



**State of Rhode Island  
Department of Environmental Management**



**Strategic Work Plan  
Fiscal Years 2004 and 2005  
JULY 1, 2004 THROUGH JUNE 30, 2005**

**November 2003**

State of Rhode Island  
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## **TERMS AND DEFINITIONS**

**Mission** - Our mandate and purpose as an agency.

**Goal** - The long-term results we are working to achieve.

**Objectives** – Intermediate measurable results that get us closer to achieving our goals. Should include specific targets (reduce x occurrences of y by z% by a specific date).

**Indicators** - An environmental parameter you can measure to tell what conditions are – DO levels, particulate matter, wildlife populations and diversity, etc.

**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. There are several types of performance measures. The federal and state budget offices are particularly interested in outcome measures.

- **Input measures** – are resources devoted to a program. They include dollars allocated and employee hours
- **Output measures** – the quantity of units produced or services provided. They may also report on the amount of effort expended to produce or deliver a product or service. Examples include number of clients served, permits issued, inspections conducted, etc.
- **Efficiency measures** – normally used as an internal management tool to relate resource costs in dollars or employee time to unit of product or service output.
- **Outcome measures** – the results of activities or services, in terms of progress toward meeting the targets. Example: If a target is a 10% reduction in y emissions by 2010, then a performance measure could be attaining a 2% reduction within the two-year work plan period.

**Baselines** – a set of data that represents conditions (of **indicators**) at a given point in time from which to measure changes.

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 depend on partnerships. The performance measures in this work plan may focus on actions to be taken solely by the Department, or they may include the actions of partners as well.

# Introduction

## Overview: The Lessons of the Greenwich Bay Fish Kill

Rhode Island has many programs that collectively have allowed us to make significant progress in improving air and water quality, preserving and restoring high-priority land, making voluntary compliance an integral part of environmental stewardship, and providing fair and effective enforcement. Greater public participation in many aspects of our work, and the adoption of e-government, tight fiscal controls and other management and regulatory reforms have paid off in more user-friendly policies and processes at lower cost. Progress is also being made in areas such as habitat restoration, rehabilitating neglected infrastructure and energy policy.

Such progress can lead to complacency. We may have gotten used to thinking that we are on the right track and close to attaining adequate and sustainable levels of environmental quality. We are perhaps no longer alarmed by mishaps like sewer overflows and spills and events like algae blooms and minor fish kills. But occurrences like the massive fish kill in Greenwich Bay this August and the resultant hydrogen sulfide emissions from the decaying remains, show that our successes are not enough. Pollutants are still being loaded into the Bay on a regular basis. Ozone standards are regularly exceeded; recreation and forestry facilities and equipment still need almost \$11 million in repairs.

The present fiscal crisis is exacerbating these problems. The Department is evaluating elimination and consolidation of programs, layoffs and facility closings as well as revenue enhancement in response to state budget cuts of nine percent in FY 2004 and up to ten percent in FY 2005. It remains to be seen whether we will be able to garner sufficient resources to restore and maintain the level of effort required for a clean, safe, healthy environment and a thriving economy. This work plan may well need revisions to reflect budget adjustments.

### Strategic Work Plan

This Strategic Work Plan for all DEM divisions and offices for state fiscal years 2004 and 2005 describes our mission, goals, policy priorities and challenges; the results we are trying to achieve; and the main strategies that we will implement over the next two years to move toward our long-term goals and objectives. The performance measures are targets that we expect to meet assuming current staffing levels. For fuller descriptions of the work of all programs see the work plans for individual offices and divisions. To obtain copies call 401-222-3434 or visit our website.

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

The Department has aligned the Strategic Work Plan and the DEM/EPA Performance Partnership Agreement (PPA) through adopting a single set of goals and performance measures that both agencies will use to measure and improve environmental results. It also includes a draft set of indicators that we will use to track progress toward our goals. The PPA will be executed in February, 2004.

### Relationship to other agencies

In addition to EPA's technical and financial assistance for environmental protection programs, federal agencies such as U.S. Fish and Wildlife (in the Department of the Interior), the US Department of Agriculture (Farm Service Agency, Agriculture Marketing Service and Forestry Service), and the National Oceanic and Atmospheric Administration provide significant support for DEM natural resource programs. The Department of Defense also provides assistance and the U. S. Department of Transportation provides funds for many miles of bike paths and trails. Our partnerships with these and other agencies such as the state Departments of Transportation and Health, the Water Resources Board and the Economic Development and Resource Recovery Corporations, Coastal Resource Management Council, the State Energy Office and the Statewide Planning Program as well as many non-profit agencies are critical to solving the widespread environmental problems of today such as non-point source water pollution and sprawl and to providing environmental benefits such as wildlife and fishing areas, beaches, trails and bike paths.

# 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 and air pollutants will not damage our forests, land and water bodies.

**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 an adequate water supply for all uses.

**Preserve and Restore the Land** – Land will be preserved and protected through purchasing land and development rights; planning for growth; reducing and controlling the risks from releases of harmful substances; promoting waste diversion, recycling and innovative waste management practices; and cleaning up contaminated properties for beneficial reuse.

**Healthy Communities and Ecosystems** - The health of people, communities and ecosystems will be protected, sustained, and restored using integrated and comprehensive approaches.

**Compliance Assistance and Enforcement** - Environmental performance will be improved through compliance with environmental requirements, preventing pollution, and promoting natural resource stewardship. The health of human beings and the environment will be protected by encouraging innovation and by providing incentives for governments, businesses, and the public to become better stewards of the environment.

### **Cross-Goal Strategies/Open and Effective Government -**

- **Sustainable Financial Resources** - The Department will be supported at a level sufficient to carry out its mission through a variety of sources including, state and federal funds, as well as user fees and donations. The structural deficit will be eliminated.
- **Optimizing Partnerships and Regional Efforts** – Partnerships and regional collaboration will continue to play a key role in carrying out the Department’s mission.
- **Public Participation, Outreach and Education** – Public participation, education and outreach will be recognized and supported as part of the Department’s core activities to carry out its mission.
- **Information Management and Technology** – Information management and technology will be applied to the fullest extent to enhance the effectiveness of the Department’s work and to provide service as cost effectively as possible.
- **Accountability and Responsiveness** – The Department will continue to improve accountability, accessibility, responsiveness and service delivery to meet the needs of the public it serves.

# Major Challenges and Strategic Priorities

## Clean Air

Despite dramatic reductions in emissions from in-state sources, the state cannot achieve good air quality unless air emissions from upwind states are curtailed. This is particularly true for ozone, where 95 % of the problem is due to out of state sources. Hence we are continuing to vigorously pursue multi-pollutant strategies within the state while working intensively through several regional and national groups to abate upwind pollution. The state inspection/maintenance program will tighten requirements in the next several years to further reduce the pollutants from Rhode Island vehicles that contribute to ground level ozone and toxic emissions. DEM will also add federal hazardous pollutants to the state air toxic regulations. The Department, with the State Energy Office and stakeholders, will implement priority strategies to conserve energy, increase use of renewable energy, reduce air pollution, save on energy costs, and provide a secure energy supply while reducing greenhouse gas emissions. Rhode Islanders would save up to \$700,000,000 by 2020 if all strategies recommended by stakeholders were adopted.

## Clean Water

The main pollutant problems are nutrients and bacteria from point (treatment plants and large dischargers) and non-point (storm water and septic systems) sources. Toxics in sediments and fish tissue remain a concern. Lack of comprehensive information on water quality hampers our efforts to target solutions and to evaluate the success of protection and restoration actions. The Department will continue working with municipalities on improvements to wastewater treatment plants and septic systems and implementation of Phase II storm water controls to reduce nutrient and bacterial pollution. DEM will also work with partners to expand monitoring coverage in accordance with the Comprehensive Monitoring Strategy, which is nearing completion. The department is continuing to seek ways to speed up progress on Water Quality Restoration Plans (WQRPs) that has been slowed due to loss of over half of the program staff. We have identified 130 impaired water bodies requiring WQRPs, which identify sources and solutions for pollution in degraded water bodies. All of these efforts are hampered or threatened by resource shortfalls. The state will seek \$15 million in new bonding authority for a Bay and Watershed Restoration Fund to support matching grants to implement water quality restoration projects.

## Preserve and Restore the Land

To address the problems of unplanned growth, sprawl and disappearing open space, the Department aggressively leverages state resources to preserve 3,000 acres of high value land per year and assists the Growth Planning Council to develop growth centers where higher densities make sense. The state will seek \$35 million in bond funds to preserve high priority open space and recreation lands. DEM also works with the Economic Development Corporation and others to better coordinate redevelopment and marketing of Brownfields. Additionally, the Department is working with the Rhode Island Resource Recovery Corporation, the Statewide Planning Program and others to develop a revised Statewide Comprehensive Solid Waste Plan with strategies that would reverse the current high rates of disposal and relatively low rates of recycling, promote reduction of solid and hazardous waste and preserve landfill space.

## Healthy Communities and Healthy Ecosystems

Human Health and Safety, Natural Resources and Resource Based Industry and Recreation, together form the basis for Healthy Communities, and Ecosystems and Economies. While we have made progress in areas such as marine fisheries regulation and habitat restoration, new demands for homeland security, a high vacancy rate and the retirements of environmental protection and natural resources staff are straining resources for routine health and safety prevention and response operations, and the maintenance, repair and construction of facilities.

## Health and Safety

Since September 11, 2001 DEM's role in protecting the public from environmental risks has expanded to include a focus on deliberate as well as accidental events, taxing our ability to respond to traditional emergencies. The

Department is proceeding with dam safety regulations to address threats to public health and safety from the 110 high and significant hazard dams as well as with repairs and upgrades to DEM-owned dams. DEM takes part in a regional collaborative to reduce risks from mercury, and will be working with a Governor's Commission studying the Mercury Reduction and Education Act, as well as working on a safe schools agenda that would improve school siting processes, reduce pesticide risk in schools, and reduce exhaust fumes near schools through anti-idling programs.

### **Natural Resources and Resource Based Industry**

The Department continues to bring high value habitats such as Town Pond/Boyd's Marsh in Portsmouth and the Lonsdale Marsh in Pawtucket back to life, but state and private funds are needed to leverage the significant federal funds that could be available to restore habitats consistent with evolving strategies for coastal and fresh water wetland resources. Executive and legislative commissions are evaluating these and other needs for Narragansett Bay and its watershed. We are conducting research for the state's first statewide wetlands conservation plan and collaborating with stakeholders in their efforts to determine water needs and manage water use.

Marine fisheries are in transition. We are seeing signs of recovery in coastal species such as striped bass, summer flounder, black sea bass, and scup, but key species such as winter flounder have failed to recover while others such as lobsters have declined dramatically. Quahogs are at historic lows. The department needs more resources to effectively continue its work in local, regional and national forums to address the long-term health of the fisheries industry.

DEM continues to work on farm and forest viability programs as well as land preservation to help landowners use best environmental management practices, develop new products and market them. These efforts are helping farm and forest land owners to maintain working landscapes, stemming the trend to more fragmented parcels, and helping some farmers to return a profit for their efforts.

### **Recreation**

The Department is developing an action plan based on recommendations in the revised statewide recreation plan. Strategies include an open space bond issue, supplementing existing public support with private concession revenue, partnerships, creating a recreation trust fund, providing more walking and biking trails and increasing accessibility to saltwater beaches and freshwater facilities like the planned Snake Den State Park. Funds from the \$34 million bond issue passed in 2000 are committed through 2005. The governor's proposed \$35 million bond issue is vital to protecting remaining high priority parcels before time runs out.

### **Compliance Assistance and Enforcement**

The Department will continue efforts to improve compliance with environmental laws through compliance assistance and enforcement. The Department is working with stakeholders to revitalize the pollution prevention program and improve compliance through self-certification, with a focus on the auto body repair, underground storage tank, dry cleaning, and exterior lead paint removal sectors. We will also continue to improve policies, procedures and regulations to provide fair and effective inspections and enforcement and to increase the safety of citizens at DEM facilities and on the state's waters.

### **Cross-goal Strategies**

More than ever, the Department needs to continue our emphasis on efficiency, accountability and responsiveness; and to continue to work in partnerships to help achieve our mutual goals. We will continue to strengthen partnerships and to form new ones, emphasizing work with local groups to promote sustainable watersheds as well as more participation in DEM programs and decision-making. We will continue to set work plan priorities and to measure and report our progress in achieving them. We will continue to improve operations and physical and management structures, such as financial management and oversight, permit streamlining, information management and innovative technology.



# Clean Air

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

Many activities such as the burning of fossil fuels and industrial processes release harmful by-products. Since each adult breathes over 3,000 gallons of air per day, even small amounts of pollutants can harm the body. Ground-level ozone, fine particulate and air toxics can cause acute and chronic respiratory problems in sensitive individuals and affect even healthy individuals when ambient levels are high. Acid rain and ozone threaten the environment and the buildup of carbon dioxide and other greenhouse gases contribute to global warming, putting our ecosystems, farms, forests and coastline at risk.

The Department's focus on reducing ozone, fine particles, toxic air pollutants, and greenhouse gases, requires integrated, comprehensive solutions at local, state, regional and federal levels and a role in transportation and energy issues. The need for significant additional emission reductions provides a powerful incentive for solutions such as multi-pollutant controls and non-regulatory approaches like pollution prevention, energy efficiency and smart growth that produce multiple benefits at lower overall cost and in some cases such as energy efficiency, produce significant savings. Implementing energy efficiency and renewable energy strategies developed the Rhode Island Greenhouse Gas Stakeholders would save the state \$700 million by 2020.

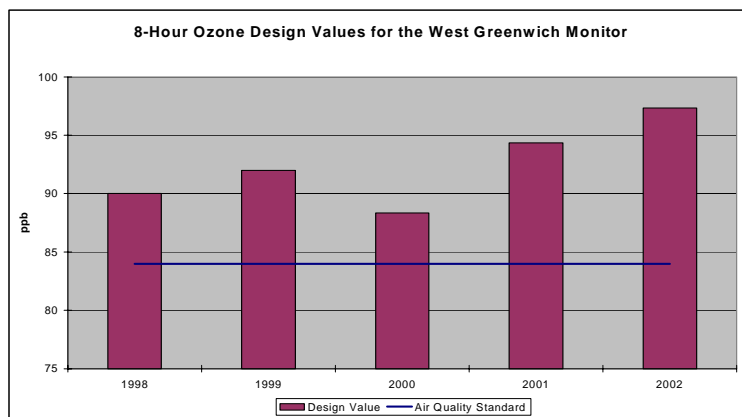
Levels of carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>) and lead in Rhode Island's air have fallen to well below national health standards as a result of cleaner cars, cleaner fuels and other air pollution control programs. However, the trends toward larger vehicles (more than half of new passenger vehicles are SUVs), vans and pick-ups), increased travel and stagnant vehicle energy efficiency are eroding some of the gains from generally cleaner cars.

## Ozone

Despite improvements in the long-term trend, the state's air regularly exceeds the eight-hour standard for ground level ozone during warm weather, largely from the transport of ozone and ozone precursors from upwind states. Through a combination of in-state and regional efforts the Department aims to meet the more stringent 8-hour ozone standard by 2010.

Rhode Island's efforts as a member of the Ozone Transport Commission (OTC), our support of federal efforts to reduce emissions, and the petition we filed with EPA to reduce emissions from upwind areas, have led to reductions in volatile organic compound (VOC) and NO<sub>x</sub> emissions in the OTC region, as well as a requirement for large electric generating plants in the Midwest to reduce emissions by 2004. Gaining passage of multi-pollutant legislation and developing EPA's ozone strategy to position RI to attain the 8-hour ozone standard as quickly as possible, which are crucial to making further progress toward reducing out of state pollution, are the focus of the state and regional ozone efforts.

The enhanced Vehicle Inspection/Maintenance (I/M) program is the main strategy for reducing light-duty vehicle tail pipe emissions of the VOCs and NO<sub>x</sub> that form ozone. Testing of over 300,000 vehicles in 2002 resulted in repairs that reduced emissions from the highest polluters by 70% for VOCs, 63% for NO<sub>x</sub>, and 82% for CO. The state will refine the I/M program through improvements such as denying the registration of non-compliant vehicles.



Air quality measured at West Greenwich monitor fails to meet the eight-hour ozone air quality standard.

### *Fine Particles*

The Department is implementing a program to reduce fine particulate matter (PM) emissions from diesel trucks and buses. We are upgrading our monitoring network for fine particulates and will inform the public of unhealthy PM levels. Rhode Island is in compliance with the current fine particulate standard, although levels on some days are high enough to be classified by EPA as unhealthy for sensitive populations. EPA is considering modifying the standard.

### *Air Toxics*

The Department will update its program that now regulates the emissions of 40 toxic air contaminants to incorporate pollutants now covered by the federal Hazardous Air Pollutant (HAPs) program and other pollutants into Rhode Island's program.

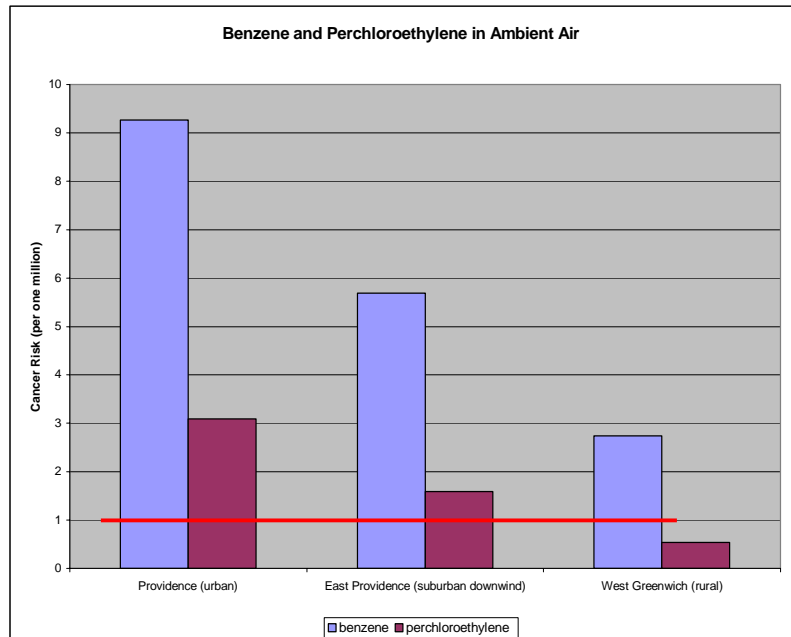
### *Greenhouse Gas (GHG) and a Comprehensive Energy Policy*

The Providence area experienced a 3°F rise in temperature since 1900. If the trend continues unmitigated, Rhode Island could face coastal flooding, salt water contamination of drinking water, crop and ecosystem damage and health

problems from higher temperatures and vector borne diseases. Concern about the environmental, public safety and economic impacts of climate change are driving efforts to reduce emissions of greenhouse gases, seventy percent of which come from electricity usage.

DEM and the State Energy Office are sponsoring a greenhouse gas stakeholder group comprised of energy companies, industry, commerce, non-profits and government agencies to achieve the comprehensive regional policy needed to address global warming concerns. The stakeholders' 2002 Greenhouse Gas Action Plan includes 52 state, regional and national strategies to reduce Rhode Island's greenhouse gas emissions by over 30 % which will put Rhode Island on target to meet its share of the Conference of New England Governors' and Eastern Canadian Premiers' goal to reduce emissions to 1990 levels by 2010 and by 10% below 1990 levels by 2020.

By 2020 the strategies would save Rhode Island \$700,000,000 in energy costs and reduce dependence on fossil fuels through cleaner vehicles, energy-efficient buildings and industrial processes, and more use of wind power and other renewable energy sources. Stakeholders are working on priority strategies such as legislation that would require electric utilities to provide up to 20% of electricity from renewable resources by 2020, and energy efficiency measures for appliances, facilities and vehicles.



DEM's monitoring shows that the ambient air concentrations of benzene and perchloroethylene result in high cancer risks throughout the state, above the target level of one cancer per one million population. Benzene is emitted by motor vehicles and perchloroethylene from dry cleaning facilities.

