

# **ENVIRONMENTAL EQUITY IN RHODE ISLAND, PROGRESS REPORT**



**Department of Environmental Management**

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## EXECUTIVE SUMMARY

DEM published a draft Environmental Equity (EE) Policy in August of 2001 and posted it on the DEM website in English and Spanish with an invitation for public comment. A companion workplan with strategies to begin implementing the policy internally was developed along with the policy. This report contains the status of the projects in the implementation plan as well as the broader national and regional context of the DEM EE policy.

A key principle of the policy is the importance of being proactive when considering environmental equity issues, before case-specific decisions are made. This fits with the emerging standard for the most effective Environmental Equity/Environmental Justice (EE/EJ) programs in other states, that is to be proactive rather than reactive with public participation programs as a core component of the programs. The challenge is that EE/EJ programs are struggling for funding and staff at a time when budget problems are threatening core environmental programs. The Department is evaluating all programs including EE in light of recent and expected budget cuts. While DEM might be eligible to secure federal funding to help plan and facilitate an EE Advisory Committee, it may lack the staff to apply for funding and to coordinate such a committee.

One way DEM managed to start work on EE issues with limited resources was through the work of interns. Interns compiled environmental and demographic data in GIS to illustrate the distribution of environmental burdens and benefits throughout the state, and conducted a study of multi-lingual services provided by the Department that identified those that are most needed. DEM intends to coordinate the efforts of other internal DEM groups, such as the Diversity Focus Group, the Public Outreach and Communication Focus Group, and the Equal Employment Opportunity (EEO) Committee that are linked with EE concerns. Some of the findings from initial research are:

- Points of exposure to environmental hazards are concentrated mostly in the low-income areas of the state, largely in the Providence metropolitan region;
- There is an apparent deficit of recreational opportunities in areas of low-income and minority populations based on the per capita national recreation standards.

Some DEM programs have been active with equity issues. For example, the Sustainable Watersheds Program incorporates EE as a key consideration of their work in certain areas of the state. The Division of Agriculture is expanding its community farming program beyond what was established with the Hmong community using a portion of Curran State Park to grow food for its members, and offers WIC vouchers with the Department of Health for farmers markets.

On the other hand, there are divisions/programs that are just beginning to be aware of the concept and issues involved with EE or that aware of issues but struggling with just how to integrate EE into their work. Additionally, there are particular challenges for regulatory divisions regarding how they can systematically address EE concerns within the parameters of their programs. Based on the feedback and progress of the past year, the following are obstacles to advancing EE in DEM:

- General lack of understanding of the scope and relevance of EE issues among staff;
- Limited staffing and funding to pursue new or expanded EE research and initiatives;
- Limited guidance on implementation of EE into daily activities/duties of divisions/programs;
- Legal and jurisdictional boundaries of DEM's role in EE issues.

The main recommendations on how to move forward with environmental equity include:

- Continue to offer/expand EE education and training to DEM staff;
- Commit staff/resources and partner with other agencies and organizations to further research and train on EE issues;
- Convene an external Environmental Equity Advisory Committee;
- Adopt expanded public participation procedures.

The Department is committed to environmental equity long-term and will pursue this objective through a variety of strategies. Since our resources are limited for the next fiscal year, we will focus on those low-cost strategies that are most critical to further the EE policy. Such strategies can include:

- Continuing the brown bag lunch speakers series;
- Hiring interns and coordinating efforts with other state and federal agencies to continue conducting important EE research and to assist with developing an advisory committee;
- Translating selected materials into Spanish, at a minimum.

We plan to seek grant funding to expand our EE efforts. DEM staff are taking advantage of EPA Region I monthly environmental equity training developed as a national effort by the EJ Training Collaborative, and we expect to tailor this training to offer to DEM staff. A third strategy may be to use GIS mapping to help target resources, outreach, and enforcement efforts in those areas that bear a disproportionate share of environmental burdens. All of these plans will need careful evaluation in light of the state budget.

## INTRODUCTION

The environmental justice (EJ) movement grew out of the Civil Rights Movement in response to concerns from low-income, predominantly African-American communities in the South. While there was an awareness of disproportionate socio-economic burdens borne by minorities and low-income communities, evidence for environmental inequalities was not investigated until the 1980's when several environmental injustice cases were highly publicized. Since then, the evidence for the existence of disproportionate environmental burdens in low income and minority communities (GAO, 1987, National Law Journal, 1989, Sexton, 1993, etc.) has continued to grow.

Some state agencies have led efforts to address environmental justice issues. But the expectation that the Federal Government would mandate procedures for environmental equity (EE) programs led to relatively low-key state programs with slower, less progressive EE policies and programs in the states. There are also as many definitions and approaches to EE as there are states. Some states view EE as a public participation strategy while others see it as a mechanism to encourage a broader discourse directed to overcoming the shortfalls of environmental protection.

In the 1990's many states initiated EE programs in response to the federal activities and funding opportunities under the Clinton Administrative Order 12898 regarding environmental justice. As of 2002, ten states enacted EJ laws while another 25 states proposed EJ legislation. More than 13 states have EJ/EE programs or policies.

Rhode Island has grappled with EE issues since the mid-1990s when several non-profit organizations in the state received environmental justice grants from EPA. In 1995, the Rhode Island Indian Council proposed the formation of a multi-cultural environmental justice coalition that met several times but never organized formally. In 2000, DEM was named in a Title VI lawsuit involving the siting of a Providence school on a contaminated parcel. In 2001, an internal committee with representatives from divisions and programs throughout the DEM met over the course of several months to adopt a draft EE policy statement and implementation plan. In August 2001, the draft policy was posted on the web and mailed to over 80 organizations for public comment. The policy defines environmental equity as, **“no person or particular group of persons suffers disproportionately from environmental degradation or intentional discrimination, or is denied enjoyment of a fair share of environmental improvements”**.

Although the policy will not be finalized until DEM can convene an environmental equity advisory group, the Department has begun implementation of several strategies such as compiling environmental and demographic data in GIS to analyze the distribution of environmental burdens and benefits throughout the state. Much more remains to be done toward the full and effective implementation of the policy but in setting forth the draft policy and implementation plans along with this annual progress report, DEM is confirming its commitment to EE. DEM will continue to address EE issues in Rhode Island to bring about a more equitable future for all Rhode Islanders.

## NATIONAL

### **EPA**

Although the EPA Administrator, Christine Todd Whitman, issued a memo in August 2001 to confirm EPA's commitment to EJ, the Environmental Justice Office at EPA Headquarters has not proposed any new EJ guidance, grants, or programs since then. The National Environmental Justice Advisory Council (NEJAC) is meeting the minimum of twice yearly to develop recommendations for EPA regarding EJ issues such as fish consumption and pollution prevention. Many of the guidance documents that EPA headquarters was developing before 2001 to help states implement EJ policies and procedures are still in draft form. They include a Public Involvement Policy (2000), a report on Title VI Brownfields case studies (1999), and a massive Title VI Guidance for EPA Assistance Recipients.

Although EPA's Office of Enforcement and Compliance Assurance has been developing a web mapping tool that would make information regarding compliance, permitting and related issues public, the administration is curbing these and other efforts that would make EE information accessible. Moreover, the Administration has curtailed federal funding and final guidance for implementation of environmental justice policies, which are critical to ensuring EJ issues are addressed systematically nationwide, particularly at the state level.

- ***Memorandum from C. T. Whitman***  
August 9, 2001, "EPA's Commitment to Environmental Justice",  
<http://www.epa.gov/swerosps/ej/html-doc/ejmemo.htm>  
"The purpose of this memorandum is to ensure your continued support and commitment in administering environmental laws and their implementing regulations to assure that environmental justice is, in fact, secured for all communities and persons. Environmental statutes provide many opportunities to address environmental risks and hazards in minority communities &/or low-income communities."
- ***National Environmental Justice Advisory Council (NEJAC)***  
NEJAC will be meeting in Baltimore December 2002 to discuss recommendations for linking pollution prevention and EJ issues. To learn more about NEJAC and their most recent recommendations go online to [www.es.epa.gov/oeca/main/ej/nejac/](http://www.es.epa.gov/oeca/main/ej/nejac/)
- ***EPA launches a searchable database***  
The database, the Environmental Justice Query Mapper, has permitting information from several major media (air, water, solid, and hazardous waste) systems, integrated into single facility reports, demographic information, and health of the surrounding community. The database is available at <http://es.epa.gov/oeca/main/ej/ejmapper>.
- ***State and Tribal Environmental Justice (STEJ) Grants Program***  
This pilot program for states and tribes to develop model environmental justice programs for the benefit of other states and tribes has not been funded for the past two years and there is no indication that this funding will be restored. In 1998 and 1999, ; NJ, TN, VT, TX, CT, NY, IN, MN and two tribes each received up to \$100,000 STEJ grants. Many of these states have since produced model Environmental Justice programs.

## **LEGAL CASES**

EJ advocates see a big setback in the recent Supreme Court ruling, overturning a District Court decision that the NJ Department of Environmental Protection violated Title VI rules in permitting the St. Lawrence Cement Company in South Camden Citizens in Action v. New Jersey Department of Environmental Protection. A community group and local residents challenged an air permit issued by the New Jersey Department of Environmental Protection for a cement processing plant in a minority neighborhood in Camden, alleging that the facility would have an adverse impact on them in violation of EPA's Title VI regulations. The Supreme Court found that under Title VI sections 601 and 602 there is no private right of action to challenge policies that discriminate unless it can be proven that the discrimination was intentional. Although Title VI section 601 provides freedom from intentional discrimination, there is no congressional statute that provides the right to be free from discriminatory effects. However, potential claimants can still bring administrative complaints alleging a violation of Title VI directly to EPA's Office of Civil Rights.

Some of the most contentious EJ complaints brought to litigation involve the application of Title VI and disparate impact by communities fighting unwanted and potentially harmful facility siting/permitting decisions based on disproportionate, disparate or cumulative environmental and public health impacts. DEM faces this challenge in light of the recent lawsuit involving the siting and permitting of a school on contaminated property in Providence. DEM's legal authority is limited to construction and operational requirements when presented with a permit application with no legal authority to weigh in on the original siting decision. It is interesting to note that since the South Camden lawsuit against NJDEP involving similar permitting issues, NJDEP has promulgated new rules that expand the agency's ability to respond to community concerns when disparate, cumulative impacts are a factor. DEM may review its current legal authority and the methods used by states like NJ to find solutions to some of these siting/permitting challenges. However, there is no way to assess true cumulative impacts at present. What is meant when this term is used is the aggregated effects of a few selected pollutants for which a risk assessment has been developed. Air pollutants are the ones that are most often used in cumulative assessments because more is known on the dispersion and effects of these chemicals on human health than on others. For more information on recent and EE related legal cases go online to <http://www.abanet.org/environ/committees/envtab/ejupdates.html>

## **STATES**

Several states with effective EE/EJ policies and programs used similar strategies. Their approaches, successes and challenges can provide lessons for Rhode Island in our efforts to pursue similar objectives with limited resources. Maryland, New Jersey, New York, Oregon, California and Tennessee all used the following strategies:

1. Created a commission, task force, or advisory council, usually through legislative or administrative action. The advisory groups consisted of representatives from stakeholder groups including industry, community groups, government representatives, and other interested parties.
2. In addition to holding internal meetings, the advisory groups often held public meetings throughout the state to gather public input.
3. The advisory groups usually presented the results of their findings, with recommendations, to the state's legislature and/or governor. While the results of these reports varied by state, some common recommendations emerged:
  - Change various internal policies (i.e. permitting) to include EE considerations.

