University of Rhode Island

DigitalCommons@URI

2002

GREEN MAPPING PAWTUXET VILLAGE, RHODE ISLAND: A COMMUNITY SUSTAINABILTY ASSESSMENT

Andrea McNeill Underwood
University of Rhode Island

GREEN MAPPING PAWTUXET VILLAGE, RHODE ISLAND
A COMMUNITY SUSTAINABILTY ASSESSMENT

By
ANDREA MCNEILL UNDERWOOD

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF

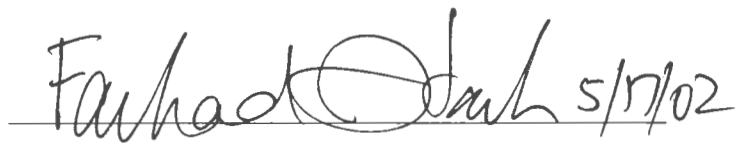MASTER OF COMMUNITY PLANNING

UNIVERSITY OF RHODE ISLAND

2002

MASTER OF COMMUNITY PLANNING
RESEARCH PROJECT
OF
ANDREA MCNEILL UNDERWOOD

APPROVED:
    MAJOR PROFESSOR

ACKNOWLEDGED:
    DIRECTOR

ABSTRACT

Sustainability, while it is a global movement, is not well understood by the public. The main goals of this project were to develop a process to educate community residents in Pawtuxet Village, Rhode Island about sustainability across scales (local, state, region, nation and beyond) and to help a community to create a definition and vision of sustainability locally.

Two main tools were used. First, a series of workshops was organized to teach a community group about sustainability and to suggest ways in which it might apply to their own community. Second, a Green Mapping system was used to develop a community inventory and to depict this data graphically. The Green Mapping system provides a process and tools for the community group to create a local definition of sustainability, to inventory those aspects of their community that enhance and undermine sustainability, and to develop strategies to pursue sustainability.

The major outcome of this project is a Green Map for Pawtuxet Village, Rhode Island and the development of a process that can be used in other communities. A Green Map is a locally adaptable mapping framework that depicts interactions between the natural and the social environments using a system of icons. Produced from "bottom-up" methodology, the Pawtuxet Village Green Map represents local knowledge that is based on local residents' experiences of this place. The map shows the spatial and temporal integration of the environment, the natural and the built infrastructures, and social and economic networks. The Pawtuxet Village Green Map is a tool that highlights what residents value about this place and what features need enhancement and protection.

TABLE OF CONTENTS

Appendices

Appendix A. Green Map System Icons

Appendix B. Pawtuxet Village Inventory Worksheets

LIST OF MAPS

LIST OF FIGURES

LIST OF TABLES

OBJECTIVES OF THE PROJECT

The goals of this project were to design a process to teach groups of residents about sustainability and to facilitate the development of a definition and vision of the concept for a local community. The outcome of the project is a Green Map of Pawtuxet Village, Rhode Island that is based on local knowledge and includes the experiences and perceptions of residents. The project had five main objectives:

1. To educate and facilitate a community Green Map project team of Pawtuxet Village residents.

2. To teach a community group about sustainability and to suggest ways in which it might apply to their own community.

3. To facilitate the development of a "scale of concepts," the features and relationships to be depicted on the Green Map and their relative importance. This scale is a guide to the map's content that establishes priorities, emphasizes linkages and informs what should be highlighted and suppressed.

4. To guide and assist the project team to collect, inventory, site and assess the features and relationships to be depicted on the Green Map.

5. To design a Pawtuxet Village Green Map using the project team's data and guidelines.

Sustainability and the Significance of the Pawtuxet Village Case Study

The sustainable communities movement seeks to create unique, life-enhancing, enduring places that minimize human impacts on the world while providing just opportunities and resources for current and future generations to enjoy high quality lives. With the rise of this movement and the New Urbanists, there has been a new emphasis on planning, creating and retrofitting more environmentally compatible aesthetically pleasing, mixed-use and pedestrian accessible neighborhoods and new suburban developments (Beatley, 1997; Beatley and Manning, 2000; Calthorpe and Fulton, 2001; and Duany et al, 2000).

The urgency of the need for sustainable communities is evident today more than ever before. Global environmental degradation is accelerating, the economic gap between developed and undeveloped countries is increasing, fossil fuels are extracted and consumed at an alarming rate; and annually millions of acres of land and water are being lost or damaged by development and disasters. In American cities and suburbs, the number of vehicle miles traveled (VMT) is increasing, wildlife habitat has been fragmented, drinking water is threatened and there is a lost sense of place and unique community character (Beatley, 2000). This is happening at a time when municipalities, planners, environmental groups and concerned citizens are finally trying to manage and reign in the sprawling development patterns of the last fifty years.

Concurrently, people are starting to abandon the older inner suburbs in search of more pleasing places with "rural character" farther out in the greenfields. Older suburbs like Cranston and Warwick, Rhode Island are starting to deteriorate. Strip shopping plazas, tract homes and national commercial franchise buildings were typically built to last between twenty to thirty

years (Duany, et al, 2000). So, not only was this development haphazardly designed in the first place, but now the post-World War II buildings in the inner-ring suburbs are starting to fall apart. Many communities are left with brownfields and empty big-box franchises because Americans increasingly desire larger lots and homes with more square feet on the suburban fringe or second homes in fragile coastal environments.

In addition to improving the environmental, aesthetic and economic character of our existing communities, the sustainable re-use and retrofit of standing places may be the best defense against greenfield sprawl. Timothy Beatley suggests that sustainable locations are as important as the materials and the energy consumed by the structures themselves (Beatley, p. 314). Sometimes even the New Urbanist developments are simply more attractive sprawl. It requires less energy and it is significantly cheaper and less land consumptive to enhance places with existing transportation and utility infrastructure than it is to develop new communities in farm fields and the scenic coast and countryside. Many inner-ring suburbs were built for transit (Bernick and Cervero, 1997).

Peter Calthorpe and William Fulton in *The Regional City* advocate for Lewis Mumford and the other New York Regional Plan Association planners' concept of the "regional city." They argue that planners, economists and environmentalists now think that regions drive American patterns of growth because economic, ecological and social patterns function at regional scales. Calthorpe and Fulton argue, "Perhaps most important from our point of view —we are beginning to set aside our outdated view of independent towns and suburbs and coming to see that the region is also a cohesive social unit. In the postwar era, when the suburbs were affluent and older inner-city neighborhoods were in decline, this relationship was not always obvious. But now, many older suburbs are in transition as well—indeed, some are in steep

decline—and so it is impossible to ignore the manner in which all our urban and suburban districts are interconnected socially. Old or young, rich or poor, the people of every metropolitan region are bound together in ways that greatly affect their daily lives" (Calthorpe and Fulton, p.16). Because of its proximity to Providence, its location on Narragansett Bay and the Pawtuxet River, and its unique character and history, Pawtuxet Village is a significant node in the southern New England region. Sustainability relies on improving the relationships and defining the roles between the different elements of the regional city. The walkable places with mixed-uses like Pawtuxet Village are an essential element.

Perhaps as importantly, improving community sustainability may encourage a heightened quality of life and enrich community character. Many Americans are searching for a sense of place and trying to create community. Most existing communities have long-standing institutions and civic organizations that are difficult to re-create and build in new developments (Calthorpe and Fulton, 2001; Duany, et al, 2000; and Putnam, 1995).

Social capital can be manifested and expressed through community design (Mumford, 1938). For example, the traditional village greens and the commons of New England were gathering places for social, recreational, political and commercial pursuits. Public buildings like libraries and courthouses represent and reinforce community ideals.

The connection between community design and social capital is important to consider spatially. Robert Putnam defines social capital as, "the features of a social organization such as networks, norms and social trust that facilitate coordination and cooperation for mutual benefit" (Putnam, p. 67).[1] In order to achieve the sustainable community ideal, human social networks and civic engagement are as important as ecological and aesthetic design. Putnam is his

---

[1] Putnam cites Jane Jacobs as the first scholar to use social capital in this context in her 1961 book *The Death and Life of Great American Cities,* (New York: Random House, p.168).

landmark article *Bowling Alone* notes that researchers in diverse fields such as education, urban poverty, unemployment and crime prevention have learned that positive results are more likely in civically engaged communities. By enhancing existing communities, sustainable development and retrofitting can improve these very qualities people are seeking.

Pawtuxet Village

Pawtuxet Village, Rhode Island is a significant case study because it provides a model of how a community can move towards sustainability. Pawtuxet Village, located just five miles south of Providence, is situated on Narragansett Bay at the mouth of the Pawtuxet River where it straddles the suburban municipalities of Warwick and Cranston. English colonists settled the Village in 1636 – 366 years ago – after Roger Williams purchased it from Narragansett Sachem Socanancos in the "Grand Purchase" (Freeman, 1980 and Kennedy, 1972).

Humans have interacted with this landscape and this ecology for a long time. Historian Robert Freeman notes the presence of man in the Village approximately 10,000 years ago. The archeological record of the Village dates back 6,000 years ago to the Archaic cultural period and Freeman argues that a significant record survives today. Native Americans inhabited this place prior to colonization due to its seasonally abundant food supply. Some of the best gleaning areas are located where freshwater streams flow into saltwater and saltwater inlets (Freeman, p. 4-5).

Historian William Cronon argues in *Changes in the Land* that the purpose of the Narragansett and Nipmuc Indians' place names was, "*to turn the landscape into a map*, which if studied carefully, literally gave a village's inhabitants the information they needed to sustain themselves. Place names were used to keep track of beaver dams, the rapids in rivers, oyster banks, egg-gathering spots, cranberry bogs, canoe-repairing places and so on" (Cronon, p. 65; emphasis added). Moreover, he adds that these ecological place-names describe how the land

could be used. This is important because the names suggest a community norm or a give a prompt to a possible ecological interaction. Most of these place names, and therefore the cues are lost today, but some of these habitats still exist in the Village.[2] Although many of these habitats are fragmented and polluted, there is a historic record of what the ecology was and how it could be restored. Today Pawtuxet Village is increasingly threatened by haphazard development and land management decisions that further degrade its sense of place and its environment.

The Village has a rich colonial heritage and residents are proud of its role as the site of the first armed conflict in the American Revolution, the burning of a British customs ship, *Gaspee*, in 1772. Throughout the 18th century, many Village residents supported themselves through the Triangle Trade and privateering.[3] These "industries" or economies depended on the ecological abundance of the New World and the willingness of the colonists to exploit an inequitable system of labor. Village men sailed to the West Indies and South America with grain, rum and manufactured goods and returned with sugar, molasses and slaves (Kennedy, p. 8).

Marcus Rediker in *Between the Devil and the Deep Blue Sea* describes the movement of goods and raw materials among the New World ports during the "golden age of smuggling" (1680-1780) and argues that the system of urban social relations along the Atlantic coast was the precursor to global capitalism (Rediker, p. 73). Cronon and Rediker's ideas are important

---

[2] Pawtuxet means "little falls" in the Nipmuc dialect of the Algonquin Indian language. Pawtucket, RI, which is about 10 miles north of the Village, means "great falls." The Pawcatuck River also flows through the state and means "shallow tidal river." For more Algonquin word definitions, see www.stoningtonhistory.org/libra2c.htm.