## Clean Air

<b>Objectives</b>	
<ol style="list-style-type: none"> <li>1. Maintain standards for carbon monoxide, nitrogen oxides, sulfur dioxide, lead and particulate matter.</li> <li>2. By 2007, meet the one-hour ground-level ozone standard.</li> <li>3. By 2010, meet the eight-hour ground level ozone standard.</li> <li>4. Reduce VOC emissions from 140.6 tons per day (tpsd) in 1999 to 118.7 tpsd in 2007.</li> <li>5. Reduce NOX emissions from 93.3 tpsd in 1999 to 74 tpsd in 2007.</li> <li>6. Ensure that toxic air pollutants do not pose an unreasonable risk to public health.</li> <li>7. Ensure that air quality does not impair quality of life in neighborhoods.</li> <li>8. Reduce Greenhouse Gas Emissions: to 1990 levels by 2010; to 10% below 1990 levels by 2020; and to 75% to 85% below 1990 levels over the long term.</li> <li>9. Achieve reductions in emissions from out of state that affect Rhode Island air quality.</li> </ol>	
<b>Indicators</b>	
<ol style="list-style-type: none"> <li>1. Number of days Rhode Island does not meet federal air quality standards.</li> <li>2. Number of unhealthy days caused by particulate matter.</li> <li>3. Emissions of selected chlorinated solvents.</li> <li>4. Ambient concentrations of benzene 1,3 butadiene and formaldehyde.</li> <li>5. Trends in energy use per person and trends in energy use by sector since 1990.</li> <li>6. Trends in vehicle miles traveled.</li> <li>7. Trends in miles per gallon for vehicles registered in Rhode Island.</li> </ol>	
<b>Key Strategies</b>	<b>Performance Measures</b>
<p>Reduce ozone, fine particulates, air toxics and CO<sub>2</sub>:</p> <ul style="list-style-type: none"> <li>• Enhance/upgrade light-duty vehicle I/M program:</li> <li>• Implement and monitor registration denial system.</li> <li>• Implement compliance evaluation improvement system.</li> <li>• Reduce emissions from on-road heavy-duty diesel vehicles.</li> <li>• Work with RIPTA, DOT, RIRRC, DOA and Department of Education to reduce diesel emissions by using ultra low sulfur diesel fuel (ULSF) and promoting control equipment retrofits.</li> </ul> <ul style="list-style-type: none"> <li>• Promote policies that result in reduced emissions from the transportation sector.</li> </ul>	<ul style="list-style-type: none"> <li>• Begin development of post-2007 I/M program in FY 2005.</li> <li>• Develop/amend rules as necessary for mobile equipment repair, solvent cleaning, portable fuel containers, consumer products and architectural and industrial maintenance coatings by 12/04.</li> <li>• Issue 6 new or renewed air toxic operating permits by 6/04.</li> </ul> <ul style="list-style-type: none"> <li>• Implement heavy-duty diesel vehicle inspection program by 7/03; begin periodic inspections by 11/04.</li> <li>• Develop a voluntary anti-idling program for school buses and other vehicles by summer 2004.</li> <li>• Secure a commitment to use ultra-low sulfur diesel fuel in state vehicles and in vehicles used in state funded projects by 12/04.</li> <li>• Target one or two school districts for ULSF and retrofits. Negotiate agreement by 3/04 and help district(s) to apply for federal funds in early 2004 for ULSF and to retrofit buses.</li> <li>• By 12/03 evaluate California Low Emission Vehicle (CAL LEV) standards for possible adoption.</li> </ul>
<p>Reduce emissions from stationary sources. In-state sources</p>	<ul style="list-style-type: none"> <li>• By 7/05 inspect: <ul style="list-style-type: none"> <li>• 35 (70%) stationary sources with Title V Operating Permits.</li> <li>• 26 (25%) air pollution sources with enforceable emissions caps.</li> <li>• 350 (70%) gasoline dispensing facilities equipped with Stage II vapor recovery systems.</li> <li>• 50% of the dry cleaning facilities within 6 months of revised requirements if resources allow.</li> </ul> </li> </ul>

## Clean Air (continued)

Key Strategies	Performance Measures
<p>Out of State Sources</p> <ul style="list-style-type: none"> <li>Support national multi-pollutant legislation with timelines that will coincide with federally required state timelines for attainment of the 8-hour ozone standard.</li> <li>Achieve national multi-pollutant legislation with carbon dioxide reductions.</li> <li>Assure that upwind areas are accountable for their impacts by aggressively pursuing consistent national compliance with EPA's 8-hour ozone implementation strategy.</li> </ul>	<ul style="list-style-type: none"> <li>Work with Ozone Transport Commission to develop a regional position on multi-point legislation/regulation.</li> <li>EPA will adopt an 8-hour ozone implementation strategy that addresses downwind impacts by 12/03.</li> </ul>
<p>Minimize accidental releases of hazardous air contaminants by implementing the Accidental Release Program.</p>	<ul style="list-style-type: none"> <li>Promulgate regulations by 4/04.</li> </ul>
<p>Reduce GHG emissions. With partners implement the Rhode Island GHG Action Plan.</p> <ul style="list-style-type: none"> <li>Complete Phase 2 strategies:</li> <li>Propose and support legislation by 7/04. <ul style="list-style-type: none"> <li>Vehicle Efficiency Incentive Act</li> <li>Renewable Portfolio Standards Act</li> <li>Efficient Appliances Act</li> </ul> </li> <li>Evaluate and implement Phase 3 strategies</li> </ul> <p>Enhance air quality monitoring networks to improve understanding of air toxics and PM2.5 pollution.</p>	<ul style="list-style-type: none"> <li>Reduce greenhouse gas emissions by 176,000 tons of carbon equivalent by 2020.</li> </ul> <p>Projected reductions</p> <ul style="list-style-type: none"> <li>125,000 metric tons carbon by 2020; revenue neutral.</li> <li>140,000 metric tons carbon by 2020; +\$2 – 3 on monthly electric bill in 2020.</li> <li>34,000 metric tons carbon by 2020; total savings \$270M.</li> <li>Adopt regulation changes to encourage combined heat and power and clean distributed generation installations by 9/05</li> <li>Develop tracking system for GHG emissions by 6/04. (pending funding).</li> <li>(Statewide Planning) complete transit-oriented development (TOD) model one year from receipt of funding.</li> <li>(Narragansett Electric) develop residential appliance efficiency program by 3/04. Reduce carbon 85,000 metric tons in 2020; savings \$500 metric ton.</li> <li>Develop forestry workshop by 6/04.</li> <li>Number of pay as you throw (PAYT) solid waste programs adopted by municipalities. Carbon reduction: 55,000 metric tons in 2020; Cost of saved carbon &lt;\$0.</li> <li>Develop resource management contracting initiative pending RIRRC funding. Carbon reduction: 70,000 metric tons in 2020; Cost of saved carbon &lt;\$0.</li> <li>Develop energy/GHG outreach and education plan by 3/04.</li> <li>Adopt (with Rhode Island State Energy Office) Government Lead By Example package of energy efficiency and renewable energy strategies by 7/04. <ul style="list-style-type: none"> <li>Update PM2.5 monitoring network by 1/04.</li> <li>Initiate chrome VI monitoring at Rhode Island's National Air Toxics Trends Site and one other site by 8/03.</li> <li>Initiate metals, VOC and carbonyls monitoring at Olneyville for one year beginning 8/03.</li> </ul> </li> </ul>

## 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.*

Rhode Island's water bodies are valued for swimming, fishing and boating, as well as for commercial fishing and other water-related businesses. Narragansett Bay, which occupies one-quarter of the state's total area, and has over 440 miles of coastline, along with our freshwater resources, draw approximately 16 million visitors a year, generating over \$3.25 billion per year. While water quality is much improved after 30 years of regulation of large discharges, reducing the many thousands of remaining small and widely spread sources of pollution and restoring water quality remains a challenge.

Rhode Island still has a long way to go in assessing ground and surface water resources and making sure they meet standards for aquatic life, drinking, swimming and fish and shellfish consumption. Currently, 21% of lake acres and 64% of river miles are not assessed for their designated uses, and although about 99% of Rhode Island's estuarine waters are assessed, this is only for swimming and shellfish consumption. While we have extensive bacteriological data on Narragansett Bay and coastal ponds, we do not have a comprehensive statewide monitoring program for important parameters such as nutrients and dissolved oxygen levels, contaminants in sediments, pollutants in fish, and the effects of restoration efforts. Moreover, some assessments are based on very limited data and/or old data.

DEM and the Department of Health assess water quality for support of uses including swimming, shellfishing, aquatic life and drinking. Of the waters that are assessed, 69% of estuarine waters square miles, 78% of lake acres, and 66% of river miles fully support designated uses. In 2002, 79% of designated shellfishable waters fully supported shellfishing. Progress on Water Quality Restoration Plans (WQRP) to identify actions needed to restore water quality in impaired waters has been slowed due to loss of over half of TMDL staff.

Bacteria and nutrients from point and non-point sources are the major pollutants of surface waters. In groundwater, the pollutants of concern are nitrates and volatile organic compounds (VOCs) from gasoline and solvents. VOCs have been variably detected in 15% to 30% of the public wells tested annually. Spills of petroleum products and hazardous materials continue to be a threat to water quality as well.

### *Monitoring*

DEM is collaborating to complete a comprehensive monitoring strategy that will guide a more complete assessment of baseline water quality conditions over time. Consistent with the strategy, we expect to modify monitoring activities to reflect a watershed-based approach to baseline monitoring. However, additional resources will be required to support full implementation of the strategy, for example, to support analysis of fish tissue for contaminants.

### *Reducing Nutrients*

The massive fish and shellfish kill in Greenwich Bay this August and the health threat to Conimicut residents from the hydrogen sulfide emissions from decaying remains have made the threat of nutrient pollution all too real. Organic wastes, fertilizers deposition of air pollution and other nutrient-rich materials can degrade water quality by stimulating the growth of algae and aquatic plants, which in turn may reduce dissolved oxygen in the water, harming fish and other aquatic life. Studies from 1999 through 2003 show hypoxia [low dissolved oxygen – (DO)] and anoxia (no DO) occurring at times and in areas of the Bay that are likely to harm fisheries.

Discharges from wastewater treatment facilities (WWTFs) are the largest contributors of nutrient pollution in the Bay, urban rivers and estuarine waters. DEM is working with WWTFs, as well as facilitating the use of advanced septic system technologies and promoting other best management practices (BMPs) to reduce and prevent nutrient pollution. The Department continues to work with the Town of East Greenwich to speed up the WWTF upgrade

that includes reducing the nitrogen discharged into Greenwich Bay. The ISDS section will work with appropriate agencies to apply a consistent policy for salt ponds and other near-shore estuarine waters.

#### *Water Quality Restoration Plans (WQRPs) - TMDLs*

The 2002 303(D) list includes 130 water bodies with 233 impairments that require restoration plans that set the maximum amount of each pollutant that may be discharged into each impaired water body, identify the sources of contamination and the actions needed to restore water quality, including pollution prevention measures. Since assessment and abatement needs will exceed available funding, it will be critical to secure additional funding including new bonding authority 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, in coordination with The Department of Health (DOH), will concentrate on preventing pollution in the watersheds and aquifers of drinking water supplies. While the mandated upgrade of underground storage tanks has reduced the risk of subsurface releases, the contamination incident in Pascoag showed the need for continued vigilance. DEM will promote the use of appropriate local land use controls and implementation of best management practices (BMPs) as important strategies for managing pollutant risks to drinking water supplies.

#### *Septic Systems*

A total of 22 communities (81% of those targeted) are participating in waste water management programs (WWMPs). DEM will continue to encourage the five remaining targeted communities to develop WWMPs. DEM also continues to update ISDS regulations and facilitate the appropriate application of innovative and alternative ISDS technologies.

In 2003, DEM began to implement Phase II of the storm water regulations in accordance with federal storm water requirements that require most RI communities to address 6 minimum measures. Thirty-six communities received grants to develop local storm water management plans. Implementation of the plans will work only if municipalities have sufficient resources to adopt mitigation strategies. However, even with continued DEM grants, technical support and guidance, compliance with the storm water requirements will likely require communities to develop a dedicated revenue source.

**Abating Combined Sewer Overflows (CSO)** New rules are expected to mandate advanced treatment (nitrogen removal) in environmentally sensitive areas.

#### **Storm Water Management**

DEM will continue close coordination with the Narragansett Bay Commission (NBC), as construction of Phase I of their CSO pollution abatement project continues. This project, the biggest water pollution abatement effort in RI, will substantially reduce the number of days that Conditional Areas A and B are closed to shell fishing each year and improve water quality for swimming and other recreational uses in the upper Bay region.

- See *Healthy Community and Ecosystems Goal for information on Wetlands and Balancing Water Budgets*.
- See *Cross-Goal Strategies for information on dredging*.

## Clean Water

<b>Objectives</b>	
<ol style="list-style-type: none"> <li>1. Assess one hundred percent of the state’s watersheds by 2020 consistent with the Comprehensive Monitoring Strategy.</li> <li>2. Reduce, eliminate and manage both point and non-point discharges to surface and groundwater to allow for attainment of desired uses.</li> <li>3. Restore water quality in 20% of currently impaired lake acres and river miles, and 15% of currently impaired estuarine square miles by 6/2012.</li> <li>4. Improve water quality in 2% of currently impaired lake acres, and 20% of currently impaired estuarine square miles and river miles by 6/2012.</li> <li>5. By 2015, Blackstone and Woonasquatucket and Wood-Pawcatuck Rivers and Greenwich Bay will be fishable and swimmable.</li> <li>6. By 2010, reopen 25% of areas now closed to swimming.</li> <li>7. By 2010, reduce the number and frequency of beach closures by 50%.</li> <li>8. By 2010, reduce the number of days shellfish areas are closed by 50% and reopen 200 acres.</li> <li>9. By 2010, nutrient removal will be operational at all wastewater treatment facilities discharging to the Bay and its tributaries.</li> <li>10. By 2020, Seekonk, Moshassuck, Providence and Pawtuxet Rivers, Upper Bay and Mount Hope Bay will be fishable and swimmable.</li> </ol>	
<b>Indicators</b>	
<ol style="list-style-type: none"> <li>1. Percentage of watersheds assessed.</li> <li>2. Number of assessed acres open, conditionally open, restricted, and closed to shell fishing.</li> <li>3. Number and percent of assessed river miles, lake acres, and estuary square miles that have water quality supporting uses including: a) fish and shellfish consumption; b) recreation; c) aquatic life; d) and drinking water supply.</li> <li>4. Presence/absence of contamination in public water supply wells.</li> </ol>	
<b>Key Strategies</b>	<b>Performance Measures</b>
<p>Administer a statewide water quality classification system and develop a comprehensive monitoring strategy.</p> <ul style="list-style-type: none"> <li>• Develop and implement Comprehensive Monitoring Strategy including wetland bioassessment strategy.</li> <li>• Monitor baseline conditions in rivers lakes and coastal waters including sampling of shellfish growing areas.</li> <li>• Report status and trends.</li> </ul>	<ul style="list-style-type: none"> <li>• Update state water quality regulations to include bacteria standards for e coli/enterocci and FDA’s shellfish standard by 2/04.</li> <li>• Complete strategy by 12/03 and implement recommendations: Assessment targets by 6/08 are: <ul style="list-style-type: none"> <li>• 78% of state lake acres for recreational and aquatic life use.</li> <li>• 35% of river miles for recreational and aquatic life use.</li> <li>• 24% of state lake acres for fish consumption.</li> <li>• 10% of river miles for fish consumption.</li> </ul> </li> <li>• Develop Wetland Bioassessment Strategy by 2/05.</li> <li>• Develop draft stream flow standards by 12/03.</li> <li>• Complete the following baseline monitoring: <ul style="list-style-type: none"> <li>• 2000 samples from 300 stations in 17 shellfish growing areas per year.</li> <li>• 24 annual surveys, 12 (3-year surveys), 2 (12 year surveys) by 12/05.</li> <li>• Contractual monitoring through ESS, URI, and USGS (flow only).</li> </ul> </li> <li>• Publish State of the State’s Waters and Impaired Waters Report by 9/04.</li> </ul>
<p>Protect and Restore Water Quality:</p> <ul style="list-style-type: none"> <li>• Issue Rhode Island Pollutant Discharge Elimination System permits with limits that meet water quality standards with a focus on nutrients.</li> </ul>	<ul style="list-style-type: none"> <li>• Re-issue 12 major RIPDES permits by 6/05.</li> <li>• Reduce backlog to 0 by 12/04.</li> </ul>
<p>Ensure WWTF’s are designed, constructed and operated to protect water quality.</p>	<ul style="list-style-type: none"> <li>• See Table 1.</li> </ul>
<p>Reduce system overflows: review infiltration and inflow (I/I) and sewer system evaluation survey (SSES) reports and project designs</p>	<ul style="list-style-type: none"> <li>• Complete 6 I &amp; I and SSES reports &amp; designs by 8/05</li> </ul>

**Table 1 - Nutrient Reductions from Wastewater Treatment Facilities**

Waterbody/Target	WWTF's Affecting Waterbody	WWTF Environmental Results <sup>1</sup>	WWTF Status/Target	Subwatershed Target
Providence/Seekonk Rivers and Upper Bay ■ Reduce nitrogen loadings from RI WWTFs by 45% and achieve acceptable levels of oxygen by 12/08. ■ TMDL due date 6/04.	NBC Bucklin Point	Reduce seasonal WWTF nitrogen concentration by 55%, ammonia 50%. Issue permit modification for nitrogen 12/04.	Construction began 3/02, deadline for completion is 9/06. Further reductions may be necessary based on a TMDL.	
	NBC Fields Point	Issue permit modification for nitrogen 12/04.	Nitrogen limits pending TMDL results	
	East Providence	Issue permit modification for nitrogen 12/04.	Nitrogen limits pending TMDL results	
	East Greenwich	Reduce seasonal nitrogen WWTF concentration by 70%	Permit issued 9/01. Final design submitted 7/03. Comments issued 9/03. Construction to be completed 2.5 years from issuance of Order of Approval.	Greenwich Bay ■ Reduce nitrogen loading from East Greenwich WWTF 43% by May 2006 Nitrogen TMDL due 12/04
	Warren		Nitrogen limits awaiting results of TMDL. (Palmer River)	Warren River
	Burrillville	Reduce seasonal WWTF nitrogen concentration by 65%, ammonia by 40%	Facility Plan (FP) approved 12/02. In compliance with permit limits. Final design for improvements due 1/04.	Blackstone River • Reduce seasonal ammonia loading from RI WWTFs by 65%, phosphorus by 55%
	Woonsocket	Reduce seasonal WWTF concentration of nitrogen by 50%, ammonia 90% and phosphorus by 80%. Further nitrogen reductions may be necessary based on a TMDL.	Completed 8/01.	
	Smithfield	Reduce seasonal WWTF concentration of nitrogen by 45%, ammonia 80% and phosphorus by 95%.	FP Amendment and Preliminary design submitted 5/03.	Woonasquatucket River • Reduce seasonal WWTF ammonia loading by 60% and Phosphorus by 85%
	Cranston	Reduce seasonal WWTF concentration of nitrogen by 65%, ammonia 90% and phosphorus by 70%.	FP approved 7/03. Final design delayed from 7/03 to 2/04. Complete design reviews by 10/04.	Pawtuxet River
	Warwick <sup>2</sup>	Reduce seasonal WWTF concentration of nitrogen by 80%, ammonia 95% and phosphorus by 85%.	Construction started 4/02. Upgrade completion required by 8/04.	Reduce seasonal nitrogen loading from WWTFs by 40%, ammonia 80% and phosphorous 55%, by 12/05
West Warwick	Reduce seasonal WWTF concentration of nitrogen by 60%, ammonia 90% and phosphorus by 70%.	Final design for nutrient removal approved 4/02. Construction in progress, to be completed by 7/05.		
Little Narragansett Bay Reduce ammonia loading from Westerly WWTF by 25%.	Westerly	Reduce seasonal WWTF nitrogen discharge concentration by 15%, ammonia by 55. Further nitrogen reductions may be necessary based on a TMDL.	Final Design approved 4/02. Construction approximately 95% complete. To be completed by 10/03.	

Notes:

1. Reduction in seasonal WWTF discharge concentrations based on average May-Oct 1995-1996 data. Loading reductions for receiving waters based on a comparison of May-Oct 1995-1996 data (total nitrogen estimated as inorganic nitrogen + 2.0 mg/l of refractory nitrogen) against targeted seasonal loading at full WWTF design flow. Additional reductions are anticipated from WWTFs in MA.
2. Warwick implemented interim measures to reduce nutrients prior to full construction.
3. Nutrient of concern for estuaries is nitrogen. Ammonia toxicity may be a concern in all waters. Phosphorus is typically the nutrient of concern for tributaries. Tributaries may also impact downstream estuarine areas.



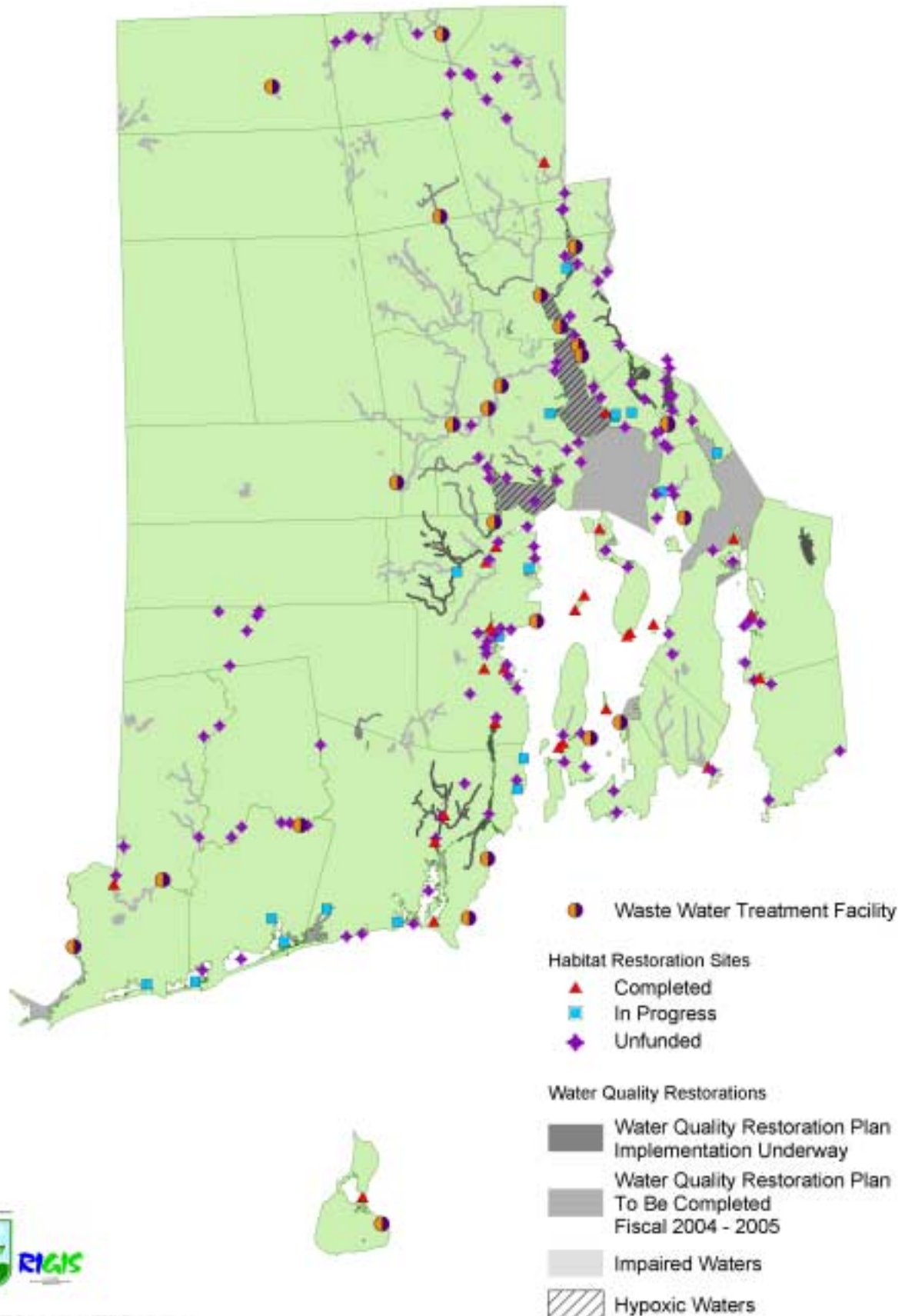
## Clean Water (continued)

