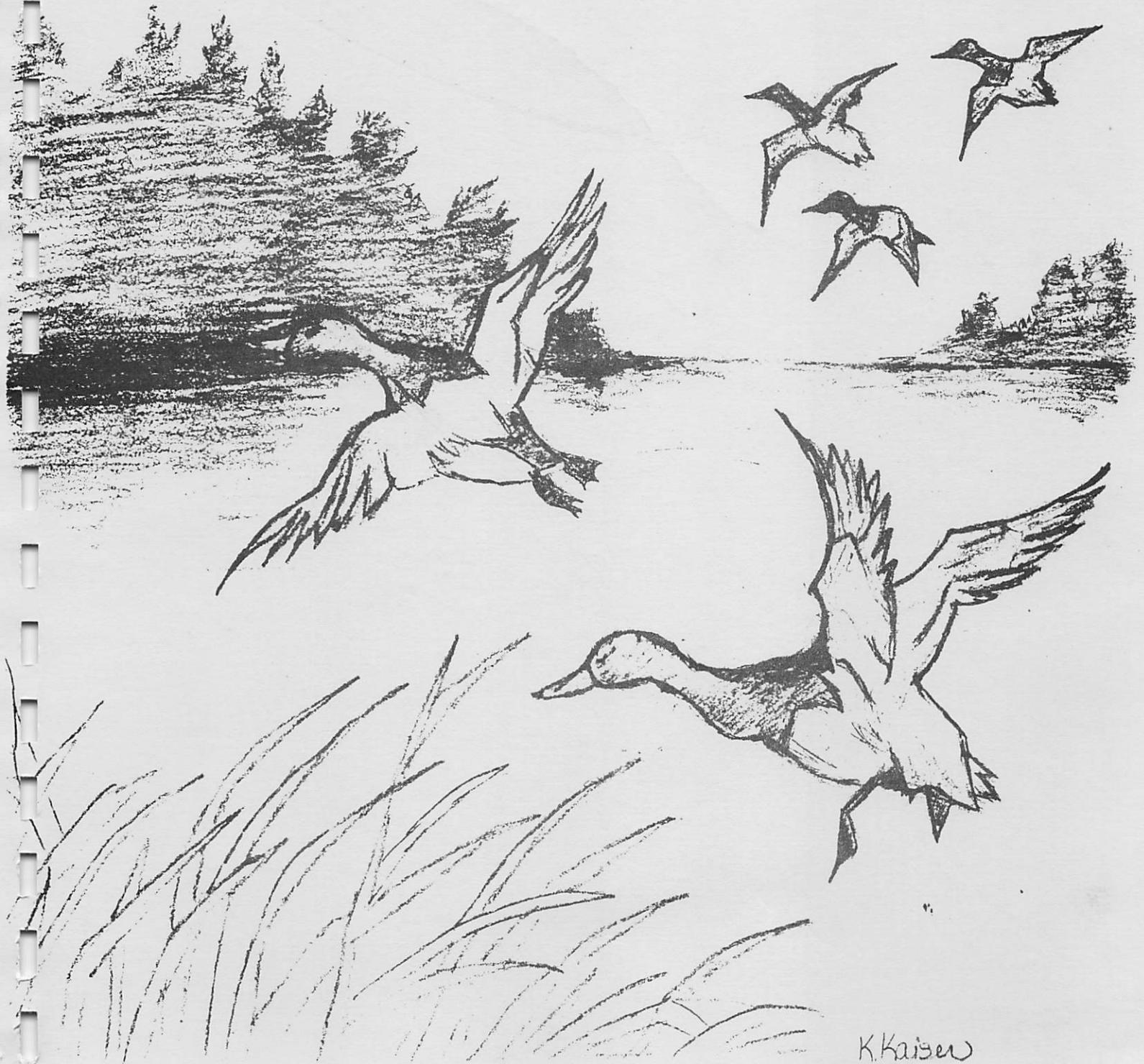


RECREATION, CONSERVATION, AND OPEN SPACE PLAN

TOWN OF WARREN, RHODE ISLAND

1990



K. Kaiser

TOWN OF WARREN

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ACKNOWLEDGEMENT

This Plan was prepared by the Recreation, Conservation, and Open Space Plan subcommittee of the Conservation Commission, advised by consultants from the University of Rhode Island and the Cooperative Extension. In addition, many individuals, boards, and organizations contributed valuable information and recommendations that have been incorporated in the Plan. Such a cooperative effort of dedicated people will enable Warren to meet the recreational needs of its residents and to protect the scenic, cultural, historic and natural resources that are its pride.