- Establish an office, program or full time staff within the state's environmental department to continue addressing EE concerns throughout the agency.
  - Create or assign a separate institution (often at a university) to study EE concerns and provide the general public with an outlet for their concerns.
- For a complete review of all other state EJ/EE activities as of December 2001 go on online to <http://www.uchastings.edu/plri/PDF/environjustice.pdf>

**TABLE 1: Northeast States - Environmental Equity Program Elements**

STATE	STRATEGIES
<b>CT</b>	<ul style="list-style-type: none"> <li>• 1993 formed EE policy</li> <li>• Recommends (but does not mandate) permit applicants do more expansive EJ outreach and public education in low income and minority communities.</li> <li>• Created EJ Community Advisory Boards in Hartford, New Haven, Waterford</li> <li>• Employed 2-3 FTEs to ensure policy is incorporated into all DEP policies and programs and to investigate EE complaints</li> <li>• Began GIS mapping of EJ indicators</li> <li>• Incorporated pollution prevention/waste minimization requirements, supplemental environmental projects and/or plans addressing equity factors in Consent Orders</li> <li>• Committed to focusing RCRA activities within the environmental equity municipalities in PPA</li> <li>• Developing an environmental equity strategic plan</li> <li>• <a href="http://www.dep.state.ct.us/pao/envequit.htm">http://www.dep.state.ct.us/pao/envequit.htm</a></li> </ul>
<b>MA</b>	<ul style="list-style-type: none"> <li>• EOEPA created an EJ Program and hired an FTE to develop policy and program</li> <li>• Will conduct EPA's EJ training for their staff</li> <li>• In January, the MA Senate voted 36 to 0 in favor of a bill to establish an environmental justice designation program. The bill was referred to the MA House of Representatives where it is still pending.</li> <li>• Held public meetings over the course of two years throughout the state to collect public comments on EJ Policy</li> <li>• Began GIS mapping of EJ indicators as defined in their draft policy.</li> <li>• Commissioned report on location of hazardous waste facilities according to income and race</li> <li>• DEP modeled air deposition using VOCs as surrogates for criteria pollutants</li> <li>• <a href="http://www.state.ma.us/envir/environmentaljustice.htm">http://www.state.ma.us/envir/environmentaljustice.htm</a></li> </ul>
<b>NH</b>	<ul style="list-style-type: none"> <li>• 1994 formed EE policy, included in the PPA</li> <li>• Will conduct EPA's EJ training for their staff</li> <li>• Updating written guidance, incorporating EE policy in appropriate work plans &amp; grant applications</li> <li>• Anticipates developing more partnerships, including development of a stakeholder group to discuss issues of environmental equity and the development of a Bureau-wide body</li> <li>• <a href="http://www.des.state.nh.us/equitypolicy.htm">http://www.des.state.nh.us/equitypolicy.htm</a></li> </ul>
<b>NJ</b>	<ul style="list-style-type: none"> <li>• Draft EE Policy 1998</li> <li>• Formed EE Task Force and later an EE Advisory Council created via an administrative order</li> <li>• Hired an FTE and supporting staff to serve as the EE coordinator for NJDEP's EE program</li> <li>• Developed an EE screening tool for all permits to identify early in the permitting process any disparate, cumulative impacts at the site of a permit application. Developed with the STEJ EPA Grant funding.</li> <li>• February 2002, promulgated rules governing an expanded role for community participation in permit decisions, employing the use of the EE screening tool. These new rules would codify an expanded community participation process to be conducted among permit applicants, local communities, and the Department. For permit applicants, the outreach process will be mandatory. The rule also includes a process through which a community can request that an applicant conduct outreach to the community about a proposed project.</li> <li>• <a href="http://www.state.nj.us/dep/equity/eedoc.pdf">http://www.state.nj.us/dep/equity/eedoc.pdf</a></li> </ul>
<b>NY</b>	<ul style="list-style-type: none"> <li>• 1999 created EJ program to ensure community participation in permitting process.</li> <li>• Formed a NY State EJ Advisory Group to produce recommendations for implementing EJ</li> <li>• Appointed an FTE EJ coordinator</li> <li>• Held public meetings on EJ issues included in report to Governor</li> <li>• Provides an EJ hotline for the public to phone in EJ concerns</li> <li>• The Advisory Group recently produced a set of recommendations regarding the implementation of EJ in NYDEC's policies and programs. The report is out for public comment at meetings held throughout the state</li> <li>• NY has an excellent website featuring their EJ initiatives and any upcoming activities, etc.</li> <li>• <a href="http://www.dec.state.ny.us/website/ej/index.html">http://www.dec.state.ny.us/website/ej/index.html</a></li> </ul>
<b>ME</b>	<ul style="list-style-type: none"> <li>• Environmental Justice/Equity Plan is in development – but no policy</li> <li>• Casco Bay Estuary Program conducting a subsistence fishing survey</li> </ul>
<b>VT</b>	<ul style="list-style-type: none"> <li>• No policy or program but received STEJ grant (98) for compliance with environmental stds. &amp; remediation of adverse environmental conditions at mobile home parks</li> <li>• Improving public involvement in permitting, watershed planning, fisheries in Lake Champlain, &amp; radionucleotides in rural wells</li> </ul>

## **EPA REGION 1**

While progress at the national level has slowed since the change in Administration, Region 1 has been active on several EJ initiatives. Regional Administrator, Bob Varney, committed EPA New England to promoting and supporting Environmental Justice (EJ). EPA NE will “consider EJ in all Regional activities including employment, education and outreach, regulatory activities, data management, enforcement, contracts and grants, communication, and planning. In addition, within the EPA NE work planning processes, management will systematically evaluate ongoing efforts to ensure an appropriate, continuing focus on EJ and will implement procedures to address EJ issues.”

The Region has several EJ initiatives underway

1. EPA New England Regional Policy on Environmental Justice, October 2001, <http://www.epa.gov/region01/steward/ejprog/ejpolicy.html>.
2. EJ Action Plan for Fiscal Years 2001-2002 covers all EPA programs and offices within Region 1. The plan consists of a commitment to train all its staff, engaging partners in identifying EJ issues, developing EJ guidance, creating an inventory of EJ projects, and mapping. The Region is developing several EJ guidance documents such as EJ in permitting. [http://www.epa.gov/region01/steward/ejprog/ej\\_external.pdf](http://www.epa.gov/region01/steward/ejprog/ej_external.pdf).
3. In January 2002 the Environmental Justice Council at EPA New England issued an interim environmental justice mapping guidance to be used while the GIS Center finishes the desktop mapping tool. The new tool is expected to be available in late 2002. In the interim, staff can contact the GIS center for mapping needs at 617-918-2089.
4. Issued Draft Guidelines for incorporating EE/EJ into PPAs with states (March 2002).
5. Proposed holding a listening session with government officials in Region to learn which issues are most pressing in New England, what states need from EPA, and how states may collaborate on solutions.
6. Publishes EJ NEWS; A Quarterly Newsletter from the New England Environmental Justice Council reporting updates on the latest EE/EJ activities and initiatives in the Region. To see the latest issue (March 2002) go online to <http://www.epa.gov/region01/steward/ejprog/>.
7. Hired a new Regional EJ Coordinator, Kathleen Castagna, to manage internal EJ policies and programs and respond to EJ concerns from communities.
8. Urban Environmental Initiative. The Providence UEI position has been vacant since 2001 but the position was posted recently. There may be an opportunity to work with the UEI coordinator on parallel EE/EJ objectives. <http://www.epa.gov/region01/eco/uei/provid/index.html>
9. Environmental Justice Small Grants Program. In 2001, Groundwork Providence (KPB) received a \$10,000 EJ Small Grant. The project goal is to help residents and community groups in Providence’s West End neighborhood to identify and assess environmental risks and pollution sources in the community; devise strategies for environmental improvements; and provide education, information, and training on crucial environmental and public health issues. Recently they received a \$200,000 grant to start a 2-year Brownfields job-training program for 90 students. Each year the project will recruit 45 underemployed or unemployed residents of predominantly low-income and minority neighborhoods. Program graduates will be qualified to work for private contractors or government agencies as environmental clean up technicians and perform environmental assessment or remediation. There may be an opportunity for DEM to work with groups in RI that receive such grants to enhance their grant applications. For more information on the Small EJ grants go to <http://www.epa.gov/region01/steward/ej/index.html>.

## **RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

### **Policy Development & Implementation Plan**

In the fall of 2000, an internal committee with staff from various divisions (Appendix F) began meeting to review an outline for an EE policy, long-term strategies requiring investments of time and resources, and opportunities to explore and implement short term EE strategies. The committee developed language for a draft policy and initial strategies for implementing the policy. In April of 2001, the committee submitted the draft EE policy and companion work plan to the Director who revised the policy and formalized the implementation strategies proposed by the internal committee.

The implementation plan included strategies for divisions and bureaus with target dates for completion (Table 3). In August 2001, the Draft EE Policy (Appendix A) was translated into Spanish and both versions were posted on the web with an invitation for public comment on the policy (<http://www.state.ri.us/dem/pubs/eequity.htm>). We mailed a letter requesting input on the EE policy to over 80 community organizations, state agencies and other individuals interested in environmental equity issues. To date we have received three official comments from organizations (Appendix B). Since August, the internal committee met less frequently and the discussions turned increasingly to questions of progress and obstacles to the implementation plans.

### **Evidence for Environmental Equity**

Figures 1-6 show that low income and minority populations live in close proximity to potential sources of environmental exposures, such as air emissions, and where environmental benefits such as recreation and open space are lacking. The study serves as very preliminary snapshot of basic proximity analysis of low income/minority people to potential environmental burdens and benefits.

This basic analysis could be a catalyst for further research into critical EE issues such as multiple, disparate, or disproportionate impacts from environmental risks/hazards, health factors linked to environmental stressors, regulatory tools, etc. The study is a starting point for further research into how DEM conducts programs and activities in particular geographic areas, who these activities/programs impact and how DEM can use Geographic Information Systems (GIS) mapping tools to further the implementation of the environmental equity policy. As stated previously, we cannot do cumulative impact analysis, as the data does not exist to allow such analyses. The available information tells risk potential for individual chemicals, and no research has been done on the cumulative effect of multiple chemicals, and it is not known if the effect is additive, synergistic, or antagonistic. EPA is beginning to think about testing multiple chemicals, and it will be a long and costly process once they choose what chemicals to test.

GIS combines layers of information about a place to give a better understanding of that place. With several GIS resources (Appendix F) at DEM's disposal, we can begin devising strategies based on simple GIS proximity analysis. Some examples of how GIS mapping can help guide divisions as they implement the EE policy include:

- Conduct appropriate public outreach (i.e. notices, interpreters at public meetings, etc) in areas with high concentrations of non-English speakers.
- Target pollution prevention in areas with concentrations of certain industries and minority and low-income people or children with high rates of asthma or lead poisoning.
- Weigh open space or recreational grant applications more heavily in areas with deficiencies in open space and recreational opportunities in low income and minority areas (this strategy is incorporated into the selection criteria for the State Comprehensive Outdoor Recreation Plan).