Key Strategies	Performance Measures
<p>Oversee implementation of NBC's Phase I CSO Control Program.</p>	<p>Phase I CSO program constructed by 2006 reducing: biological oxygen demand (BOD) and total suspended solids (TSS) by 30%; fecal coliform by 40% to reduce the number of days Conditional Areas A and B are closed to shell fishing by 50%.</p>
<p>Work with agencies &amp; stakeholders to target Water Quality Restoration Plans (WQRPs) to restore water quality in polluted drinking water supply areas, closed shell fishing areas &amp; priority watersheds.</p> <ul style="list-style-type: none"> <li>• Develop TMDL or WQRP for 40 impaired waterbodies by 6/05.</li> <li>• Seek new bond authority for water quality restoration.</li> <li>• Promote and oversee local pollution abatement projects to carry out WQRP's/TMDL's.</li> <li>• Conduct follow-up monitoring of TMDL projects in Stafford Pond, Hunt River, Palmer River, Runnins River and other targeted watersheds as TMDL implementation activities are completed.</li> </ul>	<p>See Figure 1, page 18 and Table 2, page 17 for TMDLs to be completed and/or initiated in 2004-2005. See Objectives 3 and 4 on page 14 for WQRP/TMDL targets.</p> <ul style="list-style-type: none"> <li>• Submit bond referendum for 2004 ballot.</li> <li>• Completion targets for implementation projects: <ul style="list-style-type: none"> <li>• Narrow River –BMP construction for Wampum Rd/Conanicus Rd -12/04 Mettatuxet Beach by 12/05.</li> <li>• Runnins River -- storm water BMP construction by 12/03.</li> <li>• Greenwich Bay- vortex units construction by City of Warwick, White Ave/Boyle St., infiltration BMP network &amp; BMP design in E. Greenwich by 6/04.</li> <li>• Kickamuit Reservoir - storm water abatement assessment plan by 6/04.</li> <li>• Woonasquatucket River - wetland restoration at Lincoln Lace and Braid by 6/04; removal of 3 vehicles from the river by 9/03.</li> <li>• Portsmouth and Island Parks - facilities plan update &amp; feasibility study by 6/04.</li> </ul> </li> </ul>
<p>Prevent and abate non-point source pollution with a focus on septic systems and storm water</p> <ul style="list-style-type: none"> <li>• Update Non-point Pollution Management Plan (NPMP) to include new strategies to address storm water.</li> <li>• Work with DOH in investigating sources of pollution resulting in beach closures.</li> </ul> <p><i>Stormwater</i></p> <ul style="list-style-type: none"> <li>• Finalize and implement Phase II stormwater program</li> <li>• Issue stormwater permits and guidance:</li> </ul>	<ul style="list-style-type: none"> <li>• Revised NPMP by 9/04.</li> <li>• # beach closure days</li> <li>• Finalize MS4 general permit (GP) by 12/03.</li> <li>• By 3/04, 33 communities submit Phase II stormwater management plans.</li> <li>• By 3/09, 33 communities implement Phase II Stormwater management plans.</li> <li>• Issue multi-sector industrial General Permits by 3/04.</li> <li>• Issue 3 individual stormwater permits by 9/04.</li> <li>• Updated Rhode Island Stormwater Manual: final draft by 12/03, published by 9/04</li> </ul>

## Clean Water (continued)

Key Strategies	Performance Measures
<p><i>Septic Systems</i></p> <ul style="list-style-type: none"> <li>Encourage adoption of local wastewater management programs to abate septic system pollution.</li> </ul>	<ul style="list-style-type: none"> <li>Wastewater management programs adopted in 95 % of targeted communities by 6/05.</li> </ul>
<p>Prevent and abate groundwater pollution</p> <ul style="list-style-type: none"> <li>Implement groundwater classification and standards program and oversee wellhead protection (WHP) program in coordination with the Department of Health.</li> <li>Protect water resources from gasoline additives by enacting appropriate measures following completion of New England Interstate Water Pollution Control Commission's (NEIWPCC) study.</li> <li>Ensure ISDS and other subsurface discharges are protective of public health and the environment.</li> </ul> <p><i>See Healthy Ecosystems for Water Quality.</i>  <i>See Compliance Assistance &amp; Enforcement for UST Environmental Results Program (ERP).</i></p>	<ul style="list-style-type: none"> <li>Updated groundwater protection strategy by 1/05.</li> <li>Prepare "State of the State's Groundwater" 2004 305(b) report by 9/04.</li> <li>Update groundwater classification and wellhead protection area maps by 3/04.</li> <li>Complete gasoline additive plan by 1/05.</li> <li>Anticipate total 3000 ISDS permits (1400 new building, 300 variance, balance –repairs and alterations)</li> <li>Revise Underground Injection Control (UIC) Program regulations by 3/04.</li> <li>Review and process 50 UIC permits per year and target 25 closures.</li> </ul>
<p>Provide financial assistance for water pollution control/water quality improvement.</p> <ul style="list-style-type: none"> <li>Administer Clean Water State Revolving Funds (CWSR): Approve projects, monitor construction, process payments, and assess project effectiveness.</li> <li>Target CWSRF administrative funds for post-construction water quality monitoring in accordance with RIDEM Statewide Monitoring Strategy.</li> <li>Provide demonstration grants to municipalities for Phase II storm water abatement and ISDS management.</li> <li>Award and administer grants:             <ul style="list-style-type: none"> <li>Nongovernmental Water Pollution Control Facilities Fund.</li> <li>\$9 million Pawtuxet River Authority Fund.</li> </ul> </li> <li>Administer non- point source abatement grants with priority to projects that implement WQRPs, TMDLs.</li> </ul>	<ul style="list-style-type: none"> <li>Target: 15 Certificates of Approval annually – 8/03 and 8/04.</li> <li>Publish annual Project Priority List (PPL 9/03 and 8/04).</li> <li>Announce grant awards by 12/03.</li> <li>Award final grant by 10/04.</li> <li>Final grants to Cranston by 10/04.</li> <li>Issue RFP by 6/04.</li> <li>Target 65 projects completed by 6/05.</li> </ul>

Figure 1



Water Quality Restoration Plans (WORPs) & Habitat Restoration Projects

Table 2.

## **Water Quality Restoration Plans (WQRPs) & Habitat Restoration Projects**

### **WQRPs Approved by EPA – Implementation Underway**

Stafford Pond, Runnins River, Barrington River, Hunt River, Scrabbletown Brook, Fry Brook, Pettaquamscutt River, Gilbert Stuart Stream, Mumford Brook, Palmer River, Crooked Brook, Saugatucket River, Mitchell Brook, Indian Run, and Rocky Brook

### **WQRPs to be Completed Fiscal Years 2004-2005**

Develop TMDLs or Water Quality restoration plans and submit documents to EPA (total of 40)

- Sakonnet River and Island Park Cove (pathogens) (2) – 12/03
- Kickamuit Reservoir (pathogens, nutrients/excess algae/ turbidity) (2) - 12/03
- Palmer River (nutrients) (1) – 6/05
- Ninigret and Green Hill Ponds and Teal Pond Stream, Factory Pond Stream (pathogens) (4) – 12/03
- Providence River (hypoxia/nutrients), Seekonk River (hypoxia/nutrients) (2) – 6/04
- Indian Run (metals) (1) – 6/04
- Greenwich Bay, Buttonwoods Cove and Brushneck Cove, Warwick Cove, Greenwich Cove, Apponaug Cove, Baker Creek, Dark Entry Brook, Fosters Brook, Greenwood Creek, Maskerchugg River, Southern Creek (Carpenter Brook), Tuscatucket Brook, (pathogens) (13) – 12/03,
- Hardig Brook (pathogens) (1) 6/04
- Greenwich Bay, Buttonwoods Cove, Brushneck Cove, Greenwich Cove, Warwick Cove, Apponaug Cove (nutrients/hypoxia) (6) – 12/04
- Sands Pond (Block Island) (phosphorus/excess algae/taste & odor/turbidity) (1) – 6/04
- Mashapaug Pond (hypoxia, pathogens) (2) – 6/04
- Woonasquatucket River (metals, pathogens) (2) – 6/05
- Yawgoo Pond (phosphorus/hypoxia/excess algae), Barber Pond (hypoxia), Chickasheen Brook (phosphorus/noxious aquatic Plants) (3) – 12/03

### **WQRPs To be completed beyond 6/30/05 (not mapped):**

Continue and/or initiate TMDL development for completion beyond June 30, 2005:

- Blackstone River (pathogens, metals, biodiversity), Mill River (metals), Peters River (pathogens, metals), Valley Falls Pond (biodiversity, metals, pathogens, nutrients/hypoxia/excess algae growth)
- Saugatucket Pond (nutrients/noxious aquatic plants) (1)
- Pawcatuck River (hypoxia, pathogens), Little Narragansett Bay (pathogens)
- Spectacle Pond (phosphorus/excess algae)
- Work with CRMC and CRC in the development of a SAMP for Greenwich Bay

### **Water Quality Restoration Plans**

Waterbody 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, local organizations, and property owners to abate point and nonpoint sources of pollution. The map indicates impaired waters by shading.

### **Habitat Restoration Projects**

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 through building a causeway or a collapsed culvert; or excavating where a wetland has been filled. These projects may address water quality as well as other habitat features.

## Preserve and Restore the Land

*Land will be preserved and restored by purchasing land and development rights; planning for growth; reducing and controlling the risks from releases of harmful substances; promoting waste diversion, recycling and innovative waste management practices; and cleaning up contaminated properties.*

Abundant open space and an uncontaminated environment are critical to maintaining our quality of life, community character and sustainable economic growth. Preserving and restoring our land encompasses protecting open space, planning for growth, rehabilitating Brownfields for reuse, responding to environmental emergencies, controlling solid waste and hazardous wastes, and working with communities to meet their targets for well planned development. With land consumption having grown 9 times faster than overall population growth, many communities are struggling to deal with the associated fiscal, economic and environmental challenges. See Cross Goal Strategies for growth planning.

Brownfields development offers an alternative to development of farmland or other open space if the hazardous substances they harbor can be cleaned up. Over 767 acres have been restored bringing over \$72 million worth of property to the tax rolls since the passage of the Brownfields enabling law in 1995. In the next two years we will be working with partners to improve coordination among state agencies and increase incentives for municipalities to return abandoned mills and vacant properties to useful purposes.

### **Land Preservation and Restoration**

#### *Open Space & Green space*

The Department has maintained an accelerated land protection effort aimed at protecting at least 3,000 additional acres each year through partnerships with land trusts and other non-profits and using state funds to leverage local, federal, and private funding at a ratio of at least two non-state dollars for every state dollar. Since the majority of fiscal year 2004 funds are already earmarked, the Department is unable to take on any new significant project until fiscal year 2005. The 5-year land acquisition strategy plan under development seeks to maximize opportunities for preserving large parcels and critical linkages both to protect wildlife corridors and provide access for urban residents.

#### *Brownfields*

Brownfields sites can pose significant public health and safety problems, impose blight, and economic burdens on communities. High or unknown remediation costs and liability risks can be a barrier to redevelopment. Brownfields laws and regulations address part of this problem by providing certainty and limits on liability in return for appropriate investigation and cleanup. DEM works with the Economic Development Corporation on marketing strategies for sites that have been cleaned up. The Department has applied for a grant to identify potential Brownfields sites, increase enforcement of non-compliant sites, increase public participation in remediation projects, improve and streamline the remediation process, and conduct assessments on community targeted sites.

DEM has investigated sites along the Blackstone & Woonasquatucket Rivers, in Woonsocket, Lincoln, North Smithfield, Cumberland and the Olneyville section of Providence to help communities to redevelop Brownfields. The Department will continue looking for innovative ways to expand the Brownfields program, including streamlining administrative processes and working closely with EDC and other stakeholders to develop and publicize financial incentives such as the Brownfields revolving loan fund.

### **Emergency Preparedness**

The Department Emergency Response staff is on call 24-hours/day, 7-days/week to respond to releases of oil or hazardous materials to the environment. DEM is developing an all-hazard response plan to outline the role of the department and various units and staff in emergencies ranging from terrorism, spills, major storms and animal disease incidents and is the state lead agency for response to oil spills and hazardous material releases, which continue to grow in number. DEM is strengthening programs by training emergency responders and improving equipment and supplies, but the significant investment of staff time needed for domestic preparedness and weapons

of mass destructions response stretches our ability to address traditional activities. The program's capacity to provide the expected level of response will be difficult to maintain with the limited number of responders, particularly given the new needs since September 11, 2001.

### **Solid Waste and Hazardous Waste**

DEM continues to work towards an integrated approach to solid waste management to prevent air and water pollution and address concerns about higher than average disposal rates and diminishing landfill capacity.

#### *Solid Waste Management Plan*

The 2002 municipal recycling rate is only 16%, less than half the 35% rate projected in 1996. In 2000, Rhode Islanders landfilled 1,047,697 tons of solid waste, about one ton per capita, compared with .84 ton per capita average in the United States. The Department is co-chairing with the Rhode Island Resource Recovery Corporation a stakeholder group that is updating the Solid Waste Management Plan to address concerns about the rate of disposal, reduce the volume and toxicity of waste, increase recycling rates, and improve waste management methods.

Siting studies have shown that population densities and environmental constraints make it difficult or impossible to site new facilities and that alternate site or disposal methods would be too costly and politically infeasible. Since waste prevention and recycling can provide a cost-effective alternative to disposal for up to 50% of the waste stream in addition to saving energy and reducing air and water pollution, it makes sense for the state to invest in these methods.

The Department is also conducting a major re-licensing effort for expansion at the Central Landfill that involves 5 DEM programs responsible for water and air quality and operation of the facilities. Providing review in time for construction to begin by June of 2004 will be difficult since documentation for key permit parameters has been delayed.

#### *Waste Management under the Resource Conservation and Recovery Act (RCRA)*

Consistent with EPA guidelines, DEM inspects at least 25% of all large quantity generators of federally regulated hazardous waste annually (approximately 25), and conducts regular targeted inspections for certain small quantity generators. Regular inspections promote better management and compliance, thereby protecting onsite workers and emergency responders. Revisions to the regulations for used oil are expected to facilitate recycling and reduce handling costs for businesses. Revisions to hazardous waste generator regulations will clarify procedures to improve compliance and improve overall management of hazardous waste.

## Preserve and Restore the Land (cont.)

<b>Objectives</b>	
<ol style="list-style-type: none"> <li>1. Protect at least 3,000 acres of land per year.</li> <li>2. Improve emergency preparedness and response to releases of hazardous substances and oil spills.</li> <li>3. Reduce solid waste generation (target to be determined in State Comprehensive Solid Waste Plan by 1/04).</li> <li>4. Protect human health and the environment from impacts of hazardous waste spills and releases from waste management operations and underground storage tanks.</li> <li>5. Clean up and control contaminated sites and promote reuse of Brownfields.</li> </ol>	
<b>Indicators</b>	
<ol style="list-style-type: none"> <li>1. Total acres of land protected.</li> <li>2. Response to emergencies and complaints.</li> <li>3. Solid Waste tons disposed. Solid Waste tons recycled.</li> <li>4. Pollution, environmental degradation, health risks reduced or minimized as shown in the Toxic Release Inventory (TRI).</li> <li>5. Compliance rate in management of waste materials at facilities.</li> <li>6. Number of acres of contaminated sites investigated and returned to acceptable standards.</li> <li>7. Hazardous waste generation trend.</li> </ol>	
<b>Key Strategies</b>	<b>Performance Measure</b>
<p>Work with the Legislature, local governments and nonprofit groups and state and federal partners to preserve high priority land through acquisition and purchase of development rights and conservation easements.</p> <ul style="list-style-type: none"> <li>• Acquire at least 3000 acres of land per year.</li> <li>• Provide financial and technical aid for local land acquisition.</li> <li>• Update the Land Protection Plan by 6/04, in accordance with 2003 Statewide Comprehensive Outdoor Recreation Plan (SCORP) &amp; 1994 State Greenways Plan.</li> <li>• Seek bond authority for state &amp; local land protection &amp; recreation by 11/04.</li> <li>• Leverage state dollars to buy and protect land.</li> </ul>	<ul style="list-style-type: none"> <li>• Acres and type of land acquired.</li> <li>• Increase the total acres in the Forest Legacy Program to 1,500 by 2004 and to 2,000 by 2005. <ul style="list-style-type: none"> <li>• Type of acreage.</li> <li>• Type of protection.</li> <li>• Plan updated by 6/04.</li> </ul> </li> <li>• Bond passed by 11/04.</li> <li>• Maintain a ratio of 1:2 state and other dollars.</li> </ul>
<p>Support identification, investigation, clean up, reuse and redevelopment of Brownfield Sites.</p> <ul style="list-style-type: none"> <li>• Work closely with Economic Development Corporation and other stakeholders to develop and publicize financial incentives including the Brownfields revolving loan fund.</li> <li>• Track the economic benefits of redevelopment of Brownfields.</li> <li>• Ensure that contaminated sites are properly investigated.</li> </ul>	<ul style="list-style-type: none"> <li>• Remediate and reuse sixty acres of contaminated land by 6/05. <ul style="list-style-type: none"> <li>• Cumulative total since 1996, 885 acres.</li> </ul> </li> <li>• Enter into 18 settlement agreements by 7/05.</li> <li>• Economic benefit: total assessed value (\$), taxes assessed (\$), estimated number of new jobs, estimated annual income tax (\$). (EDC).</li> <li>• Number of contaminated sites identified.</li> <li>• % of known contaminated sites fully investigated, 3 National Priority Sites, 10 Dept. of Defense sites, by 6/05.</li> <li>• % of known contaminated sites in compliance with applicable cleanup standards.</li> </ul>

## Preserve and Restore the Land (continued)

Key Strategies	Performance Measure
<p>Provide a comprehensive Emergency Response Program.</p> <ul style="list-style-type: none"> <li>Maintain adequate staff, vehicles, equipment and communications to provide appropriate response.</li> <li>Manage Oil Spill Protection and Response (OSPAR) program.</li> <li>Continue to improve partnerships with state, local and federal responders, including joint training and response exercises.</li> </ul>	<ul style="list-style-type: none"> <li>Provide 24/7 Emergency Response Coverage.</li> <li>Conduct 1 training exercise and one drill per year.</li> <li>Respond to environmental emergencies within three hours of notification.</li> <li>Develop a Continuity of Operations Plan (COOP) for DEM by 6/04.</li> <li>Implement DEM Respirator Plan by 6/04.</li> <li>Expand All Hazard Plan to include Fisheries Closure/Opening Plan, Scientific Response Plan and GIS Response Plan by 6/04.</li> <li>Conduct and take part in 3 Incident Command System trainings.</li> <li>Provide annual training classes on hazardous material.</li> </ul>
<p>Ensure proper transportation, treatment, storage, management, minimization and disposal of solid, medical and hazardous waste.</p> <p>See also Compliance Assistance &amp; Enforcement</p> <ul style="list-style-type: none"> <li>With Rhode Island Resource Recovery Corporation (RIRRC), Statewide Planning, &amp; stakeholders, draft revised Comprehensive Statewide Solid Waste Plan that emphasizes waste prevention and recycling.</li> <li>Issue Central Landfill permit for Phase V to expand the landfill capacity.</li> <li>Address potential impacts from closed or abandoned landfills, completing remedial designs.</li> <li>Ensure that underground storage tank systems (USTs) are properly installed, operated, maintained &amp; replaced to protect groundwater.</li> </ul> <p><i>See Compliance Assistance and Enforcement for UST Environmental Results Program (ERP).</i></p> <ul style="list-style-type: none"> <li>Improve/update RCRA program and regulations/authorization.</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate and process approximately: <ul style="list-style-type: none"> <li>2500 permit applications for hazardous, medical, and septage waste transporters each year.</li> <li>5 five temporary hazardous waste storage and/or transfer area applications by 6/05.</li> </ul> </li> <li>Inspect 100 solid waste facilities annually.</li> <li>Compile and analyze Solid Waste Flow report by October 15<sup>th</sup> each year.</li> <li>(RIRRC) complete plan by 2/04. <ul style="list-style-type: none"> <li>Recycling/reduction targets will be included in the plan.</li> </ul> </li> <li>Issue new permit within 9-12 months of receipt of all needed documents.</li> <li>Complete the design at Rose Hill by 12/03.</li> <li>Begin remediation by 8/03: West Kingston/URI by 4/04.</li> <li>Landfills with completed remedies, and in long term monitoring 7 by 6/05, including 6 landfills that ceased receiving waste after 1992.</li> <li>Number of inactive landfills participating in the landfill closure program 25 by 6/30/05.</li> <li>Complete review of applications for new installations or upgrades of USTs within 21 days of receipt (approximately 34 per year).</li> <li>Target UST x number of x inspections in resource protection areas.</li> <li>Adopt used oil regulations consistent with EPA RCRA regulations by 3/04.</li> <li>Develop final revisions to the generator portion of the Hazardous Waste Regulations by 6/04.</li> </ul>

*See Compliance Assistance and Enforcement for lead ERP.*



# Healthy Communities and Ecosystems

*The health of people, communities and ecosystems will be protected, sustained and restored using integrated and comprehensive approaches.*

Healthy ecosystems support a wide variety of living beings and provide the foundation for thriving human communities and healthy economies. DEM manages a wide range of programs and services to provide Rhode Island with access to the benefits of a safe and healthy environment with reasonable protection from floods, fire, animal-borne diseases, and exposure to hazardous substances. These fall into three broad categories:

- Natural resource programs directed to preserving and maintaining the habitats and wildlife that are the basis for healthy communities and such economic sectors as agriculture, forestry, fishing and tourism.
- Human health and safety programs to protect citizens from fires, floods, toxic releases and animal-borne diseases.
- Recreation programs to provide access to outdoor experiences ranging from fishing, swimming, boating, hiking and hunting to contemplation of scenic vistas and observation of wildlife. Such programs not only improve quality of life but provide help people to maintain physical and mental health.

## **Natural Resources**

Rhode Island's ecosystems that 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. The department and partners had begun to make progress in protecting natural resources by aggressively expanding the role of partnerships and non-regulatory approaches as the best way to address dispersed threats to the natural resource base. However, the sustained funding and staffing cuts over the last thirteen years and the vacancies created as a generation of naturalists retire, threatens the department's ability to maintain infrastructure and provide basic services let alone sustain the voluntary strategies such as pollution prevention with industry and volunteer monitoring that show the most promise of improving quality of life at lower cost.

## *Coastal Resources*

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, and 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 and render them unsafe for consumption. Contributors to the decline of fish and plant species in the Bay and other water bodies include bacterial contamination and excess nutrients from combined sewer overflows, wastewater treatment plants and non-point sources, including septic systems and storm water runoff, as well as rising temperatures due to global warming. The massive die-off of fish and shellfish in Greenwich Bay and the extraordinary number of beach closures that occurred this summer show the need for greater investment in protection and stewardship measures.

