on air quality.

Indicators

1. Number of days Rhode Island meets federal air quality standards.
2. Emissions of selected chlorinated solvents; ambient concentrations of benzene 1,3 butadiene and formaldehyde.
3. Trends in energy use per person and trend in energy use by sector since 1990.
4. Trends in vehicle miles traveled and trends in miles per gallon for vehicles registered in RI.
5. Annual trend in air quality related complaints.

Key Strategies	Performance Measures
Validate, improve and expand Inspection/ Maintenance programs.	• Light-duty I/M program meets State Implementation Plan commitments by July 30, 2001 • Implement heavy-duty diesel vehicle testing program by January 2002
Promote alternatively fueled (AFV), advanced technology vehicles (ATV), and alternative fuel infrastructure.	• 75% to 90% of DEM replacement vehicles in FY'02 and FY '03 fleet are AFV or ATV. • Annual trend in number of vehicles registered in Rhode Island that are AFV or ATV. • Work with Fleet Operations to increase AFV fueling stations to 10 by June 2003. • Propose adoption of the advanced technology provisions of the California Light Emission Vehicle II program along with other northeast states by December 2002.
Continue to work with regional partners to reduce ozone precursor emissions upwind of Rhode Island	Achieve commitment or enforceable mandate to reduce emissions of nitrogen oxide by 789,000 tons per year by 2003 in 22 northeast states.
Expand and enhance air monitoring networks *See also Livable Communities for air deposition, mercury and PBTs.*	• Analyze data and determination whether Rhode Island meets fine particulate standard by 2003. • Monitor toxic air pollutants at five metropolitan Providence sites and issue a report 3 months after data is available, about October 2002. If funded, extend monitoring to the Olneyville section of the Woonasquatucket River Watershed by July 2002
Work with regional environmental and energy organizations to develop sustainable energy policies that provide environmental and public health protection.	Integration and coordination of energy and environmental policy development.
Develop a Rhode Island Greenhouse Gas Action Plan, through a stakeholder process, that will recommend cost-effective ways to reduce greenhouse gas emissions and criteria air pollutants.	• Complete plan by November 2003. • Report and document trend in reduction of annual greenhouse gas emissions. • Determine target reduction in greenhouse gas emissions by December 2002
Minimize accidental releases of hazardous air contaminants by implementing the Accidental Release Program.	• Promulgate Accidental Release regulations by December 2002. • Implement the Accidental Release Program.
Work with RI Resource Recovery Corp (RIRRC) and DOH to publish quarterly reports on the implementation of the Central Landfill Action Committee recommendations.	• Quarterly reports distributed to stakeholders.
Respond to air complaints including visible emissions, fugitive dust and odor with appropriate and timely enforcement actions.	Develop a comprehensive policy to triage complaints to address the most urgent complaints immediately by September 30, 2001.

Clean and Plentiful Water

Rhode Island's rivers, lakes and coastal waters will be safe for fishing, swimming, and other direct water contacts, and will support healthy ecosystems. Surface and groundwater will be clean sources of drinking water. There will be adequate water supply for all uses.

Conditions, Trends and Objectives

Most of RI's rivers, lakes, and coastal waters that are tested fully support uses defined by the Clean Water Act. Public drinking water supply is the most sensitive use for freshwater, and taking shellfish for direct human consumption is the most sensitive use in saltwater. Seventy-five per cent of designated shellfishable waters fully support shellfishing. Fifty-three percent of river miles and 24% of lake acres are untested. Bacteria and nutrients are the major contaminants of surface and groundwaters. The leading causes of contamination in public wells are volatile organic compounds (VOCs), found variably in 15% to 30% of public wells. Pollution from VOCs is projected to decline due to recent changes in underground storage tanks and landfill regulations. Spills of hazardous materials and pollution from nonpoint sources continue to be a concern.

Monitoring

The Department will develop a comprehensive monitoring strategy in 2002 to track conditions systematically to close the data gaps on current sources of pollution for remediation, and to tell whether we are making progress in the long term.. Securing funding to carry out the monitoring over the long term is critical to directing scarce resources to the most urgent water problems.

Reducing Nutrients

Releases of organic wastes, fertilizers, and other nutrient-rich materials can degrade water quality by stimulating the growth of algae and bacteria. The presence of these organisms, as well as degradation by other pollutants, reduce the level of dissolved oxygen in the water, harming fish and other aquatic life. Discharges from wastewater treatment facilities (WWTFs) are the largest contributors of nutrient pollution. DEM is working with wastewater treatment facilities (WWTFs), facilitating the use of advanced septic system technologies, and promoting other best management practices (BMPs) to reduce and prevent nutrient pollution.

Water Quality Restoration Plans (WQRPs) - TMDLs

The Clean Water Act requires each state to comprehensively assess waters of the state and develop water quality restoration plans that specify the maximum amount of each pollutant (Total Maximum Daily Loads or TMDLs) that may be discharged for each impaired waterbody, the sources of contamination, and plans for eliminating or abating them to restore water quality. DEM has targeted 116 waterbodies over the next 12 years. Current WQRPs often focus on the causes of impairment, either pathogens, nutrients, metals, or other pollutants for each waterbody. The Department will assess how it can conduct more comprehensive waterbody assessments that assess pollutants from air, water, and waste sources and include pollution prevention actions as well as restoration for each waterbody. Additionally, DEM is projecting that assessment and abatement needs will exceed available funding. It will be critical to secure additional funding to achieve water quality improvements. See Table 1, Water Quality Restoration Plans and Habitat Restoration Plans, and Figure 1, Habitat and Water Quality Restoration.

Protecting Drinking Water Sources

Surface runoff, illegal dumping, accidental spills, and failing septic systems can contaminate drinking water supplies and pose significant health risks. DEM oversaw the replacement of most single-walled metal underground storage tanks in RI with double-walled, corrosion-protected tank systems, adopted soil-based siting for septic systems to ensure that the soil is suitable for subsurface treatment, and works with communities to develop protection plans for all public wellhead areas. We will continue to work with the Department of Health (DOH) to coordinate DEM's Wellhead Protection Program with the DOH Source Water Assessment Program.

Septic Systems

DEM has encouraged all communities that rely significantly on septic systems to implement local wastewater management programs (WWMDs). As of June 2001, a total of 22 communities (81% of those targeted) are participating. We will assist the remaining five communities to initiate WWMDs. DEM is also continuing to update ISDS regulations and facilitate the appropriate application of innovative and alternative ISDS technologies. New rules will mandate advanced treatment (nitrogen removal) in certain environmentally sensitive areas.

Stormwater Management

In 2001, DEM will promulgate rules to implement Phase II of the stormwater regulations in accordance with federal stormwater requirements. The new program will require most RI communities to address the 6 minimum measures established by EPA for municipal stormwater drainage systems. DEM will offer planning grants, technical support and guidance to help communities meet this unfunded federal mandate.

Abating Combined Sewer Overflows (CSO)

DEM will continue close coordination with NBC, as Phase I of the Narragansett Bay Commission's CSO pollution abatement project moves into construction in 2001. This project will be the biggest and most expensive water pollution abatement effort undertaken in RI to date, and will substantially reduce the number of days that Conditional Areas A and B are closed to shellfishing each year and improve water quality for swimming and other recreational uses.

- *See Healthy Ecosystems Goal for information on Wetlands and Balancing Water Budgets.*
- *See Open and Effective Government for information on dredging.*

Clean and Plentiful Water

Objectives	
Protect and restore surface and groundwaters to meet water quality standards and support drinking water use, shellfishing, fishing, swimming and other recreational uses, and commercial and industrial activities.	
Indicators	
1. Reduced nutrients discharged from WWTFs, stormwater and other nonpoint sources by December 2008. 2. Increase the number river miles, stream segments, and lake and estuary acres that are assessed. 3. Increase dissolved oxygen (DO) levels to meet water quality standards in receiving waters by Decemder 2008/Reductions in algae blooms and fish kills due to low DO by December 2008. 4. Presence/absence of contamination in public water supply wells.	
Key Strategies	**Performance Measures**
Complete statewide assessment of water quality using available data; seek funding & work with partners to increase baseline monitoring.	• Publish State of the States Waters 305B Report – Fall 2002. • Re-issue Impaired Waters 303d List as appropriate • Update state water quality regulations. • Complete comprehensive monitoring strategy by June 2002. • Expand monitoring as resources allow, e.g., increase number of lakes monitored by volunteers.
• Implement nutrient reduction strategies in Rhode Island rivers and Upper Narragansett Bay • Include nutrient limits in Wastewater Treatment Facility permits • Track compliance and review WWTF design modifications for nutrient reduction • Develop Water Quality Restoration Plans studies to determine needed reduction in nutrient loadings. • Target Water Quality Restoration Plans (WQRPs) to restore water quality in polluted drinking water supply areas, closed shellfishing areas, and priority watersheds. • Seek funding for WQRPs to begin after June 2003.	• Issue permits/permit modifications to the 5 wastewater treatment facilities that discharge excess nutrients. • Approve final designs for nutrient removal at 3 WWTFs by July 2003. • Reduce nitrogen loadings by 35% and achieve acceptable levels of oxygen in the Providence/ Seekonk Rivers and Upper Bay by Dec. 2008 • Raise dissolved oxygen levels and reduce algae growth in the Pawtuxet River by reducing ammonia and nutrient loadings by Dec. 2004. • See Figure 1 and Table 1
Develop WQRPs to address needed reductions in pathogens and metals.	• See Figure 1 and Table 1
Prevent and abate groundwater pollution. • Implement wellhead protection program in close coordination with the Department of Health Source Water Assessment Program. • Revise Underground Injection Control (UIC) regulations to focus more on activities with a high potential to pollute groundwater and to streamline permitting procedures for lower risk injection sites, such as stormwater infiltration.	• Update Groundwater Quality Regulations for consistency with Waste Management Rules. • Update groundwater protection strategy. • All major groundwater suppliers will have approved protection plans by July 2003. • Update wellhead map with refined delineations. generated by the Source Water Protection Program. • Distribution of Biennial Wellhead Protection Report – October 2003. • Revise the UIC Program regulations by September 2002. • Complete application for federal consistency review of UIC Program.

Clean and Plentiful Water (continued)

Key Strategies	Performance Measures
Prevent and abate nonpoint source pollution with a focus on septic systems and stormwater.	• Complete an assessment of NPS Management Plan by September 2001. • Revise Non-Point Source Pollution Management Plan by September 2003. • Fund nonpoint source abatement projects and oversee completion of up to 19 existing projects. Priority will be given to projects implementing WQRPs (TMDLS).
Work with partners to implement stormwater (SW) controls (Phase II) for municipal drainage systems.	• Develop general permit and application guidance for implementation of Stormwater Phase II Program by December 2002. • Provide grants to communities to develop local stormwater plans. • Develop Phase II stormwater BMP menu and update stormwater guidance to promote BMPs (funding required).
Encourage local wastewater programs to abate pollution due to septic systems.	• Oversee 15 grants to communities developing local wastewater management programs (WWMD). • Continue Septic system Policy Forum and organize a WWMD workshop (2002) to facilitate policy development and exchange information • Implement ISDS Task Force recommendations including enhancing public outreach, as resources allow.
Promote the appropriate application of innovative and alternative ISDS systems.	• Require the use of nitrogen removal systems in selected environmentally sensitive areas by 2002.
Review Narragansett Bay Commission Phase 1 design for facilities to abate combined sewer overflows (CSOs)	• Complete review of 100% design for NBC CSO Control Program, Phase 1 by September 2001. • Phase I CSO Control Program implemented by December 2006 and reduce: annual biological oxygen demand (BOD) and Total Suspended Solids (TSS) loadings by 30%; fecal coliform by 40% to reduce the days Conditional Areas A and B are closed to shellfishing by 50% and 78% respectively.

Water Quality Restoration Plans (WQRPs) and Habitat Restoration Plans (HRPs)

WQRP Implementation Under Development or in Progress

- Stafford Pond
- Runnins/Barrington Rivers
- Hunt River, Scrabbletown Brook, Fry Brook

WQRP to be completed FY2002-2003 (7/1/01 – 6/30/03)

- Narrow River, Gilbert Stuart Brook, Mumford Brook (pathogens) – 12/31/01
- Sakonnet River and Island Park Cove (pathogens) – 12/31/01
- Kickemuit Reservoir (pathogens, nutrients/excess algae/turbidity) 12/31/01
- Saugatucket River, Mitchell Brook, Rocky Brook, and Indian Run (pathogens) - 12/31/01; Indian Run (metals) 6/30/02; Saugatucket Pond (nutrients/noxious aquatic plants) 12/31/01
- Providence River (hypoxia/nutrients), Seekonk River (hypoxia) –6/30/02
- Palmer River (nutrients) – 6/30/02 (pathogens) - 12/31/01
- Mashapaug Pond (hypoxia/nutrients) - 12/31/02
- Crooked Brook (pathogens) - 12/31/02
- Sands Pond (Block Island) (excess algae/taste & odor/turbidity) - 6/30/02
- Ninigret and Green Hill Ponds and Teal Brook, Factory Pond Brook (pathogens) - 6/30/02
- Greenwich Bay, Buttonwoods Cove, Brushneck Cove, Hardig Brook (pathogens, nutrients/hypoxia); Greenwich Cove, Warwick Cove, Apponaug Cove (nutrients/hypoxia) - 6/30/02
- Woonasquatucket River (metals, pathogens) - 12/31/02

WQRP to be initiated FY 2002-2003 (not mapped):

- Blackstone River (pathogens, metals), Mill River (metals), Peters River (pathogens, metals), Valley Falls Pond (biodiversity, metals, pathogens, nutrients/hypoxia/excess algae growth)
- Ten Mile River (Pb, biodiversity), Turner Reservoir (nutrients, metals), Slater Park Pond (pathogens, nutrients)
- Upper Narragansett Bay (hypoxia)
- Pawcatuck River (hypoxia, pathogens), Little Narragansett Bay (pathogens) *
- Pt. Judith Pond (pathogens) *
- Long Brook (pathogens), Burnt Swamp Brook (pathogens), Catamint Brook (pathogens), Ash Swamp Brook (pathogens) *

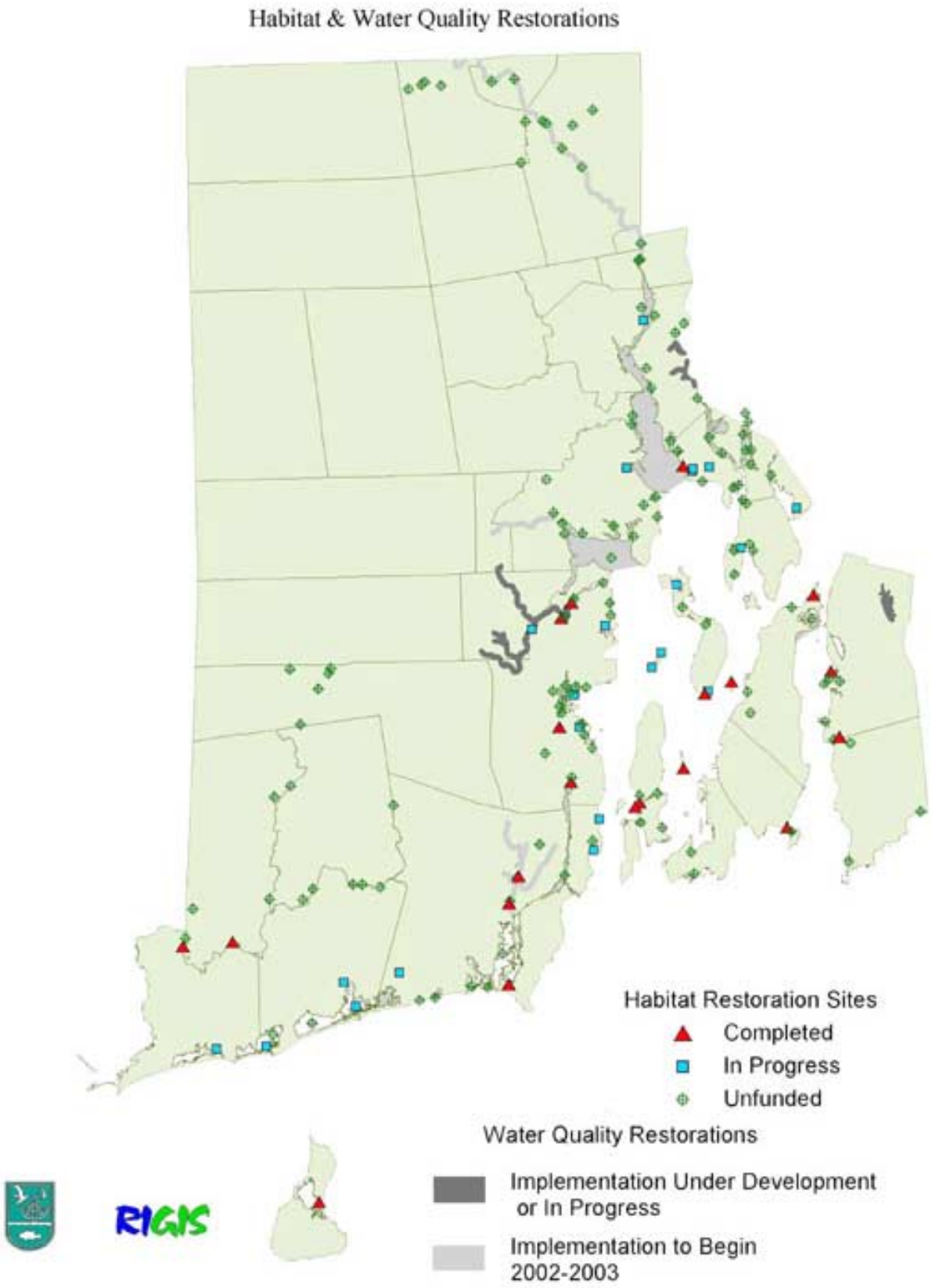
* Work on these WQRPs during the FY02-03 time period is pending funding availability

Water Quality Restoration Plans
Warerbody specific plans to restore water quality in impaired waters by identifying sources of pollutants and the corrective actions necessary to address these sources. This comprehensive approach requires the cooperation of municipalities and local organizations to abate point and nonpoint sources of pollution. The map indicates impaired waters by shading.