[3] Stillhouse Cove takes its name from the Triangle Trade because Pawtuxet Village was an active port. Ocean Avenue was called Stillhouse Lane until 1850 (Kennedy, p. 17).

because they describe the continuum of ecological interactions in New England and along the Eastern seaboard during a time that some erroneously think was pristine wilderness.

In the early 19th century at the start of the Industrial Revolution, the coastal trade replaced the Triangle Trade and numerous large textile mills were sited along the banks of the Pawtuxet River. Pawtuxet Village also continued to serve as an important harbor and seaport throughout the 19th century (Kennedy, p. 9).

Later it evolved into a resort area with a regionally famous dance hall and canoe clubs along the Pawtuxet River. Gracious homes, a stately church, handsome mercantile and mill buildings and two yacht clubs comprise the historic, architectural fabric of the Village (D'Amato, 1992, 1196; Freeman, 1980; and Kennedy, 1972). The following pictures are representative of the Village's fabric and character.[4]

The Pawtuxet River from the historic bridge

Pawtuxet Park on Narragansett Bay in the Village

---

[4] The author took all photographs unless noted otherwise.

Multi-family housing on the Bay in the Village core
Source: Krista Alessandro

The historic Pawtuxet Baptist Church (1764) was
covered in vinyl siding.

Humans and wildlife share Pawtuxet Cove.
Source: Krista Alessandro

Mixed-uses along a pedestrian friendly street in
the Village core Source:Krista Alessandro

The extension of the "Bumble Bee" streetcar line to the Village in 1891 resulted in the infill of quality period houses that still distinguish the neighborhoods in and around the Village. However, after World War II the streetcar tracks that used to connect the Village to Providence were paved over and Broad Street was widened to accommodate automobiles. These tracks remain in the street today. Between 1950 and 1980 many historic homes were torn down, prominent structures were covered in vinyl siding, billboards were placed aloft rooftops and highway-style gas stations appeared on former houselots (D'Amato, 1996 and Hartman, 1999). However, significant portions of the old mixed-use, Village fabric remain intact.

Pawtuxet Village is listed in the National Register of Historic Places. According to the former Warwick Planning Director, a series of insensitive developments in the 1980s resulted in the mobilization of the neighborhood on the Warwick side of the Village. These neighbors pressured the City Council to enact a local historical zoning district designation in 1989. Attempts to enact local historic zoning designation on the Cranston side failed in 1988, 1992 and 1994. Several Green Map team members suggested that vocal, strong private property rights advocates live on Pawtuxet Neck in Cranston and oppose the designation. The City Council Representative from Edgewood, a Cranston neighborhood that includes Pawtuxet Village, said she was pressured by her constituents to oppose historic zoning designation in the Village. Unfortunately, most of the commercial property is located on this side of the Village and many of the newer businesses are automobile–oriented and do not respect Village character.

A gas station franchise sits beside the historic church on a former house lot on the Cranston side of the Village. Another gas station franchise is on the northeast side of the street.

The street wall of these historic commercial buildings and the sidewalk are fragmented by a large parking lot and a drive-through window. The utility poles and wires are a source of visual pollution. Source: Krista Alessandro

Green Maps

The process of Green Mapping Pawtuxet Village identified opportunities to highlight,

build upon and protect its sustainable features, and it pointed out weaknesses and threats so

alternatives can be explored. Three interrelated themes were explored during the course of the

Green Mapping project – sustainability, civic engagement and social infrastructure - and they

were integrated using community-based mapping.

There is no universally accepted definition of sustainability or sustainable development

(Beatley, 1995). The Brundtland Commission's definition of sustainable development is sited

frequently. "Sustainable development meets the needs of the present without compromising the

ability of future generations to meet their own needs" (Brundtland, 1987). The Victoria

Transport Policy Institute has developed a matrix of sustainable issues that summarizes many of

the key components of sustainability. These components are often summarized as the Three Es –

Economic, Equity and Environment, though this matrix uses "Social" instead of Equity.

Figure 1. The Victoria Transport Policy Institute's Matrix of Sustainable Issues

Economic	**Social**	**Environmental**
Affordability	Equity	Pollution Prevention
Resource Efficiency	Human Health	Climate Protection
Cost Internalization	Education	Biodiversity
Trade and Business	Community	Precautionary Action
Activity	Quality of Life	Avoidance of
Employment	Public Participation	Irreversibility
Productivity		Habitat Preservation
Tax Burden		Aesthetics

Source: Victoria Transport Policy Institute, *Online Transportation Demand Management (TDM)*
Encyclopedia, http://www.vtpi.org/tdm/tdm67.htm.

The process of inventorying a community's sustainable components and attributes, and then developing a community-based map, like a Green Map, helps residents to understand the concept of sustainability and apply it to their own communities. A sustainable vision plan or master plan could be developed using the Green Map inventory and assessment.

Community-based mapping for the future is a relatively recently revived technique. In his book *Boundaries of Home*, Doug Aberley, a bioregionalist and planner in British Colombia, describes local mapping as a tool to show vision of the future that allows residents to reinhabit or reclaim the commons.[5] Aberley, Emily Talen, Mark Monomier, among others argue that mapping is a powerful tool to empower residents, to incorporate local knowledge, to discover alternatives to present land uses and to highlight social, political and economic systems. In *The Culture of Cities,* Lewis Mumford describes cities as a form and symbol of an integrated social relationship – the places where human experience is transformed into patterns of conduct and systems of order. For these reasons, inventorying and mapping the social landscape became as important as mapping the community's physical features (Aberley, 1993; Talen, 1998, 2000; Monomier, 1993; and Mumford, 1938).

Community-based mapping is a participatory tool providing the means for residents to become engaged and move towards more sustainable living within their environment. On Sherry Arnstein's "Ladder of Community Participation," this type of community mapping ranks highly (Arnstein, 1969). Although an outside investigator initiated the project, Green Map team

---

[5] From *How To Be a Bioregionalist,* "Bioregion. A life region. A geographical area whose rough boundaries are determined by non-human, rather than human, forces. Bioregions are distinguished from another by characteristic flora, fauna, water, climate, rocks, soils, landforms, and the human settlements and cultures to which these features give rise. The bioregional movement is evolving the theory and practice of integrated systems of ecologically-based economics, agriculture, forestry, technology, law, governance, politics, education, health care, energy, and everything necessary for the human dimension of a given bioregion to function sustainably," (Haenke, http://www.tnews.com/text/how_to_be.html).

members decided which community elements to include and the author and the community made shared decisions. On Arnstein' ladder. this Green Map project had elements of both "Citizen Control" and "Partnership."

Figure 2. Sherry Arnstein's Ladder of Community Participation[6]
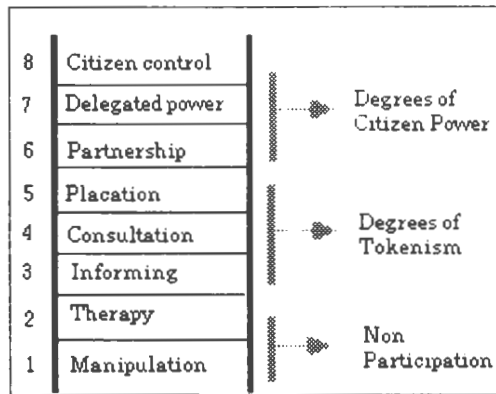
Source: Arnstein, Sherry R. 1969. "A Ladder of Citizen Participation," *Journal of the American Planning Association*, Vol. 35, No. 4, (July).

Planning Professor Emily Talen calls community-based mapping that employs Geographic Information System (GIS) technology Bottom-Up GIS or BUGIS (Talen, 2000). Talen's research seeks to incorporate local knowledge into GIS because it has traditionally been a top-down analytical tool that is collected, manipulated and presented by technical experts. She argues that BUGIS is a powerful way to empower residents because the planning technology can spatially represent value-based, previously intangible information like the places residents care about in their communities and residents' feelings about their homes and their neighborhoods.

---

[6] For more information on Arnstein's "Ladder of Community Participation" and community partnerships, see http://www.partnerships.org.uk/part/arn.htm

Wendy Brawer, a graphic artist in New York, created the Green Map System in 1995. To describe her idea, she said,

> From its beginning, the Green Map System was inspired by a desire to: help urban dwellers of all ages represent and share the ecological and cultural resources in their cities; promote good greening efforts underway in communities across the globe, build inclusive networks that extend community capacity and expedite progress toward sustainability, employ the info-web in service of the web-of-life celebrate and learn from the beauty, brilliance and diversity of Nature, and together, make our hometowns better, healthier places.

> The mission of the Green Map System is to strengthen the community's awareness of and connection to the urban ecology through locally created visual representations of hometown environments. Mixing the ancient art of map-making with new, interactive media, citizens of all ages and backgrounds are invited to adapt and employ our global iconography and collaborative tools as they chart the green places, environmental resources and socially-significant sites in their own cities. Green Maps illuminate the inter-connections between *(sic)* society, nature and the built environment, helping residents make lower impact lifestyle choices and discover great ways to get involved in the urban ecology, and simultaneously guide visitors (especially virtual ones) to successful initiatives they can replicate back home" (Brawer, www.greenmap.org).

The Green Map concept has been widely emulated and replicated across the planet. More than 145 cities and towns in Africa, Asia, Europe, Latin America and Oceania (Australia and New Zealand) have developed Green Maps. There are more than 75 Green Mapping projects underway in North America.

Green Mapping uses bottom-up methodology, but not necessarily GIS. One significant difference between Brawer's definition of Green Mapping and the Pawtuxet Village Green Map's purpose is that she emphasizes Green Maps as a tool for "visitors and virtual tourists" to learn about sustainability. This project uses Green Mapping as a process for residents to develop a local definition of sustainability and as a tool for interactive planning for the future.

PROCEDURES AND METHODS

Develop and facilitate a community Green Map project team of Pawtuxet Village residents. Teach a community group about sustainability and to suggest ways in which it might apply to their own community.

The author recruited a Pawtuxet Village family to develop a list of potential Green Map team members and to host the first introductory session. Additional team member prospects were collected at the first introductory session using a snowball technique.[7] A second introductory session was held for the additional team members. The final project team had 15 members comprised of various ages, skills and interests and included residents from Warwick and Cranston. Team members ranged in age from six to seventy-something. Some had lived in the Village their whole lives and others recently moved there. Their occupations were varied - an artist, a jeweler, a farmer, a planner, two journalists, a social worker, a librarian, an employee of the state's Department of Environmental Management and a stay-home mother. There were also several retirees and schoolchildren.

At these introductory sessions, the author presented a project overview that included a brief history of Pawtuxet Village and a brief history of Green Mapping and Common Ground Parish Maps.[8] She showed examples of Green Maps from around the world, aerial photographs, renderings and photographs of the Village from the past 300 years, and maps of Pawtuxet

---

[7] After the first session, participants were asked to provide names of additional names of Village residents who may have interest in the project or the names of residents they thought had significant information about the Village. The author then contacted these individuals to join the Green Map team or to interview them.