- Expand public participation requirements for permit application in areas that have a high number of low income and minority people.

### **Potential Exposure Analysis**

The Implementation Plan (Table 3) calls for the Environmental Protection Bureau to prepare a GIS analysis of the following indicators;

- environmental complaints received,
- enforcement actions taken,
- hazardous waste sites,
- hazardous and solid waste management facilities,
- wastewater treatment facilities, power plants,
- other major industrial facilities or activities, and
- permits issued for any of the foregoing.

This analysis was to consider the size and significance of separate and aggregated environmental impacts, geographic and demographic information. The Office of Strategic Planning and Policy hired two Brown Graduate students in the summer of 2001 to begin this GIS analysis. They started by looking at the possibility of broadly mapping all the environmental parameters delineated in the Implementation Plan (Table 3) such as environmental complaints received, enforcement actions taken, etc. They scaled back the parameters to be mapped and came up with a simplified method for potential exposure analysis.

The students mapped environmental indicators that reflect potential exposures such as air emissions rather than environmental complaints. Their study examined the proximity of populations to several multi-source environmental risks including air emissions, small area sources, TRI data, Wastewater Treatment Facilities, and power plants. It should be noted that proximity by itself does not indicate actual exposure. The students later conducted such a study on a much finer scale using data for Providence as part of their masters thesis:

<http://envstudies.brown.edu/thesis/2002/moeller>.

Figure 1 depicts the demographic breakdown of Rhode Island according to the following categories: minority and low-income. (See Appendix C for more on RI Demographic information). Disadvantaged Areas are delineated according to the following definitions:

- 25% or more are minority
  - Minority = Hispanic, African American, Native American, Asian (Census 2000)
- 10% or more of the total population within the census tract is low-income
  - Low income = 180% of the poverty level on a block group level (block group - a statistical subdivision of a census tract containing 300-3000 people).

Figure 2 shows that the location of air emissions, small area sources, TRI data, Wastewater Treatment Facilities, and power plants is concentrated in the Providence metropolitan area, along the major thoroughfares that radiate out of Providence, as well as in pockets in Woonsocket, Barrington, Bristol, Westerly, and the southern end of Aquidneck Island. These are also the areas predominantly populated by high minority and low-income people. In Providence (Figure 3 & 4), neighborhoods with the greatest number of air emissions facilities are the same areas with the highest concentrations of minority and low-income people.

The following observations can be deduced from Figures 1-4:

1. The potential environmental exposures, indicated by proximity to a source (Figure 2) are concentrated mostly in the low-income areas of the state, particularly in the Providence Metropolitan region.
2. By looking at specific geographic areas (i.e. zooming in on specific cities or neighborhoods) one can find finer distinctions in potential exposures (i.e. Figures 3 & 4 show how different neighborhoods within Providence have very different demographics and corresponding differences in potential environmental exposures).

More research is needed to determine:

- ◆ How does proximity to a source relate to actual exposure?
- ◆ Is the concurrence of low income/minority populations and environmental burdens disproportionately clustered in these areas as compared with a reference population in the state?
- ◆ Do the effects of the multiple points of exposure pose a significantly increased burden to those communities that is not considered in the regulatory/permitting guidelines?
- ◆ What are the underlying public health conditions of the populations in close proximity to the points of exposure?
- ◆ What impact do mobile source emissions have on the multiple exposure risk? Mobile sources have been found to be significant contributors to pollution when studied nationally or in other parts of the country where studies have been conducted.
- ◆ What methodologies and/or screening tools are available that can assess disproportionate impact when considering permits, new regulations, monitoring, etc.?

Such new research will require significant expertise and staff time to research and compile data for systematic use in environmental decision-making. DEM has the data files for the maps in this report which enables us to update, revise or further analyze/refine these maps to include statistical comparisons with a reference population, etc.

Many states and community groups have mapped corollary relationships between the location of potential sources of exposure and the location of low income and minority populations. But this geographic information alone can only tell us about proximity to sources, but not about the actual impacts of various types of exposures and remedies for such exposures. DEM could benefit from the lessons learned in other states that already invested in research that considers environmental equity in their permitting and regulatory actions. DEM should seek to coordinate efforts with these states to leverage our limited resources and capabilities.

**FIGURE 1: RHODE ISLAND DEMOGRAPHICS**

**RI Demographic Data - Census 2000**



**RI Income Data - Census 1990**

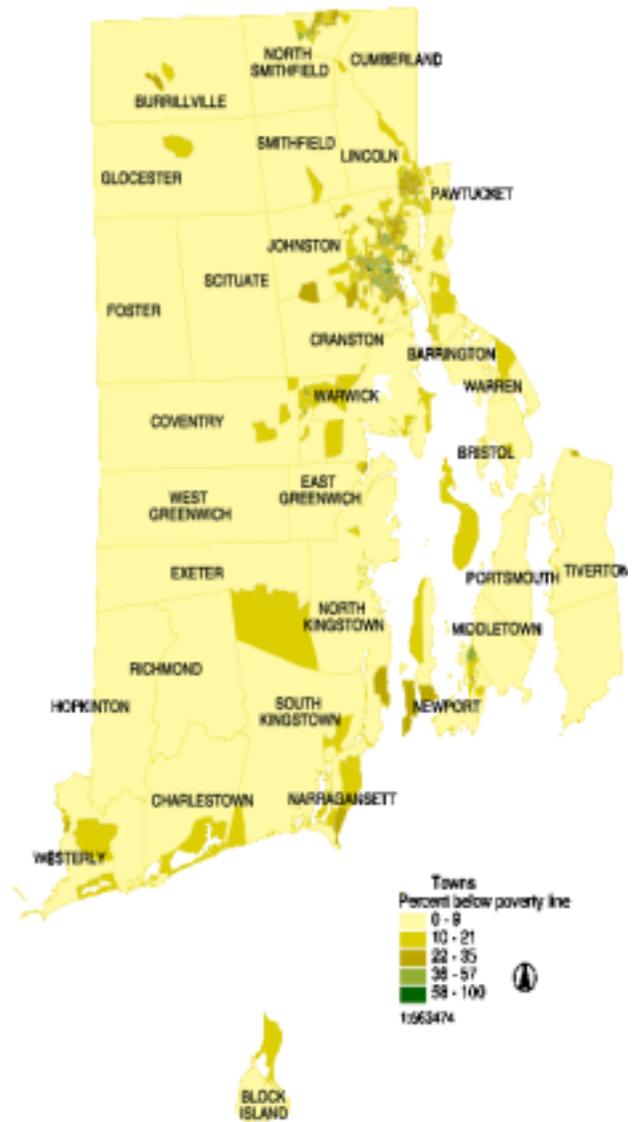
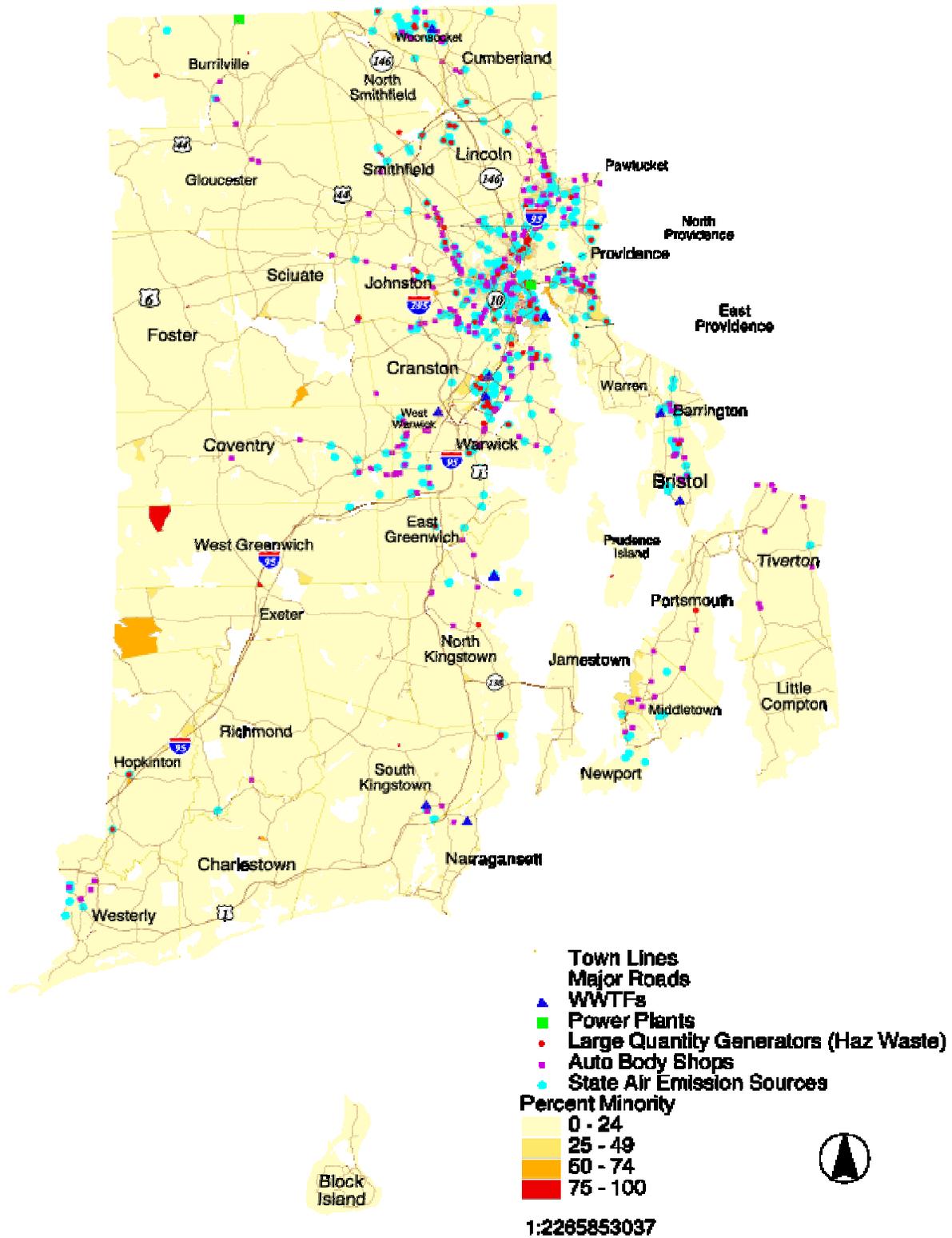
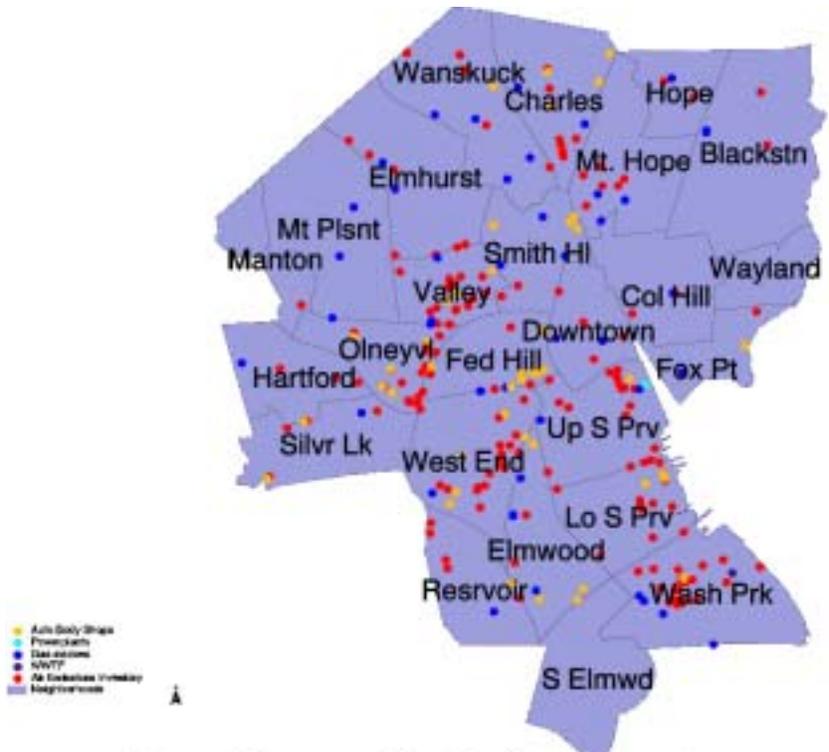