Habitat Restoration Plan
Habitat restoration focuses on discrete projects that address a source of habitat degradation. A habitat restoration project may involve planting eelgrass in an area that historically had an eelgrass bed; installing a culvert where tidal flow has been restricted or cut off; or excavating where a wetland has been filled. These projects may address water quality as well as other habitat features.

TABLE 1 Water Quality Restoration and Habitat Restoration

Figure 1 – Habitat and Water Quality Restoration



Livable Communities

All Rhode Islanders will have access to the benefits of a safe and healthy environment. People and property will be reasonably protected from floods, fire, animal-borne diseases, exposure to hazardous substances, and other environmental hazards. Communities will have capacity to plan for growth in a way that minimizes environmental degradation or loss of community character, and contributes to a sustainable economy. Communities will engage in joint efforts to address challenges and opportunities they have in common.

Conditions, Trends and Objectives

Sustainable Watersheds

Community-based approaches such as sustainable watersheds program brings local people and agencies together to create regional and ecosystems-based solutions on issues that cross political boundaries such as restoring water quality, remediating contaminated sites and preserving significant landscapes. In the last two years, the Department, together with stakeholders focused efforts on the South County and Woonasquatucket watersheds. This approach encourages comprehensive solutions tailored to local needs and brings together the expertise and resources of many organizations. The models developed in the South County and in the Woonasquatucket watersheds will be expanded to the Blackstone River Watershed in the next two years.

Planning for Growth

Unplanned development patterns can lead to disinvestment in older communities, a deteriorating quality of life for urban, suburban and rural residents of the state, and environmental degradation. In RI, land consumption has grown 9 times faster than overall population growth during a period that saw a tremendous population shift from cities to suburban and rural communities. Many communities are struggling to deal with the associated fiscal, economic and environmental challenges. In 2000, Governor Almond established a Growth Planning Council to examine Rhode Island's development patterns and make recommendations on ways to encouraging growth in economically and environmentally sound locations, and to improve local capacity to plan for and implement sustainable growth.

Brownfields

Brownfields sites can pose significant quality of life problems including public health and safety problems, blight, and economic burdens to communities. By coordinating efforts with other agencies, community partners and investors, we can target the remediation and redevelopment of Brownfields for return to productive use. High, or unknown, remediation costs and liability risks can be a barrier to redevelopment. But Brownfields laws and regulations have begun to address part of this problem by providing certainty and limits on liability in return for appropriate cleanup. Creative partnerships and marketing strategies can be applied to RI sites for more effective redevelopment. DEM will continue to oversee the current pilot site investigations and clean ups while looking for innovative ways to expand the Brownfields program, including streamlining the administrative processes and work closely with EDC and other stakeholders to develop and publicize financial incentives such as the Brownfields revolving loan fund.

Dam Safety and Flooding

A significant number of dams in Rhode Island are in need of maintenance and repairs. The need applies to municipal, state, and privately-owned dams. DEM's Dam Safety and Freshwater Wetlands permitting and enforcement programs address potential safety hazards. The Department will be working to implement recommendations from the Governor's Dam Safety Task Force in early 2001. The Department also inventories and inspects dams and is prioritizing state-owned high and significant hazard dams in its Capital Asset Plan. Dams classified as high and significant hazard dams are not necessarily in danger of breaching but in the event of breaching these dams could cause a significant level of property damage and possibly result in loss of life.

Fire

DEM helps communities protect themselves from several physical hazards including fires and flooding. The department seeks to maintain the trend for controlling wildland fires with no loss of life and keep the average size of wildfires to less than two acres burned annually.

Persistent Bioaccumulative Toxins (PBT) – Mercury

PBT pollutants are toxic chemicals that persist in the environment and build up in food chains posing risks to human health and ecosystems. The populations at risk, especially to PBTs such as mercury, dioxins, and Polychlorinated Biphenyls (PCBs), are children and the developing fetus. Although, much work has been done to reduce the risk from these chemicals, they are still found in the fish supplies. DEM and DOH issue advisories on fish that should not be eaten. The specific advisories can be found on the web at http://www.doh.state.ri.us/environment/fish.htm. DEM is also working with medical facilities to eliminate mercury from their operations and with the Mercury Task Force to implement other voluntary reduction strategies. In the years ahead we will seek resources to further study and reduce PBTs in our environment.

Lead

Childhood lead poisoning afflicts over 2800 Rhode Island children and can cause serious developmental and health problems in children under six years old. Lead poisoning can occur when lead paint dust or chips from peeling walls are inhaled or ingested. DEM has jurisdiction over the removal of lead paint from the exterior of houses while DOH has jurisdiction over any lead removal or abatement on the interior. In the next two years and beyond, DEM will work with EPA, DOH, RIHMFAC, municipalities, private and non-profit sectors and the legislature to develop a coordinated strategy to eliminate childhood lead poisoning by 2010.

Animal and Insect-born Diseases

Eastern Equine Encephalitis and the West Nile Virus (WNV) are harmful to humans and can be transmitted via mosquito bites**.** DEM and the Department of Health have been working with other states and the Center for Disease Control to follow up on last year's experiences and finetune the response protocol. In 2001, the protocol (posted on the DEM web site) includes an expanded monitoring and larviciding program, public education focusing on prevention, and a more conservative policy on the use of aerial spraying of adulticide. DEM and DOH are also monitoring the trends for Lyme and similar diseases and evaluating the need to develop a more active protocol. Finally, the Department's Division of Agriculture has been working with other agencies to develop a response protocol for a possible outbreak of foot and mouth disease.

Environmental Equity

The Department has drafted an Environmental Equity (EE) policy that recognizes the right of all Rhode Islanders to enjoy a fair share of environmental improvements and to be protected from environmental degradation. Over the next two years, we will assess whether we need to address more aggressively the needs of lower income communities, racial minorities and/or disabled persons, evaluating and implementing ways to address environmental equity issues in all bureaus, divisions, programs, policies and regulations. The policy calls for proactive consideration of environmental equity concerns at the earliest possible stage, to bring about the most fair and effective solutions to environmental equity concerns.

Livable Communities

Objectives

1. Community planning and support
- Increase community capacity to handle growth and watershed planning.
- Expand the watershed approach to two more watersheds by June 2003.
- Ensure Environmental Equity for all Rhode Islanders.

2. Public Safety
- Protect public from fires, floods, animal & insect borne diseases and minimize or eliminate the impacts and risks from hazardous waste, lead and PBTs such as mercury.
- Restore contaminated or otherwise impacted sites to levels supportive of use desired by the surrounding community

Indicators

1. Alternative land use techniques adopted and implemented, environmental impact of new growth mitigated, effective local partnerships established.
2. Community based watershed action plans and actions completed by June 2003
3. Environmental equity (EE) measures/considerations are proactive and preventive – Increased minority, low income participation in public processes
4. Pollution, environmental degradation, health risks reduced or minimized as shown in the Toxic Release Inventory (TRI)
5. Number of lead poisoned children
6. No loss of life, significant loss of property or damage to the environment due to dam failure, forest fires or tire pile fires
7. Management of waste materials at facilities in substantial compliance with current regulatory standards.
8. Emissions of mercury
9. Number of acres of contaminated sites investigated and returned to acceptable standards.
10. Number of contaminated sites redeveloped or reused.

Key Strategies	Performance Measures
Implement South County Watersheds and Woonasquatucket River Watershed Action Plans.	• South County Watersheds and Wooansquatucket River Watershed Action Plans implemented by June 2003.
Expand the watershed approach to the Blackstone and Pawtuxet River watersheds.	• Action Plans completed by June 2003.
Expand watershed education and outreach program. ** See Open Space and Recreation Goal for more information on greenspace plans in watersheds.*	• Naturalists & park staff trained by July 2001. • Post watershed educational signs at DEM parks, fishing accesses, Audubon Refuges, etc. by May 2002.
Hold training workshops to build the capacity of local watershed organizations by June 2003	• Workshop attendance • Watershed organizations formed
Work with urban planners, developers and other stakeholders to develop an urban environmental design manual by September 2003.	• Manual distributed to all major cities and watershed groups by October 2003.
Assist the Governor's Growth Planning Council.	• Develop recommendations for priority funding for state infrastructure investments by 2002 and a Planning Institute by September 2002.
Train DEM staff on Environmental Equity issues.	• 75% of DEM employees attend training by January 2002
Determine to the extent possible which locations and populations may be exposed to disproportionate environmental impacts or at risk for such exposure.	• Report preliminary research results on cumulative exposures by December 2002
Determine populations or areas that lack access to or enjoyment of natural resources and target these areas in the development of the State Comprehensive Outdoor & Recreation Plan (SCORP). ** For urban recreational opportunities, see the Abundant Open Space & Recreation Goal.*	• Complete SCORP analysis by September 2002 and target funding to the areas identified as in most need. • Adopt SCORP as element of State Guide Plan by December 2002.

Livable Communities (continued)

Key Strategies	Performance Measures
Study how EE provisions can be incorporated into each Bureau and/or divisions' activities, programs, policies and regulations such as public notices, cumulative impacts, interagency issues, and community-based decision making.	• Prepare report with specific recommendations on improving EE in each Bureau &/or division by March 2002. • Annual report on progress of EE strategies and measures.
Provide information in formats and at sites that are easily accessible to encourage potentially affected residents to acquire knowledge/skills to access DEM resources and more fully participate in environmental decision-making. Assess the need for multi-lingual services and options to communicate with non-English speaking populations in RI by January 2002.	• Convene an Environmental Equity Advisory Council by January 2002 • Complete report on accessibility, formats and multi-lingual strategies by September 2001.
Ensure proper transportation, treatment, storage, management, minimization and disposal of solid, medical and hazardous waste.	• Evaluate and process approximately 2500 permit applications for hazardous, medical, and septage waste transporters. • Evaluate 5 temporary hazardous waste storage and/or transfer area applications. • 100 solid waste facilities inspected annually.
Ensure that underground storage tank (UST) systems are properly installed, operated, maintained, and replaced to protect groundwater. Ensure that contaminated sites (LUST) are properly investigated and cleaned up.	• Number of compliance inspections (40 sites expected, initial and follow-up inspections). • Percent of active UST's meeting corrosion protection and leak detection requirements. • Percent of UST facilities in significant operational compliance with the UST spill, overfill, and corrosion protection regulations. • Percent of UST facilities in significant operational compliance with the UST leak detection regulation. • Number of contaminated sites identified. • Percent of known contaminated sites fully investigated. • Percent of known contaminated sites now in compliance with applicable clean up standards.
Work with EPA, DOH, RIHMFAC, municipalities, private and non-profit sectors and the legislature to develop a coordinated strategy to eliminate childhood lead poisoning.	• Develop comprehensive policy by July 2003. • Form a task force/committee to coordinate and focus efforts on eliminating lead poisoning by January 2003. • Clearly define DEM's role to address lead enforcement and coordinate efforts with other agencies and organizations by September 2001.
Reduce mercury releases in RI and educate public on the dangers of mercury.	Develop a comprehensive implementation plan for mercury reduction and education by August 2001.
Address potential impacts from closed or abandoned landfills.	• Review remedial investigation for Cranston Sanitary Landfill. • Complete design of remedy at Rose Hill Landfill by September 30, 2002. • Select contractor for implementation of remedy at Rose Hill Landfill by March 31, 2003. • Implement program to assess impacts from closed or abandoned municipal landfills by December 31, 2001. • Draft agreement with responsible parties for capping and investigation of the West Kingston/URI landfills by July 1, 2002.

Livable Communities (continued)

Key Strategies	Performance Measures
Implement a comprehensive dam safety strategy including: 1. Seek funding for private & municipally owned dams (pending legislative approval). 2. Develop and implement a repair schedule for state-owned dams. 3. Promulgate comprehensive changes to dam safety regulations in response to legislative changes.	• Level of financial aid provided to private and municipal dam owners for safety maintenance (pending legislative approval). • Bowdish Dam repaired by Fall 2001 & Stillwater Dam repaired by late Spring 2002. • Establish baseline conditions for regulated dams; track repairs.
Coordinate training and equipment supply with local fire departments to aggressively fight forest fires.	• No homes lost to forest fires. • Average forest fire size less than 2 acres.
Continue monitoring the remaining significant illegal stockpiles of used tires and oversee removal of remaining two tire piles in RI by FY2002.	• Provide oversight for Old Kent Rd. and Malodosian tire pile removal. Provide technical support and expertise for the Attorney General's Office in the event additional court action is needed to compel removal.
Implement revised state response protocol for West Nile Virus and other zoonotic diseases.	• No human cases of WNV in Rhode Island • Limit spraying to areas where EEE and WNV is found in mosquitoes.
Reduce persistent bioaccumulative toxic (PBTs) pollutants in the environment by: 1. Enforcing medical waste incinerator regulations for the remaining facility. 2. Implementing a thermometer take-back program. 3. Seeking resources by June 2003 to develop an inventory and reduction strategy for PBTs in RI	• The facility Waste Management Plan is implemented and medical waste incinerator emissions are consistent with requirements at or near zero. • Mercury thermometers are reduced or eliminated from RI households (contingent on funding). • Funding secured and report completed on PBT strategies by 2003
Seek funding to develop plan for a pesticide disposal program that addresses old, unused pesticides at farms and commercial facilities by June 2002.	• Establish components of pesticide disposal program by July 2002 (contingent on funding)
Use pollution prevention techniques, especially IPM, in maintaining state recreation areas, i.e. golf courses, etc.	• Assess and recommend strategies for implementing IPM practices into Parks and Recreation operational procedures by March 2002. • Implementation of IPM by March 2003.
Inform regulated entities about voluntary ways to decrease pollutant generation.	• Number of facilities and businesses receiving DEM assistance in reducing pollution.
Support the identification, investigation, clean up, reuse and redevelopment of Brownfield sites. • Implement changes of the waste/site remediation task force regarding streamlined permitting of marginal risk sites • Work closely with Economic Development Corporation and other stakeholders to develop and publicize financial incentives	• Sixty acres of contaminated land remediated or otherwise reused as a result of settlement agreements by July 2003. • Enter into 18 settlement agreements by July 2003. • Economic benefit: total assessed value ($), taxes assessed ($), estimated # of new jobs, estimated annual income tax ($). • Promote the Brownfields revolving loan fund. • Develop outreach materials by July 2002, including an informational website by September 2001.

Healthy Ecosystems

The health, diversity, and integrity of Rhode Island's ecosystems will be restored, protected, enhanced and sustained.

Condition, Trends and Objectives

Rhode Island's ecosystems which include forests, lakes, rivers, freshwater wetlands, and coastal estuaries, are susceptible to disturbance, pollution, degradation, and destruction from human activity. The cumulative impacts of many small changes can significantly diminish the capacity of an ecosystem to sustain itself.

Estuaries

Despite recent progress, degradation of coastal estuaries such as Narragansett Bay and the southern Rhode Island coastal ponds remains a major concern. Approximately 4,000 acres of Narragansett Bay have been filled in over the past 300 years. Eelgrass beds, nursery and feeding grounds for important commercial and recreational fish species, have been reduced from hundreds of acres to about 100 acres. Toxic chemicals and bacteria in sediments can harm shellfish and other organisms that live in sediments or render them unsafe for consumption. Bacterial contamination and excess nutrients from combined sewer overflows, wastewater treatment plants and nonpoint sources, including stormwater runoff, air deposition of pollutants, and sedimentation from construction activities also contributed to the decline of fish and plant species in the Bay and other waterbodies.