[8] Common Ground Parish Maps are similar to Green Maps. The concept of bottom-up community mapping began in England in the mid 1980s. These maps are more idiosyncratic than Green Maps and do not use standard icons. Parish Maps are based on residents' perceptions of their communities and the elements are drawn to express their relative importance. They have been used to initiate community-based planning initiatives in Britain (Aberley, p. 31-8). Green Maps are representational maps rather than perception maps and they geo-reference particular sites.

Village including topographic maps, plat maps, TEA-21 transportation enhancement renderings, nautical charts, and historic routes and structures, and, finally, a "short course" in sustainability.

The purpose of these sessions was to establish the author's role as an educator, facilitator and technician; the one who was responsible for teaching the community about the concepts of sustainability and cartography and facilitating the process of creating a Green Map of Pawtuxet Village. These educational sessions assisted the project team in exploring the historical geography, and the socio-cultural-biophysical interactions and relationships within the Village. By looking at historical data and conducting inventories, the team not only discovered what is now present in the Village, but what has changed or has been lost. Future sustainability could mean the restoration of not only of what is present in the Village today, but what used to be there in the past.

Facilitate the development of a "scale of concepts," the features and relationships to be depicted on the Green Map and their relative importance.

The author guided team members through the Green Map System Icons and Doug Aberley's recommendations for mapping local areas to begin to determine which Pawtuxet Village features would be included on the map. The Green Map System has developed 150+ icons to document community attributes that fall into ten broad categories – Economic Development, Culture and Design, Renewable Resources, Information and Resources, Fauna, Flora, Land and Water, Mobility, Infrastructure, and Toxic Hot Spots/Pollution Sources.[9]

---

[9] All 150+ icons and their descriptions are included in Appendix A.
Green Map Icons © Modern World Design

Some examples of the Green Maps System icons are:

These icons represent: Coastal Habitats, Community Centers, Fishing/Gleaning Spots, Vegetarian Cafe, Great View, Designated Pollution Site, Remediated Site, Eco-Building and Transit Stop.

These icons include and expand upon many of Aberley's recommendations. Aberley advises community mappers to map the biophysical environment by documenting: elevation; sun paths; the location of bird and wildlife sightings; a microclimate profile; indigenous plants and animals; the location of creeks, streams, wetlands, and estuaries, including those which may be paved over or filled; and the network of green spaces. He suggests that the human environment be documented by locating: the sources of water, food, energy, waste disposal and treatment; vacant publicly owned land; recreational and cultural amenities; environmental hazards like dumps, brownfields, pollution sources and toxic waste sites; public safety amenities; local trails; the age and condition of the infrastructure; dangerous roadways for pedestrians and bikes; barriers to access for children, the handicapped and the elderly; local heritage buildings; gardens and street trees; locally owned businesses; crime spots; and large community employers (Aberley, p. 125-8).

The author facilitated the selection process for the Scale of Concepts at the introductory session by asking 16 brainstorming questions to the Green Map team:

- Which places do you like best in the Village?

- Why did you and/or your family move to Pawtuxet Village?

- Where do you like to walk, run, hike, swim, walk your dog?

- Where do you eat and shop – food, clothing, supplies gardening, gifts?

- How do you travel about the Village? When you leave it?

- Do you use services in the Village – schools, healthcare, the library, entertainment?

- Where and how do you dispose of waste, recyclables, chemicals?

- Where do you see or meet friends and neighbors?

- Do you belong to a Village organization or association? Which one(s)?

- Do you see wildlife in the Village? Where? What kinds?

- What scenic views do you like?

- What seems ugly to you – buildings, graffiti, poles and wires, landscaping, signs?

- Where do people of other ages like to go?

- What's missing in Pawtuxet Village?

- What things or places do you worry about in Pawtuxet Village?

- What could be improved in the Village?

After the brainstorming session, the author explained how the Green Map icons could assist them to think about how to inventory their community. The Green Map System has ten categories: Economic Development, Culture and Design, Renewable Resources, Information and Resources, Fauna, Flora, Land and Water, Mobility, Infrastructure, and Toxic Hot Spots/Pollution Sources. The brainstorming session enabled the team to define most of these categories for themselves except Economic Development and Information and Resources. For example, nearly everyone had favorite Village spots for recreation, wildlife watching, hiking, walking and dining so these categories were easily understood. The team was interested in historic preservation and everyone had favorite cultural and architectural sites. All of the team

members were familiar with the dedicated bike lane between the Village and Providence; most knew about the natural gas vehicle filling station located a few miles north of the Village; and every one lamented about the franchise gas stations in the Village core. So then, after the group discussion, they were able to define Renewable Resources, Mobility and Infrastructure.

To develop a definition of and inventory sustainable economic development in the Village for the Green Map, the author asked them to think about whether local shops sold energy efficient, recycled or natural products; whether the garden shops had organic gardening or composting supplies; whether there were second-hand or small appliance repair shops; whether there was an office supply shop that sold recycled and refillable supplies and accepted cartridges for recycling; whether the dry-cleaner used non-toxic processes; or whether a landscaping company used green lawn-care practices. The author also suggested they use the yellow pages to see if there were services or companies that were not readily apparent or perhaps home-based.

The Pawtuxet Village Green Map team agreed that local businesses would not qualify solely because they were locally owned or sited in the pedestrian heart of the Village because they thought location and local ownership did not equal sustainable intent. Instead, location and local ownership contributed to economic sustainability, but the product or service needed to be "green." They also decided that antiques shops would not be counted as re-use sites. There was some discussion about this, but they decided that re-using antiques was not done in the same spirit (i.e. intent) as re-using other types of consumer goods like small appliances or clothing. Lastly, they agreed that shops that only had a very small inventory of locally made jewelry or other crafts would not be included because so many of the local shops carried mass-produced products made on other continents as the bulk of their inventories. The local goods were more incidentals rather than the featured merchandise.

To inventory "Information and Resources," the team decided to compile a list of all the organizations and institutions in the Village. They were particularly interested in social resources that were provided – support groups, recovery assistance and food banks.

After the introductory session, the Green Map team's scale of concepts emphasized Cultural and Historic Resources, Flora, Fauna and Land and Water. In order to begin their inventory, they agreed to look at attributes that would satisfy all ten categories, but they thought these were the most important and relevant to Pawtuxet Village sustainability. The author suspects this is because they were most interested in identifying those things they were most rich in and the other categories would contain weaker examples or perhaps none at all.

Guide and assist the project team to collect, inventory, site and assess the features and relationships to be depicted on the Green Map.

The author compiled a "library" of Pawtuxet Village and sustainability resources to share with the project team including websites, maps, aerial photographs, photographs, books, oral histories and existing inventories of structures, flora and fauna. Green Map team members collected newsletters from various organizations and associations in the Village.[10] This was a valuable exercise because it described projects and accomplishments, priorities, and it highlighted opportunities for future collaboration among these groups. For example, the Edgewood Waterfront Preservation Association (EWPA) newsletter, *Waterfrontlines,* included an article describing a project on Stillhouse Cove to build drains that treat stormwater before it enters the Bay and the installation of riprap, a sidewalk, curbing, plantings and educational signage describing waterfowl. Only EWPA was involved in the project, but this could have been

---

[10] Newsletters were collected from: the Edgewood Waterfront Preservation Association, the Friends of the Pawtuxet, the Gaspee Day Committee, the Hay Library, the Pawtuxet River Authority, and the Pawtuxet Village Association.

a chance to partner with other environmental groups, the garden club and the neighborhood association.

The author accompanied small groups on Village walks to provide technical support and assist the project team to gather their data using a variety of resources – existing maps and inventories, oral lore and histories, the Yellow Pages, hand-drawn maps and photography. However, the majority of the Green Mapping team members' time was spent walking the Village collecting data and noting its location on the Green Map basemap.[11]

After the inventory was completed, the author acted as an educator and facilitator for four small group workshops with one to four team members and a larger workshop with the whole team to assess the inventories and to analyze linkages and relationships.

Design a Pawtuxet Village Green Map using the project team's data and guidelines.

The author compiled Rhode Island Geographic Information System (RIGIS) data layers and sited the community attributes on the base map using Arc View computer software and worked with the project team to develop map design guidelines and to create the map with the team's recommendations. If a project team member had had some interest or experience with GIS, the author would have worked directly with this individual on the technical part of the map-making, but no team members were so inclined.

The author presented the first draft of the Green Map to the project team. Afterwards, the author worked with the team to assess the strengths and weaknesses of Pawtuxet Village's mapped sustainable attributes and to identify opportunities and threats to these features.

---

[11] Appendix B includes the worksheets Green Map team members used to inventory the Village.

After this session, the author created and completed the paper Green Map using Arc View. Then, the author developed recommendations to more widely publish and distribute the map and to create a web-based-interactive version. Furthermore, the author developed ongoing action steps to maintain the project as an evolving community resource.

Over the course of seven weeks, the Green Map team inventoried their community. They used a basemap and the worksheets to note the location of specific features and to answer the following questions:

- What makes this place special? (Strengths Inventory)

- What don't you like about this place? (Weaknesses Inventory)

- Which icon best represents this place? Why?

- Could this place be enhanced? How? (Opportunities Inventory)

- Are there threats to this place? What? (Threats Inventory)

- What will happen to this place if nothing is done?

All of the Green Map team members included the waterfront parks on the Bay, pocket parks and the view from the Pawtuxet Bridge as the Village's best strengths. The other two most frequently sited features were the Little Falls Café and the Aspray Boat House. The Café is an important, informal "Third Space" for Village residents who regularly stop in to chat with the owners and see their neighbors.[12] The Aspray Boathouse is a private facility that is used by community groups and residents for meetings and events. It can be rented for a nominal fee and the community views it as their local community center. Political candidates and environmental groups frequently make public announcements or hold press conferences here. They all agreed

---

[12] William McDonough describes Third Space as the informal gathering and social places people choose when they are not at home (First Space) or work (Second Space).

that the location, local businesses, the walkability and the residential architecture were significant attributes and features. They all like the mix of uses and the proximity of goods and services. The following pictures are examples of the places that team members included as Village strengths and opportunities.

A pocket park with picnic tables on Pawtuxet Neck has a terrific view of the Village core.

A view of Pawtuxet Cove looking north from the Aspray Boathouse.

Members of the Friends of the Pawtuxet enjoy canoeing on the River and hiking on the trails.
Source: Friends of the Pawtuxet

The Aspray Boat House serves as a community focal point. It is used by community groups, as a polling station and a meeting and resource area.
Source: Gaspee Days Committee

The Little Falls Café on Broad Street is an important
Third Space.

The Gaspee Days Parade, 2001
Source: Gaspee Days Committee

The pocket park beside the Aspray Boathouse has
wonderful view of the Bay and a field for children
to play.

People enjoy the view from the Pawtuxet   River
Bridge. Source: Guide to Rhode Island

Both of these houses are representative of the residential architecture Green Map team members like.
Source: Krista Alessandro

A group of teens roller bladed to the Village and fish off the bridge.