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I. INTRODUCTION

The quality of life in a community can be measured by several factors such as the types of recreational programs and facilities available, the natural resources of the community, and its open spaces. Together all of the factors create the special character of the community. The Recreation, Conservation and Open Space Plan is the means by which these special attributes can be appropriately developed and protected.

Scope and Function of Plan

Warren's Recreation, Conservation and Open Space (RCOS) plan is the town's guide to the acquisition and protection of recreational facilities and natural resources for the benefit of future generations. The RCOS plan serves several purposes. First, the plan provides a summary of the community's goals and objectives for recreation, natural resource protection and the maintenance of open space areas.

Second, the plan provides an inventory of existing recreational facilities and, based upon municipal characteristics, determines whether current and projected demand warrant the acquisition or development of additional facilities. Third, the plan inventories the community's natural resources and establishes methods of protecting these resources. Finally, the plan contains a course of action establishing a timetable and budget to implement the plan.

The development of a good RCOS planning program will enable the town to receive state and federal grant funding to match appropriations for the development of recreation and open space programs.

Preparation and Maintenance of Plan

The Rhode Island Comprehensive Planning and Land Use Regulation Act mandates communities to develop and adopt Comprehensive Plans. The RCOS plan comprises the Open Space and Recreation and Natural and Cultural Resources elements of the comprehensive plan. Although the Town Planning Board is the town agency responsible for the preparation and updating of the comprehensive plan, the assistance and cooperation of other town boards, commissions and agencies, as well as the public, is required. The preparation of this plan follows guidelines prepared by the Rhode Island Department of Environmental Management.

Certification that the Plan is the
Community's Official Warren Recreation,
Conservation and Open Space Plan

RESOLUTION BY THE WARREN TOWN COUNCIL:

The Warren Town Council hereby resolves and declares that providing land for public recreation and protecting and managing natural resources promotes the public health, prosperity and general welfare and is the proper responsibility of the Warren Town Council.

Therefore, the Town Council of the Town of Warren, Rhode Island hereby resolves that the plan entitled "Town of Warren Recreation, Conservation and Open Space Plan" is hereby adopted as the official guide plan for the Town of Warren, Rhode Island.

CERTIFICATION OF THE TOWN CLERK, WARREN, RHODE ISLAND

OFFICE OF THE TOWN CLERK

WARREN, RHODE ISLAND

I, the undersigned _____,
Town Clerk of the Town of Warren, Rhode Island, hereby
certify that the copy of the Resolution designating the
Official Warren Recreation, Conservation and Open Space
Plan was duly approved by the Warren Town Council, at a
meeting held on _____.

Town Clerk

Plan Update Methodology

Warren's Recreation, Conservation and Open Space Plan was reviewed and updated in 1986 for the primary purpose of assessing and making recommendations to meet the community's demand for parks and recreational facilities. Upon official adoption of the plan, Warren's Town Council recognized that the elements concerning conservation of natural resources and preservation of open space needed to be expanded to make recommendations for preserving and enhancing the community's environmental assets. This task was delegated to the Conservation Commission.

In 1988 the Conservation Commission was fortunate to reach an agreement with the University of Rhode Island Department of Community Planning and the Cooperative Extension Service to undertake the revision of the Recreation, Conservation and Open Space Plan as a special project. The Town Council appropriated funds in support of this project and participated, along with the Recreation Board, the Planning Board, the Zoning Board, the Conservation Commission and a number of community groups and individuals, in making many valuable suggestions that have been incorporated into the plan.

Work on the RCOS plan requires primary cooperation between the Planning Board, Conservation Commission and the Recreation Board. The Town Council, as the legislative body, is responsible for the adoption of the plan and the adoption of budgets to fund the Capital Improvement Program and plan implementation.

The Conservation Commission formed a sub-committee to work on the RCOS plan. The sub-committee held several meetings during the course of the study and published a public-opinion survey in the Warren Times-Gazette to determine the goals and objectives of the community for natural resource and open space preservation and outdoor recreation facility development. Prior to the plan being adopted by the Town Council, a public meeting must be held to solicit final input from citizens.

Warren's Planning History

Warren's Comprehensive Community Plan, adopted in 1966, included recommendations for development of recreation facilities and conservation of natural resources. This was amended in 1984 to add the goal of protecting the water quality of the Kickemuit River. The Recreation, Conservation, and Open Space element of the plan was rewritten in 1975 and revised in 1986.

Over the years, the Town of Warren has been committed to meeting the passive and active recreational needs of its residents by acquiring land and developing parks and playgrounds. Green Acres funding was used to purchase the

Wujcik Farm in 1968; Jamiel Park was refurbished in 1975. Recreation/Conservation was established as a zoning category in 1985 when land along the Palmer River and Belcher Cove was protected by this designation.