DEM has been conducting bottom trawl, beach seine, and shellfish dredge surveys since 1979 in Narragansett Bay and RI coastal waters to monitor abundance of finfish, crustaceans, and invertebrates. Survey results indicate that the species assemblage has undergone a structural change over the past two decades. Demersal fish (fiah that live at or near the bottom) declined form 1979 to 1993 while pelagic finfish (fish that live in the open ocean) and squid increased. Lobster and crab abundance also increased while quahaug abundance declined. More recent survey data indicate that the pattern may be reversing.

The 2000 Narragansett Bay Summit participants formed the Partnership for Narragansett Bay under the auspices of URI's Coastal Institute to collaborate on planning and action to sustain the resources of the Bay and watershed. DEM is working with the RI Habitat Restoration Team and stakeholders to develop a statewide coastal habitat restoration strategy. Both initiatives will focus on strategies to protect and improve ecosystem health while providing economic benefit.

Wetlands

Wetlands are important habitats, not only for retaining stormwater and filtering pollutants, but for fostering biodiversity and maintaining healthy ecosystems. Rhode Island has lost as much as 50% of the state's coastal marshes and a significant amount of freshwater wetlands through filling, fragmenting and draining. Rhode Island's first statewide wetlands restoration strategy, to be completed in 2002, will maximize conservation and restoration activities in regulatory and non-regulatory programs.

Habitat

About 24% of the approximately 1300 known native plant species in RI are species of concern that are becoming increasingly rare, threatened, or endangered. About 28% of the state's 284 known native vertebrate species, including a variety of mammals, reptiles, fish and birds, are rare or endangered. The Department is assessing the status of and developing management plans for selected fish and wildlife species and habitats to help ensure sustainable populations. The Department is also working with partners to develop a Greenspace Protection Strategy to protect wetlands, forestland, and features such as forested riparian buffers in order to protect water quality and provide habitat for fish and wildlife. See Table 1, Water Quality Restoration Plans and Habitat Restoration Plans, and Figure 1, Habitat and Water Quality Restoration.

Invasive Species

Rhode Island is starting to see invasive species like the Japanese shore crab gaining a foothold in the state. While some non-native species are ecologically harmless or even beneficial, others that can cause great harm to the state's ecosystems are labeled invasive. The Department is participating on the State Invasive Species Council to identify and assess invasive plants and animals, prioritize control activities, and encourage the use of noninvasive species for landscaping, erosion control, and wildlife. However, funding is needed to further assess and protect invasive species from impacting our ecosystems. DEM is also participating in a National Estuary Program regional invasive species workshop, coordinating with other New England states on invasive species management issues, and planning assessment projects to determine the level of risk from invasive species.

Preliminary findings of the Rapid Assessment Survey conducted in the summer of 2000 identified 22 bioinvasive (non-indigenous) invertebrate species in Narragansett Bay. The Final report will be published later this year.

Balancing Water Budgets

Rapid growth in the size and spread of new development and increased demands for water for irrigation and other uses place many stresses on water resources: greater demands for consumption, risks of spills, polluted runoff, and degraded aquatic habitat and wetlands. In some areas, these demands have contributed to water shortages and use restrictions mainly in summer in recent years. The Blackstone, Hunt, and Pawcatuck River systems have been dangerously low during some summer months. We are collaborating with stakeholders and state and local agencies to determine water needs and manage water use.

Healthy Ecosystems

Objectives

1. Habitat - Increase high quality habitat through restoring and protecting fresh and saltwater wetlands, fish runs, sea grass beds, river shorelines, forests, and other natural areas; and acquiring land for habitat protection.
Determine current and future water use requirements to develop and implement plans to ensure adequate quantities for drinking water, recreation, agriculture, fish and wildlife habitat, commerce, and industry.
2. Living Resources - Manage, protect, and restore living resources for sustainable use and ecosystem integrity.
3. Methods - Increase understanding of ecosystems, threats to their health, and ways to protect and restore them.
Build capacity to: monitor environmental conditions; assess and report on ecosystem health; develop resource management strategies; evaluate effectiveness of strategies; and identify needs.

Indicators

1. Quantity and type of habitat restored.
2. Sufficient water for all uses including ecosystem health.
3. Acres of land acquired.
4. % change in fish and wildlife population.
5. % change in populations of rare, threatened, endangered, or species of concern.
6. Spread of nuisance species controlled; maintenance of ecosystem balance.
7. Level of public support evidenced in public participation in planning, setting action agendas, & public funding.
8. Extent of monitoring programs, type, quantity, and quality of data collected.

Key Strategies	Performance Measures
Coordinate and conduct planning for habitat restoration projects.	• Begin Boyd's Marsh/Town Pond salt marsh restoration – 2001, complete 2004 • Ten Mile River anadromous fish run – complete feasibility study for installation of fish passageways - 2005 • Establish Blackstone River stakeholder process for fish run restoration – 1st Phase identify technical solutions for fish passages compatible with existing uses – 2003 • Assist smaller restoration projects (Allin's Cove, Duck Cove) – dependent on funding – 2003 • Finalize and publish study of historic fisheries on the Blackstone River to help set restoration goals - 2002 • Potter's Cove Salt Marsh restoration - Fall 2001 • Lonsdale Drive-in freshwater wetland restoration – Start restoration Spring 2002 • With New England NEPs, submit grant proposal to NOAA Restoration Partnership to fund habitat restoration projects, April 2002 * See Table 1 and Figure 1
Collaborate with partners to continue development of Statewide Coastal Habitat Restoration Plan Continue mapping and analysis for habitat restoration for Narragansett Bay and coastal salt marshes and sea grass – 2002.	• Complete NOAA grant for web-based tools for prioritizing restoration areas – 2003 (draft web portal done). • Complete interpretation of aerial photos, mapping, restoration analysis, and wetlands loss trends for South Shore, Little Compton, and Block Island – 2003 (contingent on funding).
Permanently protect habitat by purchase or conservation easement.	** See Open Space and Recreation Goal*
Implement freshwater wetland program enhancements.	• Develop a statewide conservation plan by September 2002 • Develop draft streamlined application process for buffer planting projects – Spring 2002 • Identify and prioritize wetland restoration sites in the Woonasquatucket River watershed – Complete draft December 2001 • Implement recommendations of the March 2001 "Options for Wetlands Mapping," URI Natural Resources Science report. (contingent on funding)

Healthy Ecosystems (continued)

Key Strategies	Performance Measures
Collaborate with state and local agencies and water users to determine needs and manage water use to ensure adequate quantities for drinking water, fish and wildlife habitat, irrigation, commerce, industry, and recreation.	• Continue working with the Water Use Stakeholders group for the Pawcatuck River to complete pilot study of water use and water withdrawal in the Queens River basin & impacts on habitat by 2003 • Collaborate with the Water Resources Board and other stakeholders regarding development of a Drought Management Plan and adopt as an element of the State Guide Plan • Collaborate with Water Resources Board and other watershed stakeholders on determining water needs including instream flow requirements. • Develop guidance for permit applicants and policies for evaluating projects ** For additional water use projects, * See Resource Based Industries Goal*
Publish RI's Living Legacy. Promote awareness of resources as documented in publication.	• Complete final document by Fall 2001 • Seek grant funding to publish
Reduce nutrients discharged to upper bay.	** See Clean & Plentiful Water Goal*
Develop a long-term wildlife management policy that will balance managing wildlife areas for public users and ecosystem needs (ecosystem, watershed, and natural habitat protection) and that will resolve conflict between wildlife management and development pressures.	• Work with local land use authorities to encourage establishment of buffers between wildlife management areas and development to avoid or minimize conflicts relating to wildlife, hunting, recreation, and residential uses.
Conduct surveys and population assessments, collect samples: ** See Resources Based Industries Goal for management plans for commercial species statewide freshwater fisheries surveys (portions of the state each year)* Conduct wildlife population assessments on all species. Continue ruffed grouse research. • Monitor the harvest of small game, waterfowl, deer, and turkey • Conduct annual surveys of migratory waterfowl, determine population trends • Collect and analyze information to set hunting limits and seasons • Continue monthly icthyoplankton sampling in Narragansett Bay • Continue gillnet monitoring pelagic game fish in Narragansett Bay • Continue long-term bottom trawl survey in Narragansett Bay and coastal waters Survey species and manage habitats for Species of Concern	• Sample 8 ponds and 20 stream locations for types and numbers of fish in East Bay watersheds. • Radio tag 40 ruffed grouse to determine movement and mortality • Monthly Samplings: 12 trawl stations; Bi-monthly: 26 trawl stations • Monthly: sample 4 coastal ponds • Monthly: sample 18 shore seine stations in Narragansett Bay • Sample fixed stations in Narragansett Bay with gillnets • Continue mid-winter wildfowl surveys • Continue monitoring: waterfowl breeding activities, upland game bird population dynamics, big game population dynamics, furbearer population dynamics • Continue to monitor all nesting sites of Piping Plover • Restore (cut brush)10 acres/year of habitat for American Burying Beetle • Survey 65 colony nesting bird sites
Restore anadromous fish populations in coastal streams.	• Stock 500,000 Atlantic Salmon fry & 15,000 smolts • Monitor spring returns at selected streams

Healthy Ecosystems (continued)

Key Strategies	Performance Measures
• Conduct population assessments, prepare and implement management plans for non-native plants. • Draft DEM policy on the use of non-native plants in land management and enforcement actions based on list developed by the RI Invasive Species Council. • Assess impacts of invasive species to RI ecosystems.	• Publish policy - Summer 2001 • Work with other state agencies to adopt the policy on non-native plants by 2003. • Conduct a regional Invasive Species Workshop with New England National Estuary Programs, RI Invasive Species Council, The Nature Conservancy, NEIWPCC, and US F&W in winter 2001-2002.
Support a mechanism to integrate and coordinate economic and environmental planning for Narragansett Bay and its watershed.	• Provide administrative and technical support for Partnership for Narragansett Bay (PNB) – ongoing • Develop a process for revising the Narragansett Bay Comprehensive Conservation and Management Plan – September 2002
Develop effective outreach/informational methods to increase public decision-maker awareness of ecosystem health issues. • Use stakeholder and public forums and technical workshops to examine issues and develop action agendas.	• Produce major Bay environmental festival, Fall 2002 • Develop PNB Bay Journal – 2002 • Support the statewide fisheries management dialogue process at the Coastal Institute. • Produce technical workshop on environmental indicators, Fall 2001
Secure federal and other grants to address sustainable ecosystem goals.	• Develop proposal for EPA National Estuaries Program Futures grant program to conduct public survey and develop outreach on growth issues in Blackstone River watersheds in partnership with RISD, the Bryant College Environmental Marketing Program, and private sector by 2002. • With MA and EPA, implement bi-state Watershed Action grant program to support Bay Summit goals by Winter 2001/2002. • Manage NOAA grants for cooperative research on Narragansett bay fisheries and water quality.
Enhance Wetlands Program outreach.	• Conduct Wetlands Open House – Spring 2002. • Conduct two wetlands workshops, one for consultants and one for municipal officials, Fall 2001. • Update guidance and fact sheets.
Use the resources of the Partnership for Narragansett Bay (PNB) to build capacity for environmental monitoring.	• Complete year 2 of Coastal Monitoring program with Roger Williams University and EPA (35 stations in the Bay) – October 2001 • Continue to coordinate and expand, as funding allows, the Bay Window Monitoring system of 13 data sampling buoys in Narragansett Bay to obtain more complete information on bay conditions • Coordinate research and monitoring activities through the PNB – ongoing • Conduct third annual Dissolved Oxygen Survey of Upper Narragansett Bay, - summer 2001
Develop ecological/sustainable indicators for Narragansett Bay and watershed.	• Develop Indicators Index by – October 2002

Resource-Based Industries

Fisheries, forestry, recreation-related tourism, agriculture and hunting will be affordable and sustainable industries, will employ best management practices to protect common resources, and will be supported as critical resources and key sectors of the state economy.

Conditions, Trends and Objectives

Fishing

Commercial fishing, finfish and shellfish in Rhode Island brought in approximately $70 million in 2000, which generates more than $2.3 billion in related economic activities. Galilee is the seventh most productive fishing port in the country in terms of income, with shellfish and finfish landings of 118.6 million pounds in 2000.

Efforts to restore species populations of some species such as striped bass have succeeded but many commercial fish stocks (notably winter flounder and cod) have been in serious decline for years due to overfishing, habitat destruction and pollution. The Department is working with the Coastal Institute at the University of Rhode Island to improve the commercial licensing policies for marine fishing. The lobster fishery in particular requires a management plan that is part of a regional plan with RI's neighboring states. DEM will continue to work in local, regional, and national forums to address the long-term health of the commercial fishing industry.

For many marine species landed in RI, recreational fishing takes a significant proportion of total fishery landings. In 1999, there were 321,000 participants in the marine recreational fishery survey according to the Marine Recreational Fishery Survey Statistics (MRFSS). Recreational anglers in RI harvested approximately 3.8 million pounds of fish in 1999 and spent $100 million on fishing-related activities. Of these, 62% were from out-of-state, highlighting the economic value of recreational fishing to the state.

Fresh water fishing is one of the largest participatory recreational activities in the state, with approximately 39,000 fishing licenses issued each year. One hundred and sity-three thousand anglers, both fresh and salt water, spent $136 million in RI in 1996. Although surveys show healthy populations of gamefish and other freshwater species, some, particularly shark, swordfish, king mackerel, and tilefish are listed by the federal government as having harmful levels of toxics in their tissues. The department is working to educate the public on safe fish consumption and to reduce pollution of waters.

Hunting

Hunting is the second largest participatory recreational activity in the state, with approximately 27,000 hunting licenses issued each year. Hunting generated $23 million in 1999, while other wildlife recreational activities generated over $124 million in 1996. Hunting opportunities for wild turkey, white-tailed deer, and Canada geese are increasing in the State. The Department seeks to further increase and promote hunting opportunities as well as hunter safety education.

Agriculture and Forestry

Farming contributes $100 million a year to the Rhode Island economy and provides consumers high quality locally grown produce. Farm viability has improved in the past few years because of direct marketing strategies such as the successful roadside stands and farmers' markets throughout the state. By selling their products directly to consumers, RI farmers are better able to capitalize on the strong tourist industry and have the highest return per acre in the United States. However, the state's agricultural base continues to erode due to development pressure, taxes, estate issues and other factors. There are significantly fewer acres under cultivation now than in 1900, with many acres lost each year. DEM will continue to support innovative marketing strategies to improve and sustain farm viability. Increasing demands due to residential and commercial development in rural areas are putting pressure on the State's water supply and land availability. An adequate water supply is essential to the economy. The Department will continue to assist farmers in periods of drought, and encourage increased conservation by implementing best practices for water use as well as land protection programs and development of alternative business opportunities.

The forest industry in Rhode Island employs over 2,100 workers and produces shipments worth more than $263 million. Although there is more forestland today than when Rhode Island was largely farmland, sprawl is reducing and fragmenting forested land. Although the amount of forested acres in RI is declining, today there is more harvestable wood as the trees reach maturity. RI currently has 1.3 billion board feet of standing timber and the current growth to removal ratio is 2.4 to 1.

Tourism

Tourism is the second leading industry in the state, generating $2.7 billion in 1999 and supporting 35,092 jobs. Much of Rhode Island's tourism industry is tied to the Bay and coastal areas, although historical and cultural inland activities are a growing sector.

Water-related activities at many of RI State recreation-related facilities include recreational fishing, boating, swimming, and diving. Tourists make up an estimated 58 percent of visitors at the six State South County state beaches. Tourists also enjoy farm stands, camping, canoeing, kayaking, abundant hunting, hiking, biking, bird watching, and golfing opportunities in our state parks and management areas.

Resource-Based Industries

Objectives

1. Work with federal, state and local partners to review/revise fisheries management programs to rebuild over fished stocks and promote wildlife resources as a key element in the Rhode Island Economy.
2. Promote growth and productivity of the agricultural and timber industry, recreation related tourism and State and private forest stewardship.

Indicators

1. Plentiful commercial fish stocks and sport fishing opportunities; a viable commercial fishing industry; increase in fish and wildlife populations and restoration of critical habitat; availability of adequate facilities to support fishing industry.
2. Number of farms in Rhode Island; number of acres of farm and forest land protected; level and diversity of production of farm and forest based products.
3. Ratio of forest growth to forest removal at least 1:1 where timber is extracted to ensure sustainability of the forest base.
4. Increased use of State recreation facilities and participation in DEM-sponsored activities.