Young children play along the Bay behind the Aspray Boathouse.

While inventorying the Village on their own, the Green Map team members did not perceive Village weaknesses as unanimously as they did the strengths. Nearly everyone identified a specific commercial property or the commercial architecture generally as a weakness. The franchise gas stations, the Gaspee Lounge and the Pawtuxet Athletic Club were frequently identified as weaknesses. Most of the team members noted that the absence of a historic zoning district on the Cranston side of the Village was a weakness, but this would not likely be the majority opinion of the whole community. Team members also noted specific places that had graffiti or were poorly maintained. Many of these sources of visual blight were located at the public access points to the water such as the lot behind Shaw's that is filled with garbage and the trail leading down to the beach at Stillhouse Cove. A few people noted sites where there was illegal dumping or point source pollution and the team was very surprised to see the numbers of leaky, underground storage tanks (LUSTS), and officially recognized pollution points identified by the RIGIS hazardous materials themes.[13] There are large numbers of contaminated sites because of the old industrial textile mills located along the Pawtuxet River

---

[13] Hazardous materials RIGIS themes include: CERCLIS sites, point source pollution sources and underground storage tanks.

and a high concentration of gas stations and auto repair businesses. No team members noted the absence of "green" businesses and products as a weakness until the author pointed it out to them, but they all agreed this should be included. The following pictures represent Village weaknesses and threats.

This is an abandoned textile mill on the Pawtuxet River. Source: Gaytha Langlois

A salvage yard sits on one of the nicest lots in the Village. It is located beside the bridge – the River is behind the building and it looks out on the Bay. This business may threaten the water quality of both.

This gas station on the Bay was closed because its gas pumps leaked into the ground. The site is being remediated.

This early 20th century commercial building in the Village core burned more than four years ago. The building was recently purchased and the new owner plans to rehabilitate it.

The Gaspee Lounge was frequently mentioned as a weakness. The author suspects the motorcycle-riding clientele is not popular with Village residents.

Cameron's Pharmacy is a Village meeting place, but the building and the billboard are ugly. The owner plans to retrofit the building.

The team did a thorough job inventorying their community though they had a harder time filling in the worksheet questions that asked them about how to enhance particular features. They were able to identify strengths, weakness and threats, but they were less able to recognize opportunities or to make suggestions about how to take advantage of their strengths or to overcome weaknesses.

The Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis on the following page is a synthesis of the team members' community inventories. The action items in the middle cells of the matrix were developed during a workshop led by the author where the team members presented their individual inventories and the group brainstormed ways to capitalize on strengths and opportunities and minimize weaknesses and threats. The author facilitated the process by presenting the group with choices and alternatives if they were struggling to make decisions.

Figure 3. Strengths, Weaknesses, Opportunities, Threats Analysis

	STRENGTHS	WEAKNESSES
	• Special Sense of Place • Location & Infrastructure • Environmental Amenities • Mixed Uses • Mixed Income Housing • Historic Residential Architecture • Associations & Organizations • Local Merchants and Shops • Pocket & Waterfront Parks	• Blight at Water Access Points • LUSTS, NPS, PS Pollution • Illegal Dumping • Auto-oriented Businesses • Only One "Green" Business • Franchise Commercial Architecture
OPPORTUNITIES		
• Retrofitting Projects • Ample Parking • Village Natural Customers • Interest in Farmers' Market • Auto- Alternative Mobility • Improving Water Quality	• Expand retrofitting projects to improve the environment as well as aesthetics and mobility. • Coordinate projects to share expertise and resources among community groups. • Explore shared parking opportunities. • Use water amenities and identity to mobilize and organize planning and development.	• Use community groups as a forum to establish community norms that link personal behavior to the vitality and health of the Village and its environment. • Create a commercial overlay district or restrict franchise architecture. • Reach out to local merchants to capitalize on consumer interest in the Village Natural and a farmers' market to expand "green" businesses and services.
THREATS		
• Sense of Fragility • Significant Missed Opportunities • Strip Development on the Western Edge • Cranston Financial Mis-management • Absentee Landlords • Absence of Linkage between Individual Behavior and Environment	• Make explicit the competing themes of Special Sense of Place and Sense of Fragility to guide action and planning. • Use residential architecture as a model for commercial architecture. • Continue to promote partnerships between the two cities. • Look for public-private partnership opportunities among the cities and local organizations.	• Expand the goals of retrofitting projects to include environmental improvements. • Aggressively prosecute those who are dumping and vandalizing. • Create a revolving loan and grant fund and/or a Business Improvement District (BID) to spur private redevelopment.

The series of maps that follow graphically and spatially illustrate the Green Map team's synthesis of individual team members' community inventories. They are based on local knowledge and include the experiences and perceptions of residents as well as on data included in the Rhode Island Geographic Information System. The RIGIS data were used to geo-reference city boundaries, roads, land uses and documented hazardous materials sites. All of the other points were inventoried, collected and sited by the Green Map team.

Pawtuxet Village Locus Map

The locus map shows the location of Pawtuxet Village. Warwick is located north of Cranston and the Pawtuxet River is the boundary. The Village is located in the Upper Bay of Narragansett Bay.

Pawtuxet Village Land Use and Land Cover Map

This map depicts land uses in Pawtuxet Village. High Density Residential dominates the northern portion of the Village and the southern portion is largely Medium High Density Residential. The commercial property is located in the Village core and along Warwick Avenue, which is the western boundary of the Village. All of the Village land uses and coverages are presented in Table 1. Pawtuxet Village Land Use and Land Cover.

Table 1. Pawtuxet Village Land Use and Land Cover

Land Use	# of Acres	% of Total
Brush	1	0.74
Cemeteries	2	1.47
Commercial	15	11.03
Deciduous Forest	18	13.24
Recreation	13	9.56
High Density Residential (8+ units/acre)	11	8.09
Industrial	3	2.21
Institutional	17	12.50
Medium High Density Residential (4-8 units/acre)	7	5.15
Orchard/Grove/Nursery	1	0.74
Vacant	1	0.74
Water	21	15.44
Wetland	26	19.12
TOTAL	136	100

Pawtuxet Village Environmental Threats Map

The Environmental Threats Map shows the location of hazardous materials sites and visual pollution. The hazardous sites are RIGIS data themes. Green Map team members sited the visual pollution locations. All the team members were surprised by the number of underground storage tanks and designated point source pollution sources near the Greenway in the riparian buffer.

Pawtuxet Village Nature Tourism Map

The Green Map team wanted a map that is similar to a boosterism or tourism map that could be used as a fundraising tool. They did not want this map to depict pollution sources or

visual blight. This map highlights trails, the wildlife corridor, places to fish, pocket parks and access points to the Bay and the River.

Pawtuxet Village Green Map

The Green Map is the synthesis of all the community inventories. It includes RIGIS data themes and the community-selected attributes - both strengths and weaknesses. The features depicted on the Nature Tourism Map are present as well as the environmental threats.
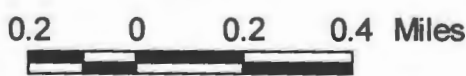
Children chose the special trees on South Fair Street and George Street. The George Street tree is frequently decorated by children for holidays and the trees on South Fair were identified as Sugar Maple street trees that could be tapped for syrup and that could be killed by road salt. Other Green Map attributes are discussed more fully in the Findings chapter.

It should be mentioned that the map does not include all the historic homes and buildings in the Village. The book *The Walking Tour of Historic Pawtuxet Village* already sites and describes the Village's historic properties and this historic architectural emphasis was not the objective of the Green Map. However, these properties are significant community resources.

Pawtuxet Village Core Detail Map

This map highlights the Village core. It is the same map is the Green Map, but it is enlarged to show the Greenway and the commercial core along Broad Street between Ocean Avenue and Narragansett Boulevard in greater detail.

Pawtuxet Village Locus Map

Norwood Ave.

Broad St.

Warwick Ave.

Narragansett Blvd.

N

RIGIS

Andrea Underwood

May 2002

0.2   0   0.2   0.4   Miles

| /\/ Roads | Core Inset | Pawtuxet Village | Narragansett Bay |

Pawtuxet Village
Land Use and Land Cover

N
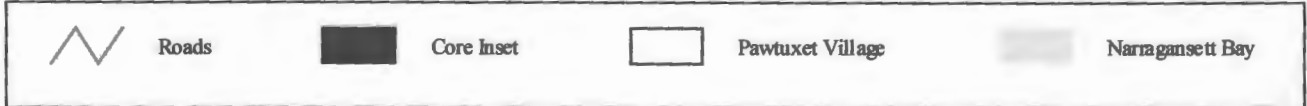
0.4   0   0.4   0.8 Miles

Roads	Forest	Orchards
Land Use	Recreation	Vacant Land
Brushland	High Density Residential	Water
Cemeteries	Industrial	Wetland
Commercial	Institutional	
	Medium High Density Residential	

GREEN MAP
SYSTEM

RIGIS

Andrea Underwood
May 2002

Pawtuxet Village
Pollution Sites
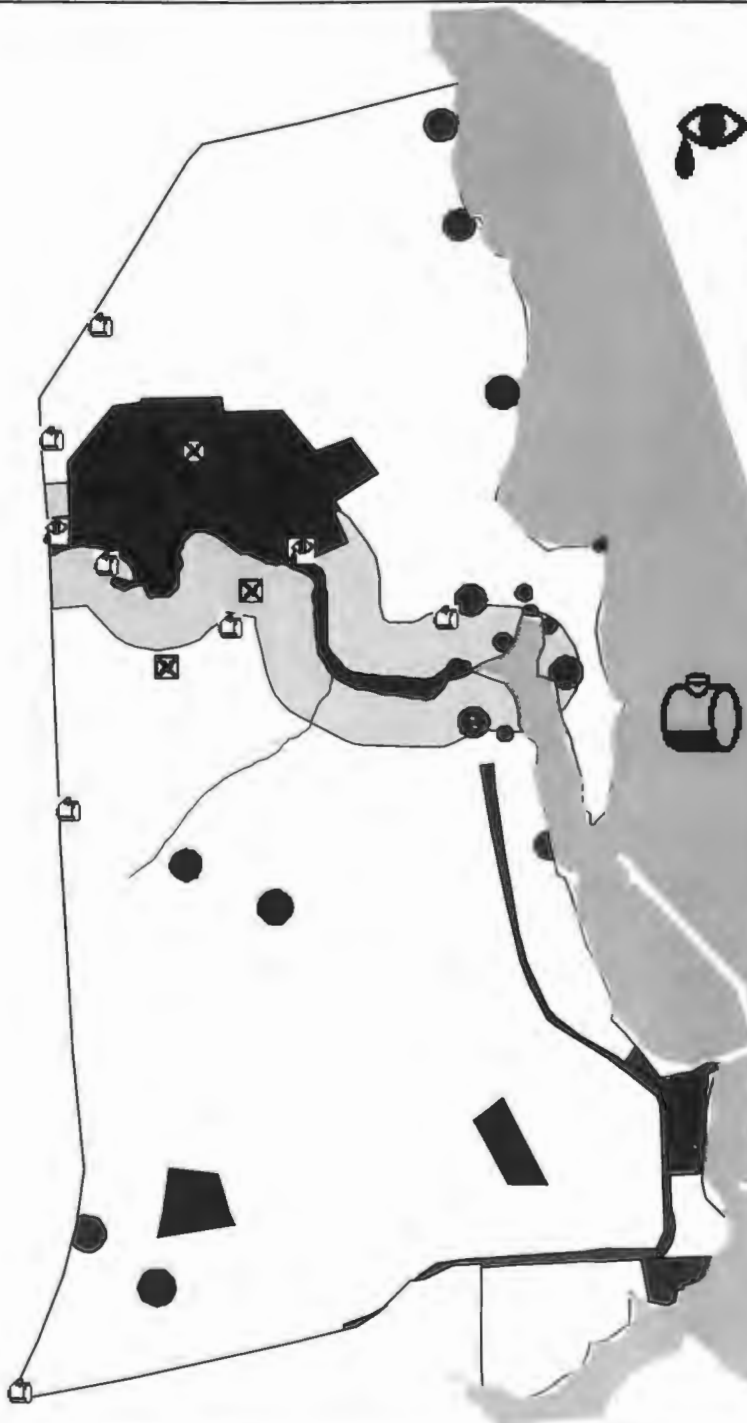
This graffiti is a source of visual pollution near the trail head and the canoe launch on the Pawtuxet River.