DEM and other stakeholders in the Partnership for Narragansett Bay (PNB) have collaborated on planning and action to sustain the resources of the Bay and watershed. Following the massive fish kill and a summer with a record number of beach closings, the Governor has established the Governor's Narragansett Bay and Watershed Planning Commission that may ultimately supersede the PNB. To protect and improve ecosystem health while providing economic benefit, DEM is working with the RI Habitat Restoration Team and stakeholders to develop a statewide coastal habitat restoration strategy. However, planning, monitoring and habitat restoration are hampered by lack of state and local matching funds that would enable us to tap a considerable amount of federal dollars. A critical need also remains for a comprehensive and consistent monitoring program that would coordinate the work of state and local and the research institution's monitoring efforts.

On a positive note, the PNB provides training and channels funding to Rhode Island's watershed councils who are maturing as partners in local projects such as the Corporate Wetlands Restoration Project. The objective is to

coordinate priorities for watershed action plans with those from the Narragansett Bay Plan to address larger ecosystem issues that cannot be addressed effectively on a sub-watershed basis, such as invasive species and nutrients, as well as legislative, economic and education initiatives.

#### *Wetlands*

Wetland ecosystems foster biodiversity and provide valuable habitat. They are also important areas for retaining storm water and filtering pollutants, thereby protecting and improving water quality. Rhode Island has lost as much as 50% of the state's coastal marshes and a significant amount of freshwater wetlands. Background research for Rhode Island's first statewide wetlands conservation plan will continue over the next two years.

#### *Habitat*

About 24% of the approximately 1,300 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. In addition to assessing the status of and developing management plans for selected fish and wildlife species and habitats to help ensure sustainable populations, the Department is working with partners to develop a Greenspace Protection Strategy to protect wetlands, forestland, and features such as forested riparian buffers that protect water quality and provide habitat. See Table 2, Watershed Restoration Plans and Habitat Restoration Plans, and Figure 1, Habitat and Water Quality Restoration. Programs such as the Landowner Incentive and Aquatic Education programs that provide outreach and assistance for habitat management and restoration are hampered by staff shortages.

#### *Invasive Species*

We do not yet know enough about the distribution, rate of spread and population dynamics of invasive species that readily establish themselves and can out-compete native species, potentially causing great harm to the state's ecosystems. Marine invasive species are being introduced and established at an increasing rate. The 2000 Rapid Assessment Survey identified 22 bio-invasive invertebrate species in Narragansett Bay. The August 2003 Rapid Assessment Survey (RAS) in the Bay, is part of an RAS for New England that will update the 2000 RAS.

The Department is also participating in the State Invasive Species Council to identify and assess invasive plants and animals, prioritize control activities, and encourage the use of non-invasive species for landscaping, erosion control, and wildlife. However, funding is needed to further assess and prevent invasive species from impacting our ecosystems.

The Invasive Plant Atlas of New England under development by the University of Connecticut with the U. S. Fish and Wildlife Service and the New England Wildflower Society will provide online maps showing the distribution of species in Rhode Island and other New England states.

#### *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. The Blackstone, Hunt, and Pawcatuck River systems have been dangerously low at times during summer months. We are collaborating with the Water Resources Board and other stakeholders to determine water needs and manage water use.

#### Natural Resources Industries

##### *Marine Fisheries*

Commercial fishing, finfish and shellfish in Rhode Island brought in approximately \$70 million in 2000, generating 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.

DEM has been conducting bottom trawl, beach seine, and shellfish dredge surveys since 1979 in coastal waters to monitor abundance of finfish, crustaceans, and invertebrates. We will continue to work in local, regional, and

national forums to address the long-term health of the commercial fishing industry. However, resource scientists need training in facilitation that is increasingly required as stakeholders are more active in making environmental decisions. Co-management of resources with stakeholders engenders considerable disputes over the extent of recovery and the sustainability of expanded exploitation. In addition, staff is needed to coordinate volunteer information from recreational anglers that is an untapped source of information for stock assessment.

### *Fisheries Trends*

Marine fisheries are in flux with some stocks depleted and over fished while others have seen significant rebuilding. Several key fishery resources have either failed to recover (winter flounder) or have undergone dramatic declines in recent years (lobster).

Lobster - The Rhode Island inshore lobster fishery has declined in recent years to levels not seen since the late 1970's. The resource has been over fished for many years and stock productivity has been reduced by disease, increasing water temperatures, and resurging predatory populations.

Finfish- Seasonal migratory fishes such as scup, sea bass, summer flounder, and striped bass are increasing in abundance as a result of strong regional management action to reduce fishing mortality. Resident bottom dwelling fishes such as winter flounder remain at low abundance despite management efforts.

Shellfish- Quahogs, the main shellfish resource in Rhode Island are at historically low abundance. We are seeing some evidence of stock rebuilding coincident to transplanting and the establishment of spawner sanctuaries.

### *Anadromous Fish Restoration*

New fishway construction is on hold due to limited financial resources. Plans for fish passages on the Blackstone and Woonasquacket Rivers are being developed, but are dependent on funding. Recent declines in the returns at coastal streams in Massachusetts have limited broodstock obtained from these sources to stock RI streams.

### *Port Management*

DEM and DOT have been working with Interstate Navigation on design and reconstruction of the terminal building and relocation of the warehouse at the Port of Galilee to alleviate traffic movement and parking problems. Design and construction specifications are complete and the State will continue to work with local governments and businesses to look for alternative opportunities for seasonal parking.

### *Agriculture and Forestry*

Agriculture – Agriculture remains a vital component of the Rhode Island economy and quality of life, providing consumers with high quality locally grown produce and contributing \$100 million a year to the Rhode Island economy. RI is among national leaders in farm income per acre and direct marketing sales from farmers markets and roadside stands. Approximately 65% percent of RI agricultural income is derived from the nursery/horticultural industry.

However, Rhode Island agriculture is threatened by loss of farmlands to development. Farm viability initiatives related to community gardening, agricultural education, wholesale marketing, and farm business training are underway. State, federal and local governments, and non-profits have increased collaborative efforts to protect productive farmland from development and encourage use of best practices as well as development of alternative business opportunities for farm and forest land owners.

Forestry - The forest industry in Rhode Island employs over 2,100 workers and produces shipments worth more than \$263 million annually. On the one hand there is more forestland today than when Rhode Island was largely farmland. On the other hand sprawl is reducing and fragmenting forestland. Yet despite the decline of forested acres, there is more harvestable wood as the trees reach maturity. Rhode Island has 1.3 billion board feet of standing timber and the growth to removal ratio is 2.4 to 1. DEM's foresters work with landowners on forest management and forest based

business to help support the land as well as with municipalities to develop healthy stands of trees on streets and community land. The Tree Cities program to enhance urban forests is especially important since in summer, a city can be 6-8 degrees warmer than surrounding areas in a phenomenon called heat islands. Trees shade buildings and cool the air.

**Human Health and Safety**

DEM’s role in keeping the public safe from risks of environmental hazards and maintaining law and order in parks, management, shell fishing and boating areas, has expanded since September 11, 2001 to include a focus on preparedness to address deliberate as well as accidental events. See Preserve and Restore the Land Goal Section for emergency preparedness.

*Dam Safety*

Of the 528 dams in Rhode Island, approximately 110 significant and high hazard dams hold the potential to cause loss of life or extensive property damage in the event of a failure, and many are old and poorly maintained. The Department is continuing to develop comprehensive dam safety regulations, which will address many concerns with the state’s high hazard and significant hazard dams. However, problems are likely to remain including lack of funding for engineering evaluations to assess the condition of dams and for dam owners to finance major repairs identified by these evaluations. The Capital Budget includes funding for repairs to three DEM-owned high hazard dams, with Stillwater Dam to be repaired in fiscal years 2004 and 2005 and two dams in Curran State Park scheduled for FY2006.

Many dams in Rhode Island have not been evaluated for classification since the late 1970s. The enormous growth in development in the state since that time means that the hazard posed by some of these dams must be re-evaluated and the dams reclassified. The analyses for updating dam classifications under a National Dam Safety Program Act State Financial Assistance grant for Fiscal years 2003 through 2005 will also be used to develop emergency action plans for selected high hazard dams.

*Toxics - Lead, Mercury, other Persistent Bioaccumulative Toxins (PBTs), Pesticides*

PBTs are toxic chemicals that build up in the environment and food chains posing risks to human health and ecosystems. The populations at risk, especially from mercury, lead, dioxins, and Polychlorinated Biphenyls (PCBs), are children and fetuses. Although much work has been done to reduce the risk from these chemicals and although mercury air emission point sources in Rhode Island have been eliminated, the presence of these substances in our air, water and in fish is still a concern. Changes to Rhode Island’s Mercury Reduction and Education Act have rolled back some implementation dates and exempted novelties with button cell batteries. The increase in high intensity discharge lights and navigation systems in vehicles has eroded progress on eliminating mercury from vehicles. We are making more progress in eliminating mercury from households. DEM and DOH issue website advisories regarding fish consumption. DEM is working in regional groups to eliminate mercury emissions from upwind sources. DOH is responsible for abating risks from lead in building interiors while DEM regulates the removal of exterior paint.

*Animal and Insect-borne Diseases*

Eastern Equine Encephalitis, West Nile Virus (WNV) and Lyme disease are insect-borne diseases that remain threats to public health. DEM and the Department of Health continue to work with other states and the Center for Disease Control to refine prevention and response protocols with an emphasis on regular maintenance of potential breeding sites and preventing human exposure.

Table 3 shows the dramatical expansion of WNV since it was first detected in the United States in 1999. By 2002 it was found in 44 states and in 45 states in 2003. Rhode Island had two human cases in 2002 and 6 cases through October 2003, with no deaths. Also through October, seven animals tested positive for West Nile Virus in

**TABLE 3**

YEAR	WNV Nationally		WNV in Rhode Island	
	Number of Cases	Number of Deaths	Number of Cases	Number of Deaths
1999-2001	149	18	0	0
2002	4156	284	2	0
2003 (through 10/29/03)	7718	166	6	0

2003, with two horses and an emu dying as a result of the infection. DEM has found a pool of mosquitoes that tested positive for the virus and these mosquitoes are a species that bite humans as well as animals.

There were 852 cases of Lyme disease in Rhode Island in 2002, with 394 cases occurring in Washington County, and preliminary data for 2003 show 500 reported cases through October. Eastern Equine Encephalitis (EEE) is a rare disease, but the most dangerous of the three. It has a 35% fatality rate and 35% of those who survive will have mild to severe neurologic deficits. There have been only 6 human cases of EE in the past 20 years in Rhode Island, the last one in 1998.

There is little the state can do to prevent exposure to insect that may carry WNV, Lyme disease and EEE. People must take precautions, such as using insect repellents, wearing appropriate clothing, keeping standing water out of their yards, and staying away from places where they will be exposed to many mosquitoes at certain times of the day.

#### *Safe schools*

DEM's efforts to make schools safer, centered around developing better school siting policies, eliminating toxics in pesticides through integrated pest management, and anti-idling programs to reduce exhaust fumes from school buses and other vehicles transporting children may be slowed or deferred due to budget limitations.

### **Recreation**

The Department manages 60,000 acres of land in forest and wildlife management areas, state parks and beaches, trails and bike paths. These facilities attract more than 6 million visitors each year, including many out-of-staters who bring significant tourism dollars into Rhode Island. In addition, activities based around these facilities such as boating, hunting, and recreational fishing contribute hundreds of millions of dollars to the state's economy.

While resource protection and planning has grown stronger, chronic funding gaps threaten the recreation system and its resource base. Even with major renovations at five state facilities in the last ten years, a 2001 asset management study revealed more than 206 unfunded priority repair and maintenance projects at a cost of more \$10.6 million. At the same time, the Department faces increasing pressure to provide for a wide variety of recreational needs: providing greater access for disabled and minority citizens, curbing vandalism, resolving user conflicts, providing more open space and links to open space and recreation systems for urban residents, revitalizing shore access programs, restoring fishways, and balancing the needs of visitors, residents, and the resource base.

To protect recreation, the Department is pursuing alternative funding sources such as reinstating state park fees, raising user fees to market prices and relying more on partnerships with non-profits, other public agencies and the private sector.

#### *State Comprehensive Outdoor Recreation Plan, 2003-2008 (SCORP)*

The Department is developing an action plan to implement recommendations of the revised SCORP. Major recommendations of the Study include: providing more paved walking and biking trail systems, accelerating open space and resource protection efforts, reducing operation costs through green designs and targeting restoration and maintenance of priority projects; providing more accessible sites for more people, including multi-purpose facilities; and providing Universal Design to accommodate users of all ages and abilities. Other major recommendations for urban residents include: providing more open space, recreational facilities and links, and more access to saltwater beaches and to water parks like the planned Snake Den Park.

#### *Major Facility Development and Renovation*

DEM is designing a state park at Snake Den in Johnston about 10 miles west of Providence on a 1,100-acre parcel that includes the working historic Dame Farm and the headquarters for DEM's Division of Parks and Recreation. The park will include a water park, hiking, biking, cross-country and horseback trails and picnic and play fields. It

is expected to relieve some of the overcrowding problem at other urban recreational areas such as Lincoln Woods and World War II Memorial Park in Woonsocket.

The Department is planning major renovations at Colt State Park with installation of handicap accessible bathrooms and at Burlingame Campground with the development of a public water supply. The Department will add 6 miles to the 23 miles now in use as part of the planned 48 miles of the multi-use Blackstone Bike Path in RI, which is the RI portion 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.

#### *Swimming*

Unusually wet weather this summer has led to more frequent and more widespread beach closures. For details of efforts to address pollution of our water bodies, see the Clean Water Goal and the Greenwich Bay Fish Kill Report.

#### *Boating*

Boating is supported by 85 marinas in Rhode Island and 35 boat-building companies. DEM registered 37,127 boats in 2001 and constructs and maintains many boat ramps as well as entry points for canoes and kayaks providing access to fresh and saltwater. Many areas of the Bay are congested with boat traffic and DEM patrols the inland and coastal waters to enforce marine safety regulations. DEM also sponsors boating safety courses and public provides public boating safety outreach.

#### *Recreational Fishing*

Recreational fishing is one of the largest participatory recreational activities in the state, but it is difficult to quantify the level of participation. According to the Marine Recreational Fishery Survey Statistics (MRFSS) conducted by NOAA, in 1999, there were 321,000 participants in the marine recreational fishery. This survey reported that recreational anglers harvested approximately 3.8 million pounds of fish in 1999 and spent \$100 million on fishing-related activities. Out-of-state anglers comprised 62% of the total number in Rhode Island.

The U.S. Fish and Wildlife Service Fishing, Hunting and Wildlife Related Recreation report for 1996 (latest year for which figures are available) reports 163,000 anglers, both fresh and salt water, who spent \$136 million in RI. Although surveys show healthy populations of game fish and freshwater species, some marine species, particularly shark, swordfish, king mackerel, and tilefish are listed by the federal government as having harmful levels of toxics in their tissues. In addition, freshwater fish that are not hatchery-raised are considered contaminated with mercury due mainly to air deposition. The department is working with the Department of Health 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.

# Healthy Communities and Ecosystems

## Objectives

### Natural Resources

1. Increase quality and quantity of RI habitats and aquatic ecosystems.
2. Increase understanding of ecosystems, threats to their health, and ways to protect and restore them.
3. Build capacity to: assess and report on ecosystem health; sustainably manage resources; evaluate effectiveness of strategies.
4. Ensure adequate quantities of water for drinking, fish and wildlife habitat, irrigation, commerce, industry, and recreation.
5. Achieve no net loss of freshwater wetlands.
6. By 2015, restore fish passage on the Blackstone, Pawtuxet, Ten Mile, and Wood-Pawcatuck Rivers; open 35 river miles to anadromous fish by 2007, and 100 miles by 2015.
7. By 2010, additional 1500 acres of sensitive coastal areas, including wetlands, will be protected.
8. By 2008, restore 100 acres of coastal wetlands, and restore 200 acres by 2015.
9. By 2008, restore 100 acres of riparian buffer and 400 acres by 2015.

### Human Health and Safety

10. Protect the public from fires, floods, and animal and insect-borne diseases.
11. Ensure that air quality does not impair quality of life in neighborhoods.
12. Minimize risks to human health and the environment from chemicals and biological organisms, and from lead, mercury and other persistent bio-accumulative toxins.
13. Enhance state capacity to prevent, detect, contain, and remediate contamination of buildings, water and wastewater systems.

### Recreation

14. Improve and link facilities and provide access for urban residents and people of all abilities.
15. Identify and prioritize backlogged capital projects to be addressed in 5, 10 and 15-year increments and address \$1 million per year in asset protection projects as recommended in the Asset Management Plan. Provide sustainable funding and green designs to operate, repair and renovate facilities cost effectively.

## Indicators

1. Acres and type of habitat restored.
2. Acres of freshwater wetlands gained, lost.
3. Number and duration of dry periods in streams and rivers.
4. Gross agricultural income and income per acre, direct marketing sales per farm, acres of land in agriculture, number of farmers, acres of farmland protected, number of farmer markets and farmer and customer participation.
5. Trends in fish and wildlife population.
6. Trends in populations of rare, threatened, endangered, or species of concern.
7. Area covered by non-native species.
8. Level and diversity of production of forest based products; ratio of forest growth to forest removal at least 1:1 where timber is extracted to ensure sustainability of the forest base.
9. Extent of monitoring and assessment programs, type, quantity and quality of data collected and resource management strategies.
10. Loss of life, significant loss of property or damage to the environment due to environmental hazards.
11. Pollution, environmental degradation, health risks as shown in the Toxic Release Inventory (TRI).
12. Incidence of elevated blood lead levels in children less than 6 years of age.
13. Emissions of mercury/mercury levels in fish tissue.
14. Pesticides and pesticide residues detected in surface and groundwater.
15. Rate of use of recreation facilities and participation in DEM-sponsored activities.
16. Publicly accessible open space per resident.
17. Number of minority, low-income persons participating in public processes.

## Healthy Communities and Ecosystems

Key Strategies	Performance Measures
<p><i>Narragansett Bay</i> - NBEP lead</p> <ul style="list-style-type: none"> <li>• Develop framework and vision for Bay and watershed planning and action.</li> <li>• Form and strengthen partnerships to protect and restore ecosystems.</li> </ul>	<ul style="list-style-type: none"> <li>• Complete framework by 3/04.</li> <li>• Working with the Governor’s Narragansett Bay and Watershed Commission (GNBWC) develop a clear, realistic and unified strategic work plan for protecting the economic viability and environmental sustainability of the Bay by 3/04.</li> <li>• Develop watershed compact with stakeholders by 12/03.</li> <li>• With GNBWC establish one or more Strategic Assessment Teams to identify and assess conditions that can lead to problems such as large-scale fish kills and beach closures by 1/04.</li> <li>• By 2006, develop a strategic plan for restoration and protection of the Bay as fish habitat with GNBWC.</li> </ul>
<p>Publish information on Bay science, management and economic issues.</p> <ul style="list-style-type: none"> <li>• Evaluate ecosystem health.</li> <li>• Conduct research to support nutrient reduction.</li> <li>• Conduct population assessments, assess impacts of invasive species prepare and implement management plans for invasive species.</li> </ul>	<ul style="list-style-type: none"> <li>• With GNBWC, develop a business plan for a central system that collects, stores and makes publicly available pertinent Bay and watershed data by 1/04, to be implemented no later than 1/05.</li> <li>• With GNBWC, develop final report on low oxygen levels and nutrient loading in Greenwich Bay, including targets and strategy for reducing nutrient loading by 1/04.</li> <li>• By 4/04 complete strategic plan for reduction of nutrient loading to Narragansett Bay, with GNBWC. <ul style="list-style-type: none"> <li>○ State of the Bay Report by 9/04.</li> <li>○ Bay Journal 4 times per year.</li> </ul> </li> <li>• Maintain Narragansett Bay Estuary Program (NBEP) website.</li> <li>• Complete Southern RI Coastal Habitat inventory by 12/04 Publish Coastal Wetland Trend Analysis by 12/03.</li> <li>• Publish Narragansett Bay Coastal Wetland Restoration Analysis by 12/03.</li> <li>• By 3/04, with GNBWC, develop strategic plan and interagency agreement for a Bay and watershed-wide water quality monitoring program.</li> <li>• Take part in North Atlantic Regional Monitoring Committee.</li> <li>• Implement Bay Window monitoring for 03/04 pending federal funding.</li> <li>• Conduct dissolved oxygen studies by 10/03.</li> <li>• Develop an Invasive Species Plan by 12/04.</li> <li>• Complete Rapid Assessment Survey (RAS) for Narragansett Bay and coastal waters by 8/03.</li> <li>• Develop invasive species elements of Bay Plan by 12/03.</li> </ul>