Key Strategies	Performance Measures

Reinvent the State's fisheries management system to ensure sustainability of the fisheries resource and fisheries through:
• Stakeholder collaboration mediated by the Coastal Institute to develop and present long term strategies to the RI General Assembly, the US Congress and RI Regional Fishery Management Councils for approval.
• Improved data gathering and dissemination.
• Seeking adoption of legislative reform relating to lobster management and development of lobster management program.
• Increased freshwater fishing opportunities.
• Port improvements & renovations.
• Habitat restoration.
• Pollution abatement.
• Regional cooperation.
• Strengthening and restructuring citizen's advisory panels that advise the Marine Fisheries Council.
• Forming a partnership with NMFS to study fisheries problems in Narragansett Bay.
• Conduct marine fisheries surveys at trawl stations and coastal ponds; collect shellfish samples; collect lobster population data.
	• Implement short-term recommendations of the general assembly to improve licensing procedure Spring 2002.
	• Develop long-term strategies and implement when approved by stakeholders.
	• Introduce a state wide data collection system for all fisheries this calendar year.
	• Promulgate regulations for the possession and handling of shellfish by licensed shellfish harvesters by Spring 2002.
	• Develop programs and proposals to address:
	  • Electronic license and data collection system by January 2003.
	  • Principles to guide fisheries management by October 2001.
	  • Options for commercial fishing license reform by January 2002.
	  • License system for recreational marine fishing by April 2003.
	  • Commercial aquaculture by January 2002.
	  • Overall license restructuring by January 2002.
	• Implement lobster management program; 40 trips to collect data on lobster population.
	• Port renovations: provide upgraded port facilities for the commercial fishing fleet at Galilee and Newport by May 2003 and complete major renovations to hatchery facility at Fort Wetherhill by April 2002.
	• *See Clean Water & Healthy Ecosystems Goals for details on RI Coastal Habitat Restoration.*
	• ** See Clean Water Goal for details on abating sources of pollution to Narragansett Bay & restoration of shellfish beds.*
	• Increased trout and large mouth bass angling opportunities through acquisition of access areas, 10% annual increase in hatcheries production.
	• Continue to participate and provide research support to: the New England Marine Fisheries Council and Atlantic States Marine Fisheries Commission, adopting regulatory changes as needed.
	• Conduct port and sea sampling and water quality studies.
	• Annual sampling: shellfish samples for 60 Narr. Bay sites.
	• Continue marine recreational fishing survey (MRFSS) to characterize the catch and value of the marine recreational fishery in RI.

Resource-Based Industries (continued)

Key Strategies	Performance Measures
Promote stewardship of Rhode Islands forests and agricultural lands through development and implementation of programs with local agricultural growers and organizations, forestland owners and the Rural Lands Coalition to provide: • Grants. • Technical assistance. • Marketing assistance. • Information on alternative forest. uses that replace or augment traditional forest use. • Aid in developing management plans.	• Assist 250 forestland owners by June 2002 and another 250 by June 2003. • Establish farmers market at Fisherman's Memorial State Park by July 2001. • Number of landowners that produce alternative forest based products. • # acres in cultivation. • Gross return per acre. • Income from farmer's markets and roadside stands. • # of farmers participating in farmer's markets. • # of farmer's markets.
Work with the Agricultural Land Preservation Commission, Forest Legacy Program, cities and land trusts to leverage $5 million of bond money to buy development rights of working farms over the next five years.	• Number, size and quality of priority farms protected by development rights. • Acquire 300 to 400 Forest Legacy acres during both FY 2002 and FY 2003.
Mitigate effects of drought conditions for farmers by conserving water used for agriculture through best management practices.	• Finalize agricultural water withdrawal management plans – August 2001. • See Water and the Healthy Ecosystems sections for more on low flow issues.
Maintain readiness to implement protocol to respond to hoof and mouth disease	• Continuous – protocol completed July 1, 2001.
Increase and improve outdoor recreational opportunities that support tourism by: • Improve facilities. • Providing special events.	• See Abundant Open Space and Recreation section and the Division of Planning and Development work plan.
Increase hunting opportunities.	Develop proposals and programs to address hunting and trapping as management tools to control excessive wildlife populations (deer, geese, beaver, coyote).

Abundant Open Space and Recreational Opportunities

Natural and scenic landscapes will be preserved and all citizens will have easy access to well-maintained parks, forests, wildlife areas and historic sites. Open space and recreational opportunities will be improved in rural and urban settings.

Conditions, Trends and Objectives

Open Space & Greenspace

The loss of open space and degradation of important natural and historic resources continues at a rapid pace in Rhode Island due to the expansion of suburban and urban communities into rural areas primarily in the Southern and Western parts of the State. Most open space in Rhode Island is at risk since only 6% of the total open lands are protected. In the northeastern portion of the state most of the land is already heavily developed and the availability of open spaces is extremely limited. The Department will accelerate land protection efforts, consistent with Governor Almond's call for protecting at least 27,000 additional acres by the year 2010 by expanding land trusts and strengthening partnerships with other nonprofit organizations and using state funds to leverage local, federal, and private funding. The Department is also working with partners to develop a Greenspace Protection Strategy to protect natural, cultural and recreational resources including wetlands, forestland, and features such as forested riparian buffers that protect water quality and provide habitat for fish and wildlife.

Recreation

Urban Recreation

Parks are vital to the quality of life of urban residents. The Department is working to increase recreational opportunities for urban residents by various means including creating a system of linear parks. DEM will increase the miles of linear parks to connect urban areas and open spaces. The Department will add 6 miles to the 17 miles now in use as part of the planned 48 miles of the multi-use Blackstone Bike Path in RI. The RI portion is part of the East Coast Greenway, a path that will run 2,500 miles connecting East Coast Cities from Maine to Florida. The department will also make an effort to provide more grants for recreational development to urban municipalities and distressed communities as part of its local recreational development program.

SCORP and Asset Management

The Department will address urban needs to ensure environmental equity objectives are achieved in the update of the State Comprehensive Outdoor Recreation Plan, 2003-2008 (SCORP). The SCORP will be adopted as an element of the Rhode Island State Guide Plan. DEM is also working to maintain the physical infrastructure at its state facilities by strategically targeting priority renovation and maintenance projects and seeking a long-term stable source of funding. The *Rhode Island Parks and Beach Asset Management Study and Plan* identified $6.3 million dollars worth of priority asset repair and replacement projects. To expand the effort the Department will complete plans that identify priority projects at other state-managed facilities areas in the near future. Additionally, facility improvements and renovations such as those ongoing at the Salter's Grove causeway and Rome Point will improve the quality of recreational opportunities available to the public.

The Department anticipates that open space preservation and urban recreational needs which have not been adequately addressed over the last decade, will be met as the $34 million bond issue for open space is used to increase preservation and recreational development in urban areas consistent with the Department's Land Protection Plan and the State's Greenspace Plan.

Abundant Open Space and Recreation

Objectives

1. With partners increase land preservation to meet community and ecosystem needs.
2. Focus on stewardship technical assistance for partners.
3. Improved routine maintenance of existing facilities.
4. Provide more and better recreational facilities and interpretive programs.
5. Provide greater access for urban residents and handicapped persons.

Indicators

1. Acquire at least 3,000 acres per year in cooperation with federal, state, local and private groups for the next 9 years meeting a goal of 27,000 acres acquired by 2010.
2. Identify and prioritize backlogged capital projects to be addressed in 5, 10 and 15 year increments; address $1 million per year in asset protection projects as recommended in the Asset Management Plan.
3. Upward trend in the number of programs and people served.
4. Upward trend in opportunities available to urban residents and disabled persons.

Key Strategies	Performance Measures

Work with the Legislature, local governments and nonprofit groups and state and federal partners to accelerate land preservation efforts through:
• state acquisition of land
• financial and technical aid for local acquisitions of land
• leveraging state dollars to buy and protect land 25:1
• purchase development rights/easements
	• Acres per year:
	  • Type of acreage
	  • Type of protection
	  • Management entity
	  • Funding commited/leverage ratio
	• SCORP prioritization criterion for land acquisition and recreational facilities completed by December 2002, implementation starting January 2003.
	• Provide GIS map of land prospects for conservation and continually update existing maps of preserved areas as more land is acquired.

Provide stewardship technical assistance in watersheds with Greenspace plans. **See Livable Communities Goal for more information on watershed educational strategies, i.e. Naturalist training, educational signage in parks & beaches, etc.*	• Complete South County and Woonasquatucket watersheds greenspace plans by Oct. 2001 and Jan. 2003 respectively. • Secure funding for Blackstone watershed greenspace plan by June 2003. Complete plan within 2 years after funding is acquired.
• Improve facilities, routine maintenance procedures, and capital reinvestment by implementing asset management plans.	• Work with Governor's office and legislative body to secure full funding for priority needs; explore and develop where possible innovative funding sources. • Number of improved facilities in 5, 10, 15 years.
• Increase public participation in special events and continue partnership with the Governor's Office, state agencies, businesses, community organizations, and host communities for 9 special events per year.	• Schedule 6 – 1 events per year including Bay Day, the Jazz and Folk Festivals at Fort Adams, road races, charitable events, and the New England Championship Regatta.
Increase number of recreational opportunities and improve current recreational facilities such as: • Bikeways • Greenways • Snake Den State Park • universal access points • award of grants	• Complete the Blackstone Bike Path and the Trestle Trail over the next three-four years. • Complete Snake Den Park by June 2006. • Repair the state-owned causeway to the breakwater in Salters Grove by 2003. • Design for universal access projects including Black Point Trail completed by end of FY 2004 • Incorporate development of parking facilities and trails at Rome Point into budget request for FY 2003 • Award grants of $3.4 million to municipalities, including Distressed Community grants for park construction and renovation by November 2001.
Work with RIDOT and State Greenways Council to seek expanded state funding to match federal funding for bikeway, equestrian, and recreational trail projects over next three years.	• Work with local sponsors to complete $2 million dollars worth of grant funded projects through technical assistance, oversight and reimbursement for projects, June 2002 • Target - $7 million additional state funding for a total program of $33 million

Open and Effective Government

The Department will carry out its mission and achieve its goals with involvement and support of citizens and stakeholders and to that end will improve its accountability, responsiveness, and service delivery.

Conditions, Trends and Objectives

In recent years, the Department has moved forward with initiatives to improve accountability, responsiveness and service delivery. The Department will continue to build on this progress with an emphasis on improving information technology and strengthening public outreach and stakeholder participation. The Department will focus on the following in the next two years:

- Continue to improve accountability through work plans with more targeted indicators and performance measures that show meaningful environmental improvement.

- Improve accessibility, responsiveness and public outreach by promoting and strengthening internal and external communication. For example: 1) increase E-government services such as providing customers with the ability to make transactions on-line; 2) expand the Professional Development Review system to union employees to ensure that Department goals and objectives are met as negotiated with Council 94; and 3) increase awareness of DEM's role in environmental protection and promote understanding of how actions affect environmental quality, by developing a public outreach and participation plan and new environmental education partnerships. Enhance DEM website as a resource for environmental information.

- Continue to streamline permitting to process and track applications more quickly. Specifics include: 1) complete implementation of electronic information management infrastructure to improve internal coordination and consistency, expedite processing of applications, and track the output of permitting and other programs; 2) with stakeholders, continue to evaluate permit programs for legislative, regulatory, policy and administrative changes to improve them; and, 3) explore alternatives to individual permits, such as general permits and self-certification programs.

- Coordinate enforcement activities and continue to improve a department-wide protocol for preparing and handling enforcement actions that include compliance assistance and pollution prevention. Also, continue to work with stakeholders to explore the feasibility of establishing an Environmental Leadership Program that would encourage regulated entities to make environmental improvements that exceed compliance requirements.

- DEM will continue to work with the Coastal Resources Management Council (CRMC), other agencies, and stakeholders toward disposal options to meet dredging needs in RI, including disposal sites for both routine dredging projects and the proposed dredging of the Providence shipping channel. DEM and CRMC will develop a policy for the disposal of dredge materials that identifies potential beneficial uses of dredge material as part of the effort to resolve the current dredging impasse.

- Strengthen DEM human resources via: 1) professional training programs for staff, including a supervisory skills development program and diversity training; 2) proper job descriptions for staff to meet the evolving needs of DEM programs and opportunities to advance in technical positions; 3) adequate facilities and technology; and, 4) increasing the diversity of our workforce.

- Identify and prioritize outreach and public education actions the Department should take to better inform the public about its polices, programs, and decision-making, and about ways the public can better inform itself and have input in Department policies and decisions.

Open and Effective Government

Objectives
1. Improve accountability. 2. Improve Department accessibility, responsiveness and public outreach and participation. 3. Make regulatory process less burdensome, more streamlined and productive. 4. Increase compliance with environmental laws and regulations through compliance assistance and fair and effective enforcement.

Indicators
1. Increased customer satisfaction and public understanding of, and support for, the Department's programs. 2. More compliance with fewer complaints.

Key Strategies	Performance Measures
Continue to develop work plans for divisions and multi-program initiatives that prioritize program work according to Department's goals and strategic priorities, and that propose measures to verify progress and results	• Work plans for FY2002 and 2003 completed July 2001 • Annual reports with progress indicators and performance measures published by February 2002 and February 2003.
Continue to improve efficiency of internal operations and structures to allow staff to focus on priority work plan tasks	• Implement improved cost accounting system to track program/project expenditures by December 2002. • Work with the joint labor/management committee as established by contract negotiations to expand Professional Development Reviews to union staff in FY 2003 to make sure work plan objectives are met. • Develop plan to address projected turnover rate in the next 5 years at DEM by June 2002. • By 2003, complete review of job specifications and salary levels to ensure that responsibilities and authorities are clearly defined and meet program objectives • Provide diversity training to Department staff (contingent on funding). • Supervisory Skills Development – Within 2 years of implementation of supervisor training course planned for 2002, 25 supervisors will have completed the curriculum (contingent on funding).
Continue to develop customer service orientation among management and line staff.	• Develop a department-wide policy and system to solicit customer feedback by July 2002. • Provide training and response protocols for environmental equity complaints by January 2002. • Determine need for multi-lingual information dissemination to serve our increasingly diverse constituency.
Increase awareness of DEM's role in environmental protection and promote an understanding of how actions affect environmental quality.	• By July 2003, develop a coordinated Department Public Outreach and Participation Plan that determines DEM outreach and public participation needs, identifies outreach and participation opportunities, coordinates materials and engages DEM employees in outreach and public participation activities. • Enhance DEM website as a resource for environmental information by June 2003.
Expand and improve partnerships and opportunities for Rhode Islanders to participate in environmental decision making.	• Continue quarterly roundtable meetings with business and environmental communities. • Continue to work with stakeholder groups, including Greenhouse Gas, Marine Fisheries Task Force, Waste Task Force, and watershed, agriculture, forestry and land trust organizations. Initiate environmental equity advisory group (ongoing).
Continuously improve E-government services and technology.	• Work with DOA and legislature to gain ability to accept credit card payments to offer on-line boating and fishing and hunting licenses (ongoing) • Provide the public with the ability to view the status of permits and compliance agreements by December 2001 • Develop capability to allow submissions of selected permit applications on-line by December 2003, pending funding

Open and Effective Government (continued)

Key Strategies	Performance Measures
Develop policy and partnerships for verification of innovative technologies and information and management exchange.	• Develop a policy/position paper on using and promoting innovative technologies by June 30, 2002.
Develop program to improve and re-enforce decision making skills by focusing on problem solving, multi-program communication and coordination, and team building.	• Develop a training curriculum by October 31, 2001. • Implement the first round of training by January 31, 2002. • Offer training to all staff in Bureau of Environmental Protection by December 31, 2002.
Continue to streamline permit processes.	• Complete implementation of the Permit Process Tracking and Information System (PPTIS), a computer infrastructure to process and track permit applications more efficiently and allow for concurrent review among divisions by Fall 2001. • Develop and implement a module within PPTIS to track the receipt and response to citizen complaints (One Stop Grant) by December 2003. • With stakeholders, complete evaluations of all major permit programs where problems exist to recommend legislative, regulatory, policy and administrative changes to improve them and implement recommendations. • Reduce permit backlogs and improve predictability of permit decisions and time frames. – See Division Work Plans for details. • Implement recommendations of the Wetlands Task Force including regulatory reforms to clarify rules and create new application tiers to support streamlining. • Implement recommendations of the ISDS Task Force (to be determined). • Streamline permitting of dam repairs consistent with new rules & policies of Governor's Dam Safety Task Force, Fall 2001.
Provide timely decision making on applications for dredging, dewatering, and for beneficial use and disposal of dredge materials.	• Adopt criteria by policy to identify types of suitable areas for the beneficial reuse of dredge materials, July 2001 • Work with CRMC to develop joint protocols and guidelines for coordinating dredging applications, October 2001 • Develop integrated regulations for dredge material management and dredging, January 2002
With stakeholders, continue exploring the feasibility of establishing an Environmental Leadership Program (ELP) to encourage regulated entities to make environmental improvements that exceed compliance requirements.	• Complete feasibility study and make recommendations for ELP elements by September 2001 • Pursue grant funding to support ELP development (ongoing) • Implement components of ELP as resources permit (ongoing)
Develop opportunities to increase compliance before enforcement actions are necessary.	• Complete autobody certification (ABC) program by December 2002, with 80-100% industry participation by June 2003. • Establish a stakeholder group for dry cleaning self –certification program by June 2003. • Increase permit compliance inspections for wetlands permits and RIPDES minor permits.
Continue to improve enforcement response policies, protocols and regulations to optimize internal and external coordination in handling enforcement actions.	• Finalize an enforcement response policy to standardize enforcement principles, practices and procedures, March 2002. • Recommend changes to the Assessment of Administrative Penalty regulations to ensure that fines are appropriate for the non-compliant actions by June 2002. • Issue timely and appropriate enforcement actions in response to significant noncompliance with environmental statutes and regulations (see Compliance and Inspection Work Plan for specific targets).