Recently, the Town has passed a bond and received state matching funds to develop a major park on Asylum Road. This park is scheduled to be completed in 1990. Ballfields at Child Street School, Jamiel Park, and Burr's Hill Park will receive major site improvements during 1988. The Town has applied for funding to purchase development rights to the Frerishs Farm.

In addition, the Town has made application to construct a commercial fishing wharf and docking facility on the Warren River. While the main use of this pier will be for commercial vessels, it will also provide public access to the river and will restore a boat launching ramp.

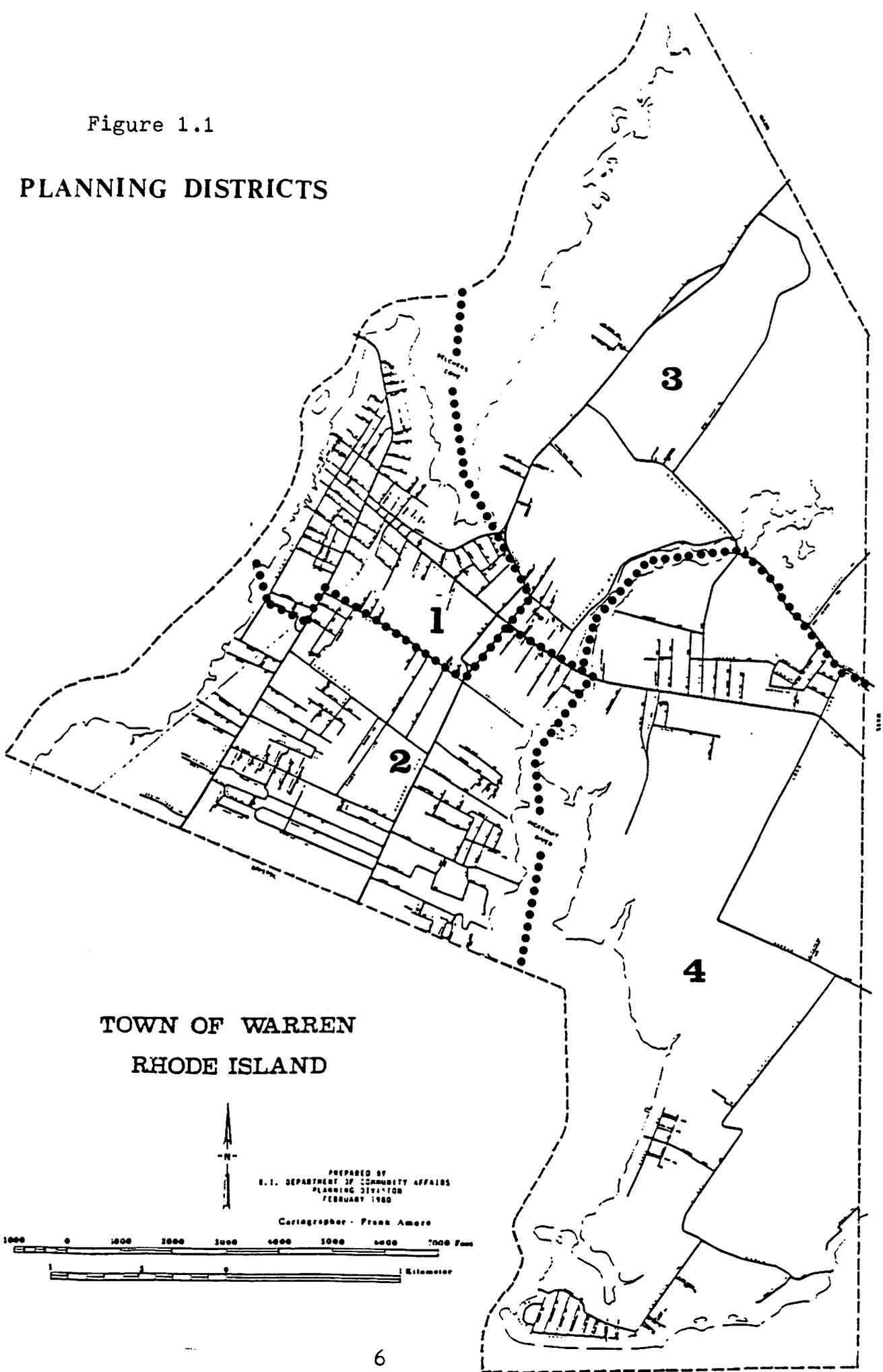
Planning Districts

Planning Districts provide smaller areas for study and for planning on a neighborhood scale. To this end, the Recreation, Conservation and Open Space Plan will use the planning districts as established in the Comprehensive Community Plan, 1966. Figure 1.1 shows the Planning Districts that are described as follows:

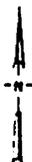
- District 1 - The Central Business District and its contiguous areas bounded by Metacom Avenue, Belchers Cove, the Warren River and Franklin Street. (Coincides with Census Tract 305.)
- District 2 - South Warren bounded by the Kickemuit River, Franklin Street, the Warren River and the Town of Bristol. (Part of Census Tract 306.)
- District 3 - North Warren bounded by the Palmer River, Belchers Cove, Kickemuit Road, Child Street, Wilbur Avenue and the State Line. (Part of Census Tract 306.)
- District 4 - The Touisset Point-East Warren area. (Part of Census Tract 306.)

Figure 1.1

PLANNING DISTRICTS

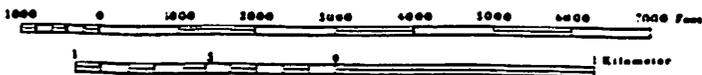


TOWN OF WARREN
RHODE ISLAND



PREPARED BY
U.S. DEPARTMENT OF COMMUNITY AFFAIRS
PLANNING DIVISION
FEBRUARY 1960

Cartographer - Frank Amore



II. MUNICIPAL CHARACTERISTICS

Site and Location

Warren is one of Rhode Island's East Bay communities located in Bristol County, about twelve miles southeast of Providence. Warren is bounded by Swansea, Massachusetts on the north and east, the Town of Bristol and Mount Hope Bay to the south, and Barrington, which lies across the Warren River, to the west. Major water bodies include the Palmer, Warren and Kickemuit Rivers and Mount Hope Bay.

The Town's population in 1985 was estimated to be 10,986 persons. Warren's total area comprises 8.2 square miles; land area, 5.8 square miles and inland water, 2.4 square miles or 4,096 acres.

Early History

The Wamponoag Indians, who established the village of Sowams, were the first settlers in the area which would later become known as Warren. In 1621, the first European settlers began to arrive in the area and purchase tracts of land from the Indian leaders. These lands were eventually incorporated as part of the Town of Swansea, Massachusetts in 1677. Swansea originally included the area which constitutes the present towns of Warren and Barrington, Rhode Island and Somerset, Massachusetts.

In 1746 a long-standing dispute between Rhode Island and Massachusetts was resolved by the transfer of Attleborough Gore, Little Compton, Tiverton, Bristol and part of Barrington and Swansea from Massachusetts to Rhode Island. The Town of Warren was established by royal decree by combining Swansea, Barrington and a small part of Rehoboth. The new town was named after Sir Peter Warren, the Naval hero of Louisbourg. Warren held its first town meeting on February 10, 1747. The town's first census in 1748 enumerated a total of 380 persons in the community.

Warren's maritime heritage was established during the colonial period due to its location halfway between Providence and Newport, its deep river channel, and its accessibility from both land and water. The community developed as a seaport attracting shipbuilders, carpenters, coopers and merchants. Warren ships were involved in the West India trade, whaling and merchant trade during the pre-revolutionary war period.

Community Character

Warren, the smallest town in the smallest county in the smallest state, has been shaped by water. Situated between

two rivers on Narragansett Bay, Warren has grown dependent upon them for its livelihood, for its sense of openness, and for its distinctive personality.

The smallness, the human scale, is what residents like best about Warren. Warren's skyline as seen from across the Warren River is dominated by church spires and the Town Hall tower just as the town's social activities are dominated by Church fairs and firemen's clambakes.

Warren has been an important ship building port since the early 18th century and continues to support marine construction and shellfish processing industries. Yet many residents still head for the Kickemuit River to make a supper of tautog or quahog chowder.

Today there is growing pride in Warren and its heritage. It shows up in the revival of Water Street, the restoration of the George Hail Library, and the attendance of the Memorial Day Parade. The Town Council brags about having one of the best sewage treatment plants in Rhode Island and takes decisive action to protect the water quality at the Town Beach. Residents vocally express their determination to keep Warren a desirable community. They form neighborhood action groups, sign petitions, attend public hearings, work to construct a park, and vote overwhelmingly in favor of open space protection.

A community of historic areas, working dairy farms, shoreside residences, rural, suburban, and urban tracts, forests and wetlands, saltwater and freshwater, Warren offers a variety of landscapes all dominated by the two rivers that bracket the Town. Even in the most densely populated areas, around a corner or between two buildings, the rivers give a glimpse of a more distant horizon.