FIGURE 2

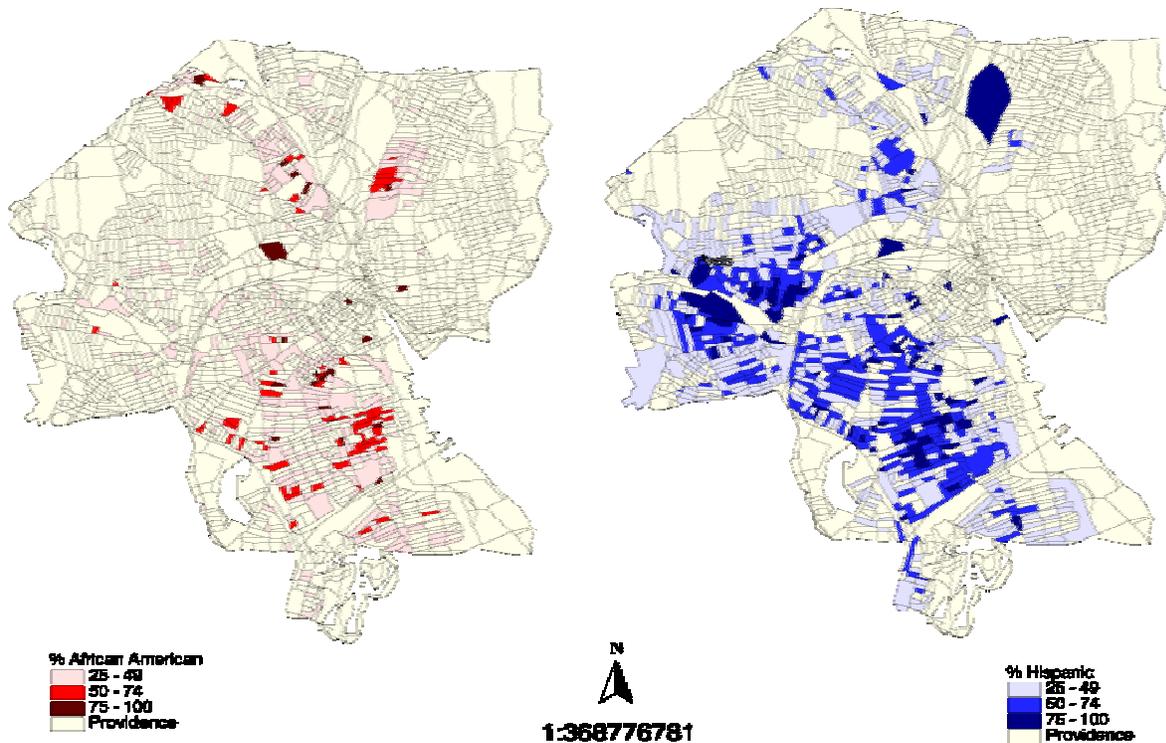
# Potential Sources of Environmental Exposures in RI



**FIGURE 3: Air Emissions Sources in Providence**



**FIGURE 4  
Distribution of African American and Hispanic Populations in Providence**



## **Rhode Island Open Space and Recreation Opportunities**

The Bureau of Natural Resources was charged with preparing a statewide analysis of open space and recreational opportunities in the state. The recreation portion was completed as part of the State Comprehensive Outdoor Recreation Plan (SCORP), being updated by the Office of Strategic Planning and the Office of Planning and Development. An analysis of protected open space and recreational facilities open to the public along with geographic and demographic information was conducted for the SCORP.

Figure 5 depicts four of the six recreational standard categories considered for the SCORP: Baseball, Softball, & Basketball - 1 per 5000 persons, and Tennis - 1 per 2000 persons. The recreational and park opportunities are delineated according to census tract and the number of national recreational standards met for those four activities. The National Recreation and Park Association recommended standards for per capita supply are included in the RI SCORP 2002 document.

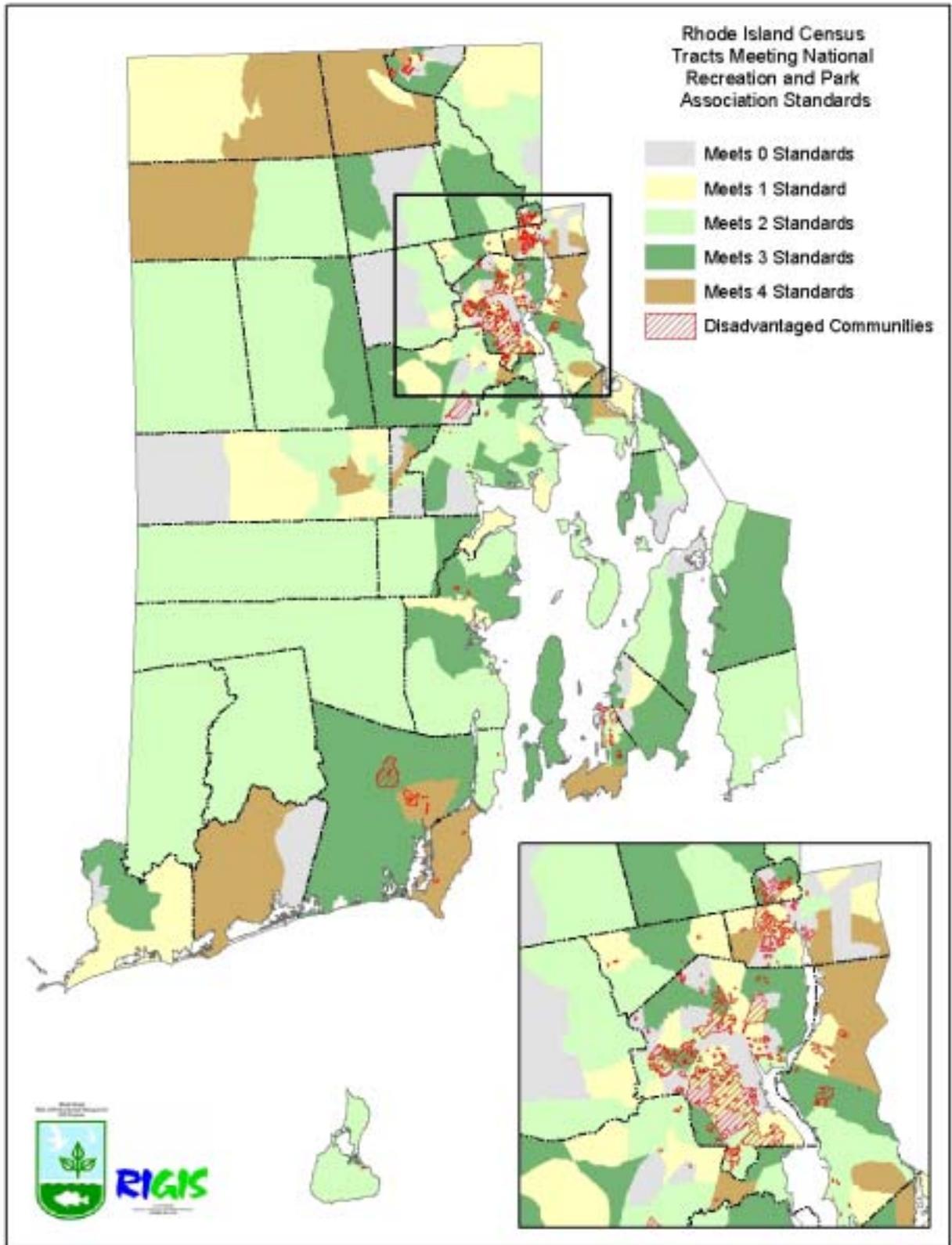
The same demographic definitions are used for mapping in Figures 5 and 6 as in Figures 1 and 2. The only difference is that Figures 5 and 6 combine the low income and minority classifications into one classification for disadvantaged areas.

**Figure 5 illustrates an apparent deficit of recreational opportunities in areas of low income and minority populations based on the per capita national recreation standards.** This deficit will be a focal point in the updated SCORP, where more emphasis will be placed on targeting development of recreational opportunities in these areas.