Responsiveness Summary

Comment	Response/Action
The process for developing the Strategic Plan, in many cases, did not include or involve frontline staff.	Frontline staff should have played an integral part in the strategic planning process as well as the development of division work plans. We encourage staff to provide input through their Division Chiefs and supervisors.
The Livable Communities chapter does not reflect the Department's plan to eliminate mercury from dentist's offices over the next 2 years.	This has been added to the performance measures in the Livable Communities chapter.
• Global Waste Recycling Inc is still bringing in C&D debris between the hours of 1am and 4am and on weekends when DEM is closed. • Can citizens collect documentation to help cease activities? • Will this issue be put into the Strategic Work Plan?	• Global has said it operates during late hours to avoid traffic going through the Boston area. • Citizens can collect their own information on activities at the site but DEM must still verify the activities. Currently Dem has not verified that new materials have been brought to the site. • This closure of the site is in the Waste Management Division Work Plan. You can find enforcement action updates on our web site.
The Sierra Club in RI is involved in National and regional issues and forums. To what extent is DEM involved in these forums and how can the public learn more about this involvement? Are regional and national forums/issues reflected in our work plan?	• DEM is involved in a variety of regional and national partnerships, committees and forums on topics such as energy policy, climate change and mercury elimination. Regional work is especially important for a small state like RI. • DEM will report more specifically on our participation in Regional/National forums in our newsletter, website and other publications. • Several of these efforts such as mercury and greenhouse gas/energy policy are reflected in this work plan.
• Before Phase II of the CSO project begins is DEM going to consider strategies for reducing stormwater runoff ? • Stormwater projects should be an integral part of designs for DOT projects. • DEM should also commit to working with the NBC on this issue.	• DEM and others decided the CSO project is necessary. • DEM will work with localities to develop stormwater management plans. • DEM can work aggressively with DOT to improve stormwater management systems in DOT projects. This strategy can be added to the work plan. • DOT has made significant changes to the stormwater section of its Ground Transportation Plan response to our comments (DEM is a member of the Transportation Advisory Committee - TAC). • When doing TMDL reviews, DEM can get DOT to do retrofits.
• What is the department's position on lead? • When working with small property owners it is difficult to deal with remediation costs. • Is there a way to balance resources with the threat to children?	• Lead paint is still a priority issue in our work plan and we will be working with DOH, EPA, local officials, and community groups on this issue. • DEM is limited to exterior removal while DOH has jurisdiction over the interior removal. • We are discussing joint inspections with DOH staff. • The SPP staff is working with Brown University and Professor Harold Ward on the policy side of the issue. • We need a program to get homeowners to do what's within their means to clean up the homes.
• How does DEM enforce things? • Who should concerned citizens call at DEM to report a violation of non-compliance and should we call every time we see a violation or will it be followed up on continuously?	• We have two divisions that respond to complaints as well as an Emergency Response staff. The Office of Compliance and Inspection (222-1360) investigates complaints of violations of environmental regulations (air, water, wetlands, etc.) The Division of Law Enforcement (222-2284) responds to compliants for violations of natural resource laws or nuisance wildlife (shellfishing in closed areas, rabid animals, etc.). We also have a 24-hour Emergency Reponse Hotline (222-3070). • Inspectors respond to complaints and, depending on the situation, may give business or property owners or contractors a warning first. If they still don't comply we issue a notice of violation. • Some violators work with DEM to fix problems. If they don't cooperate, they go through an appeals process and then the courts. • If you see repeated violations, please do call. We cannot know what is happening all the time.

Comment	Response/Action
Since public outreach is important and the Department will probably not be able to regain a separate outreach unit, could we dedicate part-time FTEs in each division to work on outreach?	This approach is in the works. The Department has a list of people in each division who have been proposed to work on outreach.
In 10 –15 years the landfill will be closed. Are we leaving the planning all to RIRRC? Can the Department take a role in planning?	• The ECO Depot program is being transferred to RIRRC, and we no longer run a recycling assistance program. • DEM will continue to track the progress of recycling programs. • We need a solid waste master plan and DEM cannot do this alone, but will be involved. • We will the Governor apprised of the importance of this issue and be thinking about ways to address solid waste issues in the future.
• There is very little mention of groundwater in the work plan, which is the reason why we have the UST and LUST programs. • Why is the level of detail so different between objectives in describing strategies under the Livable Communities Goal vs. the Healthy Ecosystems strategies, which are much more specific?	Partly, the information was not provided at the same level of detail, there are inconsistencies in the plan. The Division work plans will have more detail.
• There are 3 – 4 brownfields sites that have had approvals for a few years, but no buyers. We don't know what EDC is doing to market the sites. • There are potential buyers who don't know they can get low-interest loans to redevelop these sites. • Can we be updated on the status of these sites once they are approved by DEM?	• Staff should know what EDC is doing to market these sites. We will try to keep you informed. • EDC is stepping up its efforts to market brownfields. • EDC and DEM should share the responsibility to redevelop sites.
The water quality restoration map does not indicate that Point Judith Pond is scheduled for restoration studies. A culvert is needed to restore flow in an area where a culvert has collapsed and water stagnates. I have asked DEM and the Salt Pond Coalition and have not received an answer as to when this will be done.	Point Judith Pond is scheduled for a water quality restoration plan to begin next year. It will not be completed and ready for implementation until 2005. The installation of a culvert should be initiated at the local level.
Who is responsible for controlling growth?	This is a land use planning issue, mostly under local control, and is addressed through the comprehensive community planning process. The Department works with the Governor's Growth Planning Council and the Sustainable Watershed Program to address growth, working with communities within watersheds. Watersheds are viewed as natural units to look at environmental issues. Land use affects water quality and is addressed as part of a watershed action plan.
Concerned about the development proposal for the Ladd School site and port development at Quonset.	Speak to elected officials to let them know you are concerned about growth.

Appendix B

Key Strategies and EPA Actions For Rhode Island for FY2002-2003

EPA - NEW ENGLAND ENVIRONMENTAL GOALS

FINAL

Key Strategies and EPA Actions for Rhode Island For FY 2002 - 2003

To support the
Rhode Island Department of Environmental Management
and the
Rhode Island Department of Health

August 6, 2001

INTRODUCTION

This Environmental Goals and Strategies document was developed by the U.S. Environmental Protection Agency - New England Office. EPA-NE has organized a substantial portion of its work around four environmental goals:

- Clean and Healthy Water,
- Clean and Healthy Air,
- Healthy Communities, and
- Healthy Ecosystems.

These goals are consistent with GPRA goals, but are meant to focus more exclusively environmental ends whereas some of the GPRA goals are focused more on strategies, the means we use, to accomplish our work.

Our environmental goals form the foundation of the Regional Strategic Framework where we have endeavored to capture approximately 80% of the work in the Region, and align the work with its essential purpose - the desired environmental result. Additionally our Strategic Framework describes the tools (the how's of doing our work) and the measures we use to determine if we are making progress using our tools. We built our Framework with the input of many EPA New England managers and staff experts. It is primarily an internal planning document but increasingly it is being used to inform our partners about our strategies and priorities. We are using our Strategic Framework now to help inform our PPA negotiations with Rhode Island and to advance our efforts to plan and set priorities collaboratively with the State.

For each goal we present the long-term objective along with the environmental or public health outcome expected in Rhode Island. We also include targets for which we hope to achieve specific environmental results within a projected time frame as well as indicators which will measure our progress along the way. Under each objective is a list of strategies and corresponding EPA actions we will undertake in Rhode Island in FY2002/2003.

The purpose of this document is to set forth EPA's plan for our programs and activities and how we propose to allocate resources in Rhode Island. This document will serve to negotiate with our State Agency partners a mutual set of strategies and measures for the FY2002/2003 Performance Partnership Agreement.

EPA NEW ENGLAND ENVIRONMENTAL GOALS STRATEGIES AND EPA ACTIONS FOR RHODE ISLAND

GOAL I: CLEAN AND HEALTHY WATER

Drinking Water & Surface Water

Subgoal: Drinking Water

Objective #1 *Water Systems Compliance:* Increase % of PWS systems meeting microbial and other health based standards.

Objective #2: *Protection of Public Drinking Water:* Protect public drinking water from pollution.

Objective #3: *Aquifer Protection:* Maintain or restore groundwater for future use in other than source water areas.

Subgoal: Surface Water

Objective #1: *Restore Water Quality:* Restore water quality in impaired waters.

Objective #2: *Maintain Water Quality:* Maintain surface water quality.

Objective #3: *Monitor Water Quality:* Maintain effective monitoring programs.

GOAL II: CLEAN AND HEALTHY AIR

Objective #1 *Ozone:* Reduce ozone exceedence days in each non-attainment area.

Objective #2 *Particulate Matter:* Reduce regional haze and unhealthy levels of particulate matter.

Objective #3 *Criteria Air Pollutants:* Maintain healthy ambient levels of criteria air pollutants (CO, SO2, NO2, Lead).

Objective #4 *Air Toxics:* Reduce ambient levels of, and exposure to, air toxics.

Objective #5 *Healthy Climate/Atmosphere:* Reduce CO2 and Non-CO2 greenhouse gas emissions.

Objective #6: *Atmospheric Deposition* Reduce deposition of acid rain and mercury from atmosphere onto land and water bodies.

GOAL III: HEALTHY COMMUNITIES

HEALTHY HUMAN COMMUNITIES

Objective #1 *Healthy Children:* Protect children from environmental health threats by improving the quality of the environments where children spend their time: at school, at home and outdoors.

Objective #2 *Livable Communities:* Restore, revitalize, and protect urban environments, and reduce sprawl in suburban and rural areas.

Objective #3 *Toxic Substances & Pesticides:* Reduce exposure to and pesticides and toxic substances.

Objective #4: *Waste Sites:* Make previously polluted sites safe for communities.

SUSTAINABLE REGULATED COMMUNITIES

Objective 5: *Increase Compliance in the Regulated Community:* Reduce pollution across media through increased compliance.

Objective 6: *Sustainable Performance in the Regulated Community:* Decrease pollution across media through sustainable performance and behavior change.

GOAL IV: HEALTHY ECOSYSTEMS

Objective #1 *Aquatic Ecosystems:* Increase quantity and quality of our aquatic ecosystems: wetlands, fresh water habitats, and marine habitats including eelgrass beds.

Objective #2 *Diverse Habitats and Sensitive Development:* Permanently protect habitat, sensitively develop unprotected land.

Objective #3 *Protect Marine Habitats:* Minimize adverse impact from marine dredging and disposal of materials.

GOAL I: CLEAN AND HEALTHY WATER

Subgoal: Drinking Water

Objective 1: <u>Water Systems Compliance</u>:
Increase % of PWS systems meeting microbial and other health based standards.

Public Health Outcome: Citizens of Rhode Island will have clean, healthy and safe drinking water all of the time and public water systems will achieve compliance with all drinking water quality standards.

Targets: By 2005, all Rhode Island public water systems will meet Safe Drinking Water standards.

Public Health Indicator: Refer to RI DOH - Healthy People 2000

KEY STRATEGIES	KEY ACTIONS
1. Support implementation and enforcement of regulatory requirements under the SDWA with RI DOH and appropriate partners.	• EPA-NE will provide technical assistance and training to RI DOH to develop new regulations for drinking water standards from the 1996 SDWA amendments. • EPA-NE will assist RI DOH to adopt new rules. • EPA-NE will review all submitted primacy revisions packages. • EPA-NE will review RI DOH's laboratory certification regulation. • EPA-NE will continue to provide technical assistance in lab related issues. • EPA-NE will conduct one or two follow-up inspections of RI DOH Laboratories. • EPA-NE will assist RI DOH in developing electronic data interchange capability.
Support implementation and enforcement of regulatory requirements under the SDWA with RI DOH and appropriate partners.	• EPA-NE will review data tracking system in RI DOH. • EPA-NE will assist RI DOH in evaluating the SDWIS state database and assist with computer support. • EPA-NE will develop a budgeting software for small systems. • EPA-NE will continue to work with Drinking Water Academy to develop training modules for various drinking water related topics.

KEY STRATEGIES	EPA ACTIONS
2. Implement technical assistance efforts with organizations/agencies to achieve public water system compliance.	• EPA-NE will continue to promote dialogue among key players. • EPA-NE will facilitate technology transfer. • EPA-NE will continue to work with water professional experts to assist small systems. • EPA-NE will continue to support training in regulatory requirements and water treatment technique using multiple-barrier approach. • EPA-NE will develop a new technology list server.
3. Provide technical and financial support to assure compliance with SDWA requirements.	• EPA-NE will in 2002, work with RI DOH and the RI CWFA to achieve adequate number of loans given to water systems. • EPA-NE will assist the State Agencies in developing mechanisms for financial assistance to small water systems. • EPA-NE will work with RI DOH and Atlantic States Rural Water Associations to assist small systems in the needs assessment as well as the SRF loan process • EPA-NE will continue to fund the PWSS program.

GOAL I: CLEAN AND HEALTHY WATER

Subgoal: **Drinking Water**

Objective 2: **<u>Protection of Public Drinking Water</u>**: Protect public drinking water from pollution, including both groundwater and surface water supplies.

Environmental Outcome: All Rhode Island residents have access to safe drinking water.

Target: By 2005, protect 10 new drinking water recharge areas through acquisition, easements, or other controls on pollution inputs to the supplies.

Indicators:

- Number of acres of land acquired
- Number of local measures implemented to protect drinking water supplies
- Number of towns adopting and implementing drinking water protection. programs.
- Reduction of pollutants in drinking water protection areas from TRI database.
- Reduction of VOC detections in public drinking water supplies.

KEY STRATEGIES	EPA ACTIONS
1. Enhance and support the implementation of drinking water protection programs in Rhode Island	• EPA-NE will work with RI DEM to assist towns with completed Source Water Assessments to implement Wellhead Protection/Source Water Protection plans, i.e., Burrillville. • Provide technical assistance to at least three local communities/water utilities to promote local drinking water protection initiative • Pursue one source water assessment pilot project with HQ funding in Rhode Islan • EPA-NE will in 2002, explore funding and leverage resources with federal partners, e.g., URI/CE, to implement drinking water protection initiatives in Rhode Island.

KEY STRATEGIES	EPA ACTIONS
2. Pursue land acquisition programs in drinking water recharge areas and leverage EPA support.	• Utilize the option of the drinking water SRF to acquire land in recharge areas.
3. Identify and map potential sources of contamination and threats to drinking water quality and implement projects that will result in improvement to drinking water quality in Rhode Island.	• EPA-NE will target UST and RCRA inspections in consultation with RI DEM, and RI DOH in drinking water protection areas. • EPA-NE will complete an inventory of CERCLIS, RCRA and NPL facilities in drinking water areas by the end of 2000. • EPA-NE will begin to prioritize site assessment decisions at CERCLIS sites in sole source aquifers and drinking water protection areas by the end of 2002. • EPA-NE will monitor implementation of the corrective action program for the Stafford Pond Watershed Restoration Plan (TMDL). • EPA-NE will complete the Kickemuit Watershed Restoration Plan in 2002 and begin to implement WQ improvement actions with the NRCS in Massachusetts and Rhode Island. • EPA-NE will begin investigation at the JM Mills Landfill as part of the Peterson/Puritan Superfund Site in 2002.
4. Pursue enforcement and/or compliance assistance actions on sources/facilities that threaten drinking water quality in drinking water protection areas	Based upon inspections, EPA-NE will pursue appropriate enforcement/ compliance assistance to regulated facilities.
5. Implement education programs and outreach initiatives to business/industries in drinking water protection areas.	• EPA-NE will complete, distribute, and provide training on the business drinking water protection video and workbook in Rhode Island. • EPA-NE will encourage participation in the environmental and education and business drinking water awards programs
6. Ensure that data collected to support drinking water protection in Rhode Island is of good quality and sound science.	• EPA-NE will review Quality Assurance Project Plans within 60 days of submittal. • EPA-NE will participate as appropriate in field monitoring studies to protect drinking water supplies in consultation with RI DOH and RI DEM, i.e., TMDL's, etc.

GOAL I: CLEAN AND HEALTHY WATER

Subgoal: **Drinking Water**

Objective 3: **Aquifer Protection:** Maintain or restore groundwater for future use in other than source water areas.

Environmental Outcome: Rhode Island's groundwater resources will be maintained or restored consistent with the State Groundwater Classification System.