The underground gasoline tanks at this service station leaked into the ground and Narragansett Bay.

N

0.2   0   0.2   0.4 Miles

☒	Listed Contamination Site	∧∧ Streams
⌂	UST	▬ Open Space
☞	Visual Blight	▭ Greenway
▬	Pawtuxet River	

GREEN MAP
SYSTEM

RIGIS

Pawtuxet Village
Nature Tourism Sites

Stillhouse and Pawtuxet Coves and the Pawtuxet River are good places to see birds like this Great Blue Heron. Source: Rod Rodriguez

People enjoy canoeing and wildlife watching along the Pawtuxet River. Source: Friends of the Pawtuxet

This park on Narragansett Bay beside the Asprey Boathouse is a good place for fishing and picnicing.
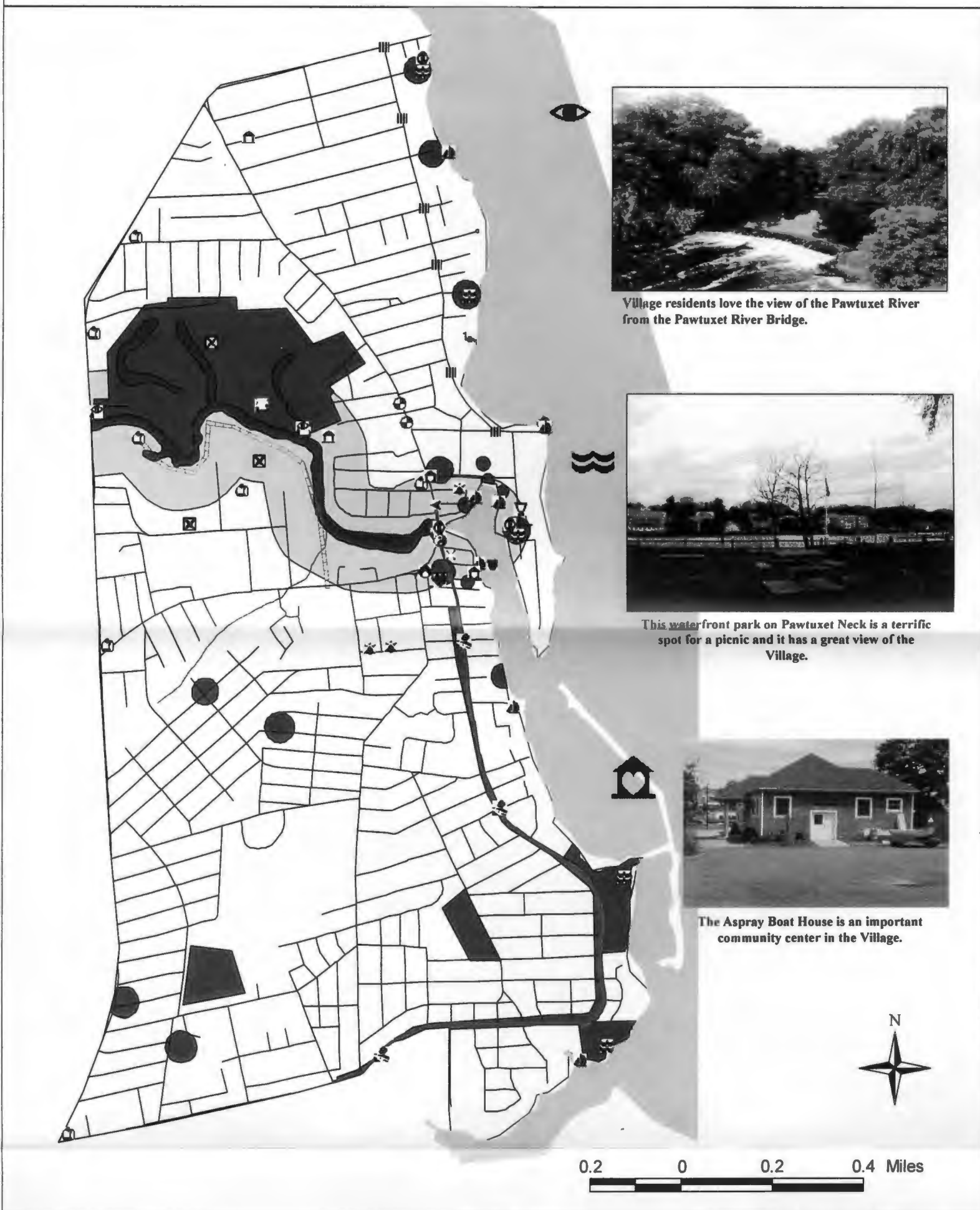
N

0.2   0   0.2   0.4 Miles
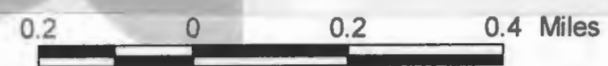
⏀ Scenic Vista	🐦 Coastal Habitat	◼ Pawtuxet River	
⌂ Community Center	🍃 Shaded Boulevard	∧ Gaspee Parade Route	
✿ Waterfront Park	♥ Land Trust Gateway	◼ Open Space	
⬥ Water Access	∧ Off-Road Bikepath	▨ Greenway	
▼ Fishing Spot	⊪ On-Road Bikepath		
⛰ Wildlife Corridor	∧ Stream		

GREEN MAP

RIGIS

Pawtuxet Village Green Map
2002

Village residents love the view of the Pawtuxet River from the Pawtuxet River Bridge.

This waterfront park on Pawtuxet Neck is a terrific spot for a picnic and it has a great view of the Village.

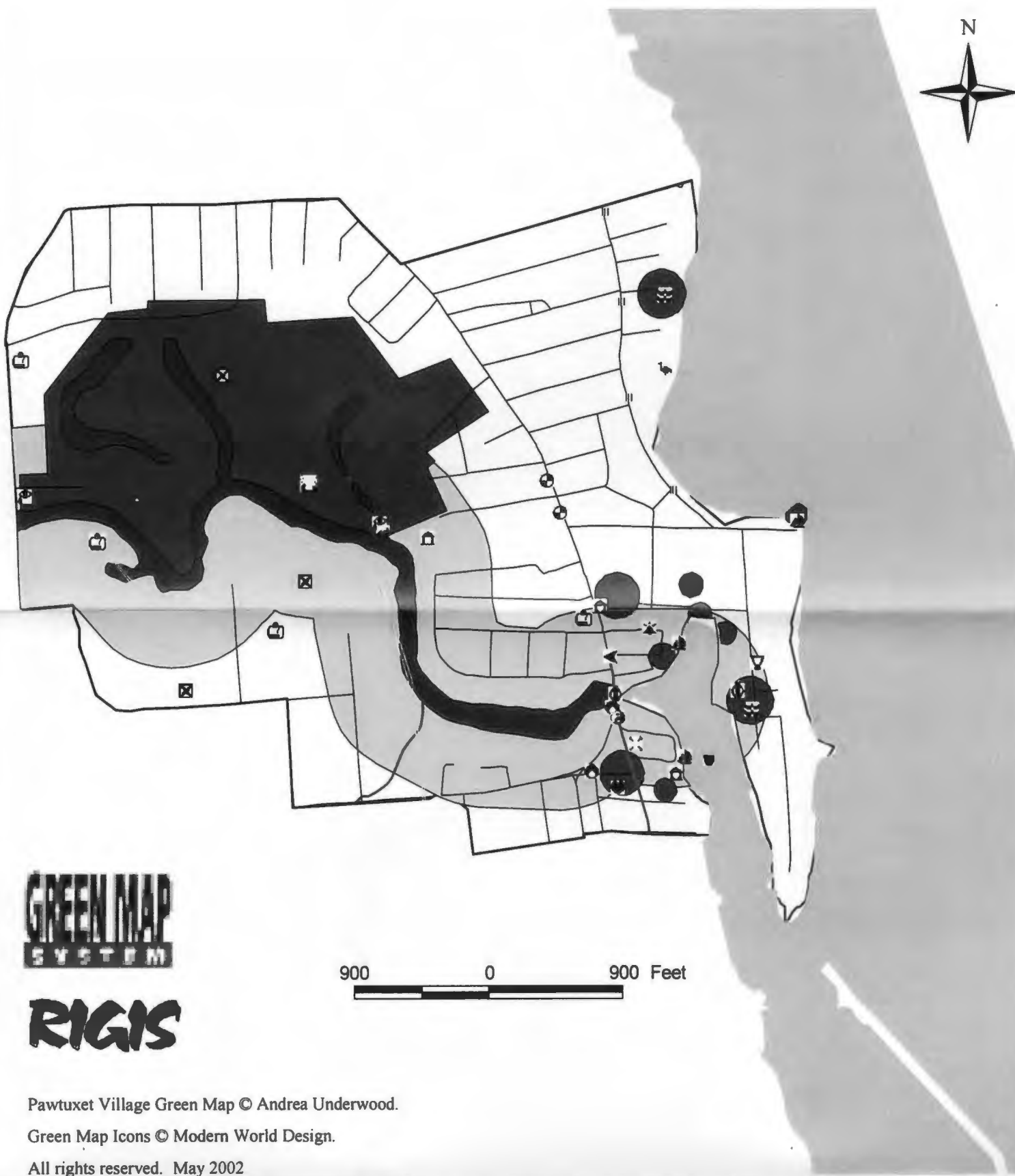The Aspray Boat House is an important community center in the Village.