## Healthy Communities and Ecosystems (continued)

Key Strategies	Performance Measures
<p><i>Other Watersheds</i></p> <ul style="list-style-type: none"> <li>• Restore habitat.</li> <li>• Restore fish passages.</li>   <li>• Conduct studies</li> <li>• Develop model management plan for aquatic weed control in lakes.</li> </ul>	<ul style="list-style-type: none"> <li>• Complete Boyd’s Marsh/Town Pond salt marsh restoration pending funding of \$200,000 to match the \$500,000 that has been raised.</li> <li>• Complete Phase 1 (20 acres) of Lonsdale Drive-in freshwater wetland restoration 9/03.</li> <li>• Complete phase 1 construction of Ten Mile River fishway 6/05. Restore 200 miles of spawning habitat.</li> <li>• Blackstone River – ACOE has been asked to develop engineering plans – construction will depend on funding.</li> <li>• Allin’s Cove, Pawtuxet River fish run and Woonasquatucket fish passage, dependent on funding.</li> <li>• Conduct &amp; publish statewide stream and pond fisheries surveys organized by watershed by 10/04.</li> <li>• Model Aquatic Weed Control Plan completed by 6/05.</li> </ul>
<ul style="list-style-type: none"> <li>• Promote awareness of Rhode Island natural resources. <ul style="list-style-type: none"> <li>• Publish RI’s Living Legacy</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• RI’s Living Legacy published by 6/04.</li> </ul>
<p><i>Wetland resources</i></p> <ul style="list-style-type: none"> <li>• Ensure impacts to Freshwater Wetlands are avoided, minimized otherwise mitigated.</li> <li>• Improve Freshwater Wetland conservation and restoration</li>   <li>• Publish wetland BMP manual, by 12/05.</li> <li>• Improve wetlands outreach.</li> </ul>	<ul style="list-style-type: none"> <li>• Review and process freshwater wetland applications ~ 500-600 annually</li>   <li>• Complete background research for statewide wetland conservation plan by 6/05.</li> <li>• Participate on action team and implement Woonasquatucket wetland restoration project.</li> <li>• Develop an outreach strategy for implementation of wetlands rules by 6/04.</li> <li>• Conduct open house for applicants or provide a booth at the Home Show by 5/04.</li> <li>• Publish updated permit guide, “What’s the Scoop on Wetlands” by 12/04.</li> <li>• Publish biennial Wetlands Status and Trends report for 2002 and 2003 by 4/04.</li> </ul>
<p>Permanently protect habitat by purchase or conservation easement.</p>	<p>* <i>See <u>Preserve and Restore the Land for targets.</u></i></p>
<p>Collaborate with agencies and water users to manage water use to ensure adequate quantities for drinking water, fish and wildlife habitat, irrigation, agriculture, commerce, industry, and recreation.</p>	<ul style="list-style-type: none"> <li>• Stakeholders develop state water allocation recommendations by 12/03.</li> <li>• Complete pilot Queens River Basin study of impacts of water use and withdrawal by 6/04.</li> <li>• Develop policy for reuse of treated wastewater by 12/04.</li> </ul>
<p>Continue to Improve Marine Fisheries Management to revive depleted fisheries and insure sustainable fisheries through regional cooperation.</p> <ul style="list-style-type: none"> <li>• Improve data gathering and dissemination with partners.</li> <li>• Assess fisheries problems in Narragansett Bay.</li> </ul>	<ul style="list-style-type: none"> <li>• By 1/04 develop a formalized Cooperative Fisheries Research Program with state agencies, fishing industry and academic institutions.</li> <li>• 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.</li> <li>• Conduct port and sea sampling and water quality studies.</li> <li>• Continue marine recreational fishing survey (MRFSS) to characterize the catch and value of the marine recreational fishery in RI.</li> </ul>

## Healthy Communities and Ecosystems (continued)

Key Strategies	Performance Measures
<ul style="list-style-type: none"> <li>Conduct marine fisheries surveys and incorporate biological assessment sampling at trawl stations and coastal ponds; collect shellfish samples; collect lobster population data.</li> </ul>	<ul style="list-style-type: none"> <li>Take delivery of new research vessel by 11/03.</li> <li>Collect samples in Narragansett Bay:               <ul style="list-style-type: none"> <li>12 trawl stations monthly for trawl surveys, shellfish surveys and lobster fishery monitoring and 26 stations bi-annually.</li> <li>18 shore seine stations for pelagic game fish monthly.</li> <li>ichthyoplankton monthly.</li> <li>shellfish samples from 60 sites.</li> </ul> </li> <li>Continue gillnet monitoring of pelagic game fish in coastal waters.</li> <li>Sample juvenile populations in 4 coastal ponds monthly.</li> <li>Conduct surveys aboard commercial lobster boats on 40 trips to obtain population data.</li> <li>Collect weekly RI commercial landings data for 11 species.</li> <li>Expand winter flounder research in coastal ponds – delayed due to staff vacancy.</li> <li>Begin survey of Block Island fisheries – monthly, multi-gear sampling. On hold due to staff vacancies.</li> </ul>
<ul style="list-style-type: none"> <li>Streamline fishery data collection.</li> <li>Implement Atlantic States Cooperative Statistics Program Grant with emphasis on electronic data reporting by major dealers to RIDEM and ACCSP.</li> <li>Strengthen and restructure citizen’s advisory panels to the Marine Fisheries Council.</li> <li>Update commercial species management plans.</li> </ul>	<ul style="list-style-type: none"> <li>Three major dealers using RIFISH system by 8/03.</li> <li>Expand the seafood dealer electronic reporting system initiated in 1/03 to include the top 10 seafood dealers in Rhode Island by 5/04.</li> <li>Bring remaining dealers online by 7/04.</li> <li>Amend and implement annually:               <ul style="list-style-type: none"> <li>Inter-jurisdictional management plans for horseshoe crab and eel.</li> <li>Tautog and winter flounder regional management plans.</li> </ul> </li> <li>Evaluate results of investigation (with URI) of causes for decline of local winter flounder stocks and seek additional funds to continue research on causes identified by URI initial research by 8/03.</li> <li>Work with congressional delegation funding for FY05.</li> </ul>
<ul style="list-style-type: none"> <li>Seek legislative reform and develop lobster management program.</li> </ul>	<ul style="list-style-type: none"> <li>Atlantic States Marine Fishery Council is developing an addendum to the lobster fishery management plan to rebuild the resource by 9/03. New regulations would go into effect in 2004.</li> <li>Implement lobster management program; 40 trips to collect data on lobster population.</li> </ul>
<ul style="list-style-type: none"> <li>Port improvements &amp; renovations.</li> </ul>	<ul style="list-style-type: none"> <li>Port of Galilee:               <ul style="list-style-type: none"> <li>Install new bulkhead in the northwest corner of the Port of Galilee.</li> <li>Rebuild State Pier E by 10/04.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>Restore anadromous fish populations in coastal streams.</li> </ul>	<ul style="list-style-type: none"> <li>Stock 500,000 Atlantic salmon fry &amp; 15,000 smelts annually.</li> <li>Monitor spring returns at selected streams.</li> </ul>
<p>Implement the State’s revised fisheries management system to ensure sustainability of the fisheries resource and fisheries through:</p> <ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>New England ground fishery               <ul style="list-style-type: none"> <li>Negotiate methods to reduce fishing mortality and develop Amendment 13 to the New England Fishery Management Council’s ground fish management plan to rebuild ground fish stocks by 5/04.</li> <li>Develop a strategy for the use of \$1.5 million NOAA grant for relief of ground fishers based on governor’s decision and survey results.</li> </ul> </li> <li>White paper on summer flounder allocation system is under review by RI Marine Fisheries Council; DEM will determine allocation by 10/03.</li> </ul>

## Healthy Communities and Ecosystems (continued)

Key Strategies	Performance Measures
<p>Promote stewardship of Rhode Islands forests and agricultural lands and viability of forest based and agricultural based business through programs with growers and other partners.</p> <ul style="list-style-type: none"> <li>• Provide grants, technical assistance, and marketing assistance.</li> <li>• Promote alternative forest uses that replace or augment traditional forest use.</li> <li>• Update the State Forest Resources Management Plan.</li> <li>• Implement the Urban Forestry Guide Plan.</li> <li>• Enhance Farm/School Connections.</li> <li>• Implement farm/school priorities:</li> <li>• Expand environmentally protective farming practices program.</li> </ul>	<ul style="list-style-type: none"> <li>• Assist 250 forestland owners by 6/04 and another 250 by 6/05.</li> <li>• Award Farm viability funds to 4 farmers market by 7/04.</li> <li>• Promote farm products in major supermarket through Harvest New England by 9/04.</li> <li>• Evaluate feasibility of video advertising for farm products by 12/03.</li> <li>• Number of landowners that produce alternative forest based products.</li> <li>• Assist 40 alternative forest businesses in FY04 and 40 in FY05.</li> <li>• Award 10 Alternative Forest Products grants in FY04 and 10 in FY05</li> <li>• See also GHG forestry workshop under air goal.</li> <li>• Number of workshops/attendees.</li> <li>• Complete update by 6/05.</li> <li>• Increase the number of “Tree Cities” in RI from 9 to 11 by 2005.</li> <li>• Provide financial assistance to the Rhode Island Tree Council to enhance urban forestry consulting services.</li> <li>• Radio Disney and Project Discovery agricultural education programs for elementary school children dropped due to loss of funding.</li> <li>• Add 9 new topics to website by 7/04.</li> <li>• Evaluate impact of best management practices on water quality at 4 farms in FYs 04 and 05.</li> <li>• Implement provisions of RI “Drought Management Plan” in 04 and 05 (weather dependent).</li> <li>• Evaluate emergency ponds constructed during drought of 02, conduct on-site assessments in FYs 04 and 05.</li> </ul>
<p><i>Community Farming</i></p> <ul style="list-style-type: none"> <li>• Develop and expand community farming with partners through: <ul style="list-style-type: none"> <li>• Technical and financial assistance.</li> <li>• Promotional events and materials.</li> <li>• Community Supported Agriculture.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Assist Hmong community farm at Curran State Park and fund construction of permanent well by 10/04.</li> <li>• Oversee management of Urban Edge Farm (owned by DEM) by the Southside Community Land Trust. Explore other opportunities for acquisition of farmland for community, non-profit uses.</li> <li>• Assist RI Community Farms and other community farms to grow food for the RI Community Food Bank at several farm locations in RI.</li> </ul>

## Healthy Communities and Ecosystems (continued)

Key Strategies	Performance Measures
<p>Implement a comprehensive dam safety strategy including:</p> <ul style="list-style-type: none"> <li>• Developing regulations for dam repairs, including requirements for inspections.</li> <li>• Establishing baseline conditions for regulated dams and tracking repairs.</li> </ul>	<ul style="list-style-type: none"> <li>• Issue final regulations for comment 9/03</li> <li>• Implement revised regulations by 7/04.</li> <li>• Develop registration process by 9/04.</li> <li>• Re-inspect all high hazard dams by 7/04.</li> <li>• Triage 300 unclassified dams and prioritize 80 for consultant evaluation by 9/04.</li> </ul>
<p>Coordinate training and equipment supply with local fire departments to prevent and fight forest fires.</p>	<ul style="list-style-type: none"> <li>• No lives or homes lost to forest fires.</li> <li>• Average forest fire kept to less than 2 acres.</li> </ul>
<p>Reduce risk to human health and the environment from persistent bioaccumulative toxins (PBTs).</p> <ul style="list-style-type: none"> <li>• Implement Mercury Task Force Strategies.</li> <li>• Conduct inspections to ensure that RI Hospital incinerator is operated only as a pathological waste incinerator.</li> <li>• Update regulations.</li> <li>• Participate on Governor's Commission to study mercury and the Interstate Mercury Reduction and Education Clearinghouse (IMERC).</li> <li>• Implement thermometer and elemental mercury take-back program (contingent on funding).</li> </ul> <p><i>See Compliance Assistance and Enforcement Goal for Lead Environmental Results Program.</i></p> <p><i>See Cross Goal Strategies for fish consumption and mercury.</i></p>	<ul style="list-style-type: none"> <li>• Targets to be developed when Task Force convenes.</li> <li>• Inspect annually.</li> <li>• Add mercury to air pollution Regulation number 22 and prioritize mercury sources for air toxics monitoring permits review by 9/03.</li> <li>• Number of RI companies reporting to IMERC.</li> <li>• Mercury product notification required by legislation/regulations. <ul style="list-style-type: none"> <li>• 300 companies participating.</li> </ul> </li> <li>• Mercury significantly reduced from RI households through phase out of mercury in products sold in RI by 2010.</li> </ul>
<p>Work with DOH, municipalities and URI to protect the public from animal and insect borne diseases by stressing prevention of human contact with carriers and regular maintenance of potential breeding sites.</p> <ul style="list-style-type: none"> <li>• Continue surveillance and response programs for animal and insect-borne diseases.</li> <li>• Evaluate threats from diseases and effectiveness of programs.</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct rabies, Lyme disease, West Nile virus, and Eastern Equine Encephalitis surveillance and response programs (ongoing).</li> <li>• Reduce deer population on Prudence Island by 275 animals by 1/04.</li> <li>• Evaluate municipal larvicide program by 7/04.</li> <li>• Establish committee on animal diseases and food safety by 7/03.</li> <li>• Complete research with URI on offsite impacts of larvicides for WNV by 12/05.</li> <li>• Number of human cases of vectorborne diseases in Rhode Island.</li> </ul>
<ul style="list-style-type: none"> <li>• Control and manage animal diseases and plant pests.</li> <li>• Collect data for USDA</li> </ul>	<ul style="list-style-type: none"> <li>• Complete first year data collection for USDA Cooperative Agricultural Pest Survey program by 12/03, -second year by 12/04.</li> </ul>

## Healthy Communities and Ecosystems (continued)

Key Strategies	Performance Measures
<ul style="list-style-type: none"> <li>Develop and implement strategies to control animal disease outbreaks (such as avian influenza, chronic wasting disease, foot and mouth disease).</li> </ul>	<ul style="list-style-type: none"> <li>Promulgate animal care regulations by 9/03.</li> <li>Develop and implement Dairy Quality Assurance Program, by 9/03.</li> <li>Revise procedures for Disaster Animal Response Team by 12/03.</li> </ul>
<p>Protect human health and the environment from pesticide contamination.</p> <ul style="list-style-type: none"> <li>Develop management plans.</li> <li>Conduct monitoring and inspections.</li> </ul> <p>Develop, assess, provide training.</p> <p><i>See the Compliance Assistance and Enforcement Goal for pesticide inspections.</i></p>	<ul style="list-style-type: none"> <li>Management Plan for atrazine developed by 6/05.</li> <li>Inspect 70 farms and commercial pest control companies and 74 markets, producers, applicators, dealers per year.</li> <li>Continue monitoring wells and farm ponds at 43 sites near selected farms. Addition of new sites delayed due to lack of funding.</li> <li>Train approximately 300 pesticide applicators for licensing and certification annually.</li> <li>Develop training for health care providers by 6/05.</li> <li>Continue to monitor agricultural establishments for compliance with the Worker Safety Standard.</li> <li>E-commerce – monitor internet sales of pesticides to ensure compliance with federal and state pesticide regulations.</li> </ul>
<p><b>Recreation</b> Develop a 5-year action plan to implement high priority recommendations of the SCORP. Regional green space plans, local recreation plans and watershed plans will be considered in developing the plan.</p>	<ul style="list-style-type: none"> <li>Develop work plan to implement SCORP recommendations by 1/04.</li> <li>Develop report on parcels and total area protected by watershed by 6/04.</li> <li>Continue to require consideration of sustainable building practices for all new and renovated DEM buildings.</li> <li>Under revised state recreation grant process, award points for green building designs and provide funding for incremental costs of such designs.</li> </ul>
<p>Increase number of recreational opportunities and improve recreational facilities. Focus on Bikeways, Greenways, Snake Den State Park and Universal access points.</p> <ul style="list-style-type: none"> <li>Award grants with focus on low-income minority, urban facilities.</li> </ul>	<ul style="list-style-type: none"> <li>Complete the Blackstone Bike Path by 2006 and the Trestle Trail by 2007.</li> <li>Repair the state-owned causeway to the breakwater in Salters Grove by 12/03.</li> <li>Complete design for universal access projects including Black Point Trail by end of FY 2004.</li> <li>Award grants of \$2.5 million to municipalities, including Distressed Community grants for park construction and renovation by November 2003.</li> <li>Snake Den State Park: <ul style="list-style-type: none"> <li>Complete conceptual design for development of Snake Den State Park, Johnston in cooperation with local, state, federal and private stakeholders by 12/03.</li> <li>Develop program for phased construction of Snake Den State Park with cost estimates and market and feasibility reports by 12/03 for inclusion in Governor’s Capital Improvement Program.</li> <li>Complete Snake Den Park by 6/06.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>Public Access Improvements</li> </ul>	<ul style="list-style-type: none"> <li>By 2006, develop a strategic plan for recreational boating infrastructure.</li> <li>Complete Fort Adams dock, Gaspee boat ramp and Coventry fishing access by 6/05.</li> <li>Complete Gano Street and Olney Pond boat ramps by 6/06.</li> <li>Complete construction of handicap access at Carolina Trout Pond and Stillwater Reservoir by 6/06.</li> <li>Develop interactive web-based system to help Rhode Islanders locate public recreation facilities. Apply for grant from National Park Service by 12/03.</li> </ul>

## Healthy Communities and Ecosystems (continued)

Key Strategies	Performance Measures
<ul style="list-style-type: none"> <li>Improve facilities, routine maintenance procedures, and capital reinvestment by implementing asset management plans.</li> </ul>	<ul style="list-style-type: none"> <li>Work with elected officials to secure full funding for priority needs; explore and develop where possible innovative funding sources.</li> <li>Number of improved facilities in 5, 10, 15 years.</li> </ul>
<p>Increase participation in special events at state recreation facilities.</p> <ul style="list-style-type: none"> <li>Continue partnership with the Governor's Office, state agencies, businesses, community organizations, and communities for special events.</li> <li>Encourage new activities to increase awareness and appreciation of our parks, beaches and management areas.</li> </ul>	<ul style="list-style-type: none"> <li>Schedule 6 – 10 events per year including Bay Day, the Jazz and Folk Festivals at Fort Adams, Earth Day, road races, charitable events, and the New England Championship Regatta.</li> <li>Hold the Blackstone Challenge in September of 2003 and 2004.</li> <li>Help Blackstone River Coalition to expand ZAP activities held annually.</li> </ul>
<p>Upgrade hatchery facilities to stockfish in public waters.</p> <ul style="list-style-type: none"> <li>Increase freshwater fishing opportunities for trout and large mouth bass through acquisition of access areas.</li> </ul>	<ul style="list-style-type: none"> <li>Install new supply well at Lafayette by 6/05.</li> <li>Construct hatch house at Lafayette Hatchery 6/06.</li> <li>10% annual increase in hatcheries production.</li> </ul>
<p>Management Areas User conflicts –</p> <ul style="list-style-type: none"> <li>Provide education, outreach and staff training to address user conflicts.</li> <li>Investigate ways to address user conflicts at low/no cost.</li> </ul>	<ul style="list-style-type: none"> <li>Maintain monthly meetings with the RI Trails Advisory Committee as a forum to resolve disputes.</li> <li>Develop a comprehensive trail use policy by 6/04.</li> <li>Install 10 new information kiosks at wildlife management area trailheads and fishing access areas. Summer 2003.</li> <li>Issue special use permits. Ongoing.</li> </ul>
<p>Develop and implement a long-term wildlife management policy that balances managing wildlife areas for public use and ecosystem needs and that resolves conflicts between wildlife management and development pressures.</p> <ul style="list-style-type: none"> <li>Develop draft Comprehensive Wildlife Management Plan with a focus on Species of Greatest Conservation Need.</li> </ul>	<ul style="list-style-type: none"> <li>Assist municipalities and individual property owners with individual management plans for white-tailed deer.</li> <li>Rewrite hunting regulations and abstract to clarify hunter safety messages and landowner rights by 8/03.</li> <li>Complete draft plan by 9/04.</li> <li>Link plan with South County Green space Plan and other plans by Spring 2004.</li> </ul>
<p>Manage all hunted and non-game species.</p> <ul style="list-style-type: none"> <li>Conduct surveys and population assessments; collect samples.</li> </ul>	<ul style="list-style-type: none"> <li>Develop a plan to conduct population assessments on all wildlife species by 6/05, pending funding. <ul style="list-style-type: none"> <li>Continue ruffed grouse and wild turkey research.</li> <li>Continue annual population surveys with USFWS on migratory and native waterfowl species, American woodcock and mourning dove.</li> <li>Conduct regional Chronic Wasting Disease surveillance in cooperation with CT and MA.</li> <li>Collect and analyze information to set hunting limits and seasons.</li> <li>Develop a long-term beaver management plan by 9/04.</li> <li>Monitor harvests of small game, waterfowl, deer and turkey.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>Survey species and manage habitats for Species of Concern.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to monitor all nesting sites of Piping Plover.</li> <li>Restore (cut brush) 10 acres/year of habitat for American Burying Beetle.</li> <li>Survey 65 colony nesting bird sites.</li> </ul>

# Compliance Assistance and Enforcement

*The Department will improve environmental results by helping people and businesses meet environmental requirements, prevent pollution, and practice environmental stewardship before enforcement actions are necessary. The Department will practice fair and effective enforcement.*

Compliance with environmental laws is critical to protecting public health and our natural resources. However, the Department is faced with a crisis in maintaining its capacity to operate all aspects of its environmental protection, natural resource management and public health and safety compliance programs. Budget cutbacks, hiring freezes, retirements and attrition, have weakened the Department's enforcement capacity, to the point where response capacity is no longer adequate to protect natural resources or public health and well-being. The department is not able to respond in a timely manner to all complaints or to conduct inspections after permits have been issued to ensure compliance.

Although voluntary compliance and collaborative strategies have become more important in the Department's menu of management options, enforcement capacity remains critical to maintaining credibility and a level playing field. In addition, ongoing lack of staff and other resources is undermining recent progress in making inspection and enforcement procedures easier to understand and comply with and in deploying limited resources where they are needed most. Nonetheless, the Department remains committed to continuous improvement in our enforcement programs and to efforts to revitalize pollution prevention and foster innovative approaches such as self-certification programs.

## *Fisheries Enforcement*

The Department will continue to use the work force planning strategy and will seek new sources of revenue to build up marine fisheries and enforcement staff to address new, more stringent management programs for commercial and recreational marine fisheries.

## *Pollution Prevention (P2)*

Pollution prevention, arguably the most effective and overall, the least costly approach to environmental protection, is foundering due to lack of resources. The P2 program effort with individual companies in the late 1980's and the 1990's reduced pollutant emissions, removing more than 30 million gallons of industrial waste with paybacks that ranged from a few months to 2 years. The department is working with stakeholders to revitalize the P2 program using a sector approach that will reduce the Department's costs of providing P2 services.

## *Environmental Results Program (ERP)*

The auto body certification program that DEM developed is showing how self-certification programs can bring more companies into compliance and even beyond compliance than can be done using traditional approaches. DEM will expand this strategy to the underground storage tank, dry cleaning, and lead paint removal sectors.