After a history of modest growth that left plentiful open spaces, Warren faces stronger development pressure that threatens to corral water areas and private land traditionally available for walking, picknicking, swimming, boating, or shellfishing. Residents, concerned that unbridled building will coalesce the contrasts that are Warren's most valuable quality, seek to direct development so as to continue the scale, diversity, and openness which define Warren's special appeal.

Public Services

Fire and Rescue

The Town of Warren is served by 400 dedicated volunteer firefighters. This includes 30 rescue volunteers of whom 80 percent are certified Emergency Medical Technicians.

Warren's six fire stations house seven fire companies

and three rescue units. Equipment includes six fire engines, a ladder truck, and three rescue vehicles.

The force answers approximately 1000 rescue calls and 225 fire calls a year, or an average of more than three calls per day. The frequency of calls continues to increase as the Town's population increases.

Although the volunteer force is presently meeting the needs of the Town, additional development coupled with state requirements and insurance standards will necessitate the hiring of paid professionals.

Schools

The Warren School Committee and School Department set policy for and administer the approximately 1500 student school system. The town's educational facilities consist of five school buildings: Warren High School, Quirk Middle School, Hugh Cole School, Main Street School, and Child Street School.

The School Department recently completed a building needs survey and enrollment projection to determine the future needs of the school system. The study predicts that school enrollment will increase gradually but steadily over the years through 1996. The report concludes that the Town must act to create additional school facilities due to rising enrollment and schools failing to meeting Rhode Island's Basic Education Plan requirements or lacking handicap access.

Sewage Treatment

Warren's Water Pollution Control Plan provides secondary treatment of wastewater generated throughout the town and discharges treated effluent into the Warren River. The plant was designed for a population of 12,000. The average daily wastewater flow at design capacity is 2.01 million gallons per day (mgd), and peak hour flow is 7.07 mgd at design capacity.

The collection system for the sewered areas of town includes 35 miles of gravity sewers and force mains, five pump stations and two ejector stations. The plant is also capable of treating septage from individual sewage disposal systems (ISDS) from the unsewered parts of town via sewage pumping trucks.

The Town's sewer district includes the Central Business District, South Warren, the Market Street area, and the area along Child Street. Figure 2.1 shows Warren's areas not served by sewers are the parts of North Warren east of Market Street and along Fall River Road, and the Touisset Point area.