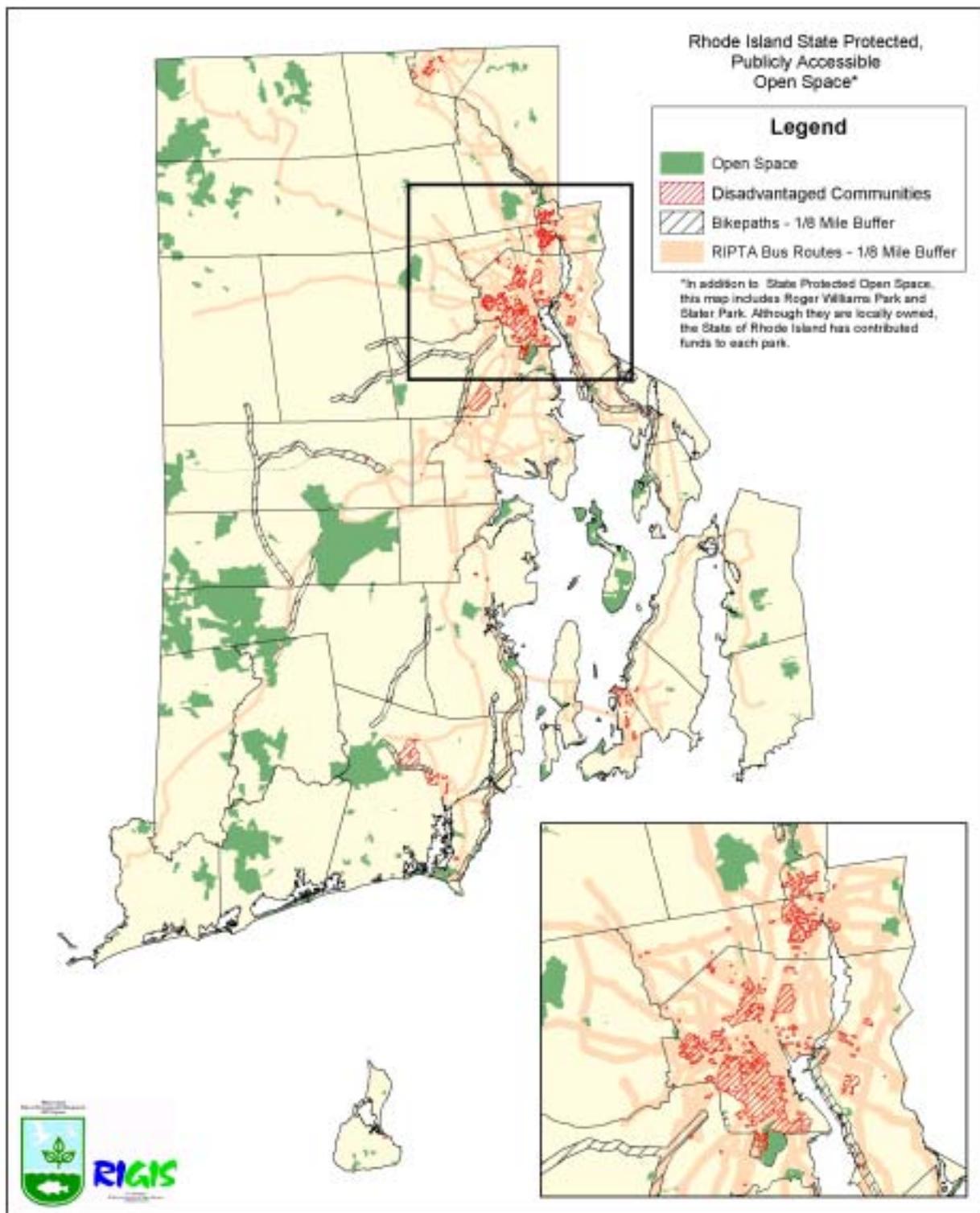
Figure 6 depicts the location of state owned and some state funded (Roger Williams Park and Slater Park) public open spaces along with the disadvantaged community indicator as defined above, as well as bike paths and RIPTA bus routes. The map includes both Roger Williams Park and Slater Park because these areas receive significant state funding and represent the largest open space areas in the Providence metro area although they are not State owned properties. The map shows that these two areas are highly accessible to disadvantaged communities via bus routes.

In contrast, large open space areas in the Southern part of the state are less accessible to urban populations particularly low income people who rely heavily on public transit. Making existing open spaces truly accessible to disadvantaged communities means making transportation to these areas more readily available. Moreover, although urban areas have less open space available for acquisition relative to suburban and rural areas, particularly large tracts of land, it is still important to target existing smaller parcels of open space in disadvantaged communities for acquisition. Even small pockets of greenspace/openspace in urban areas have many positive environmental, quality of life and public health impacts including urban revitalization, air quality improvements, energy savings, etc.

**FIGURE 5: State Recreation and Park Opportunities**



**FIGURE 6: Rhode Island State Protected, Publicly Accessible Open Space**



## PROGRESS UPDATES

Because DEM receives federal funding, all of its programs must consider certain environmental equity issues particularly in terms of public outreach and education. Federal laws such as RCRA, Clean Air Act and the Clean Water Act have rules governing the extent and nature of public outreach necessary for major permit applications. Rhode Island also has specific environmental equity provisions under the site remediation laws and regulations (23-19.14-5.) that require consideration of environmental equity issues when conducting public outreach prior to site remediations. Rhode Island can promulgate new rules and regulations that consider EE, or simply expand public participation strategies as a part of existing federal and state mandates. In addition, there are several strategies involving urban areas already ongoing that contribute to the larger objectives of the EE policy although they are not listed in the Implementation Plan.

Despite the fiscal and staffing constraints and other challenges that need to be addressed for the full and effective implementation of the EE policy, the department has taken concrete steps in this direction. The Sustainable Watersheds Program makes environmental equity a key consideration of their work particularly with respect to watersheds that are home to large communities of low income and minority residents. For example, the Woonasquatucket River Watershed program coordinates their efforts closely with community groups in Providence to link environmental decisions with the community interests and needs along the river. Other programs are reconsidering the work they do with a new attention to the needs of disadvantaged communities in low-income, minority, and primarily urban areas. For example, the Office of Planning and Development has taken into consideration the geographic disparities in the allocation of recreational resources throughout the state when considering recreation grant applications.

Tables 2 and 3 illustrate the various approaches and challenges each division and program within DEM faces in implementing the EE policy. Some of the obstacles to implementation include one or more of the following factors:

- Limited staff to expand current workload;
- Lack of funding to pursue new or expanded EE initiatives;  
Limited guidance on the implementation/institutionalization of EE into daily activities or duties of specific divisions or programs;
- General lack of understanding of the scope and relevance of Environmental Equity issues;
- Legal or jurisdictional boundaries of DEM's role in EE issues.

The reality is that the Department will be unable to address all resource limitations in the pursuit of the EE policy implementation. Nevertheless, there are some core strategies every division can undertake to become more aware of EE issues and some practical strategies that can be applied in many programs at little or no cost. For example, the department is offering brown bag lunches on EE issues, a DEM Diversity Focus Group is finalizing its report and recommendations, and we will adapt EPA environmental justice training for DEM employees as first steps to increasing our understanding and awareness of our role in addressing EE issues. Our next steps should include prioritization of resources needed to meet the most critical needs of our constituents. The risk exposure and open space and recreation studies mentioned above, the recommendations of the EE steering committee and the draft report of the Diversity Focus Group offer some direction for that prioritization.

The following Table 2 summarizes progress to date on tasks related to environmental equity from various divisions including those specifically delineated in the Implementation Plan (Table 3).

**Table 2: DEM Division EE Activities**

Bureau/Division	Strategy	Timeline	Challenges/Successes
<b>Environmental Protection</b>			
<b>Air Resources</b>	<ul style="list-style-type: none"> <li>Air Toxics Monitoring at five sites in Providence-Metro area :               <ol style="list-style-type: none"> <li>Urban League (Providence)</li> <li>West End Center (Providence)</li> <li>Johnson &amp; Wales (Harborside Campus, representative of exposures in Washington Park, Providence)</li> <li>I-95 (Pawtucket, reflecting the exposures of people living adjacent to a major highway)</li> <li>East Providence (downwind of Providence metro area, reflective of overall air quality in the area).</li> </ol>               Monitors measure: VOCs, 5 metals, and 2 carbonyls (formaldehyde and acetaldehyde).             </li> <li>Received money to continue monitoring at one of the existing sites probably Urban League for an additional year and also a year at a site in Olneyville to be identified.</li> <li>Educational initiative to present results to community groups</li> </ul>	- May 2001 through May 2002  - May 2003  - Fall 2002	
<b>Waste Management</b>	<ul style="list-style-type: none"> <li>Appropriate public outreach conducted by permittees for Orders of Approval &amp; Remedial Actions for site remediation.</li> <li>Brownfields – work on the needs within watersheds, including urban watersheds for remedial cleanups and redevelopment. Notify watershed coordinators of remedial actions and redevelopment permit applications.</li> </ul>	- Ongoing  - Ongoing	
<b>OC &amp; I</b>	<ul style="list-style-type: none"> <li>Lead education grant (25k)?</li> </ul>		Awaiting EPA’s decisions on use of funding
<b>Water Resources</b>	<ul style="list-style-type: none"> <li>Urban Rivers Team participation</li> <li>TMDL – Public meetings are held at the beginning of each project to share information on the waterbodies’ pollution problems and DEM’s plans for developing the TMDL. The meetings gather local input that is submitted with formal comments to EPA .</li> </ul>	- Ongoing - Ongoing	
<b>OTCA</b>	<ul style="list-style-type: none"> <li>* Report prepared on the use of pollution prevention, innovative technologies, supplemental environmental projects and other nontraditional approaches to advance the EE.</li> <li>See <b>Appendix G</b> for Full report of activities</li> </ul>	- Ongoing	Future research will assess prioritization and targeting where disproportionate burdens exist.
<b>Natural Resources</b>			
<b>Agriculture</b>	<ul style="list-style-type: none"> <li>Farmers markets accepts WIC vouchers from DOH</li> <li>Community Farming at Curran State Park.</li> <li>Farm Viability grant funds include community farming projects, such as Jamestown and East Greenwich community farms, that provide produce to food banks.</li> <li>DEM purchasing farm in Cranston and Johnston for community farming in coordination with the City of Cranston, Agricultural Land Preservation Commission, and Champlin Foundations. The principle users will be the Southside Community Land Trust and the West Bay Land Trust who will provide produce for food banks. The farm will also provide farming opportunities for low-income and immigrant groups.</li> </ul>	- Ongoing - Ongoing - 4/2002	Grants awarded April 29, 2002
<b>Parks &amp; Rec.</b>	<b>Not Available</b>		
<b>Coastal Res.</b>	<b>Not Available</b>		
<b>Fish &amp; Wildlife</b>	<b>Not Available</b>		

**Table 2: Division Updates**

Bureau/Division	Strategy	Timeline	Challenges/Successes
<b>Forest Environment</b>	<ul style="list-style-type: none"> <li>• Works with the RI Tree Council to plant trees in urban core areas throughout the state.</li> <li>• Building a trail with handicapped access in the Arcadia Management Area.</li> <li>• Estimates that 40% of the participants in their outreach programs are from underserved populations. (Underserved is defined by the US Forest Service as including those individuals, groups, populations, or communities not effectively protected, supported, or promoted in the delivery of programs and services on a fair and equitable basis, including minority groups such as American Indians or Alaska Natives, persons below the poverty level, and with disabilities)</li> </ul>	- Ongoing	
<b>Law Enforcement</b>	7 language marine fisheries abstract updated every year to assist limited English speaking people in abiding with the size and bag limits on commonly-taken fish and shellfish.	- Updated every year	Not yet published for 2002, funding needed.
<b>Policy &amp; Administration</b>			
<b>Strategic Planning &amp; Policy</b>	<ul style="list-style-type: none"> <li>• *Prepared report that identifies &amp; prioritizes outreach and public education actions DEM should take to better inform the public about its policies, programs and decision-making..</li> <li>• * Prepared report on EE and make appropriate provisions for public input into, and review of, such reports.</li> <li>• * Tracking environmental equity initiatives in other agencies and jurisdictions and ensure appropriate Department participation in regional or national efforts.</li> <li>• Brown Bag lunches focused on EE</li> <li>• Looking into EE training curriculum for DEM staff</li> <li>• Working with Graduate student on a survey for soliciting interest and input on an EE Advisory Committee</li> </ul>	<ul style="list-style-type: none"> <li>- Report Completed by summer intern</li> <li>- Ongoing</li> <li>- Ongoing</li> <li>- Fall 2002?</li> <li>- Summer 2002</li> </ul>	<ul style="list-style-type: none"> <li>• Carrying out recommendations will require staffing to assist divisions with most public contact</li> <li>• Ongoing policy implementation and annual reporting will require staffing.</li> <li>• Survey in progress.</li> </ul>
<b>Planning &amp; Development</b>	<ul style="list-style-type: none"> <li>• * Prepared a statewide analysis of protected open space, natural resource areas that are open to the public, and of geographic and demographic information. The analysis indicates the current geographical distribution of protected open space &amp; natural areas open to the public.</li> </ul>	- GIS analysis completed w/ SPP & P&D staff Jan. 2002	P&D is incorporating into their acquisition and grant programs. Included in the SCORP
<b>Sustainable Watersheds</b>	<ul style="list-style-type: none"> <li>• Urban Environmental Design Manual – this manual will assist urban communities to restore environmentally degraded sites for redevelopment projects. Issues include lead in soil, brownfields, stormwater, &amp; riparian buffers.</li> <li>• Woonasquatucket Greenspace Plan – assist watershed communities to identify and map important natural, cultural, &amp; recreational resources in linear greenways within each town and watershed.</li> <li>• Woonasquatucket Riparian Buffer Zone Project – identified &amp; mapped areas along the Woon. River that need riparian buffer zones restored. A pilot restoration effort is pending.</li> </ul>	<ul style="list-style-type: none"> <li>- June 2003</li> <li>- January 2003</li> <li>- Completed Oct 2001</li> </ul>	RFP published; bids Under review.
<b>H. Resources</b>	<b>Not available</b>		
<b>Info. Mngmt.</b>	<b>Not Available</b>		
<b>Management Services</b>	Track use of MBE/WBE companies and DEM’s efforts to meet state goal on use of these contractors	- Ongoing	
<b>Office of Director</b>			
<b>Legal Services</b>	<ul style="list-style-type: none"> <li>• *Conducting a review of all Department policies and regulations, other than those covering internal administrative matters to evaluate their effect in terms of environmental equity</li> </ul>	- Ongoing regulatory review process	Will need guidance to identify EE implications