*NOTE: According to national enforcement policy, implementers (such as DEM) 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 non-compliers (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 non-compliance, and (2) identify detected significant non-compliers 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 non-compliance 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.*

## Compliance Assistance and Enforcement

Objectives	
<ol style="list-style-type: none"> <li>1. Increase compliance with environmental laws and regulations through compliance assistance and fair and effective inspection and enforcement.</li> <li>2. Achieve increased compliance with fewer complaints.</li> <li>3. Eliminate or reduce pollution at the source.</li> </ol>	
Indicators	
<ol style="list-style-type: none"> <li>1. Volume of pollutants emitted/discharged.</li> <li>2. Trends in compliance rates, response times.</li> <li>3. Numbers of convictions and penalties imposed on companies or individuals found guilty of violating environmental statutes.</li> </ol>	
Key Strategies	Performance Measures
<p>Continue to improve enforcement policies, protocols and regulations to optimize internal and external coordination in handling enforcement actions.</p> <ul style="list-style-type: none"> <li>• Recommend regulatory and statutory changes.</li> <li>• Respond effectively to instances of significant non-compliance.</li> </ul>	<ul style="list-style-type: none"> <li>• Amend Assessment of Administrative Penalty regulation to ensure that fines are appropriate by 10/03.</li> <li>• With the Attorney General’s Office, clarify criminal enforcement provision in the Air Pollution statute to submit for the 2004 legislative session.</li> <li>• Complete enforcement response policy by 7/04.</li> <li>• Prepare and submit revisions to the RCRA enforcement policy to EPA 12/03.</li> <li>• Issue immediate compliance orders to stop significant environmental harm or threat to public health, safety, or welfare at the site if possible, or by letter sent no later than 20 days after inspection.</li> <li>• Issue formal enforcement actions: <ul style="list-style-type: none"> <li>• Within 180 days of determination of significant non-compliance, pending staff availability.</li> <li>• Actions of a high priority in 90 days.</li> <li>• CAA, CWA or RCRA violations within 180 days of determination of significant noncompliance.</li> <li>• All other within 365 days.</li> </ul> </li> <li>• Review complaints for possible criminal violations and work with Attorney General’s office on prosecution as appropriate.</li> </ul>
<p>Conduct consistent, high quality <u>water compliance</u> inspections, <u>inspections of waste transporters</u>, <u>solid waste and medical facilities</u>, <u>UST’s</u>, <u>auto body shops</u>, <u>hazardous waste generators</u>, <u>WWTFs</u>.</p>	<ul style="list-style-type: none"> <li>• Develop criteria for consistent inspection outcomes by 7/04.</li> <li>• Conduct <u>900 compliance inspections annually</u>.</li> <li>• Agree to protocols for program review by 12/03.</li> <li>• Complete review by 9/04.</li> </ul>
<ul style="list-style-type: none"> <li>• Implement multi-media training for inspectors.</li> <li>• Ensure that inspectors follow DEM’s Administrative Inspection Guidelines.</li> </ul>	<ul style="list-style-type: none"> <li>• Begin training inspectors by 7/04.</li> <li>• Document and investigate all allegations of non-compliance.</li> </ul>



## Compliance Assistance and Enforcement (continued)

Key Strategies	Performance Measures
<p>Ensure that DEM's enforcement program meets EPA requirements as a delegated state under federal legislation.</p> <ul style="list-style-type: none"> <li>Track and publish complaint and enforcement action regularly.</li> <li>Coordinate with EPA.</li> </ul>	<ul style="list-style-type: none"> <li>Post enforcement actions issued/settled and on web page monthly.</li> <li>Publish complaint and enforcement summary annually.</li> <li>Coordinate enforcement action information with EPA quarterly.</li> <li>Finalize database for formal administrative enforcement and civil cases to track performance and penalty collection by 12/03.</li> <li>Cooperate in EPA multi-media enforcement audit of DEM's enforcement and compliance assistance programs by 6/04.</li> </ul>
<p>Provide better and cheaper environmental protection through pollution prevention and compliance assistance.</p> <ul style="list-style-type: none"> <li>Reinvent pollution prevention program and integrate P2 into all DEM activities.</li> </ul>	<ul style="list-style-type: none"> <li>Establish and coordinate a P2 Roundtable by 3/04.</li> <li>Develop P2 action plan by 7/05.</li> <li>Increase funding through grants, legislation, and budget revisions, based on P2 Roundtable recommendations.</li> </ul>
<p>Insure public compliance with laws and regulations.</p> <ul style="list-style-type: none"> <li>Reduce paperwork and court backlogs</li> </ul>	<ul style="list-style-type: none"> <li>Draft and introduce "Negligent Discharge of Firearms" legislation by 12/03.</li> <li>Re-certify breathalyzer operators annually.</li> <li>Draft legislation allowing common violations to be paid by mail and introduce in 2004 legislative session.</li> </ul>
<p>Negotiate consistent, fair and effective settlements of enforcement actions.</p> <ul style="list-style-type: none"> <li>Issue timely and appropriate enforcement actions.</li> <li>Assess economic benefit penalties where appropriate and assess gravity-based penalties to deter non-compliance.</li> <li>Require restoration of damaged resources where applicable in enforcement actions.</li> <li>Recommend Supplemental Environmental Projects (SEPs) consistent with RIDEM policy.</li> <li>Prioritize Superior Court referrals to direct legal resources to cases most essential to prevent harm to public health, safety, and the environment.</li> </ul> <p>Insure the safety of user groups at DEM facilities by restoring resources where possible and targeting resources to highest priority needs</p> <ul style="list-style-type: none"> <li>Deploy patrols to parks, beaches, boating areas and campgrounds during high use periods and target to deter boating while intoxicated</li> <li>Provide training to encourage voluntary compliance and improve enforcement processes.</li> </ul>	<ul style="list-style-type: none"> <li>Reduce the time to issue formal enforcement actions by 25% by 7/05.</li> <li>Number of informal enforcement letters issued within 90 days of identification of violations. Target: 90 NOV's and 700 informal actions</li> <li>Number of enforcement actions issued and resolved.</li> <li>Number of cases where restoration is achieved.</li> <li>Environmental benefits of SEPs.</li> <li>Number of complaints filed in Superior Court on high priority cases.</li> <li>Number of lower priority complaints resolved by other means.</li> <li>Obtain revenue sources and approval to fill key positions.</li> </ul> <p>Provide training for:</p> <ul style="list-style-type: none"> <li>Voluntary compliance training. Annually.</li> <li>Supervisor training to use limited enforcement powers and intermediate weapons for self-defense. Annually.</li> <li>Boaters: courses and challenge exams – 14 sessions each year.</li> <li>Environmental law course for at least 4 Police Academy classes by 6/05.</li> </ul>

## Compliance Assistance and Enforcement (continued)

Key Strategies	Performance Measures
<p>Ensure staff participation in training provided by EPA, NEWMOA, NESCAUM, NEEP, NEWIPCC, other regional and national organizations.</p>	<p>Train 20 DEM staff in FY04 and 20 in FY05.</p>
<p>Continue and expand emphasis on environmental results. Implement Environmental Results Program (ERP)</p> <ul style="list-style-type: none"> <li>• Auto Body Repair Facilities.</li>   <li>• UST, Dry Cleaning, Exterior Lead Paint Removal. <ul style="list-style-type: none"> <li>• Amend dry cleaning regulations to require removal of older model, high polluting equipment and to include additional health and safety requirements for facilities located in buildings with other residential and/or businesses.</li> <li>• Develop workbook and checklist for UST's, dry cleaners, lead paint contractors.</li> <li>• Develop Environmental Business Practice Indicators (EBPIs).</li> <li>• Develop statistical methodology.</li>   <li>• Implement ERP programs.</li> </ul> </li> <li>• Investigate an ERP for commercial recycling in partnership with RIRRC (pending new staff support) by 4/04.</li> </ul> <p>ISO 14000 Roundtable</p> <ul style="list-style-type: none"> <li>• Participate in ISO Roundtable meetings.</li>   <li>• Implement Compliance Incentive Act.</li> </ul>	<ul style="list-style-type: none"> <li>• Number of referrals to Compliance and Inspection.</li> <li>• Post-certification statistical analysis.</li> <li>• Develop statistical methodology by 11/03.</li> <li>• Develop wastewater and storm water management policy for auto body shops by 10/03.</li> <li>• Distribute policy to shops by 1/04.</li>   <li>• Amend regulations by 10/03.</li>   <li>• For UST's by 1/04, dry cleaners by 12/03, lead paint contractors by 12/03.</li> <li>• For UST's by 11/03, dry cleaners by 3/04, for lead paint removal by 3/04.</li>   <li>• For UST's by 11/03, for dry cleaners by 3/04, for lead paint contractors by 3/04.</li> <li>• Initiate ERP program for UST's by 3/04, for dry cleaners by 7/04, for lead paint contractors by 7/04.</li> <li>• Percentage of companies participating in ERP in each sector.</li> <li>• Quantity of materials recycled by businesses.</li> <li>• Tons of materials disposed/recycled by businesses.</li>   <li>• Number of meetings attended.</li> <li>• Draft policy for ISO 14000 recognition, may include permit streamlining assistance by 6/05.</li> <li>• Number of companies certified to ISO 140000.</li> <li>• Number of audits reviewed and reviewed for compliance.</li> <li>• Draft regulations by 7/04.</li> </ul>

## Cross Goal Strategies

*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.*

The Department has taken many steps in the last five years to improve performance and accountability by strengthening partnerships, improving customer service and management systems, using resources more efficiently and organizing environmental protection around watersheds. These strategies play a significant role in meeting our goals and objectives. The Department will build on this progress and emphasize developing sustainable funding in the next two years as follows:

Continue:

- To strengthen established partnerships and form new ones.
- To carefully assess work plan priorities. Continue to use the Department's strategy for workforce planning with monthly reporting and prioritizing to manage staffing under constrained conditions.
- To provide financial planning and oversight to manage services and facilities within the enacted budget and to maximize efforts to increase resources for asset protection and operation through new grant funding, effective fee collection and penalty collection. The development of sustainable financial resources may include consideration of user fees for some Department services.
- To improve outreach, education and public participation efforts to promote understanding of how individual actions affect environmental quality and to increase participation in environmental decision-making as a critical element of environmental protection and natural resource stewardship
- To improve management of port activity and DEM physical infrastructure by targeting priority renovation and maintenance projects and managing facilities to promote tourism and economic development. Priorities include construction of a new Fish and Wildlife headquarters facility at the Great Swamp, exploring alternatives for seasonal parking at the Port of Galilee and managing the two parcels on the Providence waterfront in a way that contributes to revitalization of the Port.
- To increase efficiency and effectiveness through continuous improvement efforts such as permit streamlining and expanding e-government services.
- To improve information management and use of technology. Over the past five years we have streamlined permitting processes: For example, wetlands permit processing time has decreased from an average of 101 days in FY2001 to 70 days in FY2003. The public can now check on the status of some permits and register boats electronically. Increasing the number of services available to consumers electronically is a focus for the next two years.
- To develop innovative approaches, such as the field test of bio-reactive remediation in Pascoag for the Pascoag Utility District/Main Street Mobil contamination problem.

- To advance environmental equity for all Rhode Islanders. Some populations and neighborhoods, particularly in urban areas of the state, face extra environmental burdens and a relative lack of environmental amenities such as increased air pollution, more contaminated properties, and fewer open spaces. In the next two years DEM will offer environmental equity training to staff, and develop public participation guidance to engage more of the affected communities in environmental decisions, and direct recreation resources to increase access for urban residents, as with the development of Snake Den State Park as a water park.
- To maintain the sustainable watersheds initiatives. Community-based approaches such as the sustainable watershed program convene local groups to create regional and ecosystem-based solutions to issues that cross political boundaries including restoring water quality, remediating contaminated sites and preserving significant landscapes. The focus in the next two years will be working with the Woonasquatucket and South County Watershed Action Teams to carry out the Watershed Action Plans. Multi-agency expert teams will provide assistance to local watershed groups in habitat restoration, planning for growth, storm water management, and water quality improvement.
- Promote establishment of growth centers in accordance with the recommendations of the 2000 Growth Planning Council Report to direct growth to places where there will be relatively minor environmental or physical impacts over the next two years the Department with the Growth Planning Council.

## Cross-Goal Strategies

<b>Objectives</b>	
<ol style="list-style-type: none"> <li>1. Improve accountability.</li> <li>2. Improve Department accessibility, responsiveness, and public outreach and participation.</li> <li>3. Increase customer satisfaction and public understanding of, and support for, the Department's programs to provide more effective environmental protection and to prevent violations of environmental laws.</li> <li>4. Make regulatory processes less burdensome, more streamlined and productive.</li> <li>5. Develop sustainable financial resources, eliminate structural deficit.</li> <li>6. Improve physical infrastructure.</li> <li>7. Ensure Environmental Equity for all Rhode Islanders.</li> <li>8. Sustainable watersheds:               <ul style="list-style-type: none"> <li>• Continue to assist with the development of watershed action plans to include protection of water quality.</li> <li>• Increase community capacity to implement watershed action plans.</li> </ul> </li> </ol>	
<b>Indicators</b>	
<ol style="list-style-type: none"> <li>1. Number of Rhode Islanders who take part in environmental protection, prevention and stewardship efforts at home and at work.</li> <li>2. Number and value of new funding sources obtained.</li> <li>3. Community-based watershed action plans completed and/or implemented by 6/05.</li> <li>4. Minority and low-income participation in public processes.</li> <li>5. Number/percent of projects delivered on time, within budget.</li> <li>6. Number/percent of constituents expressing satisfaction of service.</li> </ol>	
<b>Key Strategies</b>	<b>Performance Measures</b>
Continue to develop work plans for divisions and multi-program initiatives that prioritize program work according to the Department's goals and strategic priorities, and that include measures to verify progress and results.	<ul style="list-style-type: none"> <li>• Work plans for FY2004 and 2005 and Performance Partnership Agreement with EPA completed by 11/03.</li> <li>• Progress Report on work plan for FY2003 published by 10/03.</li> <li>• Annual reports with progress indicators and performance measures published February 2004 and February 2005.</li> </ul>
Continue to improve efficiency of internal operations and structures to allow staff to focus on priority tasks. <ul style="list-style-type: none"> <li>• Prioritize program needs and related workforce needs.</li> <li>• Work in cooperation with the Governor's Fiscal Fitness initiative.</li> <li>• Develop a program to improve quality and timeliness of permit processing.</li> </ul>	<ul style="list-style-type: none"> <li>• Compile monthly vacancy report and hiring priorities.</li> <li>• Implement recommendations.</li> <li>• Implement improved cost accounting system to track program/project expenditures by 10/03.</li> <li>• Identify areas requiring better guidance by 6/05.</li> <li>• Produce three new guidance documents by 6/05.</li> <li>• Develop training by 6/05.</li> <li>• Conduct training on decision-making and process by 6/05.</li> <li>• Develop consultant accountability strategy by 6/05.</li> </ul>
Expand and improve partnerships and opportunities for Rhode Islanders to participate in environmental decision-making.	<ul style="list-style-type: none"> <li>• Continue quarterly roundtable meetings with business and environmental communities.</li> <li>• Continue to work with stakeholder groups, including Greenhouse Gas Stakeholders, Solid Waste Task Force, Litter Task Force, and watershed, agriculture, forestry and land trust organizations.</li> <li>• Continue to work with partners such as nonprofits, municipalities, and academic institutions.</li> <li>• Develop a new Pollution Prevention Roundtable by 6/04.</li> </ul>

## Cross-Goal Strategies (continued)

Key Strategies	Performance Measures
<p>Continue to develop customer service orientation among management and line staff.</p> <ul style="list-style-type: none"> <li>Survey customers to gauge satisfaction with Department services.</li> </ul>	<ul style="list-style-type: none"> <li>Distribute department-wide customer service survey (was to be done by 12/03. Will not be done due to loss of staff).</li> <li>Yearly surveys in the permitting programs (was to have begun in 10/03 is delayed due to loss of staff).</li> </ul>
<p>Continuously improve e-government services, data integration, data sharing, and information technology.</p> <ul style="list-style-type: none"> <li>Increase the number of services available to consumers via the web</li> <li>Improve overall function and integration of databases. <ul style="list-style-type: none"> <li>Improve tracking, storage, and retrieval of information in the Office of Water Resources and with cooperating agencies, including EPA (STORET, GRTS, TMDLs, UIC, and WQC).</li> </ul> </li> <li>With regional and national work groups continue implementation of the EQUIS environmental monitoring system database.</li> <li>Continue implementation of Permit Process Tracking Information System (PPTIS).</li> <li>Continue to participate in the National Environmental Information Exchange Network (NEIEN).</li> </ul>	<ul style="list-style-type: none"> <li>Recommend selected permit and license applications and provide ability to check on the status of permits.</li> <li>Develop implementation plan for improvements by 6/04.</li> <li>Investigate opportunities to improve and to increase public access to system data via the web by 6/05.</li> <li>Develop standardized format for electronic data submissions by 5/04.</li> <li>Work with consultant(s) to download data from "pilot site" in standardized format by 9/04.</li> <li>Add the Office of Compliance and Inspection to the PPTIS system by 6/05.</li> <li>Complete two NEIEN grant projects to (1) build a node and exchange facility data with EPA, (2) create a National Hydrography Dataset (NHD) for Rhode Island 6/05</li> </ul>
<p>Develop policy and partnerships for verification of innovative technologies and information and management exchange.</p> <ul style="list-style-type: none"> <li>With EPA complete test of bio-reactive remediation of MTBE in drinking waster.</li> </ul>	<ul style="list-style-type: none"> <li>Began six-month Pascoag bio-reactive remediation testing in 7/03; expand if system performance is favorable.</li> <li>Develop a policy paper on using and promoting innovative technologies by 6/02. Will not be done due to loss of staff.</li> </ul>
<p>Aggressively seek new funding sources to manage services and facilities and to protect assets.</p> <ul style="list-style-type: none"> <li>Continue to pursue grant funding for projects/initiatives that support priority work plan items.</li> <li>Pursue re-institution of fees to support chronically under-funded functions (i.e. park entrance user fees, administrative adjudication hearing fees).</li> <li>Establish permanent source of revenue (such as an Environmental Trust Fund), to maintain facilities, vehicles and equipment on a regular schedule.</li> <li>Improve cost recovery on all enforcement matters by carefully documenting all DEM activities that are cost recoverable.</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing.</li> <li>Submit legislation for 2004 legislative session.</li> <li>Establish revenue source by 6/05.</li> <li>Capture at least 45% of recoverable costs in 2004.</li> </ul>

## Cross-Goal Strategies (continued)

Key Strategies	Performance Measures
<ul style="list-style-type: none"> <li>• Track all formal enforcement actions, consent agreements and superior court orders involving penalty assessments and payment deadlines and continue using a collection agent to aggressively collect penalties.</li> <li>• Continue to improve port operations and activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Implement tracking systems by 1/04.</li> <li>• By 2006, with GNBWC develop a strategic plan for port activity and marine transportations with EDC and URI Transportation Center.</li> </ul>
<p>Increase awareness of DEM's role in environmental protection and promote an understanding of how actions affect environmental quality.</p> <ul style="list-style-type: none"> <li>• Work with partners to strengthen environmental education.</li> <li>• Continue to enhance the DEM website as a resource for environmental information.</li> <li>• Standardize DEM publications.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop Energy/GHG outreach and education plan by 6/04.</li> <li>• Government Lead by Example package of energy efficiency and renewable energy strategies adopted by 7/04 (partner with Rhode Island State Energy Office).</li> <li>• Complete emergency response website by 9/04.</li> <li>• Work with students from the Metropolitan School to draft web-based material and brochures in languages other than English by 2/04.</li> <li>• Issue DEM publication specifications by 6/04.</li> </ul>
<p>Improve administration and streamline permit processes.</p> <ul style="list-style-type: none"> <li>• Reduce permit backlogs.</li> <li>• Implement recommendations from Wetlands &amp; ISDS Task Force (see specific task force work plans).</li> <li>• Develop more general permits to speed permitting and allow staff time to conduct more on-site inspections.</li> <li>• Seek repeal of DEM's role in overseeing well drilling.</li> <li>• Allow more beneficial reuse of bio-solids by 4/04</li> <li>• Include no net increase in environmental impacts policy in airport upgrades.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce major RIPDES permit backlog to 0% by 12/04.</li> <li>• Reducing minor RIPDES backlog to 6% by 12/04.</li> <li>• Reduce average number of days from receipt of wetlands applications to issuance of final decision from 86 (FY03) to 65 or fewer by 6/05.</li> <li>• Revise Groundwater Regulations to streamline procedures by eliminating routine Groundwater Quality Certifications by 9/04.</li> <li>• ISDS revised rules 6/04.</li> <li>• Wetlands revised Phase II rules 3/04.</li> <li>• Wetlands revised Phase III Rules 12/04.</li> <li>• Begin issuing new permits by 6/04</li> <li>• Issue general permit for subsurface storm water discharge by 9/04.</li> <li>• Repeal of DEM Well Drilling regulatory requirements consistent with legislative amendments.</li> <li>• Revise sludge regulations by 4/04, to reduce volume of sludge going to landfills, reduce incineration of sludge and reduce paperwork for those who use large quantities of sludge.</li> <li>• Incorporate into T. F. Green Airport and in Regional Airport Plan for future upgrades at local airports.</li> </ul>

## Cross-Goal Strategies (continued)

Key Strategies	Performance Measures
<p>Provide timely decision making on applications for dredging, dewatering, and for beneficial use and disposal of dredge materials.</p>	<ul style="list-style-type: none"> <li>• Work with CRMC to coordinate dredging applications by 12/03, including refining the:               <ul style="list-style-type: none"> <li>• public notice process,</li> <li>• application form,</li> <li>• guidance.</li> </ul> </li> <li>• Work with GNBWC and CRMC to develop a master plan for dredging and management of dredge material, including a 20 year plan for maintaining navigational channels and basins with CRMC by 2005.</li> <li>• Enhance the DEM dredging web page to include all dredging projects by 6/04.</li> <li>• Develop a dredging component for the watershed notification process by 6/04.</li> </ul>
<p>Incorporate Environmental Equity/ Environmental Justice provisions into each Bureau and/or divisions' activities, programs, policies and regulations such as public notices, cumulative impacts, interagency issues, and community-based decision-making.</p>	<ul style="list-style-type: none"> <li>• Publish Biannual report on EE progress 5/04.</li> <li>• Convening Environmental Equity Advisory Council has been dropped due to loss of staff.</li> </ul>
<p>Target recreation funding to populations or areas that lack access to or enjoyment of natural resources consistent with the State Comprehensive Outdoor &amp; Recreation Plan (SCORP).</p>	<ul style="list-style-type: none"> <li>• Trend in # and dollar amounts of grants distributed through recreation grants.</li> </ul>
<ul style="list-style-type: none"> <li>• Train DEM staff on EE/EJ issues.</li> </ul>	<p>Train 50% of DEM staff by 9/05.</p>
<ul style="list-style-type: none"> <li>• Develop an outreach and public participation plan for the non-English speaking community.</li> </ul>	<ul style="list-style-type: none"> <li>• Meet with leaders of the Latin and Asian communities to determine their environmental education needs by 12/03.</li> <li>• Develop a plan to translate environmental material to the non-English speaking community by 9/03.               <ul style="list-style-type: none"> <li>• Implement the Mentor Program with the Metropolitan School by 9/03.</li> <li>• Develop enhanced public participation process by 12/03. Evaluate feasibility of incorporating into regulation by 12/04.</li> <li>• Develop outreach, participation, education priorities and methods by 6/04.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Ensure schools are constructed on sites that are safely remediated and acceptable to the community.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop approach by 6/04- pending funding.</li> <li>• Develop school siting policy by 6/05- pending funding.</li> </ul>
<ul style="list-style-type: none"> <li>• Educate Southeast Asians on fish consumption and mercury</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct outreach project with Brown University and Southeast Asian community by 4/04.</li> </ul>
<p>Re-orient environmental protection and natural resources stewardship activities toward effective watershed resource management through community-based planning and implementation. (See Preserve and Restore the Land for land protection efforts.</p> <ul style="list-style-type: none"> <li>• Provide technical assistance to encourage the implementation of watershed plans and action programs.</li> </ul>	