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UNSEWERED STREETS
TOWN OF WARREN
RHODE ISLAND

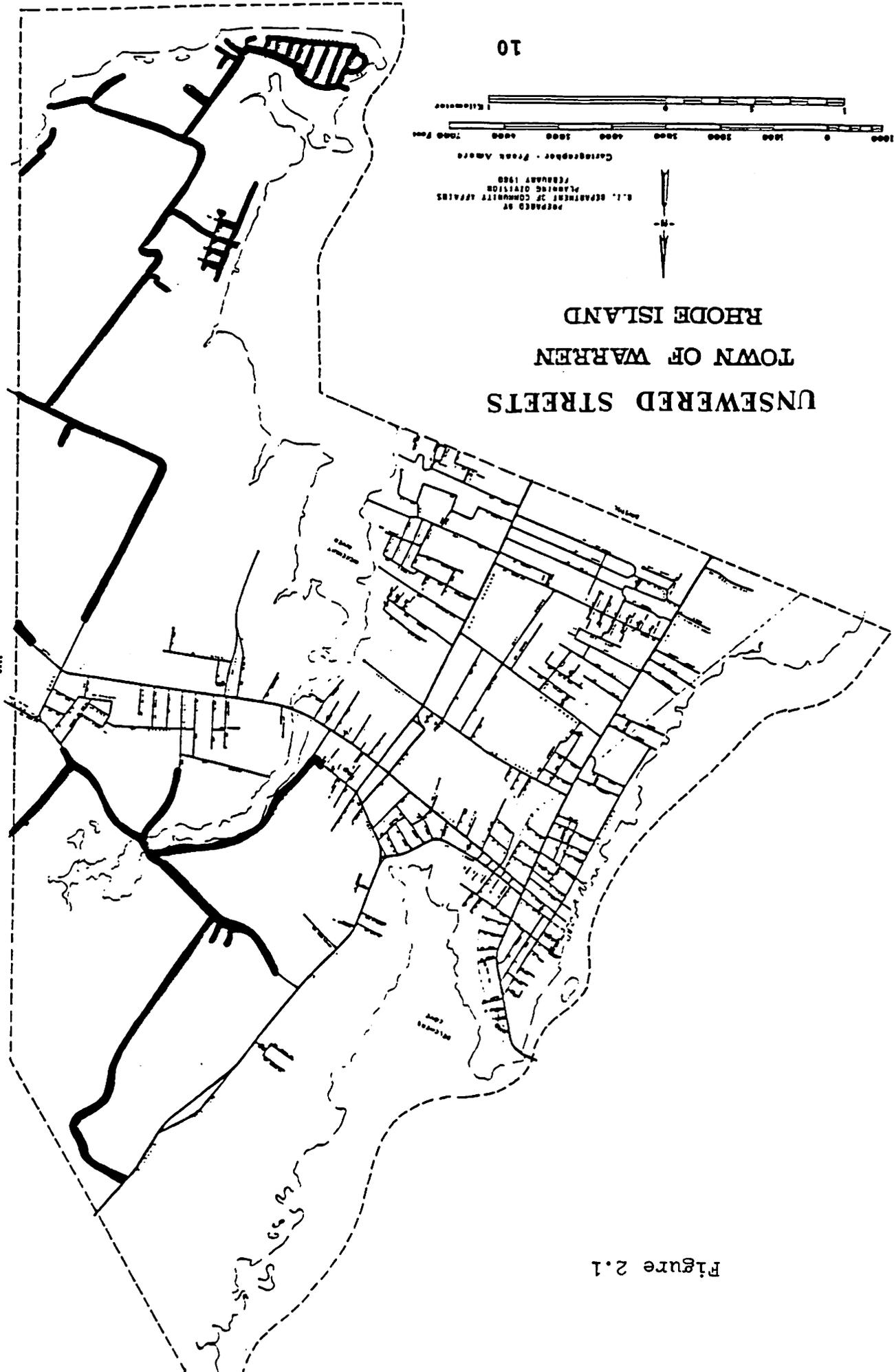


Figure 2.1

Water Supply

The Bristol County Water Authority (Authority) supplies water to the three Bristol County towns of Warren, Barrington and Bristol. The Authority was formed in 1984 for the purpose of acquiring the Bristol County Water Company, a private concern, due to problems with insufficient water supply and pressure, and poor water quality.

The Authority is operated by a nine member Board of Directors with an Executive Director acting as the chief executive officer. The Board of Directors consists of nine members, three from each town, selected by the respective Town Councils. Under the Act which established the Authority, the Authority has the power (in addition to other powers) to acquire and sell land, including condemnation, and is exempt from the provisions of zoning, planning, and other land use regulations enacted by any of the three towns.

The Water Authority is charged with providing water supply and distribution services to residential, commercial, industrial and other customers throughout the county. The Bristol County service area is 24.9 square miles in size, with an 1984 population of approximately 46,580. The average number of customer accounts in 1985 was 13,841, and the average daily demand was 4.26 million gallons per day. Warren is the least populous town in the system and is the most industrialized.

The water supply system is composed of two production and distribution systems, the Bristol-Warren system and the Barrington system. The two systems are interconnected, but can be operated independently. The combined distribution system contains 182 miles of mains and two treatment plants.

Eighty percent of the system's water is supplied by the Bristol-Warren system, consisting of four water impoundment reservoirs. The Kickemuit, Swansea, Anawan and Shad Factory reservoirs have a combined storage capacity of 460 million gallons. The Kickemuit Reservoir is the only system reservoir located in Rhode Island. Water from the Bristol-Warren system is treated at the Child Street Treatment Plant located in Warren.

The Barrington system supplies the remaining twenty percent of water from two gravel packed wells in Barrington. The water from the wells is treated at the Nyatt Road Treatment Plant in Barrington.

Currently, the Authority's water supply sources are adequate to handle existing demand, except in cases of extended drought conditions, but the system has

insufficient water sources to meet demand for the next three decades. To meet increasing demand, the Authority has received permission from the State Water Resources Board to tie into the Providence Water Supply System through the construction of the Cross-Bay Pipeline which is expected to be completed in 1991.

Transportation and Circulation

Warren is served by state routes 136 and 114 connecting to Bristol to the south, Barrington to the west and Swansea, Massachusetts to the north. Route 136 connects Warren with Interstate Route 195 in Swansea, Massachusetts, linking Providence, Fall River and Cape Cod. T.F. Green Airport in Warwick provides regional air service to Boston, New York and other cities. Commuter rail service to Boston is available in Providence, as well as passenger service on Amtrak's Boston-Washington line. The state is currently constructing the East Bay Bicycle Path which connects Bristol to Providence and traverses Warren.