**Table 2: Division Updates**

Bureau/Division	Strategy	Timeline	Challenges/Successes
<b>Criminal Investigation</b>	<ul style="list-style-type: none"> <li>• In the planning stage of implementing a series of lectures in reference to community policing related to environmental crimes i.e. hazardous and solid waste and water pollution.</li> <li>• Targeting inner-city community associations and most likely will start within the Providence area.</li> <li>• Working with Special Assistant Attorney General James Baum to coordinate these lectures with the Kindling Project.</li> </ul>	- To begin late spring or early summer 2002	<ul style="list-style-type: none"> <li>• Manpower issues- inability to fill a vacant position</li> <li>• Requires increase in workweek for investigators</li> </ul>
<b>Administrative Adjudication</b>	Summer intern is assisting in drafting guides to permit/license & enforcement hearings and translate them into Spanish and perhaps another language. The two guides reach out to average citizens (including low income/minority communities) to make the administrative process more understandable and to explain how a citizen or group can participate in the process.	- Summer 2002	In progress
<b>Narr. Bay Ntl. Estuary Program &amp; Narr. Bay Ntl. Estuarine Research Reserve</b>	Sponsored programs to identify Bay-wide environmental indicators and work toward a more coordinated monitoring program. Providing information for better management decisions and, therefore, improving the Bay for communities bordering the upper Bay who presently do not benefit from the same Bay quality as the more wealthy communities bordering the lower Bay.	- Ongoing	
<b>Chief of Staff</b>	Diversity Focus Group – Developed a diversity plan that will be revised as needed.	- May 2002	Kickoff event held in July
<b>Ombudsman</b>	<b>Not available</b>		
<b>Com. &amp; Media</b>	<b>Not Available</b>		
<b>Env. Response</b>	<b>Not available</b>		

\* = Strategies included in the EE Implementation Plan 2001 – Table 3 Below,

N/A = No progress report submitted

**Table 3: Environmental Equity Policy – Implementation Plan**

*This policy takes effect immediately, will be evaluated annually by July 1, 2001 and will be revised and updated as necessary at that time, following internal review and an opportunity for public comment. This policy does not limit or expand the Department’s legal authority in any way, and does not limit or expand the rights, duties or obligations of parties other than the Department.*

<b>Who</b>	<b>Task</b>	<b>Deadline</b>	<b>Status</b>
Associate and Assistant Directors	Undertake a comprehensive review of programs, policies and regulations to (a) identify their current effects in terms of environmental equity and (b) recommend specific measures that should be taken to enhance environmental equity.	- March 2002	
Bureau of Environmental Protection & SPP to help gather info.	prepare an analysis of : (a) Environmental complaints received (b) Enforcement actions taken (c) Hazardous waste sites (d) Hazardous and solid waste management facilities (e) Wastewater treatment facilities other than individual sewage disposal systems (f) power plants (g) other major industrial facilities or activities (h) permits issued for any of the foregoing. Analysis will consider the size and significance of separate and multiple environmental impacts, geographic and demographic information. Compile and make available to the Department and the public such geographic, demographic, and qualitative information concerning existing environmental impacts or risks for exposure to be used as a tool in furtherance of this policy.	March 2002	SPP Summer Interns completed GIS research on potential exposures.  Delayed to Summer 2002 – T. Gray to meet with Chiefs and review next steps
Natural Resources & Sustainable Watershed Program (with SPP)	Prepare a statewide analysis of protected open space and natural resource areas that are open to the public, and of geographic and demographic information. The analysis will indicate the current geographical distribution of protected open space and natural areas that are open to the public.	- March 2002	Completed by P&D, SPP for inclusion in the SCORP.
Office of Strategic Planning and Policy	Assist in the coordination of the above activities and prepare a report to the Director. Among other things, this report will recommend strategies and performance measures to be included in Department and Division work plans.	- Report to Director by March 2002	Delayed to April 26, 2002
<b>Policies &amp; Regulations</b>			
Office of Legal Services	<ul style="list-style-type: none"> <li>Conduct a review of all Department policies and regulations, other than those covering internal administrative matters</li> <li>Evaluate their effect in terms of environmental equity</li> <li>Prepare specific recommendations as to which policies and regulations should incorporate environmental equity provisions and how environmental equity can be considered as early and effective as possible in planning and decision-making processes.</li> <li>Recommendations should address, among other things, (a) public notice, (b) cumulative impacts, (c) cross-media issues, (d) interagency issues, and (e) opportunities for proactive and community-based decision-making.</li> </ul>		Study was to begin fall 2001, Delayed due to Reg. Update Project
Office of Technical and Customer Assistance	Prepare a report on the use of pollution prevention, innovative technologies, supplemental environmental projects and other nontraditional approaches to advance the Department’s environmental equity agenda.	- Report by January 1, 2002.	Completed briefing April 2002

**Table 3: Environmental Equity Policy – Implementation Plan**

Who	Task	Deadline	Status
<b>Education &amp; Outreach</b>			
Office of Customer and Technical Assistance (assistance of SPP)	<ul style="list-style-type: none"> <li>• Prepare a report to identify and prioritize outreach and public education actions the Department should take to better inform the public about its policies, programs and decision-making, and ways the public can better inform itself and have input.</li> <li>• Prepare a report on the need for multi-lingual services, and options to begin addressing the most urgent of these needs.</li> </ul>	<ul style="list-style-type: none"> <li>- Report by September 1, 2001</li> <li>- Report November 1, 2001</li> </ul>	<ul style="list-style-type: none"> <li>Delayed, part of the outreach &amp; education committee</li> <li>Report completed by SPP intern</li> </ul>
OTCA (assistance of SPP)	<ul style="list-style-type: none"> <li>• Work with the Director appointed Environmental Equity Advisory Committee on outreach and education priorities, methods, formats and outlets.</li> </ul>	<ul style="list-style-type: none"> <li>- Report by January 1, 2002.</li> </ul>	<ul style="list-style-type: none"> <li>Delayed to 2002-2003</li> </ul>
Office of Strategic Planning and Policy	<ul style="list-style-type: none"> <li>• Prepare annual reports on environmental equity and make appropriate provisions for public input into, and review of, such reports.</li> <li>• Track environmental equity initiatives in other agencies and jurisdictions and ensure appropriate Department participation in regional or national efforts.</li> </ul>	<ul style="list-style-type: none"> <li>- Ongoing</li> <li>- Ongoing</li> </ul>	

NOTE: Between July 1, 2001 and June 26, 2002 OTCA logged 88 calls and visits by constituents needing language assistance. All of those needing assistance were people speaking Spanish.

## CONCLUSIONS/ RECOMMENDATIONS

The following recommendations are a preliminary set of implementation strategies based on lessons learned from the obstacles and progress made over the last year at DEM and lessons from other states facing similar challenges and objectives in their pursuit of EE/EJ. These recommendations cover many components of a new Implementation Plan that will continue to integrate EE into DEM's programs and activities. Although these strategies can be viable approaches to EE, there are three core elements to the successful implementation of the EE policy:

- 1. Educating/Training staff**
- 2. Committing staff/resources**
- 3. Expand public participation and outreach**

The first element, educating and training staff, is fundamental to achieving EE. Training and education on EE issues can provide basic information regarding terminology, laws, case studies, and background information. Beyond making staff more aware of and conversant in the issues of EE, training and educational activities can bring a higher level of interest in and responsiveness to EE issues at DEM. Training and education can be in the form of formal training workshops developed with the help of EPA and tailored to DEM's programs, or in the form of informal brown bag lunches, site tours or video presentations of case studies. In whatever form, training is needed if DEM is to extend the commitment to the EE policy from a few divisions to Department-wide.

The lessons learned from the most successful EE states have shown that resource commitment either in the form of staffing and/or initiative funding is crucial to ensuring effective implementation of EE policies. In the absence of committed staff to guide the implementation of EE policies within various divisions it will be challenging to conduct progress analysis and keep DEM accountable to its own policy and implementation strategies. With the recent economic constraints in Rhode Island, new funding is unlikely to surface to create new EE initiatives or staff positions.

The Department should pursue low cost strategies and opportunities to apply for grants and work in cooperation with EPA, academic institutions and organizations and agencies to continue to make progress on EE. It will also be important to prioritize and target activities and funding to those issues that are the most critical for Rhode Island, particularly those issues that most negatively impact already burdened low income and minority communities. More research is needed in areas such as disproportionate impacts of environmental burdens and the use of GIS analysis to better target resources, improve permitting and environmental decision-making, and improve public education and outreach in overburdened areas.

The third element, public participation and outreach, is a significant component of achieving a meaningful and comprehensive EE policy. Without the meaningful involvement and input of the people and communities whom the EE policy aims to help, the policy is ineffectual. This is a two part objective. First, DEM should gather public input on the issues and strategies that are most important to consider as part of the current draft EE policy and implementation plan. The most effective way to get crucial input from the most affected communities is through an EE Advisory Committee comprised of stakeholders especially in light of the limited understanding and time low income and minority groups have to dedicate to this issue. Secondly, DEM should be more responsive and make information accessible to all constituents, particularly the growing number of minority, non-English speaking residents in Rhode Island.

## **RECOMMENDATIONS:**

*The following recommendations are a compilation of ideas gathered from various sources including the EE internal steering committee, other state's EE action plans, intern reports, etc.*

### **Training/Education**

- Incorporate EPA Region I, EJ Training Course into DEM Training Curriculum – offer training to designated staff (i.e. supervisors, chiefs, front line positions, etc) in every division and include basic information on definitions, background, case studies, etc.
- Provide awareness training/workshops for community groups on agency functions such as inspection programs, enforcement activities, monitoring results, grant opportunities, etc. at places and in media that are used by community groups.
- Continue Brown Bag Lunch series – include videos of EE/EJ case studies, environmental lawyer to speak on EE case law, etc.
- Conduct EE site tours of EE communities in partnership with local community groups to highlight some of the most critical EE issues in these communities

### **Funding and Resource Allocation**

- Assess enforcement efforts with regard to EE to ensure that resources are equitably distributed to all communities. Continue to publish NOV's and Consent Orders on the DEM website so the public can monitor complaints in their communities.
- Establish an office, program or full time staff within the DEM to continue addressing environmental equity concerns throughout the agency. This will establish the policy and its implementation as a long-standing commitment (EE Steering Committee, 2/8/02).
- Continue to include and expand EE /EJ in PPA agreements and in state agency performance indicators.
- Pursue grant funding from federal and private sources for the implementation of EE strategies.
- Partner with Department of Health and other relevant state agencies to coordinate on EJ issues (i.e. lead poisoning, asthma, fish consumption, etc).