## Cross-Goal Strategies (continued)

Key Strategies	Performance Measures
<ul style="list-style-type: none"> <li>Continue to assist watershed organizations with development and implementation of watershed action plans.</li> </ul>	<ul style="list-style-type: none"> <li>With partners develop model stormwater education and outreach materials for watershed organizations and communities. Materials pending availability of funds.</li> <li>Manage the Narrow River Stormwater Abatement. Completed by 6/05.</li> <li>With the Woonasquatucket Watershed Council, Habitat Restoration Team and other partners identify and restore riparian buffers. Complete restoration by 6/05.</li> <li>With the Woonasquatucket Watershed Team and watershed communities, develop Greenspace plan and Implementation Strategy. Complete strategy by 2/04.               <ul style="list-style-type: none"> <li>Complete Buckeye Brook Action Plan by 6/05.</li> <li>Assist with development of a water quality Salt Pond Action Plan by 6/05.</li> </ul> </li> <li>Update the South County Green space Plan by including new land acquisition and vernal pool information by 12/04.</li> <li>Complete Woonasquatucket Land use and Zoning project with the city of Providence and the Woonasquatucket Watershed Council by 12/04.</li> <li>Coordinate the Blackstone Watershed Integrated Water Resource Management Project, pending funding. Ongoing.</li> </ul>
<p>Assist watershed teams to acquire funds to implement watershed plans and action programs.</p> <ul style="list-style-type: none"> <li>Provide incentives to encourage the implementation of watershed plans and action items.               <ul style="list-style-type: none"> <li>Explore funding sources to do Green space Plans in other watersheds.</li> </ul> </li> <li>Coordinate links between state and federal technical and financial resources and local efforts to identify resources to implement watershed plans.</li> </ul>	<ul style="list-style-type: none"> <li>Help with abatement project grant writing; apply for grants on team behalf; manage grants for locals. Ongoing.</li> <li>Continue to pursue grants to build capacity of communities to plan for growth. Ongoing.</li> </ul>
<p>Work with broad-based partnerships to develop state and local capacity to effectively plan for growth. Assist the Governor’s Growth Planning Council to pilot the growth center concept. Provide assistance to communities:</p> <ul style="list-style-type: none"> <li>Technical assistance and training to communities to more effectively use growth-planning methods.</li> <li>Technical assistance/training for communities planning for open space preservation.</li> <li>Develop training programs in basic and advanced land use planning techniques.</li> <li>Explore funding sources:               <ul style="list-style-type: none"> <li>To implement Conservation Development.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Develop an urban environmental design manual by 4/04.</li> <li>Ongoing.</li> <li>Make 10 presentations on creative development techniques to wide audiences 12/04.</li> <li>Ongoing.</li> <li>With partners complete a conservation development-training manual for planners by 6/04.</li> <li>Ongoing.</li> </ul>

# APPENDIX A

## DEM's Avenues for Interaction with the Public

The Ombudsman – is charged with authority to undertake independent, and in certain cases confidential, fact-finding in response to external or internal complaints or questions about the Department's performance. You may contact the Ombudsman at 401-222-4700 ext. 2417, Fax 401-222-6802 or by email at [tgetz@dem.state.ri.us](mailto:tgetz@dem.state.ri.us).

Office of Technical and Public Assistance - provides assistance to the general public, state and local governments, and the business community concerning compliance with rules, regulations, environmental standards, and the permitting process. One aspect of this service is to coordinate pre-application assistance to companies and to individuals seeking permits.

Office of Compliance and Inspection - investigates complaints and suspected violations of environmental laws and regulations relating to: surface water, ground water, freshwater wetlands, individual sewage disposal systems, solid waste, hazardous waste, medical waste and air resources including visible emissions, odors, fugitive dust and exterior lead paint removal. OC&I's Emergency Response program responds to releases of oil or hazardous materials 24-hours per day, 7-days per week and ensures clean up of the environment as a result of these spills or releases.

Public hearings and meetings – several times a year DEM holds hearings and meetings open to the public to obtain the public's input on proposed permits, regulations and other issues.

Open Houses – DEM occasionally holds informal open house sessions to educate the public on environmental issues or programs.

Public Workshops – DEM occasionally holds workshops that are more structured than an open house to educate environmental professionals or the public about new or revised programs.

Email – program and staff listing on the Department website with telephone numbers and email addresses

## Stakeholder Groups

There are two roundtable groups that meet with the Director quarterly and both include about 100 people and organizations.

- Business Roundtable
- Environmental Roundtable

Some of the dozens of specific issue-oriented groups that meet regularly or when there are issues to address:

Air Toxics Task Force  
Air Pre-construction Task Force  
Blackstone River Valley Natural Heritage Corridor Commission  
Freshwater Wetlands Task Force  
Galilee Fisherman's Advisory Committee  
Greenhouse Gas Stakeholder Committee  
Hazardous Waste Transporters  
Land Trust Council  
Litter Task Force

Pollution Prevention Roundtable  
Trails Advisory Committee  
Rhode Island Agricultural Land Preservation Commission  
Rhode Island Shellfisherman's Association  
Rhode Island Watershed Council  
RI State Forest Stewardship Coordinating Committee  
Site Remediation Task Force  
Solid Waste Task Force  
Watershed Councils

# Responsiveness Summary

Comment	Response/Action
<p><b>Audubon Society – includes comments on the division work plans in addition to those on the Strategic Work Plan</b></p>	
<p>How will objectives be evaluated?</p>	<p><i>The annual DEM Strategic Work Plan Progress Report for the past Fiscal Year (July 1, 2002 – June 30, 2003) reports progress on each performance measure. We are working with EPA on indicators that we will report on in future Annual Reports starting with the 2004 report covering January 1 2004 – December 31, 2004 and in Fiscal Year Progress Reports. The reports are posted on the DEM website and hard copies may be obtained from the Office of Strategic Planning and Policy.</i></p>
<p>Is a chart available that shows what progress has been made on the objectives of the last year?</p>	<p><i>See the Strategic Work Plan Progress Report Fiscal Year 2002 on the DEM website. The Progress Report for FY 2003 should be posted on the website in early February.</i></p>
<p>Could DEM attach numeric goals for each section of the plan as has been abundantly provided in the sections from the Office of Waste Management?</p>	<p><i>We have included targets in performance measures where we are able to. There is more detail in the division work plans posted on our website.</i></p>
<p>Organizational chart – How can you show interaction with the public? – Suggest adding to the chart page a statement of what types of interactions occur.</p> <p>Does DEM have suggestion boxes at parks and a means of funneling suggestions to key personnel?</p>	<p><i>We will add a page to the Strategic Work Plan listing the stakeholder groups we work with as well as the other types of public interactions such as the Ombudsman, public meetings, hearings, comments on regulations and permits, walk-ins and calls to the Office of Technical and Customer Assistance, complaint calls, workshops, etc.</i></p> <p><i>DEM has several channels for suggestions:</i></p> <ul style="list-style-type: none"> <li>• <i>Two campgrounds have suggestion boxes.</i></li> <li>• <i>The Department receives many emails from park and beach users.</i></li> <li>• <i>Visitors often speak to park and beach staff frequently about concerns, which are relayed to the Chief of Parks and Recreation for his response.</i></li> <li>• <i>DEM conducted three surveys in 2001/2 for the State Comprehensive Outdoor Recreation Plan (SCORP): a survey of state and local recreation professionals, a state park and beach user survey and a survey of the general public on outdoor recreation demand. The survey results were used in the development of the SCORP. See the DEM website for the SCORP.</i></li> </ul>
<p>Bureau of Environmental Protection: Suggest an objective to prevent violations</p>	<p><i>We concur that preventing violations is the best way to protect resources, therefore the Compliance Assistance and Enforcement goal states: <b>The Department will improve environmental results by <u>helping people and businesses meet environmental requirements, prevent pollution, and practice environmental stewardship before enforcement actions are necessary.</u> The Department will practice fair and effective enforcement.</b> The Department stresses prevention not only in compliance assistance and enforcement programs but throughout the Department through education and outreach,</i></p>

	<p><i>technical assistance such as pollution prevention programs, encouraging BMPs, and deterrence through enforcement activities. Our third objective in the Cross Goal Strategies will be revised to more explicitly cover this issue. The objective now states:</i></p> <p><i>Increase customer satisfaction and public understanding of, and support for, the Department's programs. We will add: ... to provide more effective environmental protection and to prevent violations of environmental laws.</i></p>
Regarding "Expand and Improve Partnerships," academic institutions, municipalities and non-profits are missing.	<i>We will revise that section to include those institutions.</i>
Are dates 6/03, 9/03 (p. 3, Ozone precursors) 12/03 (p. 2, LEV) in FY04?	<i>Cannot find 6/03 date, but the others are all in FY04, (July 1, 2003 through June 30, 2004).</i>
Water Resources Consider adding objective "Enforce the No-Discharge Zone for Narragansett Bay." It is my understanding that the No-Discharge Zone has been implemented but it is not being sufficiently coordinated nor enforced.	<ul style="list-style-type: none"> <li>• <i>To date, DEM's enforcement efforts have been primarily complaint driven. DEM is evaluating ways to improve enforcement with limited resources.</i></li> <li>• <i>This issue will be considered by the Governor's Narragansett Bay and Watershed Commission. DEM, Harbormasters and the Coast Guard may all play a role in enforcement.</i></li> <li>• <i>A bill has been submitted to give harbormasters more authority in this area.</i></li> </ul>
As part of Assessing Our Waters, add a task to begin developing a reference pond/lake for lentic waters. It is my understanding that for streams in RI there is a reference stream of "pristine" condition that serves as a reference for the abundance and distribution of organisms that should be found in a stream in RI in order to compare for degradation. See EPA's bioassessment protocols for streams. However, for ponds, there has not been a reference designated. The whole program (EPA as well as states' programs) is not as advanced for still waters as for streams, probably because streams are more likely to be the receiving water for permitted effluents. I am suggesting that in 2005-6 DEM begin a program to designate a reference still water because where there are ponds created by damming, the ecology is different because of flow velocity, and these same ponds may be affected by pollutants upstream or by airborne pollutants.	<i>DEM has used a reference site approach in interpreting biological data collected from rivers and streams. Consistent with the forthcoming monitoring strategy, DEM expects to give more emphasis to biological indicators in terms of evaluating the aquatic life use of waters. However, while some guidance is available, the use of biological indicators is not practiced widely by states and the science to support such indicators in lakes is still the subject of research. DEM will be evaluating existing fish population data to determine the feasibility of developing an IBI for fish in lakes. DEM intends to keep abreast of developments on this overall topic, but not to initiate specific field work with respect to biological monitoring of lakes, with the exception of screening for fish tissue contamination and limited freshwater fish surveys. The role of biological monitoring in lakes will be reassessed over time as the monitoring strategy is implemented, but for the present, establishing reference sites for lakes is not part of the planned activities.</i>
Under nutrients, add estuarine waters: DEM's ISDS office to work with appropriate agencies to apply consistent nutrient policy for salt ponds and other near-shore estuarine waters.	<i>DEM is concerned with addressing nutrients in estuarine waters. However, the Work Plan reflects tasks that we expect to be addressed over the two years covered by the plan. DEM staff has been working with a New England Regional Nutrient Criteria Team toward implementation of the National Strategy for Nutrient Criteria Development. The key elements of this strategy include use of a regional and waterbody-type approach for development of nutrient water quality criteria. The Team</i>

	<p><i>decided to address various waterbody types in the order in which the guidance documents were being published by EPA – lakes/ponds; rivers/streams; estuarine and coastal waters; wetlands (not yet published). The Team has recently finished developing a regional database and evaluation of nutrient criteria development for lakes/ponds and rivers/streams in New England. This work has shown that nutrient criteria development is not easy and the process will be more difficult for estuarine waters. DEM anticipated contracting for technical assistance to initiate evaluation of nutrient criteria development for RI lakes/ponds and rivers/streams using this regional work. The federal funds anticipated for technical assistance will not be available for the period of this work plan. DEM will address nutrient criteria development for all waterbody types as federal funds allow.</i></p>
<p>Under Protecting Our Waters, please add “extend legal application of RIPDES permits to salvage yards and other SIC codes included in recent 104 regulations.”</p>	<ul style="list-style-type: none"> <li>• <i>The Department has authority to require RIPDES permits for salvage yards with point source discharges of storm water. By 6/05, DEM will identify all licensed auto salvage yards, inform them of the stormwater requirements and inspect a total of 10 facilities in the Woonasquatucket, Blackstone and Woonasquatucket Watersheds that do not apply for a permit.</i></li> <li>• <i>This is not a single media issue. Salvage yards are licensed by the Department of Business Regulation (DBR), which does have siting requirements, and DEM’s regulations also apply. The DEM programs are: tanks, RCRA, solid waste, and wetlands as well as stormwater. DEM has conducted some multi-media inspections with DBR and will begin training DEM inspectors in multi-media inspections in July of 2004.</i></li> </ul>
<p>Under Abate Non-Point, please make actions for ISDS program stronger beyond helping local authorities. I suggest that permitting stringently to uphold ordinances and regulations (buffers and other points) to prevent nutrient loading to waters, particularly along the coast. Also suggest that a program to immediately upgrade cesspools and other sub-standard on-site treatment with priority to riparian properties.</p>	<ul style="list-style-type: none"> <li>• <i>DEM will be proposing ISDS rule changes that will extend buffer protection consistent with those used by CRMC, which will reduce pollution impacts to coastal wetlands.</i></li> <li>• <i>To address these issues, the Department, working through the Governor’s Office, has drafted legislation that would phase-out high-risk cesspools over the next 15 years and speed up repair and replacement of failed cesspools using mandatory inspections and point-of-sale provisions. This work will be done in conjunction with local programs established by local communities.</i></li> </ul>
<p>Under Restore Impaired Waters, please review to see whether Saugatucket River should be included</p>	<p><i>Saugatucket River (and Mitchell Brook, Indian Run &amp; Rocky Brook) are included in the table on page 19 under "WQRPs Approved by EPA - Implementation underway". Because we had not formulated any specific projects at the time of the Work Plan preparation, we did not separately include the Saugatucket River under the performance measure relating to completion targets for implementation projects. In the interim, we have met with Town of South Kingstown officials and will be awarding the Town a \$50,000 104(b)3 grant to undertake a feasibility study of the Indian Run sub-catchment area encompassing Upper Tower Hill Road and Dale Carlia Corner to evaluate opportunities for on-site runoff volume reduction and treatment of stormwater.</i></p>

<p>Under No Net Loss of Wetlands, I cannot find any program that specifically and concretely addresses this problem. I understand the complexity of wetland mitigation. Suggestions include strictly enforcing regulated buffers; requiring payment to Wetlands Account for purchase and restoration of wetlands for all projects deemed “unavoidable,” even small ones like driveway crossing; create a vernal pool identification guidance; work with municipalities to create cluster zoning and enforceable conservation easements to protect developing wetland wooded areas, including vernal pools.</p>	<ul style="list-style-type: none"> <li>• <i>“No net loss of wetlands” is a goal. The primary job of the wetland permitting and enforcement programs is to try to achieve that goal. Many acres of wetland loss are prevented or restored each year through permitting or compliance activities, which stress avoidance and minimization. That said, you are right, the Work Plan does not contain specific objectives to address the loss that is occurring despite these efforts. These losses are both in acreage of wetlands altered and functions and values lost within these and other wetlands.</i></li> <li>• <i>The Army Corps does require compensatory mitigation on projects in RI as part of a federal policy which is similarly worded on a case-by-case basis. However, a nationwide study done by the National Science Foundation heavily criticized the Corps’ track record and called for major changes in how mitigation is effected. These are being implemented now by the Corps.</i></li> <li>• <i>The Wetland Account idea has been the subject of legislation in recent years and, although not initiated by DEM, has received support from DEM. This approach would help provide seed money for more effective mitigation projects.</i></li> <li>• <i>DEM will be evaluating the issue of buffers in the 3<sup>rd</sup> phase of the wetland rule change. Although the primary goal is to review the approach used by CRMC in establishing buffer zones and setbacks for consistency purposes, the potential exists to improve protection of buffers as a result. This issue may be reviewed in greater detail as part of that rule change, which is scheduled towards the end of the Work Plan cycle.</i></li> <li>• <i>The Sustainable Watersheds Program does work with communities to create cluster and conservation development ordinances.</i></li> </ul>
<p><b>Agriculture – Public Health and Safety:</b>  We urge the Department to require the Division of Agriculture to work more assertively to acquire funds to support an adequate Mosquito Abatement Board Municipal Grants Program. By supporting a program where towns proactively address reducing opportunities for the build-up of mosquito populations through environmentally acceptable and proven means is a key component in fighting WNV and EEE. Audubon has been actively working with Senator Reed to acquire funds for this program through the federal Mosquito Abatement Safety and Health Act, and we would expect that DEM would actively support such appropriations. “Implementing a modified Mosquito Abatement Grant Program by 7/03 (if funds available” is an unacceptable Performance Measurement. Not only is the date too late, but by the very weakly stated objective is not compliant with the best</p>	<ul style="list-style-type: none"> <li>• <i>The Mosquito Abatement Grant to Municipalities Program was continued from July through October 2003 with funding from the Centers for Disease Control (CDC). It had been eliminated due to budget cuts and that funding was one time only. We are trying to continue the program but have no funding at this time.</i></li> </ul>

interests of public health.	
Under Farming and the Environment, please add a comment about working cooperatively with the RI Water Resources Board on water issues.	<i>Farming and the Environment is in the Division of Agriculture's Work Plan. In the Strategic Work Plan, Healthy Communities and Ecosystems goal section on page 32 of the Strategic Work Plan, you will find the water allocation issue. We will add "agriculture" to the list of users in "Collaborate with agencies and water users ...."</i>
We suggest objectives for non-game wildlife within the Fish and Wildlife's section. We appreciate and encourage the Division's management by watershed.	<i>Non-game wildlife will be addressed in the Comprehensive State Wildlife Conservation Plan (CSWCP) with a focus on Species of Greatest Conservation Need to be completed by 10/05. In addition, the Endangered Species Program focuses on non-game wildlife.</i>
We support the Division of Forest Environment's inclusion of watershed based approach, conservation education, and support of urban and suburban forest issues as well as management of large forests.	
Strategic Planning: Since we have partnered with RIDEM Strategic Planning since 1986 for the International Coastal Cleanup/Get the Drift and Bag It, we are sorry to see the project abandoned. We would ask that the statement be modified to indicate that no funding is available, but the Strategic Planning. DEM will continue to support this documentation of the debris on Rhode Island beaches by coordinating removal at DEM managed sites that are part of the survey and cleanup by advertising through the DEM website and other appropriate, convenient means.	<i>We had planned to transfer this program out of Strategic Planning and Policy because it has been transformed into a policy office and is no longer involved with programs. However, no action has been taken and we will continue to maintain this program.</i>
We would ask that coordination with Statewide Planning on reworking the State Land Use Policy Guide Plan and with the Water Resources Board on Water Allocation Program be added to the Office Work Plan.	<i>The Sustainable Watersheds section is more involved with the update of the Land Use Policy Plan than Strategic Planning and Policy. The Office of Water and the Division of Agriculture are involved with the Water Allocation Program.</i>
We applaud the emphasis given to Sustainable Watersheds. We ask that water quality objective be worked into the language of objectives already listed.	<i>In Cross Goal Strategies, Objective number 8, after "action plans..." add "to include protection of water quality."</i>
<b>EPA Office of Environmental Stewardship and RI Office of Ecosystem Protection</b>	
Resources. In the introduction to the "Compliance Assistance and Enforcement" section (p. 47), DEM acknowledges that it is "faced with a crisis in maintaining its capacity to operate all aspects of its environmental protection, natural resource management and public health and safety compliance programs." Our understanding is that resource shortfalls are most pronounced in the water compliance and enforcement program, with significant	<i>We are limited by both the Full Time Equivalent (FTE) cap on the number of employees in the State budget and the dollar amount in the budget. DEM FY04 Budget does not contain funding for additional inspectors – the best we can do is to retain the inspectors we have and we have plans to do that.</i>

constraints in the air program as well. DEM acknowledges that it cannot provide timely enforcement, yet does not indicate what steps are or might be taken to alleviate this deficiency. The PPA should include a strategy for filling vacant positions and providing training.	
Inspection Commitments. With the exception of the air program, it appears that all other inspections for all other media are lumped into a single commitment of 900 inspections annually (p. 48). This commitment should be broken down by media and program, and for the NPDES program, should include a breakdown of majors and minors.	<i>We have included the detailed list of inspections for FY 2004 and 2005 in the PPA.</i>
Administrative Penalties. There is reference to an amendment to the Assessment of Administrative Penalty regulation to ensure fines are appropriate (p. 48). DEM should define “appropriate” in order for EPA to evaluate consistency.	<i>“Appropriate” is a term used also by EPA – DEM uses it to mean appropriate in light of the severity of a violation and the penalties prescribed in the regulations. We weigh the violation and make the penalty consistent with what is allowed under the regulations.</i>
Training. There is a reference to training inspectors (p. 48). What type of training will DEM be conducting?	<i>On page 48 the only training referenced says “Train DEM staff on EE/EJ issues.” The training will cover basic environmental equity/environmental justice issues to heighten awareness of staff to the importance of expanding the participation of minority and low-income residents in environmental decision making.</i>
Quarterly Meetings. There is a reference to coordinating enforcement action information with EPA on a quarterly basis (p. 49). Meetings should be held at a minimum on a quarterly basis, but more often as needed, and should be held on a program-by-program basis. Also, DEM should provide copies of all enforcement actions to EPA.	<ul style="list-style-type: none"> <li>• <i>This is what is happening – quarterly meetings at a minimum and, if necessary, more frequent and on a program basis.</i></li> <li>• <i>Copies of all enforcement actions are sent to EPA.</i></li> </ul>
Measurement. In addressing the strategy of assessing enforcement success, DEM suggests measuring the number of actions issued and resolved (p. 50). This should be expanded to include the elapsed time from case initiation to conclusion.	<i>EPA already receives elapsed time in national reporting systems, PCS, AIRS, RCRA, as data is entered - data includes date of discovery of SNS, date of issue of NOV.</i>
<u>Water Program Comments</u> Protecting Drinking Water Sources (p. 13). The last sentence indicates that DEM will promote the use of appropriate local land use controls and implementation of BMPs as important strategies for managing pollutant risks to drinking water supplies. What tools will be used to ensure that controls and BMPs will be implemented? Will enforcement be a part of this strategy?	<i>DEM cannot regulate/enforce local land use zoning ordinances – some activities can be regulated and enforcement can be a tool, but most of the recommended land use controls are under local control; enforcement is used where activities require permits. DEM works with communities and landowners to promote the use of BMPs by: providing information on the benefits of BMPs, assisting with the development of Watershed Action Plans, conducting TMDLs with recommendations on how to abate sources of pollution, and providing grants and loans for water pollution abatement projects, including BMPS. When BMPs are required, enforcement is used.</i>
Abating CSOs (p. 16). This section mentions	<ul style="list-style-type: none"> <li>• <i>The Facilities Plan for NBC (Long Term Control Plan) was</i></li> </ul>