N

| 0.2 | 0 | 0.2 | 0.4 Miles |

Icon	Label	Icon	Label	Icon	Label	Icon	Label
⊕	Scenic Vista	☙	Coastal Habitat	✂	Remediated Site	∧	Roads
♥	Land Trust Gateway	♥	Fishing Area	○	Redevelopment Opportunity	∧	Streams
☼	Special Trees	≋	Waterfront Park	◄	Transit Stop	▬	Rivers
⌂	Community Center	⏅	Protest Point	☇	Shaded Boulevard	▲	Water Access
⌂	Cultural Site	☛	Blight Site	‖‖	On-Road Bikepath	⊔	Wildlife Corridor
◔	Significant Organizations	⛁	UST	∿	Off-Road Bikepath	▮	Open Space
⊕	Alternative Health	⊠	Listed Contamination Site	∿	Gaspee Parade Route	▨	Greenway

GREEN MAP
SYSTEM

RIGIS

Pawtuxet Village Green Map
© Andrea Underwood.
Green Map Icons © Modern
World Design. All rights
reserved. May 2002

Pawtuxet Village Green Map
Core Inset

N

GREEN MAP
SYSTEM

RIGIS

900   0   900 Feet

⊕	Scenic View	🦆	Coastal Habitat	✕	Remediated Site	∧∧	Streams
♥	Land Trust Gateway	▼	Fishing Area	⬤	Redevelopment Opportunity	▬	Pawtuxet River
▲	Special Trees	≋	Waterfront Park	◀	Transit Stop	♠	Water Access
⌂	Community Center	▽	Protest Point	⫼	On-Road Bikepath	🌿	Wildlife Corridor
🏠	Cultural Site	☞	Blight Site	∧∧	Off-Road Bikepath	▬	Open Space
✪	Significant Organizations	🏛	UST	∧∧	Gaspee Parade Route	▭	Greenway
☺	Alternative Health	⊠	Listed Contamination Site	∧∧	Roads		

While the main objectives of this project were to teach a community group about sustainability and to suggest ways in which it might apply to their own community by developing a Green Map, there were some interesting findings that were unique to Pawtuxet Village that should be discussed. These findings may assist future planning initiatives in the Village or future Green Mappers.

Pawtuxet Village Boundary

Before this project, there was no map of Pawtuxet Village. There were historic maps and a hand drawn map made by the Gaspee Days Committee that showed the parade route, but no map existed that could be used by either City's Planning Department or other groups. A few Green Map team members noted that some residents defined the core of the Village as Ocean Avenue to the North, Narragansett Boulevard to the South, the coast to the East and the Pawtuxet River Bridge to the West. However, this is only the commercial center of the Village and it excludes most all of the residential property, the institutions and the waterfront parks.

The author decided to expand this traditional core boundary and drew the Pawtuxet Village boundary purposefully large to include the Village core and the surrounding neighborhoods in the two cities. It was not possible to have a meaningful conversation about sustainability or develop a Green Map using only the Village core. The Green Map team discussed a series of alternatives and came to an agreement. Only the Village's Northern boundary was difficult to delineate because there is no natural feature or major road.

To more thoroughly describe the spatial relationships of sustainability across scales, Pawtuxet Village consumption patterns, waste streams and commute sheds could have been

included. The Green Map boundary that was finally chosen is a compromise between these tensions. The Gaspee Days Parade Route (Narragansett Boulevard) bounds the Village to the South, the coast to the East, Norwood Avenue to the North and Warwick Avenue to the West. The boundaries to the South, East and West are natural features or major roads, while the Northern boundary is less hard and difficult to define. The Green Map team chose this street to the North because it is the site of an open space parcel that was recently acquired with assistance the of the Friends of the Pawtuxet River and the Cranston City Council Representative for the Village.

A Fragile, Special Place

Pawtuxet Village could adopt 'A Fragile, Special Place' as the official motto. Residents and team members described the Village using these words repeatedly. There is tension embedded in this description. Team members recognized that enhancements were needed to improve the Village, though they were wary about the nature of these improvements. The author thinks this is because several projects have been poorly executed in the Village. For example, the historic Odd Fellows Hall, built in 1893, is now Lindsay's Market.[14] This was a unique, distinct building in the Village core on the Bay with a gambrel roof and Moorish windows. All the windows were replaced with modern storm windows; the building was covered in vinyl; and the main entrance now faces the side rather than addressing Broad Street. Most significantly, people complained about the stewardship of historic properties. Important structures have been

---

[14] One of the Village's attributes that could be more sustainable is the location of a locally owned grocery store in the pedestrian core of the Village. Team members and residents like the market, but they object to the stewardship of the building. The grocery does not sell organic or local food nor does it carry "green" cleaning products or household supplies like energy efficient light bulbs.

modernized and/or covered in vinyl. Other historic buildings have been razed and replaced with buildings that detract from the Village's character.

Additionally, there were missed opportunities to make changes during retrofitting projects. The TEA-21 traffic-calming project is a good example. The streetscape enhancements will not include the removal of poles and wires and the expansion of sidewalks along a narrow portion of Broad Street. There is a second retrofitting project to treat stormwater that is being led by the Edgewood Waterfront Preservation Committee. Had the TEA-21 project and this project been coordinated, then more significant improvements could have been made including installing berms, plantings and street trees to increase infiltration, provide shade and inhibit erosion.

Team members are also concerned about the viability of local businesses. There are numerous national chain stores along the Western boundary of the project area, a few franchises are located in the Village core and several others are planned. Several businesses were destroyed by fire in recent years and the new building owner wants to bring in a national restaurant franchise.

Lastly, there is tension about housing within the Village. Presently there is a good mix of housing types and price ranges within the Village and the surrounding neighborhoods. However, a local business owner plans to redevelop some modest apartments into expensive condominiums with water views in the Village core in his mixed-use buildings that have retail shops on the street level. Several team members were concerned about "yuppies" taking over the Village. On the other extreme, several team members on the North side of the project area are worried about large single-family homes that are being converted into apartments. Absentee landlords own these houses and recent immigrants are moving into them. This tension over gentrification and declining property values is occurring within a very small area.

The Bay Versus the River

Though the view of the Pawtuxet River from the bridge in the Village core was very important to all team members, only a few people included the paths along the Pawtuxet River and the surrounding healthy riparian buffer as important attributes for the Green Map. There are two very active groups that work on Pawtuxet River recreation and restoration issues, but they are not particularly visible to the average resident. One is a professional group that works in the whole watershed, the Pawtuxet River Authority, and the other is a local group of volunteers, the Friends of the Pawtuxet. Notably, the water quality of the Pawtuxet River has improved dramatically in the last twenty years, but Green Map team members as a whole view the Bay as the more important water feature. The author learned that most residents consider Pawtuxet Village as a bayfront community and for many the river is an afterthought. There are two yacht clubs in the Village and numerous boats are moored in Pawtuxet Cove. However, there is no river canoe rental and the last canoe clubs closed after World War I.

The historic records show that the River and the Bay were equally popular recreation destinations in the 19th century through the early 20th century (D'Amato, 1992 and Kennedy, 1972). It is likely that when the health of the River declined due to the textile mills dumping that the River became less desirable for hiking and canoeing. Additionally, the River access is difficult. The trailhead is behind Rhodes on the Pawtuxet in the rear of an enormous parking lot that is bordered by two larger parking lots. There is also a chain across the main trailhead and canoe put-in to prevent car access. The pedestrian bridge and signs are covered in graffiti. Now that the water quality has improved, these barriers to the River could be remedied fairly easily, but it will be interesting to see if the Village returns to the River.

Canoeing on the Pawtuxet River, Pawtuxet, R. I.

According to the Pawtuxet River Authority, "from approximately 1900 to 1930, the Pawtuxet River was the second most canoed river in the northeastern United States - second only to the Charles River. At one time during this period, four canoe clubs graced the Pawtuxet River in the vicinity of Rhodes-on-the-Pawtuxet. Though not used and covered, canoe slips are still present in the current Rhodes-on-the-Pawtuxet building, which was erected in 1915 after a fire burned the previous Rhodes building." (PRA).

Graffiti covered bridge at the trailhead and canoe put-in on the Pawtuxet River behind Rhodes-on-the-Pawtuxet, 2002

Great Blue Heron on the Pawtuxet River, 2001 Source: Rod Rodriguez

While more Pawtuxet Village residents and Green Map team members enjoy and use the Bay than the River, the Bay is a place people play *on* rather than *in* or they just take in the view. It is used for boating and a few people fish along the banks, but no one is swimming here in the Upper Bay. Today, residents accept the water quality as it is and seem content to drive to South County to swim at those beaches.

People stopped swimming in the Upper Bay in the early 20th century. The Pawtuxet Cove House on the Bay (circa 1890) was the site of the Clambake Resort Club that was used as a beach pavilion until it was torn down in the early 20th century (Kennedy, p. 19). Two of the older Green Map team members remember swimming in Stillhouse Cove as children and playing on a wide sandy beach. This beach is now filled with invasive reeds and phragmites. Garbage, dog feces and old tires were all over the beach the day the author visited.

There is a tremendous opportunity to work with the Narragansett Bay Commission, the City of Providence and the statewide environmental group, Save the Bay, to improve the water

quality in the Upper Bay. These communities are on combined sewers rather than individual sewers. Once the Narragansett Bay Commission's Combined Sewer Overflow project is completed in combination with innovative stormwater and erosion management, and continued point source and non-point source pollution abatement, these cities could become urban, beach communities with the advantages of both.

Local Associations and Statewide Organizations

Pawtuxet Village is rich in social capital. The Green Map only depicts a few large "significant organizations" and this is misleading. There are numerous local groups that meet in volunteers' homes, the Aspray Boathouse and the Little Falls Café or they are hosted by one of the local churches. The author learned that it is difficult to represent this social capital spatially on a Green Map, but these local organizations are a critical component of local sustainability. Partnerships among these organizations will be important if the Village wants to develop private-public planning projects in the future.

In fact, large statewide organizations, the Shriners and the Scottish Masons are not really a part of the Village-life even though they have very large buildings and parking lots that create holes in the Village fabric and fragment riparian habitat.[15] Rhodes on the Pawtuxet used to be more involved locally, but now Rhodes is used as a function site for numerous large events. No Green Map team members were Shriners or Scottish Masons, though a few people said they give blood at Shriner blood drives. These organizations have large memberships and resources and it

---

[15] The Shriners are a philanthropic fraternal organization that provide healthcare for children. The Rhode Island Scottish Masons are a chapter of the Freemasons, the oldest and the largest fraternal order in the world. Ironically, modern Freemasons' are the legacy of the guilds of stone masons who constructed cathedrals and other structures throughout Europe during the middle ages. The Lodge in Pawtuxet Village is no architectural treasure. For more information see www.rishriners.org or www.rimasons.org.

would be worthwhile to tap into them. The parking lots at these buildings could be used for shared parking and Rhodes was mentioned as the future site for a Village farmers' market.

Historic Preservation and Habitat Restoration

The Green Map team members had two main interests – historic preservation and habitat restoration. Every Green Map team member was involved with at least one local group that worked on one of these issues. This is probably a coincidence, but more Green Mappers from the Cranston side of the Village, where there is not a historic zoning district, were interested in historic preservation and the Green Mappers from Warwick, where there is a historic zoning district, were involved in habitat restoration. This was too small a group to be statistically significant and there were people from both sides of the Village involved in both issues.