### **Research**

- ◆ Partner with academic institutions and other agencies to conduct GIS research and share data for more comprehensive studies.
- ◆ Coordinate with other states (NJDEP, NYDEC, etc.) and EPA regions to share research already conducted in the areas of permitting screening tools for disproportionate impact analysis.
- ◆ Continue to use interns to make progress on GIS and disparate impact research.
- ◆ Partner with DOH and other organizations to better understand the links between health and environmental exposure.

### **Diversity/Employment Practices**

- DEM's sensitivity to concerns of EE communities will be enhanced if the decision-makers reflect the ethnic diversity of the state as a whole. DEM should continue and expand recommendations and efforts of the Diversity Focus Group and the Equal Employment Opportunity Committee (EEO) to recruit, promote, hire, retain minority individuals for positions at all levels of DEM, including the executive level.

### **Permitting**

- Provide permit applicants for all major permits or major permit modifications with the policy and related public outreach guidelines early in the pre-application process. Review expanded public participation guidelines for permit applicants from other states for potential use as models to develop DEM's public participation guidelines.

- Encourage applicants for major permits to conduct more effective public participation early in the permit process (e.g., introductory notices, project newsletters, presentations, facility tours, news conferences, information brochures, community interviews, focus groups, hotlines, informal meetings, citizen advisory groups and workshops).
- Develop a GIS EE screening tool or adopt one from another state to incorporate into permitting decisions and enforcement targeting. Consider using the preliminary screening to identify areas with high minority and low-income communities where a proposed action may have a disparate impact or for certain activities (grant funding, enforcement, increased public outreach, etc).
- Encourage the state and community groups to resolve environmental disputes involving DEM permits, licenses, orders, contracts, etc. through the Alternative Dispute Resolution (ADR) process, particularly in the early stages of a potential dispute. Provide all applicants and interested members of the public with DEM's ADR procedures, contacts and a list of all projects or applicants using ADR. Train DEM permit review staff on potential uses of ADR in the permitting process.

### **Public Notice/Multilingual Services**

- Prepare public notices and other documents for public review in plain language (4<sup>th</sup> grade reading level) and translate into other languages where a significant proportion of the population is low income or speaks a language other than English.
- Implement a translation policy to identify documents that should be translated, procedures for translation by the DEM during the permit process, and arrange for interpretation services for certain meetings or conferences. (Written translation services are approximately \$60 per hour).
- Make multi-lingualism a core tenet when a program is administered in an area with high numbers of non-English speakers.
- Publish selected DEM regulations in other languages, appropriate to the populations that are expected to use/be affected by them.
- Post selected park signs and flyers especially where parks are used heavily by non-English speaking populations in appropriate languages.
- Work with the union to review new and existing positions to determine which ones are suitable for multilingual skills. Indicate in hiring notices that multi-lingual skills are desirable.
- Work with the Union to implement a Language Bank program to help OTCA with its foreign language calls and walk-ins in lieu of an FTE in OTCA with such skills.
- Expand placement of public notices in conspicuous sections of newspapers and when possible in community newsletters/newspapers (use alternative media list).
- Expand the existing list of local newspapers, community organizations, churches or other entities where public notices can be distributed to the community via mail, email or other outlets.
- Create a specific Environmental Equity Website on our DEM homepage with contacts, background resources on EE, our policy, etc.
- Pilot a hotline that will enable minority and low income communities to access appropriate offices during business hours with any EE concerns.
- Notify EE mailing list or appropriate community groups upon receipt of major permit applications.

### **Public Outreach and Participation**

- Create a commission, task force, or advisory council, through legislative or administrative action. The advisory group should consist of representatives from private sector businesses, community groups, government, and other interested parties. This group would be most effective if convened by the Director with a timeline and objectives for producing recommendations.
- Ask the advisory group to gather public input on the policy or specific implementation strategies from their constituents via public meetings, newsletters, focus groups, etc.
- Establish a separate institution (possibly at a university) to study environmental equity concerns and provide the general public with an outlet for their concerns.

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## **Appendix A: DRAFT Environmental Equity Policy**

By law, all Rhode Islanders have a right to enjoy a clean and healthy environment. The Department must, therefore, be affirmative in guarding against environmental discrimination and working towards environmental equity. For purposes of this policy, environmental equity means that no person or particular group of persons suffers disproportionately from environmental degradation or intentional discrimination, or is denied enjoyment of a fair share of environmental improvements.

Equity does not mean that it is possible to guarantee all people and communities an identical environmental experience or identical shares of environmental benefits and burdens. Rather, equity requires that benefits and burdens in general be distributed fairly. As the Department develops, implements and evaluates its policies, programs and actions, it must strive to achieve, restore or maintain a fair distribution. In pursuing this goal, the Department must be particularly sensitive to the interests of groups of people who are afforded special protection under federal and state anti-discrimination laws.

An effective environmental equity policy requires meaningful opportunities for affected or potentially affected parties to have input into policy development, programmatic planning and decision-making by the Department. The Department's objective is to provide for proactive consideration of environmental equity concerns, in early stages, before case-specific decisions such as regulatory approvals are made. This policy presumes that after-the-fact challenges to specific decisions are not an effective way to promote environmental equity.

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### **Política de Equidad Ambiental**

Por ley, todos los habitantes de Rhode Island tienen derecho a gozar de un medio ambiente limpio y saludable. Por lo tanto, el Departamento debe actuar de modo afirmativo para evitar la discriminación en lo ambiental y para lograr la igualdad en lo que a esto se refiere. En el contexto de esta política, equidad ambiental significa que ninguna persona o grupo particular de personas debe ser afectado desproporcionadamente por el deterioro del medio ambiente o por actos de discriminación deliberada, ni tampoco ser privado de gozar de una porción justa de cualquier mejora ambiental.

Equidad no significa que sea posible garantizarles a todas las personas y comunidades experiencias ambientales idénticas o proporciones exactas de cualquier beneficio o carga ambiental. Más bien, la equidad requiere que, por lo general, los beneficios y cargas se distribuyan equitativamente. A medida que el Departamento desarrolle, ponga en práctica y evalúe sus políticas, programas y medidas, debe tratar de lograr, restablecer o mantener un nivel justo de distribución. A fin de alcanzar esta meta, el Departamento debe tener en cuenta particularmente los intereses de aquellos grupos de personas que gozan de protección especial bajo las leyes federales y del estado contra la discriminación.

Una política eficaz de equidad ambiental requiere que las partes afectadas o potencialmente afectadas verdaderamente tengan oportunidad de participar en el desarrollo de políticas, la planificación de programas y la toma de decisiones del Departamento. El objetivo del Departamento es propiciar la consideración activa y temprana de cualquier inquietud referente a la equidad ambiental, antes de que se llegue a tomar decisiones, como la aprobación de normas basadas en casos particulares. Esta política da por sentado que el objetar a decisiones una vez que éstas ya han sido puestas en práctica no es el método más efectivo para promover la igualdad ambiental.

## Appendix B: EE POLICY COMMENT SUMMARY

I received the draft environmental equity policy. It seems fairly complete, although I'm not sure what actually should be included in such a statement. If it is just to basically define environmental equity for DEM, the proactive component prior to case-specific decisions is important. I am wondering if enforcement is included in this. As you know, I wrote a pollution prevention grant to address the issue of smaller companies -beauty salons, backyard auto body shops, in various neighborhoods, at first in S. Providence. The reality is that some may not be licensed and not obtaining pollution prevention information as a result. It is in this way that environmental inequity occurs at times. Anyway, will this policy cover these situations? Or is that not the point of the policy. I would be interested in assisting with the Advisory Committee if you need me and in any other way.

Laura Archambault, Director  
Groundwork Providence

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Thank you for sharing your draft policy. There are some community concerns that I would like to share in hopes that they may help you in shaping your future agenda. What is the impact of auto repair and tow/storage lots on the environment

- What is the likelihood that future uses that help to rebuild a community will be allowed - i.e. housing, restaurants, and daycare?
- The general public needs to be more aware of the potential dangers of some industrial businesses that operate in and near their homes.
- How do you balance the community's need/right to know with the needs and rights of business owners to operate and prosper?
- What is the distinction between public health issues and environmental justice?
- I see that you are planning some education sessions with the EPA, what about the Dept of Health for issues like lead, asthma, and allergies.
- I find that people are often hysterical or apathetic depending on how much they think they know about a topic. (when I say people I include policy makers as well as individuals)
- What more can be done by states/cities regarding vacant, contaminated mills?

I believe there exists information on how to dispose of paints, etc. I don't know of many people that are aware of the information/resources or concerns. Maybe you could use existing neighborhood groups and schools to help educate the general public. These are some of the issues that we hear from residents in our daily work here at West Elmwood Housing. I hope it is of some use to you. Good luck

Sharon Conard-Wells, Director  
West Elmwood Housing

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Dear Jan:

I'm about 6 months late in getting back to your letter of August 20. A memo for review of DEM's policy that I sent to our directors has just been returned. I suggested changing the last sentence of the first paragraph to read: "For purposes of this policy, environmental equity means that no person or particular group of persons suffers disproportionately from degradation of residential or workplace environments, from intentional discrimination by actions of the Department, or is denied...."

I also suggested changing the 2nd paragraph of the third paragraph to read: "....The Department's objective is to provide a context of environmental equity in its policies, and, should concerns about equity arise, to work with affected individuals or groups in early stages before binding policy or regulatory decisions are made. This policy presumes...." I understand that this response may be too late to be useful. Nonetheless, I send my thoughts.

Cordially,  
Eugenia Marks  
Director RI Chapter Audubon Society

## Appendix C: Demographics of Rhode Island

*Referenced from a Report on Multi-lingual Services prepared by Laura Belson, a Brown University student working as a summer intern in the Office of Strategic Planning (SPP). To see the complete Report, contact the SPP Office.*

Rhode Island has an increasingly linguistically diverse population. In 2001, 10,193 or 7% of all school aged children in Rhode Island were English language learners, which means that they speak a different language in the home. This means that at least this number of families speak a language other than English as their first language in the home (Kids count Fact book 94). The Rhode Island Hispanic population in particular has surged since the early 1990s so the percentage of those who speak languages other than English may be higher now. The following table lists the highest populations and population gains by Hispanics, most concentrated within the cities of Providence County.