<p>that DEM will continue close coordination with NBC as construction of Phase I continues. What is the projected date for receipt of the final long term control plan? DEM also should outline remaining CSO implementation issues for Newport.</p>	<p><i>approved in July of 1999. Phase I construction schedule, part of the Facilities Plan is to be completed by 8/07.</i></p> <ul style="list-style-type: none"> <li>• <i>Newport –DEM and Newport entered into a Consent Agreement that allowed Newport to evaluate the improvements already made (Technical Memoranda 1-3). RIDEM will complete its review and approve the TMs within 1-2 months.</i></li> <li>• <i>Newport next step- further I/I study and probable sewer separation – too soon for dates.</i></li> </ul>
<p>Wet weather. There should be a commitment to developing and implementing an enforcement strategy supporting wet weather or other identified priorities, not simply to addressing SNC.</p>	<ul style="list-style-type: none"> <li>• <i>Wet and dry weather discharges from sanitary sewers are prohibited – 3 communities are currently making improvements to eliminate chronic overflows.</i></li> <li>• <i>Stormwater Phase II – this is a new program implemented to decrease pollution in wet weather.</i></li> <li>• <i>When pollution sources are identified during the development of TMDLs, enforcement is used as appropriate and best management practices are encouraged.</i></li> </ul>
<p><u>Air Program Comments</u> 1) MTBE. The 02/03 plan has a section on methyl tertiary butyl ether (MTBE) as it relates to reformulated gasoline. The 04/05 plan does not discuss this. Has RI eliminated the use of reformulated gasoline with MTBE?</p>	<p><i>Rhode Island has not eliminated the used of MTBE. DEM’s position on MTBE is that there should be a national solution.</i></p>
<p>Ozone. Under the Clean Air Section entitled “Ozone,” the 02/03 plan indicates that the DEM hopes to meet the more stringent federal ozone standard by 2007. In the 04/05 plan, the DEM’s aim is now to meet the standard by 2010. In addition, in the introduction to the Clean Air Section of the 04/05 plan, the DEM indicates that trends toward larger vehicles (SUVs) and stagnant energy efficiency are causing vehicle emissions to rise again. If this is the reason that DEM pushed back meeting the ozone standard to 2010, it would be worth tying the two together. Otherwise, the DEM should further explain why the attainment of the standard is being pushed back three years.</p>	<p><i>2007 is still the target for attainment of the one-hour ozone standard. We are adding a target to meet the 8-hour standard by 2010. Both are explicitly stated in the objectives for the Clean Air Goal.</i></p>
<p>Citizen complaints. Under key strategies, the 02/03 plan included responding to air complaints including visible emissions, fugitive dust and odor and taking appropriate and timely enforcement. Under performance measures, the 02/03 plan indicated that the DEM would develop a comprehensive policy to triage complaints and thereby address the most urgent complaints immediately. There does not appear to be anything similar to this in the Clean Air or Enforcement sections of the 04/05 plan, other than that the DEM will track and publish complaint and enforcement actions regularly. Did DEM develop a policy to triage complaints</p>	<p><i>The draft policy has been in effect since 11/01 and the most urgent complaints are handled on a priority basis. The DEM Progress Report for FY2003 reports on the initiation of this policy.</i></p>

and will it continue to use the "responding to complaints" as a key strategy.	
Inspection commitments. The inspection commitments for the air program are stated as ones to be achieved "by 7/05" (p. 12). The workplan "Performance Measures" should be re-worded to include the number of inspections under the CMS policy to be inspected in each of years 04 and 05 rather than as written now.	<i>A detailed list of inspections has been added to the Compliance Assistance and Enforcement section of the PPA, from the Compliance Monitoring Strategy and Division work plans.</i>
It is not clear how the UST program leads to resource protection.	<i>The purpose of the Underground Storage Tank Program as stated in the Strategic Work Plan is to "Ensure that underground storage tank systems (USTs) are properly installed, operated, maintained &amp; replaced to protect groundwater."</i>
Cannot find anything on lead paint removal.	<i>Since DEM's lead inspections are complaint driven, it does not make sense to have a target number of inspections (complaints), rather to respond to 100% of the complaints about improper lead paint removal.</i>
Would like to see more about pesticides.	<p>DEM will add the following to the pesticides section:</p> <ul style="list-style-type: none"> <li>• <i>Continue to monitor agricultural establishments for compliance with the Worker Safety Standard.</i></li> <li>• <i>Ecommerce – monitor internet sales of pesticides to ensure compliance with federal and state pesticide regulations.</i></li> <li>• <i>A cross reference to Compliance Assistance and Enforcement Goal – inspections.</i></li> </ul>
Air – would like to see targets for reductions from the Attainment Plan for One-Hour Ozone NAAQS.	<p><i>The following targets have been added to the objectives in the Clean Air Goal:</i></p> <ul style="list-style-type: none"> <li>• <i>Reduce VOC from 140.6 tons per summer day (tpsd) in 1999 to 118.7 tpsd in 2007.</i></li> <li>• <i>Reduce NOX from 93.3 tpsd in 1999 to 74 tpsd in 2007.</i></li> </ul>
<b>Public Meeting</b>	
How is the Sustainable Watersheds Program nested in the Work Plan and is it still in Strategic Planning?	<i>The program reports directly to the Director, separate from Strategic Planning.</i>
The Sustainable Watersheds Work Plan is comprehensive, would like to see the words "water quality" included in that section.	<i>We will add "water quality" in the objective statement.</i>
The plan says DEM will encourage nitrogen removal in septic systems. The Kickemuit River Council is working on outreach for the Kickemuit River. What should we say about nitrogen removal in the educational material?	<i>We are encouraging nitrogen removal in areas where there are small lots and wells for drinking water and around Salt Ponds and other critical resource areas. We will look at the potential for ISDS to affect other areas. The Kickemuit may be one of those areas.</i>
In the ISDS section, add "estuarine waters" along with rivers and ponds.	<i>Two other water bodies that may be affected by septic system discharges are Wickford Harbor and Greenwich Bay.</i>
Regarding emergency response and other states: For pollutants that come from out of state how does DEM work with the other states, Massachusetts and Connecticut?	<i>When Massachusetts had an active watershed group, we coordinated with them on meshing priorities for the Palmer and the Blackstone Rivers. We worked on TMDLs in both states in both areas. We share our 303D List of Impaired Waters with both neighboring states to align TMDL work. DEM has a representative to the New England Interstate Water Pollution Control Commission who attends meetings of that group, and we</i>

	<i>share information on waterbodies and TMDL work.</i>
	<i>Coordinating response to interstate pollutants is an important issue for the new Governor's Narragansett Bay and Watershed Commission. Doug Foy, Chief of Commonwealth Development, who oversees the Secretariats of the Environment, Transportation and Construction, and Housing for the State of Massachusetts has been appointed to the commission. We have worked with Massachusetts on bay pollution and land use issues in the past and this will formalize that relationship.</i>
Regarding water supply: At the Swansea Planning Commission meeting last night, there was discussion of the need for more fresh water and the town is planning to install a desalination plant at the head of the Palmer River. This may cause brine problems in the river. Is there a possibility that Swansea may receive water from the Providence water supply?	<i>That is an issue for the Water Allocation Committee. They will meet on January 29.</i>
Is there anything to say on the budget? constraints and what constituents may do to help DEM with the Legislature?	<i>The budget is not yet final. DEM had to submit a ten percent cut, and this came after a 9% cut last year and at least 4 years of lower cuts. There will be staff layoffs. We can offset some of the cuts through the sale of a large commercial site the Department owns in Providence that is not critical to the agency's mission. We anticipate some settlement funds this fiscal year and we will defer a couple of capital projects. On the positive side the Governor is focused on protecting the Bay and the ten panels of the Governor's Narragansett Bay and Watershed Committee include people with a very broad range of interests.</i>
It would advantageous for everyone here to write to the Governor to support the DEM budget. For the Kickemuit River Council I would like to express our appreciation for DEM's help on the Brayton Point issue and with the River Council.	
<b>Rhode Island Legal Services</b>	
Environmental Equity and school siting appear all the way at the end of the Strategic Plan almost as an afterthought. Moreover, there is not much discussion of what DEM will do in these areas. Therefore, we suggest that the following items be added to the Strategic Plan: <ul style="list-style-type: none"> <li>• Directing adequate resources to the advancement of environmental equity and school siting issues.</li> <li>• Developing (better) school siting standards to guarantee equal access to healthy and safe educational environments for all Rhode Island residents.</li> <li>• Ensuring better compliance with DEM's Remediation Regulations, particularly as to</li> </ul>	<ul style="list-style-type: none"> <li>• <i>DEM is working with RI Legal Services (has an EPA EJ grant) to develop and implement school siting policy, develop and implement a Brownfields policy, and to finalize DEM's Environmental Equity Policy, all based on best practices from other jurisdictions.</i></li> <li>• <i>DEM's Work Plan includes development of a school siting policy, to be adopted by 5/05.</i></li> <li>• <i>DEM also plans to develop an enhanced public participation policy 6/04.</i></li> </ul>

<p>public notice and comment, when reviewing proposals to redevelop brownfields sites for schools or other public uses.</p> <ul style="list-style-type: none"> <li>• Creating stakeholders groups with adequate participation by members of the community who have demonstrated an interest in environmental justice and school siting issues.</li> <li>• Improving the DEM's accessibility and accountability to the public, specifically in its relationship to low income and minority communities in regards to school siting and other sensitive environmental decisions.</li> <li>• Increasing public participation in the broader decision making process, particularly by low-income and minority communities.</li> </ul> <p>In 2003 Rhode Island Legal Services was awarded a grant from EPA under EPA's Environmental Justice Small Grant program. The interns working under the EPA grant are a resource that can be drawn upon to advance the development of policies relating to environmental equity and school siting. We hope that the DEM will work with environmental justice advocates to advance environmental equity for all Rhode Islanders. Furthermore, we hope that the DEM recognizes that school siting is of paramount importance for protecting our children's health and ensuring the future prosperity of our residents.</p>	<ul style="list-style-type: none"> <li>• <i>The work plan includes convening an Environmental Equity Advisory Committee by 6/04.</i></li> <li>• <i>DEM constantly works to improve accessibility as evidenced by the additional public open house sessions, workshops, maps and other printed literature and continually updated and expanded website.</i></li> <li>• <i>DEM plans to translate selected documents on the website into Spanish. Implementation of the Environmental Equity Advisory Committee will improve our communication with minorities.</i></li> <li>• <i>We look forward to working with environmental justice advocates.</i></li> </ul>
<p><b>Save the Bay</b></p>	
<p>Identify what tasks are funded and what are not.</p>	<p><i>It is DEM's intention to complete all the tasks outlined in the Work Plan, with the exception that some tasks are contingent upon the receipt of specific funds. These are noted in the Work Plan. General lack of funding hampers the TMDL program, natural resources protection, pollution prevention, water quality monitoring. Identification and control of invasive species, construction of fish passages and other coastal habitat restoration projects, repair and maintenance of dams, and maintenance of the recreation system. Specific tasks in the Strategic Work Plan for which funding is not certain are:</i></p> <ul style="list-style-type: none"> <li>• <i>Develop tracking system for greenhouse gas emissions by 6/04, pending funding.</i></li> <li>• <i>Development of nutrient criteria.</i></li> <li>• <i>(Statewide Planning) complete transit-oriented development (TOD) model one year from receipt of funding.</i></li> <li>• <i>Develop resource management contracting initiative pending RRIRC funding. Carbon reduction: 70,000 metric tons in 2020; Cost of saved carbon &lt; \$0.</i></li> </ul>

	<ul style="list-style-type: none"> <li>• <i>Implement Bay Window monitoring for 3/04 pending federal funding.</i></li> <li>• <i>Complete Boyd's Marsh/Town Pond salt marsh restoration pending funding of \$200,000 to match the \$500,000 that has been raised.</i></li> <li>• <i>Blackstone River – ACOE has been asked to develop engineering plans – construction will depend on funding.</i></li> <li>• <i>Allin's Cove, Pawtuxet River fish run and Woonasquatucket River fish passage, dependent on funding.</i></li> <li>• <i>(Commercial Species Management Plans) Work with congressional delegation for funding for fFY05.</i></li> <li>• <i>Radio Disney and Project Discovery Agricultural Education Programs for elementary school children dropped due to lack of funding.</i></li> <li>• <i>Implement Thermometer and Elemental Mercury Take-Back Program (contingent on funding).</i></li> <li>• <i>Continue monitoring wells and farm ponds at 43 sites near selected farms. Addition of new sites delayed due to lack of funding.</i></li> <li>• <i>(Implement asset management plans) Work with elected officials to secure full funding for priority needs; explore and develop where possible innovative funding sources.</i></li> <li>• <i>Develop a plan to conduct population assessments on all wildlife species by 6/05, pending funding.</i></li> <li>• <i>(Pollution Prevention) Increase funding through grants, legislation, and budget revisions, based on P2 Roundtable recommendations.</i></li> <li>• <i>Aggressively seek new funding sources to manage services and facilities and to protect assets.</i></li> <li>• <i>(School siting) Develop approach by 6/04 – pending funding.</i></li> <li>• <i>Develop school siting policy by 6/05 – pending funding.</i></li> <li>• <i>Coordinate the Blackstone Watershed Integrated Water Resource Management Project, pending funding.</i></li> <li>• <i>Explore funding sources to do Green Space Plans on other watersheds.</i></li> <li>• <i>Explore funding sources to implement Conservation Development.</i></li> </ul>
<p>What would the proposed Clean Water Bond accomplish and what are implications of it not passing?</p>	<p><i>The details of what the bond would cover are not final. The development of the cost estimate for the \$15 million bond includes development of TMDLs and the Governor's Narragansett Bay and Watershed Commission's Finance will identify funding needs for the Bay. See also the last question, page 12.</i></p>
<p>Identify funding sources for the comprehensive monitoring strategy with estimates of funding needed to begin the program.</p>	<p><i>The monitoring strategy is the more appropriate document in which to provide this information. DEM will be outlining specific resource needs for each recommendation in the strategy. Additionally, the strategy will identify sources of funding expected to contribute to implementation, including allocations from DEM's federal base grants and the recent renewal of Bay Window Program funding. The remaining shortfall will need to</i></p>

	<i>be addressed by the State and DEM plans on continuing to work with the appropriate panels of the Governor’s Narragansett Bay Watershed Commission on this issue. DEM has secured funding in this fiscal year to support a pilot demonstration of the rotating basin approach.</i>
Disagrees that motivating the citizens of the State to take responsibility for their environment should be part of the mission statement.	<i>Educating and motivating the residents of Rhode Island to take some responsibility for their environment are key to fulfilling our environmental protection and management roles. We depend upon our constituents to act responsibly in our parks and management areas, on our beaches and in their daily lives: to not litter, to recycle appropriate materials, to maintain their vehicles so they do not pollute the air, to maintain their septic systems and not dump pollutants into our waters, to conserve water when necessary, and to report violations of environmental laws when they see them.</i>
Suggest rewording part of the Department’s mission. For the third bullet substitute “Achieve a strong and healthy environment that can serve as the foundation for a robust economy.”	<i>DEM agrees with suggested rewording of this item and will adopt the change.</i>
TMDL Program - DEM in violation of federal law on the schedule. TMDL schedule for all waterbodies on the 303(d) list has not been established. DEM does not have the resources to meet even the extended schedule for existing TMDLs and has had another budget cut.	<i>Rhode Island's 2002 303(d) list includes a list of water bodies for which technology-based and other required controls for point and nonpoint sources are not stringent enough to attain or maintain compliance with the State's Water Quality Standards. As required, this list identifies waters targeted for TMDL development in the next two years and includes a long-term schedule for developing TMDLs for all waters on the list. In accordance with Section 303(d) of the Clean Water Act and 40 CFR Section 130.7, the US Environmental Protection Agency conducted a complete review of Rhode Island's 2002 303(d) list and determined that it meets applicable statutory and regulatory requirements. In a letter dated July 10, 2003, US EPA informed RIDEM of its approval of the State's list.</i>  <i>With respect to whether DEM has the resources to even meet the extended schedule for existing TMDLs, the schedule put forward in the 2002 303(d) list reflected the significant reduction in staff and money available to develop TMDLs, at the time the list was developed. It is also important to note that based upon experience, each TMDL seems to present its own unique set of technical, scientific, and/or legal complexities - often resulting in unforeseen time delays. With that said, DEM acknowledges the challenges faced in maintaining the schedules put forward in the 2002 303(d) list.</i>
Number of waterbodies that have not been assessed is unacceptable.	<i>While the percentage of assessed waters in Rhode Island exceeds the national average, DEM has acknowledged gaps in the monitoring data available to assess the State’s surface waters. With respect to rivers, the planned shift from a fixed station network to a rotating basin approach will reduce gaps, provided resources are available to support implementation.</i>
Regarding the TMDL schedule that Save The Bay deemed insufficient initially and has now	<i>DEM has filled one vacancy in the TMDL Program and has approval to fill two other positions in the Water Quality and</i>

been delayed, Save The Bay supports new bonding authority but urges DEM to address critical shortages now, shortening the schedule for creation, submission, and monitoring for TMDLs.	<i>Standards section to work on TMDLs and shellfish monitoring.</i>
Nitrogen limits for WWTFs – include dates to issue permits and complete construction at Field’s Point, Bucklin Point, & East Providence.	<i>The date for completion of the upgrade at Bucklin Point is in the Nutrient Table (September 2006). The Nutrient Table has been modified to reflect the 12/04 permit issuance date contained in the OWR work plan. We expect that construction at all 3 facilities will be completed by December 2008.</i>
Habitat Restoration – must have a plan to secure state and local matching funds.	<i>Achieving a stable funding source for habitat restoration has been a struggle. The newly-appointed Governor’s Narragansett Bay and Watershed Commission has established a subcommittee to identify potential sources of funding for coastal habitat restoration. The watershed of the Bay covers most of the State and any funding established for this purpose should apply to most of Rhode Island.</i>
Dam Safety – DEM must promulgate dam safety regulations without further delay, identify responsible parties for all dams and specify funding needed to address all priority dams.	<i>DEM agrees that Dam Safety Regulations are overdue. We also agree with concerns regarding the impacts from dam failure. We are unable to comply with Save the Bay’s demand that Dam Safety Regulations be promulgated without any additional delay because of staffing shortages. We expect that the Rules will be promulgated by the end of calendar year 2004. While DEM may eventually be able to identify responsible parties for all dams in the State, we are not staffed (and are likely never to be staffed) to specify the funding necessary to address all priority dams in the State. That analysis would necessitate in-depth engineering evaluations for each dam to determine the funds necessary.</i>
Compliance with stormwater regulations will require a dedicated revenue source.	<i>Legislation (enacted in 2003) enabling communities to establish Stormwater Management Districts also allows them to establish revenue streams for this purpose. The Governor has proposed a \$15 million bond issue, which will assist with implementation of storm water requirements.</i>
Enforcement – time to issue formal enforcement actions is unacceptable. Enforcement section must be properly staffed.	<i>OC&amp;I agrees with Save the Bay’s overall concerns regarding enforcement. Unfortunately, OC&amp;I is not able to change its staffing numbers and operational budget to address Save the Bay’s concerns. Such consideration must take place at the Director’s level to determine the allocation of staff and operational resources.</i>
Wetlands – adopt a plan for enforcement of wetlands laws that includes frequent and detailed flyovers of the State.	<i>Regarding wetland enforcement, OC&amp;I is reviewing the recent efforts by the State of Massachusetts to evaluate wetland loss on a statewide basis through computer analysis of aerial photographs. OC&amp;I is not funded to conduct frequent and detailed flyovers of the State.</i>
How will the structural deficit be eliminated under these difficult financial times?	<i>DEM is working to develop/establish permanent sources of funding for habitat restoration, dam repair and maintenance, and to maintain the recreation system and its resource base.</i>
What is the statewide wetlands conservation plan?	<i>“A WCP is a comprehensive framework to protect, restore and create wetlands in the State. Establishing definitive goals and objectives for RI’s needs is a key element within the plan. The plan would use existing data or easily available data to characterize current wetland resources. Laws, state regulations</i>

	<p><i>and policies, and entities which exists or could act to achieve stated goals would be evaluated. The plan would include a clear implementation plan, including a road map to get there and a way to monitor progress. Once approved by EPA, special federal funding may be made available to help implement all or portions of the Plan.” This plan is in the initial stages and will include wetland protection through regulatory as well as non-regulatory strategies such acquisition and restoration of wetlands.</i></p>
<p>Is public education one of the Department’s core activities?</p>	<p><i>Public education is one of DEM’s core activities, as it is with other environmental agencies. It is the first step in protecting the environment. If people do not understand the purpose and rationale behind laws and regulations, they are not as likely to support and follow them. We recognize that we do not have the resources to conduct the education and outreach programs that we would like to do and depend upon partners to assist in this critical area.</i></p>
<p>If the Clean Water Bond passes, what will be left unfunded?</p>	<p><i>The Governor’s Narragansett Bay and Watershed Commission will develop funding needs for water quality in Narragansett Bay and its tributaries. With respect to clean water-related aquaculture needs, the project priority list currently includes over \$1 billion in projects. The bond issue contributes in an important way but was never intended to address all needs.</i></p>