III. RECREATION PROGRAMS AND FACILITIES INVENTORY

Warren's Recreation Board provides varied recreational programs for all ages. The Board's philosophy of striving to meet the recreational needs of Warren residents leads to close cooperation with the School Department and private sponsors, continuous evaluation of existing facilities, and farsighted plans for new development.

Recreation Programs

The cornerstone of the children's activities is the summer playground program. Based at sites around Town, children are directed by supervisors in arts and crafts, swimming, gymnastics, bicycle safety, and games. In addition, a free lunch program, bowling and field trips to Westport Water Slide, Edaville Railroad, Boston Aquarium, Patriots summer camp, or Rocky Point are available to the children. Special activities such as Beach Day and swim races in conjunction with the Quahog Festival create Town spirit.

Seasonal activities for children extend to soccer and basketball clinics for 12 to 18 year olds and an Easter egg hunt at Burr's Hill Park. Table 3.1 shows the recreation programs sponsored by the Warren Recreation Board and the number of children and adults served.

Adult programs supported by the Recreation Board include men's and women's softball leagues, line dancing, aerobics, and men's indoor and outdoor basketball leagues.

The Recreation Board also sponsors a softball tournament at the annual Quahog Festival and two very popular open-air concerts which bring the Rhode Island Showcase Orchestra to Burr's Hill Park.

The Recreation Board programs are supported by the Town's Annual Budget. The fiscal year 1988-1989 Recreation Board appropriation is \$36,292. The budget covers the costs of Summer Recreation Director, Board Secretary, seventeen playground supervisors, umpires, equipment, transportation, and other costs.

Facilities/Properties Inventory

The recreational facilities/open space properties inventory lists all facilities and properties by location, planning district, ownership, type of equipment or facilities available, and size of property.

Table 3.1

Number of Children and Adults
Served by Warren Recreation Program

1989

Children's Programs	Number of Children Served
=====	=====
Playground Program	645
Summer Bowling	200/week for 8 weeks
Winter Bowling (February Break)	200/day
Easter Egg Hunt	370
Rocky Point Trip	150
Roger Williams Zoo	135
Westport Water Slide	130
Edaville Railroad	120
Perishable Theatre	200
Soccer Clinic	40
Patriots Training Camp	45
Gymnastic Program	85
Free Lunch Program	166/day
Adult Programs	Number of Adults Served
=====	=====
Softball	162
Basketball	96
Men's Winter Program	45
Line Dancing	25
Other Programs**	Number of Children
=====	=====
Little League	800
Soccer	100
Pop Warner Football	60

**These programs are sponsored by separate organizations from the Recreation Program but use Town Facilities.

(Source: Warren Recreation Board, 1989)

Table 3.2 continued...

- | | | |
|-----|--|---|
| 7. | Facility Name: St. Mary's
Location: Off Luther Street
Type of Facility: Playlot
Land Area: 1.0 acres | District: I
Ownership: Private
Area Served: Nbrhd
Facilities: None |
| 8. | Facility Name: Burr Hill Park
Location: Off Water Street
Type of Facility: Recreation area
Land Area: 8.5 acres
Facilities: Baseball field, 2 lighted basketball courts, 1 concert stage/band shell, 2 park benches, 2 picnic tables, 1 field events area, 1 playing turf, 1 softball diamond, 2 tennis courts, lighted walkway | District: II
Ownership: Town
Area Served: Comm. |
| 9. | Facility Name: Town Beach
Location: Water Street
Type of Facility: Beach Area
Land Area: 2.8 acres
Facilities: 2 climbing apparatus, 2 merry-go-round, drinking water fountain, 19 benches, 2 picnic tables, 2 see-saws, 2 slides, 6 swings, 3 showers | District: II
Ownership: Town
Area Served: Comm. |
| 10. | Facility Name: Mary V. Quirk School
Location: Main Street
Type of Facility: School Playground
Land Area: .75 acres
Facilities: Bike rack, entire area asphalted | District: II
Ownership: Town
Area Served: Nbrhd |
| 11. | Facility Name: Main St. School
Location: Main Street
Type of Facility: Playground
Land Area: 0.9 acres
Facilities: Entire area is asphalted. | District: II
Ownership: Town
Area Served: Nbrhd |
| 12. | Facility Name: Homestead Ave. Park
Location: Homestead Avenue
Type of Facility: Playlot
Land Area: 6,400 sq. ft.
Facilities: Asphalt basketball court, 1 swing, 1 slide, 1 park bench. | District: II
Ownership: Private
Area Served: Nbrhd |
| 13. | Facility Name: Laurel Lane Beach
Location: Kickemuit River
Type of Facility: Beach area
Land Area: 2.5 acres
Facilities: Beach area, mainly salt marsh | District: II
Ownership: Private
Area Served: Nbrhd |

Table 3.2 continued...