State/County/City	Hispanic Population 1990	Hispanic Population 2000	Percentage change	Percentage of 2000 Population
Rhode Island	45,752	90,820	+98.5%	8.7%
Kent County	1,195	2,827	+136.6%	1.7%
Providence County	40,569	83,232	+105.2%	13.4%
Central Falls	5,119	9,041	+76.6%	47.8%
City of Providence	24,982	52,146	+108.7%	30%
Woonsocket	1,156	4,030	+248.6%	9.3%
Pawtucket	5,211	10,141	+94.6%	13.9%

There are also 23,167 people of Asian ancestry living in Rhode Island, the majority living in Providence County (18,007), especially Providence (10,432) and Cranston (2,599). The highest numbers of Asians are Chinese (4,774) and Cambodian (4,522), and the next highest numbers are Asian Indian (2,942) and Laotian (2,922). These numbers are race statistics from the 2000 census, and do not necessarily indicate the language abilities of the individuals counted.

Five divisions/programs come in contact with the public very frequently – 1. ISDS/Wetlands, 2. Office of Administrative Adjudication, 3. Boating Registration, 4. Office of Technical and Customer Assistance, and 5. Enforcement. Potentially many more offices in DEM could communicate to the public in languages other than English - Communications and Media contacts, Ombudsman, Planning, etc. First, I will explain the numbers of non-English speakers reported as using these DEM services, including any reported increases from the past to the present. DEM generally has a low number of non-English speakers using their services currently, although a very high number of non-English speakers use certain services such as enforcement of fishing and parks rules and regs. The basic way that each division has dealt with non-English speakers has been interpretation on a case by case basis, usually provided by the non-English speakers themselves, in the form of a friend or more likely a bilingual child.

*The Office of Technical and Customer Assistance* reports an average of 2 non-English calls per week and 6-7 walk-ins, out of 905 total calls and 177 walk-ins. In a fast week 9-12 non-English total calls and walk-ins are received averaging to about 36-48 non-English contractors of the OCTA per month, probably most are Spanish or Portuguese. Most come in for the same reasons as everyone else, water bills, sewer issues, boat registration. There's been an increase in foreign callers over the last year that Betty Lou Moretti has been working as an Information Services Tech. Maureen Casey, a Tech for 13 years, has seen the average number of foreign language calls rise an average of 2 to 10 per week.

## Appendix D: EJ DEFINITIONS OF COMMONLY USED TERMS

**Affected Communities** - Individuals or groups of individuals that are subject to an actual or potential health, economic, or environmental threat arising from pollution sources or proposed polluting sources. An example of affected parties include individuals who live near pollution sources and whose health is or may be endangered or whose economic interests are directly threatened or harmed. (EPA)

**Cumulative Impact** - Repeated health and environmental adverse impacts which build up due to location or cultural preferences (e.g., eating large quantities of fish). The difficulties with scientifically proving cumulative impact in this context are many including: 1) mobility of populations; 2) lack of pollutant release data over time; 3) uncertainty of the amount of accumulated pollutants in the environment and the effects on human populations. This standard is not currently being used by the Federal Government to prosecute EJ cases, while disproportionate impact is being used. (State of Wisconsin, EJ in Wisconsin, 4/23/99 Final Report )

**Disproportionate Impact or Effect** - An adverse impact which can be shown by some statistical evidence to have a greatly unbalanced (normally 50% higher than a locally comparable geographic unit) effect on local minority and low-income populations. The U. S. Department of Justice uses a step-wise checklist based on the Environmental Impact Analysis Process (EIAP). EIAP involves demonstrating the "footprint" area of adverse impact being emitted from the source, tracking communities affected by the source, and then evaluating the degree of minority and low-income populations affected by the footprint. (State of Wisconsin, EJ in Wisconsin, 4/23/99 Final Report )

**Environmental Equity**-an ideal of equal treatment and protection for various racial, ethnic, and income groups under environmental statutes, regulations, and practices applied in a manner that yields no substantial differential impacts relative to the dominant group - and the conditions so created. Although environmental equity implies elements of "fairness" and "rights," it does not necessarily address past inequities or view the environment broadly, nor does it incorporate the underlying causes and processes. (University of Michigan)

**Environmental Justice** - the right to a safe, healthy, productive, and sustainable environment for all, where "environment" is considered in its totality to include the ecological (biological), physical, (built), social, political, aesthetic, and economic environments. Environmental justice refers to the conditions in which such a right can be freely exercised, whereby individual and group identities, needs, and dignities are preserved, fulfilled, and respected in a way that provides for self-actualization and personal and community empowerment. This term acknowledges "injustice" as the past and present state of affairs and expresses the socio-political objectives needed to address them. (University of Michigan)

**Environmental Justice Community** - a community that has high rates of poverty and minority populations, when compared to local, regional, and national income and race data (normally census derived data) and meets the test for disproportionate health or environmental impact. (State of Wisconsin, EJ in Wisconsin, 4/23/99 Final Report )

**Low-Income community** - a community having a population where greater than 25% of household incomes are less than two times (200%) the amount of the established federal poverty guidelines (FPG). (EPA)

**Pollution Prevention** The reduction or elimination of pollutants through source reduction, increased efficiency in the use of raw materials, energy, water, or other resources; or the protection of natural resources by conservation. Pollution prevention measures reduce the amount of pollutants released into the environment prior to recycling, treatment, and disposal. (North Carolina State University, Cooperative Extension)

**People of Color Community** - A population that is classified by the U. S. Bureau of the Census as African American, Hispanic-American, Asian and Pacific America, American Indian, Eskimo, Aleut and other non-white persons, whose composition is at least 25% of the total population of a defined area or jurisdiction. (North Carolina State University, Cooperative Extension)

**Risk Assessment** - qualitative and quantitative evaluation of the risk posed to human health and the environment by the actual or potential presence and use of specific pollutants.

**Risk Reduction** - the process of estimating and comparing the dimensions and characteristics of risks, and determining the feasibility and costs of reducing them, to determine which future actions to take to achieve the greatest reduction of the most serious threats. (North Carolina State University, Cooperative Extension)

## **Appendix E: Internet Sites with GIS (Geographic Information System) Capabilities for Environmental Justice Purposes**

What is GIS at gis.com?

<http://www.gis.com>

<http://intranet.epa.gov/oeca/oej/ejmapper/>

<http://intranet.epa.gov/gis/twg/techno.htm>

EPA Databases

[http://www.epa.gov/enviro/index\\_java.html](http://www.epa.gov/enviro/index_java.html)

The National Center for Health Statistics

[http://www.cdc.gov/nchs/about/otheract/gis/gis\\_home.htm](http://www.cdc.gov/nchs/about/otheract/gis/gis_home.htm)

OECA's EJ Webpage

<http://es.epa.gov/oeca/main/ej/index.html>

Region 2 Environmental Justice Program

<http://www.epa.gov/r02earth/community/ej/poltoc.htm>

Region 6 Environmental Justice Index Methodology

<http://www.epa.gov/earth/r6/6en/xp/enxp4a1.htm>

EDF's scorecard homepage

<http://www.scorecard.org/>

Geographic Information Science Center at UC-Berkeley

[http://www.gisc.berkeley.edu/http://intranet.epa.gov/gis/twg/twg\\_maps.htm](http://www.gisc.berkeley.edu/http://intranet.epa.gov/gis/twg/twg_maps.htm)

America's factfinder (population, housing, economic, and geographic data of US Census)

<http://factfinder.census.gov/servlet/BasicFactsServlet>

Geotracker (Public water wells and leaking fuel tank sites in California)

<http://geotracker2.arsenaultlegg.com/disclaimer.htm>

GIS Day 2001 (Grassroots event for schools, businesses, and the general public)

<http://www.gisday.com/>

ESRI

<http://data.esri.com/data/online/quickmap.html>

Query Mapper

[http://www.epa.gov/enviro/html/multisystem\\_query\\_java.html](http://www.epa.gov/enviro/html/multisystem_query_java.html)

Amanda Aretz, Rachel Moeller's Environmental Equity Thesis @ Brown's Center for Environmental Studies

<http://envstudies.brown.edu/thesis/2002/moeller>

## Appendix F: Internal Environmental Equity Steering Committee

Janet Keller	Office of Strategic Planning and Policy
Michele Musselman	Office of Strategic Planning and Policy
Ana Baptista	Office of Strategic Planning and Policy
Kathleen Lanphear	Office of Administrative Adjudication
Gerald McAvoy	Office of Legal Services
Brian Wagner	Office of Legal Services
Terry Gray	Bureau of Environmental Protection, Offices of Air, Waste & Compliance
Jennifer Vickers	Office of Waste Management
Jeff Crawford	Office of Waste Management
Steve Majkut	Office of Air Resources
Barbara Morin	Office of Air Resources
Alicia Good	Bureau of Environmental Protection, Office of Water Resources
Jay Manning	Office of Water Resources
Fred Presley	Sustainable Watersheds, Northern Regions Watershed Coordinator
Fred Vincent	Bureau of Policy and Administration
Jonn Garrick	Office of Human Resources
Ron Gagnon	Office of Technical and Customer Assistance
Rich Enander	Office of Technical and Customer Assistance, Pollution Prevention Program
Caroline Weymouth	Office of Technical and Customer Assistance
Steve Hall	Division of Law Enforcement

## **Appendix G: OTCA – Environmental Equity Progress Report**

*Prepared by Rich Enander in the Office of Technical and Customer Assistance, in the Pollution Prevention Program, April 2002*

The application of pollution prevention, innovative technologies, supplemental environmental projects, small business compliance assistance, and industry self-certification initiatives can result in significant reductions in community health risks and environmental burdens. As pollution prevention – the elimination of pollutants at their source – encompasses a broad range of toxics use reduction (including product, process, and technology changes) and energy/water conservation activities, it is particularly well suited for integration into both traditional and nontraditional approaches aimed at advancing the Department's environmental equity agenda.

DEM's pollution prevention and innovative technology application efforts have resulted in the elimination of millions of gallons of industrial waste (including hazardous waste and solvent emissions) and wastewater. In collaboration with University of Rhode Island Center for Pollution Prevention researchers, state-of-the-art membrane separation processes, chemical substitution, and novel pollution reduction, recycling, and bioconversion technologies are applied to waste generating processes commonly found in Rhode Island – jewelry, metal finishing, textile, surface coating, seafood processing, and chemical manufacturing operations, for example. Novel research is also undertaken in response to newly identified sources of ubiquitous pollutants such as lead in automotive coatings, thermoplastic paints, and body fillers; polybrominated diphenyl ethers in plastics; and other persistent, bioaccumulative toxicants. In support of the Department's environmental equity agenda, these resources may be focused and applied to priority regions where inequities or disproportionate burdens to environmental health hazards are found to exist.

Supplemental environmental projects, small business compliance assistance, and industry self-certification initiatives are also powerful tools for addressing industrial pollution issues important to environmental equity. Small business compliance assistance and pollution prevention staff, for example, regularly work within industry sectors (such as dry cleaning, printing, and automotive refinishing) that are prevalent in low-income communities. In addition, the Department is currently undertaking a novel self-certification approach to environmental, health and safety regulatory compliance within the Rhode Island automotive refinishing industry (comprised of 400 shops). Once successfully implemented, this approach may then be applied to other sectors that have the potential to adversely impact priority communities. Finally, supplemental environmental projects (SEPs) represent yet another means for achieving targeted pollution reductions. Through the judicious use of SEPs, the Department can further advance its environmental equity agenda by requiring non-compliant companies to fund or undertake specialized projects aimed at the reduction or elimination of pollutants in selected communities.