Targets:

- By June 2005, 3 additional communities will have adopted local aquifer protection by-laws.
- By 2005, towns will have acquired 100 additional acres of protected land in high yield aquifers (GAA/GA).
- By 2010, towns will have restored 100 acres of contaminated groundwater areas to GB.

Indicators:

- % increase of groundwater classified as GAA or GA.
- Reduction of nutrients to groundwater from septic systems and fertilizer.
- Reduction of VOC detections in groundwater.

KEY STRATEGIES	EPA ACTIONS
1. Implement groundwater management strategies and programs to protect groundwater resources.	• EPA-NE will participate on WUSG Action Plan planning and implementation; follow-up on USGS modeling in South County. • EPA-NE will participate with South County Green space project. • EPA-NE will review in 2002 the state's Ground Water Protection Strategy, within 60 days after submittal. • EPA-NE will assist RI DEM to finalize the Pesticides in Ground Water Strategy. • EPA-NE expects to conduct approximately 10 SSA reviews; coordinate with RI DEM and Federal Agencies. • EPA-NE will participate on ISDS Regulatory Work Group to confer on, revise and improve regulations for groundwater protection.

KEY STRATEGIES	EPA ACTIONS
1. **Continued:** Implement groundwater management strategies and programs to protect groundwater resources.	• EPA-NE will provide education and outreach (BMPs) to those industries listed as potential sources of groundwater contamination, i.e., salt storage facilities. • EPA-NE and RI DEM will assist Rhode Island towns in developing/implementing aquifer protection by-laws.
2. Conduct inspections and investigations of sources that impact groundwater quality.	EPA-NE will review Rhode Island's 2000 305(b) report to target inspections to the 10 highest priority sources of groundwater contamination.
3. Implement programs that will result in groundwater restoration.	• EPA-NE will assist RI DEM to achieve RCRA Authorization and RCRA Corrective Action delegation in 2002. • EPA-NE in 2002, will make a remedy decision from offsite impacts from Central Landfill.

GOAL I: CLEAN AND HEALTHY WATER

Subgoal: Surface Water

Objective 1: <u>Restore Water Quality:</u> Restore water quality in impaired waters.

Environmental Outcome All Rhode Island waters are safe for recreational uses, fish and shellfish consumption, and support aquatic life.

Target:
- By 2002, the state's permit backlog (majors) will be entirely eliminated.
- By 2008, the number of open beach days in upper Narragansett Bay beach areas will increase.
- By 2008, the number of open shellfish days will increase by 47% in upper Narragansett Bay, and 77% in the southern upper Bay.
- By 2007, NBC will complete priority abatements at selected CSO outfalls, including Woonasquatucket River so that wet weather events lead to no more than 4 primary contact closures.

Indicators:
- Miles of beaches are consistently open for swimming during the season.
- Percent increase in boater use of pump-out facilities.
- Increase days upper bay shellfish areas are open

KEY STRATEGIES	EPA ACTIONS
1. Abate/eliminate sources of contamination to surface waters	• EPA-NE will promote 10 BMP's in 2002 for water quality restoration in Rhode Island with 319 NPS grants. • EPA-NE based upon inspections and/or consultation with DEM will pursue an appropriate EPA enforcement strategy for water quality permitted facilities in Rhode Island in 2002. • EPA-NE will provide technical support as needed to DEM's pretreatment program in 2002. • EPA-NE will in 2002, based upon acceptable submission, approve Rhode Island's Phase II Stormwater Program. • EPA-NE will assist URI, North Kingstown and DEM to implement the Supplemental Environmental Project for the septic system upgrades in Wickford Harbor by the end of 2004.

KEY STRATEGIES	EPA ACTIONS
1. **Continued:** Abate/eliminate sources of contamination to surface waters.	• EPA-NE will assist RI DEM and RI DOH and the Town of Barrington to address contamination issues and conduct outreach/education to residents around Woods Pond. • EPA-NE and RI DEM will track reduction of pollutant loadings from implementation of "No Discharge Designation" to Rhode Island's Coastal Waters.
2. Develop approvable and implementable watershed restoration strategies (TMDL's) in Rhode Island.	• EPA-NE will in 2002/2003, review TMDL's with a goal of providing technical comments within 30 days from submission of a draft TMDL. • EPA-NE will in 2002/2003, approve TMDLs with a goal of 30 days from submission of a final/ acceptable TMDL. • EPA-NE will in 2002 evaluate opportunities to incorporate pollution prevention strategies with the Watershed Restoration Program, i.e., TMDLs. • EPA-NE will in 2002, assist DEM to educate the Legislature to support funding for watershed restoration strategies.
3. Provide financial and technical support to carry out restoration strategies.	• EPA-NE will in 2002, continue to support the Clean Water SRF as a source of low interest loans for WWT facilities, and on-site system upgrades. • EPA-NE in 2002, will assist DEM in the technical review of proposals for 319 NPS grants in 2002. • EPA-NE will in 2002, participate in the Partnership for Narragansett Bay, to implement a mini grants program in Massachusetts and Rhode Island. • EPA-NE will in 2002, partner with federal agencies to leverage funding for water quality improvements, e.g., NRCS, ACOE in interstate watershed. • EPA-NE will work with URI-CE to evaluate the effectiveness of GMP's and WQ models.

GOAL I: CLEAN AND HEALTHY WATER

Subgoal: Surface Water

Objective 2: <u>Maintain Water Quality:</u> Maintain surface water quality.

Environmental Outcome: All Rhode Island waters remain safe for recreational uses, fish and shellfish consumption, and support aquatic life.

Target:
- By 2002, complete community based Watershed Actions Plans for the Blackstone and Pawtuxet Rivers.
- Implement South County and Woonasquatucket River Action Plans.

Indicators:
- Reduction in threatened waterbodies from 305(b) report.
- Number of innovative septic system installations.
- Number of towns with alternative land use techniques adopted and implemented.

KEY STRATEGIES	EPA ACTIONS
1. Develop and implement strategies to identify and protect pristine, good quality, and threatened waters from adverse impacts of development.	• EPA-NE will review the state's 305(b) report to identify and target EPA actions that will protect good water quality or threaten water resources. • EPA-NE will conduct workshops of states on 305(b) monitoring in the Fall 2001.
2. Manage watersheds to avoid or mitigate adverse impacts to designated uses.	• EPA-NE will conduct SPCC inspections and/or enforcement actions as needed in Rhode Island. • EPA-NE will respond as needed to oil spill events in Rhode Island.
3. Enhance and support local watershed management capacity and place - based protection priorities.	1. EPA-NE and RI DEM to seek public/private funding partnerships to establish a Watershed Institute in R.I. 2. EPA-NE will in 2002, participate in outreach/efforts, e.g., Rivers Day, Earth day, Envirothon to education public on Watershed Management Issues. 3. EPA-NE will participate in the development of Watershed Action Plans for the Blackstone and Pawtuxet Rivers.

3. **Continued:** Enhance and support local watershed management capacity and place - based protection priorities.	**South County and Woonasquatucket Watershed:** • EPA-NE will implement its responsibilities set forth in the South County Watershed Action Plan 2001-2004. • EPA-NE will implement its responsibilities set forth in the Woonasquatucket Watershed Action Plan. **Pawcatuck Watershed:** • EPA-NE will provide technical assistance to town planners to implement ground water protection overlay districts as needed (4.2.2). • EPA-NE will continue to seek funding sources for the Water Resources Board to develop a Drought Alert Network on a statewide basis. **Salt Ponds:** • EPA-NE will provide technical support thru the URI Septic System Grant to implement a watershed - based on-site wastewater management program (strategy 2.1). • EPA-NE will participate in seminars/ workshops to educate public on issued related wastewater management and water quality of well water (5.1.5).

GOAL I: CLEAN AND HEALTHY WATER

Subgoal: Surface Water

Objective 3: <u>Monitor Surface Water Quality</u>: Maintain effective monitoring programs.

Environmental Outcome:

Water Quality monitoring demonstrates that waters are safe for recreational uses, fish and shellfish consumption, and support aquatic life.

Target:

- By 2002, the State will have a comprehensive baseline monitoring strategy, including funding, in place.
- By 2003, the State will implement its monitoring plan, including comprehensive fish tissue monitoring to identify high risk species and locations.

Indicators:

- By 2003, the State will have an increase of baseline monitoring consistent with the monitoring strategy.
- Fish consumption advisories in place, as appropriate.

KEY STRATEGIES	EPA ACTIONS
1. Establish water quality standards that reflect new and revised requirements.	• EPA-NE in 2002, will continue to assist in the development of guidance for bio-criteria in surface water. • EPA-NE will assist RI DEM in the evaluation of bio-assessment data. • EPA-NE will assist RI DEM to develop a plan by 12/31/01 to adopt numeric nutrient criteria for lakes and rivers into the state's water quality standards by 2004. • EPA-NE will participate in efforts to develop nutrient criteria guidance for lakes and rivers in New England by 12/31/01. • EPA-NE will by the end of 2004 work with Rhode Island to adopt nutrient water quality criteria for lakes and rivers • EPA-NE will provide technical support to RI DEM to develop bio-criteria standards using results of FY2000 bio-monitoring study. • EPA-NE will in 2002, review in a timely fashion, proposed revisions to the state's water quality standards. • EPA-NE in 2002, will continue to assist state in developing criteria to manage water withdrawals and uses consistent with State Water Quality Standards. • EPA-NE and RI DEM with the URI-CJ will sponsor an environmental indicator's workshop in the Fall of 2001.

KEY STRATEGIES	EPA ACTIONS
2. Establish comprehensive baseline monitoring programs in surface waters/habitat in Rhode Island	• EPA-NE will in 2002, assist R.I. Department of Health (RI DOH) to implement beach monitoring program recommendations from EMPACT project. • EPA-NE will provide training as needed to enhance volunteer monitoring programs in Rhode Island. • EPA-NE will conduct a regional wadeable streams project (including several sites in R.I.), and provide data to the state. • EPA-NE will conduct preliminary evaluation of state's monitoring programs, identify gaps with a comprehensive strategy. • EPA-NE will review completed QAPP's within 60 days of submittal on projects receiving federal funds. • EPA-NE will conduct an assessment of capability to upload state EDAS data into STORET. • EPA-NE in 2002, will continue to assist state in developing and implementing a fish tissue monitoring program. • EPA-NE will submit final report from the summer 2000 Random Sampling Design (RSD) Study in 2002.
3. Monitoring to support site specific projects and assessments.	• EPA-NE will in 2002, conduct/ participate in field monitoring studies for the following: - Mashapaug Pond TMDL - Kickamuit Reservoir - Green Hill Pond, Block Island, South Kingston septic system Demonstration project - Woonasquatucket Wet Weather Monitoring w/NBC. - Other monitoring to be determined. **Pawcatuck Watershed**: • EPA-NE to provide sampling support (3.1.3) as needed. **Salt Ponds:** • EPA-NE will provide technical sampling support as needed (4.1.4).

GOAL II. CLEAN AND HEALTHY AIR

Objective 1: **Ozone:** Reduce ozone exceedance days in each non-attainment area.

Public Health Outcome: Citizens of Rhode Island will have clean healthy air to breathe and air pollutants will not damage forests, land, and water bodies.

Targets: By 2007, Rhode Island will meet the federal ozone standard.

Indicators:
- Three-year average of the number of days exceeding the eight-hour ozone standard.
- % of VOC's reduced from new rules.

KEY STRATEGIES	EPA ACTIONS
1. Develop new standards and enforcement of old standards for power plants and other combustion sources.	• Consistent with court decisions, EPA-NE will ensure implement of Nox SIP call and Section 126 requirements to reduce by May 2004 a total of 1.1 million tons of Nox impacting air quality in R.I. • Contingent upon Administration review of NSR enforcement initiative, EPA-NE will pursue, settle and litigate NSR violations by power plants, whose emissions impact R.I.'s air quality. • EPA-NE will work with R.I. on adoption and approval of revised Nox control rules (Nox SIP call revisions and OTC model Nox rules).
2. Implement enhanced automobile testing.	As needed, EPA-NE will provide assistance to DEM on implementation issues. PEA will also assist R.I. to develop on-board diagnostics (OBD II) testing requirements that meet EPA requirements**.**
3. Implement effective VOC control programs.	• EPA-NE/R.I. DEM to determine appropriate number of VOC inspections. • EPA-NE will work with state on adoption, and then EPA approval, of consumer, AIM, and gas container VOC control rules.
4. Promote alternative, less polluting fuels.	EPA-NE will participate in the selection of CMAQ projects by R.I. MPO.

KEY STRATEGIES	EPA ACTIONS
5. Ensure adequate public education on ozone in Rhode Island.	• EPA-NE will continue to generate ozone forecast maps for Northeast and distribute to public and media outlets. EPA-NE will continue to distribute Smog Alert messages to interested parties in R.I. when DEM forecasts unhealthy ozone levels. • EPA-NE will issue press releases when multiple states in N.E. forecast unhealthy ozone levels.
6. Ensure that data is of good quality and sound science.	• EPA-NE completes review and approval of State PAMS QAPP. • EPA-NE will provide training on new AIRS system to insure 75% data capture.

GOAL II. CLEAN AND HEALTHY AIR

Objective 2: **Particulate Matter:** Reduce regional haze and unhealthy levels of particulate matter.

Public Health Outcome: Citizens of Rhode Island will breathe clean and healthy outdoor air which meets EPA-NE's health-based ambient air qualaity standards for particulate matter.

Targets: By 2007, meet health-based standards for particulate matter.

Indicators:
- Number of days Rhode Island meets federal standards.
- Number of alternative fuel vehicles.

KEY STRATEGIES	EPA ACTIONS
1. Development of programs to reduce diesel particular emissions.	• EPA-NE will work with RI to identify initiatives that encourage retrofits on diesel vehicles. • EPA-NE will work with R.I. to identify initiatives that encourage alternative fuels. • EPA-NE will provide assistance, as needed, to help R.I. establish a testing program.
2. Implement a Particulate Monitoring Program in Rhode Island that will result in quality data.	• EPA-NE will provide technical assistance and network support. • EPA-NE will provide training on new AIRS system to insure 75% data capture. • EPA-NE will conduct a Technical Systems Audit for R.I. in 2003.
3. Conduct stack testing and continuous emission monitoring in Rhode Island.	• Monitoring needs TBD. • EPA-NE will in 2002, consult with R.I. DEM on appropriate enforcement.
4. Participate in regional plan to develop a long-term haze strategy for the Northeast.	EPA-NE will provide funding and assistance to the regional planning organization, and will participate in the technical workgroups.

GOAL II: CLEAN AND HEALTHY AIR

Objective 3: <u>Criteria Air Pollutants</u>: Maintain healthy ambient levels of criteria ai pollutants (carbon monoxide, sulfur dioxide, nitrogen oxides, lead).

Public Health Outcome: Citizens of Rhode Island will breathe clean and healthy outdoor air which meets EPA's health-based ambient air quality standards for carbon monoxide, sulfur dioxide, nitrogen oxides and lead at all times.

Targets: As of 2001, Rhode Island outdoor air quality will meet the air quality standards for carbon monoxide, sulfur dioxide, nitrogen oxides and lead at all times.

Public Health Indicator: All monitors in Rhode Island report monitoring data meeting the ambient air quality standards.

KEY STRATEGIES	EPA ACTIONS
1. Ensure all new or modifying major sources install state of the art control technologies.	EPA-NE will review and provide constructive comments on 100% of major New Source Review (NSR) permits, with a goal of ensuring that BACT/LAER and other NSR requirements are met.
2. Ensure that Title V permits program results in effective and clear operating permits to all major sources.	• EPA-NE will propose and take final action on full approval of RI's Title V program. • EPA-NE will review and provide constructive comments on 100% of Title V draft permits • EPA-NE will provide a regional training for citizens'/advocacy groups on Title V permitting.
3. Maintain effective ambient monitoring network to ensure that air quality standards are met.	EPA-NE will provide training on new AIRS system to insure 75% data capture.
4. Ensure that monitoring network has sound data quality.	As state submits QAPPs according to schedule, OEME will review within 60 days of submittal.
5. Ensure strong enforcement of permits programs.	

GOAL II: CLEAN AND HEALTHY AIR

Objective 4: <u>Air Toxics</u>: Reduce ambient concentration and exposure to air toxics.

Public Health Outcome: Citizens of Rhode Island will breathe clean and healthy outdoor air which does not pose an unreasonable risk to public health.

Targets: By 2005, EPA and RI DEM will have better information on ambient levels of air toxics and the risks to human health, and the levels of the air toxics posing the greatest risks will have declined.

Public Health Indicator: Ambient concentrations of benzene, 1,3 butadiene and formaldehyde.