If the local residents do continue with the Green Map project in the future, the author suspects they will rally around these two issues and look for ways they can partner and share resources. The Green Mappers left with a better understanding of how working on and combining preservation and restoration projects could enhance overall sustainability and lessen the fragility of the Village. There needs to be a greater effort to marry these ideas to economic development and redevelopment in the Village.

Linking Attributes to Action

As mentioned earlier, the Green Map team did an extensive Village inventory, but they had a harder time envisioning enhancements, threats and opportunities to these attributes. When the group came together to do the SWOT analysis, they were able to think of ways that groups of people or the two cities could capitalize on opportunities or minimize threats, but no one was thinking of individual responses or behavioral changes households and businesses could make.

The only individual actions that were discussed was a small subset of the Green Map team that decided to explore the creation of a Village Farmer's Market. One Green Map team member is an organic farmer and another works for the Department of Environmental Management. These two started working together to explore this opportunity from the supply side and the administrative end.

Of course, sustainability also depends on the actions of individuals. It is part of the planner's job to educate, remove structural barriers and enhance design so individuals can change their behavior more easily. This project was conceived of as a team effort in a collaborative atmosphere so this may be why the team generated responses to be accomplished by organizations and government. Since it was already difficult to spatially show the location of small organizations it would be hard or perhaps invasive to site places where individuals are making a sustainable contribution. A map that has an icon for family compost bins or households where a commuter bikes to work is not practical. Though icons do exist for buildings with sustainable design features, these represent attributes rather than behavior. Yes, sustainable attributes stem from sustainable behavior, but the latter is hard to depict. The Green Map concept lends itself more to awareness-building and community sustainability as defined by community attributes rather than actions.

The Green Map's Audiences

Choosing the Green Map's audience was the only source of tension between the author and the team during the bottom-up process. The Green Map team and the author both perceived the Green Map as a tool for future change and action, but we differed as to how to use the tool. Our compromise was to develop a series of maps rather than a single Green Map.

The author views the Green Map as a planning tool that created momentum around the idea of Pawtuxet Village sustainability and gives the Village a community-based resource that could be used by local organizations, residents and the two planning departments to guide future action. In the future, the Green Map could become interactive and evolve. The Pawtuxet River Authority and the Cranston and Warwick Planning Departments are all interested in the Green Map for these purposes.

The Green Map team wanted a map that is similar to a boosterism or tourism map that could be used as a fundraising tool. They did not want it to depict pollution sources or visual blight. Instead they view it as something that would be a work of art that could be hung in people's homes and sold to tourists. The proceeds from the Green Map could be shared among local organizations to implement enhancement projects.

It is significant that professional planners are interested in plans and maps produced by community residents using a bottom-up technique. When the professionals and the residents disagree about how to use bottom-up maps and how to resolve the issue is a subject for further study.

RECOMMENDATIONS

Through the Green Mapping process, the team learned about Pawtuxet Village's potential for sustainability. The SWOT Analysis helped them to develop strategies to capitalize on strengths and opportunities, and ways to overcome and minimize weaknesses and threats in order to pursue sustainability. The Green Mapping team's strategies are listed below and these are the integral part of the project's recommendations to move forward towards a more sustainable community. These strategies complement the Green Map itself and create opportunities for dialogue among residents and the cities' professionals. Additional ideas follow as to how to distribute and use the Pawtuxet Village Green Map in the future.

SWOT Analysis Strategies

- Expand existing retrofitting projects to improve the environment as well as aesthetics and mobility.

- Coordinate projects to share expertise and resources among community groups.

- Explore shared parking opportunities.

- Use water amenities and identity to mobilize and organize planning and development.

- Use community groups as a forum to establish community norms that link personal behavior to the vitality and health of the Village and its environment.

- Create a commercial overlay district or restrict franchise architecture.

- Reach out to local merchants to capitalize on consumer interest in the Village Natural and a farmers' market to expand "green" businesses and services.

- Make explicit the competing themes of Special Sense of Place and Sense of Fragility to guide action and planning.

- Use residential architecture as a model for commercial architecture.

- Continue to promote partnerships between the two cities.

- Look for public-private partnership opportunities among the cities and local organizations.

Publishing and Distributing the Pawtuxet Village Green Map

The Green Map team included several artists (one of whom is a graphic designer) and journalists, who have interest and expertise in developing and publishing the Green Map. The Green Map that the team created for this project will be the basemap and the data source for a more artistic and beautiful Green Map. Rather than publishing the map in its present Arc View format, which is best used for an analytical rather than artistic presentation, these team members plan to enhance the map using graphic design and publishing software. Once the Green Map is edited, these team members plan to print it on recycled paper using soy-based ink.

The team members who have an ongoing interest in the project plan to use the Green Map as a fundraising tool for the Gaspee Days Committee. Their goal is to create a map that includes the Village's strengths and scenic attributes that would be suitable for framing and displayed as artistic cartography. Any proceeds that the map was to generate would be used for enhancement projects in the Village.

This edited map would be similar to the Green Map for the state of Rhode Island because it highlights positive features rather than negative ones. This map would be less useful for planning purposes, but it may generate pride and enthusiasm for the Village that lead to sustainable enhancements.

Interactive On-Line Green Map

The author thinks the development of an interactive, on-line Pawtuxet Village Green Map would help sustain the project into the future because it would then be accessible to the widest

audience – residents, tourists, Village organizations, planners and other city personnel. It would be available in real-time and it is a relatively inexpensive medium that could continue to be used as a planning tool.[16] The web-based version of the map would allow people to click on a particular icon and learn more about the specific places the icons represent. Additionally, people could add new icons and new sites as change occurred in the Village.

An interactive, on-line version of the Green Map could also provide information and links to sustainable resources and allied groups in the Village. For example, content could include information about how households could contribute to Pawtuxet Village sustainability like how-to guides to environmentally friendly lawn care, composting, recycling, waste disposal and water quality management, or where to buy locally grown food, green cleaning products and energy-conserving consumer goods.

The website could also become a forum for discussion and coordination among citizens, local government and organizations. Plans could be posted for comment and design review. Public hearings and other meetings could be announced. The site might also include a directory (contact information and a description) of the organizations and people who are working in the Village so these groups can collaborate in the future. This interactive capacity would continue the sustainability goals of bottom-up community-based mapping in Pawtuxet Village upon completion of this project.

---

[16] Other Green Map teams from across the globe have developed these interactive, on-line maps to complement the paper Green Maps. See http://www.greenmap.org/grmaps/linklist.html for examples. The Green Map System, the Pawtuxet River Authority and the City of Warwick and Cranston Planning Departments are all willing to either host or link to a Pawtuxet Village Green Map website.

WORKS CITED

Aberley, Doug. ed. 1993. *Boundaries of Home: Mapping for Local Empowerment.* Gabriola Island, BC: New Society Publishers.

Arnstein, Sherry R. 1969. "A Ladder of Citizen Participation," *Journal of the American Planning Association*, Vol. 35, No. 4, (July).

Beatley, Timothy. 1995. "The Many Meanings of Sustainability," *Journal of Planning Literature*, Vol. 9, No. 4, (May).

Beatley, Timothy and Kristy Manning. 1997. *The Ecology of Place: Planning for Environment, Economy and Community.* Washington, DC: Island Press.

Beatley, Timothy. 2000. *Green Urbanism: Learning from European Cities.* Washington, DC: Island Press.

Bernick, Michael and Robert Cervero. 1997. *Transit Villages in the 21st Century.* New York: McGraw-Hill.

Brundtland Commission (World Commission on Environment and Development) 1987. *Our Common Future.* Oxford, UK: Oxford University Press.

Calthorpe, Peter and William Fulton. 2001. *The Regional City: Planning for the End of Sprawl.* Washington, DC: Island Press.

Cronon, William. 1983. *Changes in the Land: Indians, Colonists and the Ecology of New England.* New York: Hill and Wang.

D'Amato, Donald. 1992. *Warwick's 350-Year History: A Pictorial History.* Virginia Beach, VA: The Donning Company.

D'Amato, Donald. 1996. *Images of Warwick.* Dover, NH: Arcadia Publishing.

Freeman, Robert Eliot. 1980. *Cranston, Rhode Island – Statewide Historical Preservation Report P-CR-1.* Providence, RI: Rhode Island Historical Preservation Commission.

Hartman, Janet Hudon and Susan N. Hartman. 1999. *Second Nature: Blooming in Pawtuxet Village.* Warwick, RI: Beacon Press Corporation.

Kennedy, Hazel Wade. 1972. *A Guide to Historic Pawtuxet.* Providence, RI: Oxford Press.

Monmonier, Mark. 1993. *Mapping It Out: Expository Cartography for the Humanities and Social Sciences.* Chicago: University of Chicago Press.

Mumford, Lewis. 1938. *The Culture of Cities.* New York: Harcourt, Brace and Co.

Putnam, Robert. 1995. "Bowling Alone" *Journal of Democracy,* Vol. 6, No. 1. (Jan).

Rediker, Marcus. 1987. *Between the Devil and the Deep Blue Sea: Merchant Seaman, Pirates, and the Anglo-American Maritime World, 1700-1750.* Cambridge, UK: Cambridge University Press.

Talen, Emily. 1998. "Visualizing Fairness: Equity Maps for Planners," *Journal of the American Planning Association,* Vol. 64, No. 1.

Talen, Emily. 2000. "Bottom-Up GIS: A New Tool for Individual and Group Expression in Participatory Planning," *Journal of the American Planning Association,* Vol. 66, No. 3.

Friends of the Pawtuxet, http://www.friendsofthepawtuxet.org

Gaspee Days Committee, www.gaspee.com

Green Map System, http://www.greenmap.org

Guide to Rhode Island, http://www.guidetori.com

How To Be a Bioregionalist, http://www.tnews.com/text/how_to_be.html

Partnerships, Participation and On-Line Communities, http://www.partnerships.org.uk

Pawtuxet River Authority, http://www.pawtuxet.org

Professor Gaytha Langlois, Bryant College
http://web.bryant.edu/~langlois/ecology/pawtuxetindex.htm.

Rhode Island Scottish Masons, http://www.rimasons.org

Rhode Island Shriners, http://rishriners.org

The Stonington Historical Society, R.W. Woolworth Library
http://www.stoningtonhistory.org/libra2c.htm

Victoria Transport Policy Institute, Online TDM Encyclopedia
http://www.vtpi.org/tdm/tdm12.htm

BIBLIOGRAPHY

Aberley, Doug. ed. 1993. *Boundaries of Home: Mapping for Local Empowerment.* Gabriola Island, BC: New Society Publishers.

Arnstein, Sherry R. 1969. "A Ladder of Citizen Participation," *Journal of the American Planning Association*, Vol. 35, No. 4, (July).

Avedisian, Scott and Hazel Wade Kennedy. 1999. *The Walking Tour of Historic Pawtuxet Village.* Warwick, RI: Warwick Economic Development Department, Tourism Office.

Beatley, Timothy. 1995. "The Many Meanings of Sustainability," *Journal of Planning Literature*, Vol. 9, No. 4, (May).

Brundtland Commission (World Commission on Environment and Development) 1987. *Our Common Future.* Oxford, UK: Oxford University Press.

Beatley, Timothy and Kristy Manning. 1997. *The Ecology of Place: Planning for Environment, Economy and Community.* Washington, DC: Island Press.

Beatley, Timothy. 2000. *Green Urbanism: Learning from European Cities.* Washington, DC: Island Press.

Bernick, Michael and Robert Cervero. 1997. *Transit Villages in the 21st Century.* New York: McGraw-Hill.

Brawer, Wendy. 1999. "Mappa Mondo: Green Maps Grow From Grassroots," *Landscape Architecture,* (May).

Brawer, Wendy. 2001. "Green Maps: We Chart the Earth," *Whole Earth,* (Summer).

Calthorpe, Peter. 1993. *The Next American Metropolis: Ecology, Community and the American Dream.* New York: Princeton Architectural Press.

Calthorpe, Peter and William Fulton. 2001. *The Regional City: Planning for the End of Sprawl.* Washington, DC: Island Press.

Cronon, William. 1983. *Changes in the Land: Indians, Colonists and the Ecology of New England.* New York: Hill and Wang.

D'Amato, Donald. 1992. *Warwick's 350-Year History: A Pictorial History.* Virginia Beach, VA: The Donning Company.

D'Amato, Donald. 1996. *Images of Warwick.* Dover, NH: Arcadia Publishing.

Duany, Andres, Elizabeth Plater-Zyberk, and Jeff Speck. 2000. *Suburban Nation: The Rise of Sprawl and the Decline of the American Dream.* New York: Farrar, Straus and Giroux.

Fletcher, Scot. 1999. "Green Mapping," *EcoDesign,* Vol. 7, No. 2. (Summer).

Freeman, Robert Eliot. 1980. *Cranston, Rhode Island – Statewide Historical Preservation Report P-CR-1.* Providence, RI: Rhode Island Historical Preservation Commission.

Hart, Roger. 1997. *Children's Participation: The Theory and Practice in Involving Young Citizen's in Community Development and Environmental Care.* London: Earthscan Publications.

Hartman, Janet Hudon and Susan N. Hartman. 1999. *Second Nature: Blooming in Pawtuxet Village.* Warwick, RI: Beacon Press Corporation.

Knack, Ruth Eckdish. 2001. "The Plotting o' the Green," *Planning,* (May).

Kennedy, Hazel Wade. 1972. *A Guide to Historic Pawtuxet.* Providence, RI: Oxford Press.

Monmonier, Mark. 1993. *Mapping It Out: Expository Cartography for the Humanities and Social Sciences.* Chicago: University of Chicago Press.

Mumford, Lewis. 1938. *The Culture of Cities.* New York: Harcourt, Brace and Co.

O'Riordan, Tim. 1998. "Civic Science and the Sustainability Transition" *Community and Sustainable Development: Participation in the Future.* Diane Warburton, ed. London: Earthscan Publications.

Putnam, Robert. 1995. "Bowling Alone" *Journal of Democracy,* Vol. 6, No. 1. (Jan).

Rediker, Marcus. 1987. *Between the Devil and the Deep Blue Sea: Merchant Seaman, Pirates, and the Anglo-American Maritime World, 1700-1750.* Cambridge, UK: Cambridge University Press.

Talen, Emily. 1998. "Visualizing Fairness: Equity Maps for Planners," *Journal of the American Planning Association,* Vol. 64, No. 1.

Talen, Emily. 2000. "Bottom-Up GIS: A New Tool for Individual and Group Expression in Participatory Planning," *Journal of the American Planning Association,* Vol. 66, No. 3.

GREEN MAP SYSTEM **Icons**

COMPLETE SHARED SET
FONT VERSION 2   P.1

Economic Development

- **FARMERS MARKET**
- **ECO-AGRICULTURE SITE**
- **ORGANIC PRODUCE/NATURAL FOOD**
- **VEGETARIAN/NATURAL CAFE**
- **GREEN BUSINESS/SERVICE**
- **STRICTLY GREEN STORE**
- **ECO/CONSERVING PRODUCTS**
- **FAIR TRADE/SOCIAL SHOP**

about these Green Map Icons

THIS GLOBALLY DESIGNED VISUAL LANGUAGE IDENTIFIES, PROMOTES AND LINKS ENVIRONMENTAL RESOURCES — BOTH NATURAL AND CULTURAL — THROUGH LOCALLY PRODUCED GREEN MAPS. A FRESH PERCEPTION OF THE CITY IS CREATED, AND OUR ICONS HELP SPREAD GREENING INITIATIVES AROUND THE WORLD. THESE AWARD-WINNING ICONS ARE THE HEART OF OUR ECO-INFO COLLABORATION. SEE THE RESULTING MAPS, INFO ON PARTICIPATING AND MORE AT OUR WEBSITE.

Culture and Design

- **CULTURAL SITE**
- **MUSEUM/INSTITUTION**
- **ART SPOT**
- **WORLD MUSIC**
- **HISTORICAL FEATURE**
- **TRADITIONAL WAY OF LIFE**
- **ECO DESIGN/PLANNING FEATURE**
- **ECO BUILDING**
- **SIGNIFICANT BUILDING**
- **SHANTY TOWN/SELF-BUILT HOMES**
- **ECO DESIGN RESOURCES**
- **CHILD FRIENDLY ECO-SITE**
- **SENIOR FRIENDLY SITE**
- **ECO-SPIRITUAL SITE**

GREEN MAP SM **SYSTEM**

**Green Map
System Icons**

www.greenmap.org

Renewable Resources

- SOLAR ENERGY SITE
- WIND ENERGY SITE
- RENEWABLE TECH SITE
- WATER RECYCLING SYSTEM
- BIOREMEDIATION SITE
- COMPOSTING
- REUSE SITES
- REMEDIATED (CLEANED UP) SITE
- REDEVELOPMENT OPPORTUNITY SITE

contact: **Green Map System**

email: **info@greenmap.org**

mail: **PO Box 249**
New York NY USA 10002

tel: **212 674 1631**
fax: **212 674 6206**

website: **www.greenmap.org**

GREEN MAP SYSTEM **Icons**
COMPLETE SHARED SET
FONT VERSION 2   P.2

Information

- ECO-INFORMATION CENTER
- INFO RESOURCES BY PHONE
- INFO RESOURCES ONLINE
- ENVIRONMENTAL CENTER
- ENVIRONMENTAL SCHOOL
- COMMUNITY CENTER
- GREEN TOURS AVAILABLE
- ECO-TOURIST DESTINATION
- SIGNIFICANT ORGANIZATION
- SOCIAL/POLITICAL RESOURCES
- ALTERNATIVE HEALTH RESOURCES
- SCIENTIFIC/RESEARCH SITE
- POLLUTION MONITOR
- PROTEST POINT

Miscellaneous

- CALL FIRST/APPOINTMENT NEEDED
- GREEN MAPS AVAILABLE HERE
- SPECIAL OR SUPPORTERS' SITE

Nature: Fauna

BIRD & WILDLIFE WATCHING

SIGNIFICANT HABITAT

COASTAL HABITAT

MARINE HABITAT

AMPHIBIAN HABITAT

INSECT WATCHING SITE

WILDLIFE INFO/REHAB CENTER

ZOOS & WILDLIFE CENTER

DUCK POND

FARM ANIMALS

DOG RUN

FLYOVER ZONE

Nature: Flora

PUBLIC FORESTS/NATURAL AREA

PARKLANDS/RECREATION AREA

SPECIAL TREE

SPRING BLOSSOMS

AUTUMN LEAVES

BAMBOO FOREST

SHADED BOULEVARD

BIOREGIONAL SITE/NATIVE PLANTS

WILDLIFE CORRIDOR/GREENWAYS

Nature: Land and Water

RIVER-AND WATER-FRONT PARKS

WETLANDS

WATER FEATURE

CLIMATE AND CURRENTS

LANDFORM/GEOLOGICAL FEATURE

OPEN SPACE

WILDERNESS SITE/INFO

CAMPING

SNOW ACTIVITY

GREAT VIEWS/SCENIC VISTAS

STAR-GAZING SITES

SUNSET SITES

GARDEN

COMMUNITY GARDEN

SPECIAL GARDEN

GLEANING AREA/FISHING

Mobility

BICYCLE SITE

ON ROAD BIKE PATH/BRIDGE

SEPARATE BIKE PATH/BRIDGE

SECURE BIKE PARKING

WHEELCHAIR ACCESSIBLE

BEST WALKS

PEDESTRIAN ZONE

PUBLIC SQUARE/CAR-FREE ZONE

BOAT LAUNCH SITES (SAIL/HP)

FERRY

MAJOR PUBLIC TRANSPORT STOP

LOCAL TRANSPORT STOP

LIGHT RAIL TRANSIT

PARK'N'RIDE FACILITY

ALTERNATIVE VEHICLE/FUEL STATION

PARK'N'CHARGE FACILITY

Infrastructure

DRINKING WATER SOURCES

WASTEWATER TREATMENT PLANT

RECYCLING

LANDFILLS

SOLID WASTE TRANSFER STATION

INCINERATOR

ENERGY GRID GENERATING FACILITY

Toxic Hot Spots/ Pollution Sources

BLIGHT SITE

DANGER ZONE

TRAFFIC HAZARD ZONE

NOISE POLLUTION SOURCE

AIR POLLUTION SOURCE

WATER POLLUTION SOURCE

OIL & NATURAL GAS FACILITY

OIL SPILL

UNDERGROUND STORAGE TANK

OFFICIALLY LISTED CONTAMINATED SITE

TOXIC CHEMICAL STORAGE

TOXIC CHEMICAL RELEASES

HAZARDOUS WASTE GENERATOR

HAZARDOUS WASTE FACILITY

WASTE DUMP

MINING SITE

NUCLEAR FACILITY & WASTE SITE

GREEN MAP SYSTEM Icons

COMPLETE SHARED SET
FONT VERSION 2   P.4

APPENDIX B. PAWTUXET VILLAGE INVENTORY WORSHEETS

INVENTORY: PAWTUXET VILLAGE STRENGTHS

Detailed Description of the Location	What Makes this Place Special?	Which Icon Represents this Place Best? Why?	Could this Place be Enhanced? How?	Are there Threats to this Place? What?

Please return the Pawtuxet Village Inventory to Andrea Underwood – 249 Transit St., #2 • Providence, RI 02906 no later than **FRIDAY, MARCH 29, 2002.** THANK YOU!!!!!

INVENTORY: PAWTUXET VILLAGE WEAKNESSES

Detailed Description of the Location	Why Don't You Like this Place ?	Which Icon Represents this Place Best? Why?	Could this Place be Enhanced? How?	What Will Happen to this Place If Nothing is Done?

Please return the Pawtuxet Village Inventory to Andrea Underwood – 249 Transit St., #2 • Providence, RI 02906 no later than <u>FRIDAY, MARCH 29, 2002.</u> THANK YOU!!!!!