KEY STRATEGIES	EPA ACTIONS
1. Provide the public better information on the public exposure to, and risk from, ambient air toxics.	• EPA will keep DEM informed of the National Air Toxics Assessment (NATA) tools and any changes or revisions as a result of the Scientific Advisory Board Review. • EPA will share a New England-specific analysis of the NATA data, conducted by the EPA NE. • EPA will provide NESCAUM states with training on air toxics risk communication.
2. Ensure that the emission standards for sources of air toxics (including the MACTand NSPS standards) are properly implemented.	• EPA-NE will work with DEM on DEM's acceptance of delegation of new MACT and NSPS standards. • EPA-NE will provide technical assistance and review of alternative toxics standards (Section 112(l) submittals) submitted by RI DEM, including the solvent degreasing regulations. PEA will prepare and publish a Federal Register notice to take action on RI Section 112(l) packages. • EPA-NE will hold an air toxics workshop to provide assistance and training to states on implementation of air toxics standards.
3. Work to establish an effective ambient monitoring network for air toxics in New England.	• EPA-NE will provide funding for the Providence air toxics monitoring pilot project. • EPA-NE will also provide technical assistance and quality control for lab analysis. • EPA-NE will provide training on new AIRS system to insure 75% data

GOAL II: CLEAN AND HEALTHY AIR

Objective 5: Healthy Climate/Atmosphere: Reduce carbon dioxide and non-carbon dioxide greenhouse emissions.

Environmental Outcome: Rhode Island will contribute to the effort to reduce greenhouse gas emissions affecting the global climate.

Targets: By 2010, Rhode Island greenhouse gas emissions will be substantially reduced through programs and policies that lead to reduce costs to consumers of energy and reduced emissions leading to cleaner air and water. In the Nation, EPA programs are expected to offset forecasted growth by 20-35 percent relative to 1990 emission levels, equivalent to annual reductions of between 130 and 200 million metric tons of carbon equivalent in 2010.

Environmental Indicator: Emissions of carbon dioxide and non-carbon dioxide greenhouse gas emissions.

KEY STRATEGIES	EPA ACTIONS
1. Implement voluntary programs designed to increase energy efficiency, including EPA's Energy Star and Green Lights programs.	Continue to recruit partners in Rhode Island, focused on schools, colleges and universities, cities and towns and state governmental buildings and purchasing policies.
2. Implement transportation programs designed to reduce vehicle miles traveled (VMTs).	Provide grants for "Clean Air Communities," awarded to communities with good programs designed to reduce emissions and VMTs. (See Livable Communities.)
3. Promote energy efficiency and conservation in electricity generation	EPA is planning a conference in mid-July for all New England states to discuss electricity reliability and air quality, focusing on how to improve efficiency and promote clean power.
4. Develop greenhouse gas inventories and action plans (including demonstration programs for emission trading) by states, municipalities and private companies	• EPA-NE is working with the International Council for Local Environmental Initiatives (ICLEI) to recruit additional towns and cities to develop inventories and action plans. • EPA-NE will run grant program for development of action plans (RI is applying for such a grant)
5. Provide technical and policy support for the development of a Regional Action Plan by the New England states and Eastern Canadian Premiers	EPA-NE will actively participate in the steering committee working to develop this action plan and will provide information and assistance as needed.

GOAL II: CLEAN AND HEALTHY AIR

Objective 6: <u>Atmospheric Deposition</u>: Reduce deposition of acid rain and mercury from atmosphere onto land and water bodies.

Environmental Outcome: Rhode Island will contribute to the effort to reduce greenhouse gas emissions affecting the global climate.

Targets:

- By 2005, annual emissions of nitrogen oxides from electric power generation sources in the United States will be reduced by 2 million tons from projected levels and total nitrogen deposition will be reduced to 1990 levels.
- By 2010, annual sulfur dioxide emissions from electric power generation sources in the United States will be reduced by 8.5 million tons and total sulfur deposition will be reduced by 30 percent from 1990 levels.

Environmental Indicator: Sulfate and nitrate deposition levels and mercury deposition rates.

KEY STRATEGIES	EPA ACTIONS
1. Implement the Acid Rain Program, which obtains significant reductions of SO2 and Nox from power plants which impact deposition throughout New England.	• EPA-NE will continue to run the allowance trading program for power plants subject to the acid rain program • EPA-NE will provide technical assistance and review of monitoring plans for any new power plants in R.I • EPA-NE will continue tracking SO2, NOx and CO2 emissions from power plants subject to the Acid Rain program.
2. Implement EPA-NE's mercury action plan.	• Ensure compliance by incinerators subject to EPA-NE and state mercury emission standards for municipal waste incinerators and medical waste incinerators • Implement the Mercury Challenge Program for Hospitals, which provides assistance and publicity for hospitals which commit to reduce mercury use. • Continue to work with NEGC/ECP task force on regional steps to reduce mercury use. • Continue to provide information and education materials on mercury.

GOAL III: HEALTHY COMMUNITIES

Objective 1: **Healthy Children:** Protect children from environmental health threats by improving the quality of the environments where children spend their time: at school, at home, and outdoors.

Public Health Outcome: All Rhode Island children will be free from exposure to toxic substances.

Targets:

- By 2010, no children will have elevated blood Pb levels.
- By 2005, 50% of all R.I. schools will be implementing an Indoor Environments protocol.

Indicators:

- Reduce the number of children with elevated blood Pb levels 10% by 2005.
- Reduce asthma and respiratory triggers associated with indoor air quality in urban areas.

KEY STRATEGIES	EPA ACTIONS
1. Coordinate and implement a Lead Strategy in Rhode Island. Assist RIDOH and RI DEM to organize and implement R.I. statewide lead coalition effort.	• EPA-NE will distribute lead outreach materials to 5 community organizations working on lead poisoning in urban areas. • EPA-NE will assist R.I. House and Mortgage Finance Corp. and RI DOH to implement a Lead Safe Yards Project at 30 day care center sites in urban communities. • EPA-NE will enforce 406b regarding real estate transactions and disclosure of lead poisoned children at sale or lease.
2. Implement programs to assist in protecting the public health of children in school.	• EPA-NE will work with RI DOH and R.I. Chapter of American Lung Association to bring 10 schools in R.I. into the "Tools for Schools" Program in 2002. • Pounds of chemicals removed from schools • Number of chemical inventories that occur in K-12 schools.

KEY STRATEGIES	EPA ACTIONS
2. **Continued:** Implement programs to assist in protecting the public health of children in school.	• EPA-NE will assist one "Showcase school" in RI to access a broad spectrum of programs directed towards clean indoor air, healthier building construction, safe use/storage of chemicals and education of students in 2002. • EPA-NE will conduct workshops for high schools and vocational schools to educate teachers and administrators on the safe use, storage, and disposal of chemicals and equipment. • EPA-NE will assist Cranston LEPC to remove hazardous chemicals from schools using local authorities. • EPA-NE will use enforcement gools, e.g., SEP's to protect children's health in schools.
3. Implement an Asthma/Indoor Air Quality Strategy in places where children learn, live, and play in R.I.	• EPA-NE will work with one HMO in R.I. to adopt environmental trigger prevention efforts in 2002. • EPA-NE will initiate 10 education efforts on asthma and sick buildings in 2002. • EPA-NE will support 2 asthma coalitions in R.I. in 2002.
4. Implement a comprehensive Asbestos in Schools Strategy in R.I.	EPA-NE will support one education/outreach initiative in 2002.
5. Ensure that data collected to support public health protection in Rhode Island is of good quality and sound science.	EPA-NE will review complete QAPP's within 60 days of submittal.

GOAL III: HEALTHY HUMAN COMMUNITIES

Objective 2: **Livable Communities:** Restore, revitalize, and protect urban environments and reduce sprawl in suburban and rural areas in Rhode Island. Restore previously polluted sites for community, ecological, or economic re-use.

Environmental Outcome: Increase in urban greenspace, improved water quality from control of NPS run-off, improved urban air quality.

Targets:

- By January 2002, Grow Smart Rhode Island will have assessed the location, number and characteristics of vacant/underused industrial and commercial properties in Rhode Island.
- By 2004, develop and implement a Rhode Island Urban Design Manual.

Indicators:

- Rate of productive reuse of urban vacant lots and brownfields increases.
- Rate of progress to implement UEI upscale model for Rhode Island.
- Number of outreach presentations in the Woonasquatucket.

KEY STRATEGIES	EPA ACTIONS
1. Implement programs and projects designed to restore the urban environment and protect the public health of residents in urban centers.	• EPA-NE will develop a concept paper for the preliminary state upscale/transition for the Urban Environmental Initiative Program in Rhode Island in 2002. • EPA-NE will revise and finalize the statewide model design for the UEI program and gather data on critical urban environment and public health problems facing residents in 1 to 3 R.I. cities. • EPA-NE will identify and establish statewide coordinating bodies or committees to begin designing and implementing 4 UEI program areas in 1 - 3 R.I. cities by 2003. Focus will be on urban rivers, fish consumption issue and lead.

KEY STRATEGIES	EPA ACTIONS
1. <u>(Continued)</u> Implement programs and projects designed to restore the urban environment and protect the public health of residents in urban centers.	• EPA-NE will work with NRCD to deliver approximately 80 outreach presentations to school and adult audiences concerning PCB, dioxin and nutrient pollution in the Woonasquatucket Watersheds in 2002. • EPA-NE will continue to expand the Urban Rivers Team to a statewide focus by recruiting environmental/ watershed organizations to research, restore, and protect urban water bodies. • EPA-NE will assist potential applicants for target Brownfield site assessments as needed in Rhode Island. • EPA-NE will participate as appropriate to implement the recommendations of Grow Smart Rhode Island Brownfield Conference. • EPA-NE will continue to assist RI DEM to implement the voluntary Cleanup Program MOA to expedite cleanup of waste sites. • EPA-NE will fund an Urban Design Manual with other partners to provide design criteria and technical guidance for urban revitalization that incorporates environmental protection.
2. Implement actions directed to reducing urban sprawl while promoting Smart Growth planning and principles.	• EPA-NE will support the Governor's Growth Planning Council and recommendations related to priority funding areas to reduce urban sprawl. • EPA-NE will support the Rhode island Planning Institute as a provider of technical assistance to RI cities and towns. • EPA-NE will in 2002, participate in an infrastructure workgroup to address barriers to decentralized wastewater treatment and community water supply to promote village center concepts. • EPA-NE will use our NEPA and Sole Source Aquifer Authority to review federal actions to ensure they do not result in sprawl and degradation of natural resources. • EPA-NE will continue to facilitate the Livable Communities federal partners to collectively promote Smart Growth practices in R.I., e.g., collaborative work to rehabilitate downtown North Providence.

GOAL III: HEALTHY COMMUNITIES

Objective 3: **Toxic and Substances and Pesticides:** Reduce exposure of Rhode Island's citizens to pesticides and toxic substances.

Environmental Outcome:

Targets:
- Reduce by 50% the number of occupied buildings with high radon levels.
- Reduce PBT pollutants by 10%.
- Ag target TBD jointly by end of 2002.

Indicators:
- Reduced number of cancer rates in Rhode Island.
- Number/lbs of PBT's removed from the environment.
- Reduced lbs of pesticides sold/used.
- Reductions in toxic emissions.

KEY STRATEGIES	EPA ACTIONS
1. Implement programs and actions that result in reduced exposure to toxic chemicals	• EPA-NE will in 2002, assist industry and business to reduce the discharge of toxic chemicals as reported in the Toxic Release Inventory. • EPA-NE will in 2002, approve 2 PCB clean-up plans in Rhode Island. • EPA-NE, based upon inspections, will take appropriate PCB enforcement actions. • EPA-NE in 2002, will implement the Regional Mercury Action Plan with the six New England States.
2. Implement EPA Radon Action Plan with RI DOH.	EPA will in 2002, conduct two outreach education efforts related to the regional radon plan in Rhode Island.
3.. Implement a comprehensive EPA/ Agriculture coordination strategy which integrates programs under FIFRA and the CWA in New England states.	• EPA-NE will in 2002, provide DEM technical support to ensure the state meets OPP levels of attainment. • EPA-NE will in 2002, meet with RI DEM, USDA, RI DOH to discuss actions related to EPA's implementation of a strategic agriculture initiative in Rhode Island

GOAL III: HEALTHY COMMUNITIES

Objective 4: **Waste Sites:** Make previously polluted sites safe for communities.

Environmental Outcome: Rhode Island public health and environment will be free from exposure to risks from uncontrolled releases from solid or hazardous waste handlers, contaminated facilities/sites, and oil storage sites.

Targets:

Indicators:

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KEY STRATEGIES	EPA ACTIONS

1. Minimize or eliminate the impacts and risks to human health from releases of oil, chemicals, or waste.	• EPA-NE will in 2002, complete superfund NPL operable unit clean-ups of contaminated soils at the following Rhode Island sites:
	  • Complete the soil treatment remedial Action at the Davis Liquid waste site.
	  • Complete negotiations for remedial design/ action at Rose Hill Landfill.
	  • Oversee PRP Superfund removal action at the Centredale Manor Restoration Project, including repairing Allendale Dam and removal of contamination at residential properties.
	• Begin RIFS at West Kingston Town Dump/URI Disposal area.
	• EPA-NE will, with RI DEM, target EPA inspections to ensure that facilities are complying with UST corrosion and leak detection requirements and fund LUST cleanups.
	• EPA-NE will undertake removal action at:
	  • Rhode Island Technical Plating – Cranston
	  • TD Mack Factory - E. Providence.

KEY STRATEGIES	EPA ACTIONS
2. Monitor the "Rhode Island Watch List" for candidates to the NPL and take appropriate actions.	EPA-NE will continue site assessment actions on the following sites: - Danielson Pike Groundwater - R+R Sentry - Conventry Municipal Landfill - Lancashire Street Disposal Area - Bible Speaks - Smithfield Chemical/Industrial Dump - M. Earl Adams, Inc. - Foster Nike Control Area - N. Smithfield Contaminated Sites
3. Conduct monitoring and assessments and ensure good quality data.	• EPA-NE will work towards integrating environmental data from site assessments with other EPA programs under the CWA, e.g., TMDL's, 305(b) reports. • EPA-NE will review Quality Assurance Project Plans within 60 days of submittal.

GOAL III: HEALTHY COMMUNITIES

Sustainable Regulated Communities:

Objective 5: **<u>Increase Compliance in the Regulated Community</u>**: Reduce pollution across media through increased compliance.

Environmental Outcome:

Targets:

Indicators:

KEY STRATEGIES	EPA ACTIONS
1. Conduct recon investigation for illegal operators in target geographic areas or priority watersheds.	Recon location to be selected later in the year (may or may not be in Rhode Island).
2. Take appropriate response actions based upon public complaints on illegal violations.	Public complaints are either responded to by EPA-NE or referred to an appropriate state or local agency.
3. Conduct risk-based targeting to conduct inspections and appropriate enforcement actions.	EPA-NE's national priorities include Clean Water Act wet weather issues (sanitary sewer overflows, combined sewer overflows, concentrated animal feeding operations, and storm water); Safe Drinking Water Act microbial rules; Clean Air Act New Source Review/Prevention of Significant Deterioration and air toxics rules; and RCRA permit evaders. In addition to these areas, key regional priorities include public agencies; colleges and universities; and lead paint rules.
4. Conduct field monitoring studies to support regulatory compliance and enforcement.	See Above.

GOAL III: HEALTHY COMMUNITIES

Sustainable Regulated Communities:

Objective 6: **<u>Sustainable Performance in the Regulated Community:</u>** Decrease pollution across media through sustainable performance and behavior change.

Environmental Outcome:

Targets:

Indicators:

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KEY STRATEGIES	EPA ACTIONS
1. Implement sector-based environmental audit policy in Rhode Island.	• EPA-NE will assist RI DEM to develop a self-certification program for auto body shops. • EPA-NE will in 2002, conduct an Environmental Audit Workshop for Public Works facilities in Rhode Island in conjunction with the New England Chapter of the American Public Works Association. • EPA-NE will work with NBC to develop a pilot program with metal finishers to determine to use "Pollution Prevention Audits" in the proposed Metal Products and Machinery Pollution Prevention Standard.
2. Utilize partnerships with sector representatives to promote performance/ behavior change.	EPA-NE will in 2002, seek opportunities to speak before business and industry organizations to encourage involvement and participate in promoting programs which go beyond compliance.
3. Implement cross-cutting Environmental Management System (EMS) programs in Rhode Island.	EPA-NE with NBC develop "Environmental Best Management Plans" for art studio and art classes in colleges, autobody repair facilities and high temperature boiler operations.

KEY STRATEGIES	EPA ACTIONS
4. Establish state EMS partnerships in Rhode Island, including incentive, recognition programs and education/infrastructure development.	EPA-NE will in 2002, participate in RI DEM's stakeholder process that will result in the establishment of an Environmental Leadership Program. EPA-NE will assist RI DEM, the Tellus Institute and other partners to launch this new initiative.
5. Develop programs and education initiatives to improve sector-based capacity to implement innovation programs.	EPA-NE to complete marina environmental performance guidance document conduct workshop for marina operators and establish on-line web site for assistance.
6. Implement innovative technology efforts through Outreach and education.	• EPA-NE's Center for Environmental and Innovative Technology will publish the "Envirotech News" to connect technology developers with potential technology users and to disseminate time critical information relevant to the environmental technology industry. EPA-NE can assist Rhode Island to search for technologies to meet permit limits and to respond to challenging problems. • EPA-NE will have 2 virtual trade shows on the CEIT web site in 2002 on NPS pollution septic systems and stormwater technologies
7. Assist the regulated community to develop and implement XL projects in Rhode Island.	EPA-NE will assist RI DEM and NBC to launch the Project XL Pretreatment Initiative.

GOAL IV: HEALTHY ECOSYSTEMS

Objective 1: **Aquatic Ecosystems**: Increase quantity and quality of Rhode Island's aquatic ecosystems: wetlands, fresh water and marine habitats including eelgrass beds.

Environmental Outcome:

Rhode Island's habitats and resources are capable of sustaining key ecological functions and services

Targets:

- By 2005, replace all losses of existing wetland acreage by an average of 2:1.
- By 2004, preserve existing wetland acreage and increase adjacent buffers by 100 acres.
- By 2005, all Rhode Island communities will have build out analyses complete to assess development trends on habitat.

Indicators:

- There is no net loss of existing wet land acreage.
- Rate of isolated wetlands destruction decreases.
- Progress in developing and implementing wetland protection database.
- Number of towns adopt and implement wetland protection strategy.
- Number of outreach workshops and technical presentations.
- Up and running Vernal Pool Website.

KEY STRATEGIES	EPA ACTIONS
1. Develop data to characterize essential habitat requirements.	• Participate in biological monitoring & prioritization of local community wetlands. • Support improved data collection and mapping technology to protect coastal and fresh water wetlands. • EPA-NE will in 2002, participate with USGS, RI DEM to complete the assessment of water withdrawal impacts on aquatic habitat in the Usquepaug Watershed. • EPA-NE will in 2002, participate in a workgroup to assess low flow characteristics of Rhode Island streams, e.g., Blackstone, to sustain healthy aquatic habitats.
2. Project future trends to avoid adverse future impaces on critical habitats and resources.	• Monitor atmospheric deposition on key terrestrial habitats such as forested systems. • Climate changes, greenhouse gas trends.

KEY STRATEGIES	EPA ACTIONS
2. **Continued.** Project future trends to avoid adverse future impacts on critical habitats and resources.	• Provide technical support to complete conservation plans. • Insure publication status & trends annual report for wetlands. • Support Woonasquatucket action plan. • Continue isolated wetland protection • Develop regional biological assessment project and participate in regional workgroups to develop wetland biological criteria.
3. Implement regulatory programs to protect important ecosystems and avoid /or mitigation environmental impacts.	• Participate in program general permit process. • Perform PGP monitoring. • Enforcement actions • Incorporate ecosystem needs into regulatory decisions, e.g., ROD's. • EPA-NE will promote use of 319 funding for habitat restoration.
4. Wetland Educational Outreach Initiatives	Support wetland outreach/municipal workshops.

GOAL IV: HEALTHY ECOSYSTEMS

Objective 2: **<u>Diverse Habitats and Sensitive Development:</u>** Implement approaches to permanently protect habitat, including promoting ecologically sensitive development of unprotected land.

Environmental Outcome:

Rhode Island's critical habitats and resources are capable of sustaining key ecological functions and services

Targets:

- By June 2002, at least one South County community will have adopted the principles from the South County Design Manual into their local regulations.
- By February 2002, the Planning Institute will have developed their curriculum agenda and developed and delivered training for the new Building Rehabilitation Code.
- By 2003, GIS coverage will include major wildlife and habitat corridors, including key parcels for priority acquisition.

Indicators:

- Rate of greenfields development decreases.
- Rate of increase in VMT decreases.

KEY STRATEGIES	EPA ACTIONS
1. Develop data to support better siting and land-protection/acquisition decisions.	• Identify habitat requirements, including migration and breeding corridors, for important terrestrial species. • Develop methods to quantify services and benefits provided by unimpaired habitats and ecological functions.
2. Support innovative development approaches, including compact and transit-oriented development.	• Explore incentives for better siting and design. • If FY02 funding allows, fund one or more smart growth projects in the state.
3. Promote performance standards for development that incorporate environmental measures.	• Work with RI DEM to implement their South County Design Manual, and to develop their Urban Design Manual. • Work with the Planning Institute to help develop and deliver growth-related training to local officials and others.

GOAL IV: HEALTHY ECOSYSTEMS

Objective 3: **Protect Marine Habitat:** Protect Rhode Island's marine and coastal habitats. Minimize adverse impact from marine dredging and disposal of materials.

Environmental Outcome:

Rhode Island's critical habitats and resources are capable of sustaining key ecological functions and services.

Targets:

- By 2010, eliminate nutrient loadings from CSO's and WWTP's to urban rivers and waters of upper Narragansett Bay.
- By 2005, replace any loss of existing coastal wetland, salt marsh, or submerged aquatic vegetation by a ratio of 2:1.
- By 2005, remove barriers to anadromous fish in the Kickemuit, Blackstone, and Ten-Mile Rivers.

Indicators:

- DO Levels are adequate to support marine/estuarine aquatic life or to maintain current adequate levels.
- There is no net loss of existing acreage of wetlands, salt marsh, and SAV.
- Viable anadromous fish runs return to the Kickemuit, Blackstone, and Ten-Mile Rivers.

KEY STRATEGIES	EPA ACTIONS
1. Identify all critical coastal and marine habitats and resources.	• Support NBEP and RI Habitat Restoration Team to map and analyze habitat trends and restoration opportunities. • Identify funding opportunities with federal partners.
2. Develop data to support resource decisions.	• Evaluate fisheries and water quality information related to Brayton Point power plant in Mt. Hope Bay. • EPA-NE will issue draft permit for Brayton Point Power Plant discharge. • EPA-NE will participate in the annual DO survey of Narragansett Bay • Support collection/dissemination of real-time water quality data in upper Narragansett Bay. • Identify and analyze threats to coastal and marine resources from CERCLIS and Superfund sites.

KEY STRATEGIES	EPA ACTIONS
3. Support R.I.'s restoration of coastal and marine habitats and resources.	• Promote use of SEPs for restoration. • Leverage EPA funds to maximize other federal and non-federal support for restoration. • Promote beneficial reuse of clean dredged material. • Participate in the Habitat Restoration Team • Develop strategy to promote use of SRF for habitat restoration. • Ensure that remediation at federal facilities is managed to promote habit restoration.
4. Develop administrative tools to reduce nutrient inputs to coastal and marine ecosystems.	• Ensure permits issued in Massachusetts are protective of RI aquatic resources; e.g., Mt. Hope Bay and Blackstone River. • Ensure MPRSA permits are protective of aquatic life. • Participate in PGP process to ensure adequate protection of coastal wetlands, salt marshes, and SAV.

Appendix C

DEM – EPA Joint Targets

DEM/EPA Joint Targets for 2002-2003

DEM	EPA
GOAL: Clean Air	GOAL: Clean and Healthy Air
Objectives: • Balanced and sustainable energy policy that reduces greenhouse gas emissions and criteria air pollutants • Meet ozone air quality standards by 2007 • Maintain compliance with NAAQS: CO, NO_2, SO_2, Pb, PM10 • No source of air toxics shall pose an unreasonable risk to public health	Objectives: • Reduce Greenhouse gas • Reduce ozone exceedances • Reduce PM levels • Maintain compliance with NAAQS: CO, NO_2, SO_2, Pb • Reduce exposure to ambient air toxics • Reduce acid rain, mercury deposition
DEM/EPA	
Targets: • Determine with stakeholders target reduction in greenhouse gas emissions by December 2002 • Rhode Island meets the one-hour ozone standard by 2007 • Rhode Island determines attainment status for PM2.5 air quality standards by July 2003 • Rhode Island continues to meet all air quality standards for CO, SO_2, NO_2, Pb • Rhode Island reduces levels of air toxics • Communicate results of toxics monitoring to the public by October 2002 • Inspect 25 air pollution sources in Olneyville or other Woonasquatucket River Watershed areas • Ensure carbon monoxide impacts from Transportation Improvement Projects (TIP) will be below air quality standards • Reduce mercury emission from in-state sources to near zero by July 2003 • With regional partners, achieve commitment or enforceable mandate to reduce to reduce emissions of nitrogen oxides by 789,000 tons per year by 2003 in 22 northeast states	
Indicators: • Trends in energy use per person, trend in energy use by sector since 1990, and vehicle miles traveled • Trends in meeting air quality standards • Emissions of selected chlorinated solvents • Ambient concentration of benzene, formaldehyde, and 1,3 butadiene • Emissions of mercury • Trends in transportation-related emissions	

DEM	EPA
Clean and Plentiful Water:	Clean and Healthy Water:
Objectives: • Protect and restore surface and groundwater to meet Water quality standards and support use for drinking water, shellfishing, fishing, swimming and other recreation, and commerce and industry	Objectives: • Protect public drinking water from pollution, including both surface and groundwater supplies • Maintain or restore groundwater for future use in other than source water areas • Restore WQ in impaired waters • Maintain surface water quality • Maintain effective monitoring programs

DEM/EPA

Targets: (*For additional water quality targets, see Healthy Ecosystems)*

- Approve wellhead protection plans for all major groundwater suppliers by July 2003
- Assess potential impacts to groundwater of 10 inactive landfills by July 2003
- Close out 10 LUST sites with 5 years or more of monitoring showing groundwater meets standards
- Determine costs and operating requirements for a comprehensive pesticide monitoring program by December 2002
- Implement Phase I CSO control program by Dec 2006 resulting in fewer days shellfish beds in the Providence River are closed
- Complete 37 Water Quality Restoration Plans (WQRPs) by July 2003
- Initiate implementation of Phase II stormwater management plans by March 2003
- Conduct inspections at 10 facilities that have RIPDES Minor permits by July 2003
- Reduce permit backlog for RIPDES major by December 2002 to zero.
- Adopt comprehensive strategy for baseline monitoring, including fish tissue monitoring and funding needs by June 2002
- Reduce nutrient loadings from WWTFs and raise DO levels in urban rivers and upper Bay by December 2008
- Raise dissolved oxygen levels and reduce algae growth in the Pawtuxet river by reducing ammonia and nutrient loadings by December 2004
- Establish a pilot composting facility for animal waste for the South County area by 2006 to reduce nutrient discharges to water
- Assess nitrate inputs with turf growers and determine target reductions by December 2002
- Conduct inspections of 110 UST facilities to ensure compliance with operating and leak detection requirements

Indicators:

- Presence of contamination in public water supply wells
- Groundwater quality
- Number of days of shellfish closures due to CSO overflows
- Surface water quality improved for designated uses (drinking water supply, fish and shellfish consumption, recreation, swimming and aquatic life and habitat.
- Number of RIPDES Minor facilities in compliance with permits
- River miles, stream segments, and lake and estuary acres assessed
- Nitrogen loading from WWTF and DO levels in the Pawtuxet and Providence/Seekonk Rivers and Upper Bay meet standards
- Nutrient levels in water in agricultural areas
- DO levels adequate to support marine/estuarine aquatic life

DEM	EPA
Livable Communities:	Healthy Communities:
Objectives: • Increase community capacity to handle growth and watershed planning • Expand the watershed approach to two more watersheds by 6/03 • Ensure environmental equity for all Rhode Islanders • Protect public from fires, floods, animal and insect-borne diseases • Minimize or eliminate impacts and risks from hazardous waste, lead, and PBTs such as mercury • Develop a policy that defines DEM's role in the fight against lead poisoning in children in RI and how DEM works with other agencies • Restore contaminated sites to levels protective of human health and the environment	Objectives: • Protect children from environmental health threats by improving quality of environments where children spend their time at school, at home, and outdoors • Restore, revitalize, and protect urban environments and reduce sprawl into suburban and rural areas • Restore previously polluted sites for community, ecological, or economic re-use • Reduce exposure of RI citizens to pesticides and toxic substances • Reduce pollution across media through increased compliance, sustainable performance, and behavior change • Enforce lead disclosure law (406b) • Provide education and outreach materials directed to homeowners who may do lead paint removal • Provide facilitation for multi-agency process to develop a comprehensive lead strategy
DEM/EPA	
Targets: • Publish a RI urban design manual by july 2003 and develop strategy for integrating it into the permitting process • Enter into 18 settlement agreements for Brownfield sites by July 2003 • Remediate/reuse 60 acres of contaminated land by July 2003 • Develop Watershed Action Plans for the Blackstone River watershed by July 2003 • Develop understanding on populations at disproportionate risk for cumulative exposures by December 2002 • Through coordinated efforts of federal, state, local, partners, develop comprehensive policy so that by 2010 no children will have blood lead levels above 10 micrograms per deciliter • Conduct 80 inspections of exterior lead paint removal projects by July 2003 • Focus most of the 40 planned inspections for small quantity generators in the dry cleaning industry • Complete the Autobody Certification Program with 80 – 100% industry participation • Initiate new self-certification program for dry cleaning industry by July 2003 • Complete compliance monitoring inspections on 25 large quantity generators of federally regulated hazardous waste	
Indicators: • Use of Urban Design Manual by state and local agencies • Rate of productive re-use of urban vacant lots, brownfields and contaminated sites • Actions from South County and Woonasquatucket Watershed Action Plans implemented • Preliminary report on environmental equity issues by 2002; DEM policies and regulations amended to incorporate environmental equity considerations by 2003 • Number of lead-poisoned children • Number of small quantity generators in compliance with hazardous waste regulations • Number of businesses participating in self-certification programs	

DEM	EPA
Healthy Ecosystems:	Healthy Ecosystems:
Objectives: • Increase high quality habitat through restoring and protecting fresh and saltwater wetlands, fish runs, seagrass beds, river shorelines, forests, and other natural areas, and through acquiring land for habitat protection • Increase understanding of ecosystems, threats to their health, and ways to protect and restore them • Build capacity to monitor environmental conditions, assess and report on ecosystem health, develop resource management strategies, evaluate effectiveness of strategies • Determine current and future water use requirements to develop and implement plans to ensure adequate quantities for drinking water, recreation, agriculture, fish and wildlife, habitat, commerce and industry • Manage, protect, and restore living resources for sustainable use and ecosystem integrity	Objectives: • Increase quantity and quality of RI's aquatic ecosystems, including wetlands, fresh water and marine habitats, including eelgrass beds • Implement approaches to permanently protect habitat, including promoting ecologically sensitive development of unprotected land • Protect RI's marine and coastal habitats, and minimize adverse impact from marine dredging and disposal of materials
DEM/EPA	
Targets: • Permanently protect 200 acres per year of wetlands through purchase or conservation easements • With other partners, complete restoration of Boyd's Marsh/Town Pond, Allin's Cove, Potters Cove, and Lonsdale Drive-in site by 2005, returning use of 500 acres of habitat • Complete statewide freshwater wetland conservation plan by September 2002 and complete mapping and analysis to prioritize coastal habitat restoration by July 2003 • Conduct 240 inspections of permitted wetland sites by July 2003 • At least one South County community adopts principles from South County design manual into local regulations by June 2002 • Remove barriers to anadromous fish in the Kickemuit, Blackstone, and 10-Mile Rivers by 2005 • Complete a pilot study of water use and water withdrawal in the Queens River basin and impacts on habitat by July 2003 • Develop index of indicators for sustainable Narragansett Bay and watershed by October 2002	
Indicators: • Quantity of wetlands and other habitat protected and restored • Acreage of freshwater wetlands, coastal wetlands, salt marsh, or SAV lost and restored each year • Number of wetland projects in compliance with permits • Rate of greenfields development • Viable anadromous fish runs in the Kickemuit, Blackstone, and 10-Mile Rivers • Sufficient water for all uses including ecosystem health	

Appendix D

Enforcement Statement

Enforcement

"According to national enforcement policy, implementers of programs to enforce the Clean Air Act, the Clean Water Act, the Safe Drinking Water Act, and the Resource Conservation and Recovery Act are required to identify and address significant noncompliers (also called significant violators) to minimize or eliminate risk to human health and the environment. To this end, to the extent that resources and laws allow, the state commits to (1) undertake targeting strategies and inspection protocols designed to identify significant noncompliance, (2) identify detected significant noncompliers and continue to submit data for national enforcement databases maintained by EPA, (3) communicate and coordinate with EPA on the enforcement actions undertaken in response to the significant noncompliance on a monthly or quarterly basis depending on the program needs, and (4) address these identified facilities with enforcement responses sufficient to ensure compliance and recovery of penalties. Monetary penalties recovered should be in accordance with federal and state penalty policies, including an economic benefit penalty, but never less than the economic benefit of noncompliance and, where appropriate, a gravity based penalty sufficient to deter further noncompliance."