14. Facility Name: Lincoln Ave. Beach District: II
 Location: Kickemuit River Ownership: Private
 Type of Facility: Beach area Area Served: Nbrhd
 Land Area: 0.2 acres
 Facilities: Beach area, mainly salt marsh
15. Facility Name: Child St. School District: III
 Location: Child Street Ownership: Town
 Type of Facility: Playground Area Served: Nbrhd
 Land Area: 2 acres
 Facilities: 1 basketball court, 3 park benches, 1 sand
 box, 2 swings, softball diamond, 1 slide, 1
 see-saw, 1 merry-go-round, grass and
 asphalt playing surfaces
16. Facility Name: Our Lady of Fatima School District: III
 Location: Market Street Ownership: Private
 Type of Facility: Playground Area Served: Nbrhd
 Land Area: 5.0 acres
 Facilities: Soccer field
17. Facility Name: Wujcik Farm District: III
 Location: School House Road Ownership: Town
 Type of Facility: Conservation Area Served: Comm.
 Land Area: 82.3 acres
 Facilities: Open space area purchased under Green Acre
 program, used for passive recreation.
18. Facility Name: Warren Reservoir District: III/IV
 Location: Kickemuit Road Ownership: Public
 Type of Facility: Conservation Area Served: Comm.
 Land Area: 54 acres, 10 acres dry, 44 acres water
 Facilities: Reservoir owned by Bristol County Water
 Authority for public water supply.
19. Facility Name: Warren High School District: IV
 Location: Child Street/Asylum Road Ownership: Town
 Type of Facility: Playfield Area Served: Comm.
 Land Area: 32 acres
 Facilities: 60 foot baseball diamond, football and
 soccer fields, concession stand, track, 6
 tennis courts, drinking water fountain
20. Facility Name: Hugh Cole School District: IV
 Location: Asylum Road Ownership: Town
 Type of Facility: Playground Area Served: Nbrhd
 Land Area: 1 acre
 Facilities: Basketball court, informal games play area,
 bike rack

Table 3.2 continued...

21. Facility Name: Bowen Property District: IV
 Location: Asylum Road Ownership: Town
 Type of Facility: Special Area Served: Comm.
 Land Area: 2.88 acres
 Facilities: None
22. Facility Name: East Warren Rod & Gun Club District: IV
 Location: Long Lane Ownership: Private
 Type of Facility: Special Area Served: Comm.
 Land Area: 28.4 acres
 Facilities: Firing range, clambake pavillion
23. Facility Name: Touisset Point Recreation District: IV
 Location: Coggeshall Street Ownership: Private
 Type of Facility: Playground Area Served: Nbrhd
 Land Area: 3.5 acres
 Facilities: Basketball court, softball diamond, 3
 tennis courts, 1 swing, restroom
 facilities, 2 clubhouses, 3 climbing
 apparatus, 1 slide, 1 bike-rack
24. Facility Name: Baltimore Avenue Playlot District: IV
 Location: Baltimore Avenue Ownership: Town
 Type of Facility: Playlot Area Served: Nbrhd
 Land Area: 0.25 acres
 Facilities: 1 swing-set, 1 see-saw, 1 basketball hoop,
 1 slide, 1 merry-go-round, 1 climbing
 apparatus, 1 sandbox, 2 park benches
25. Facility Name: Warren Recreation Complex District: IV
 Location: Asylum Road Ownership: Town
 Type of Facility: Major park Area Served: Comm.
 Land Area: 18.59
 Facilities: Playground and ballpark, additional
 facilities scheduled for completion in 1990
26. Facility Name: East Bay Bike Path District: I & II
 Location: Abandoned railroad line from Bristol townline
 to Palmer River.
 Ownership: State Type of Facility: Special
 Area Served: Regional Land Area: 2 miles
 Facilities: Asphalt biking and biking path
27. Property: Chace's Farm
 Land Area: 245 Acres Ownership: D.E.M./Chace's
 Location: Birch Swamp Road District: III
 Contiguous Open Space: Warren Green Acres, Kickemuit
 Reservoir
 Types of Land: Prime agricultural land, freshwater
 wetlands, deciduous forest
 Types of Wildlife: Arctic migratory fowl, small-medium
 game, local birds, rodents, etc.
 Permitted Land Uses: Farming

Table 3.2 continued...

28. Property: Chase Cove
Land Area: 61 Acres Ownership: Audubon Society
Location: Touisset Road District: IV
Contiguous Open Space: Souza's Farm, Manchester's Farm
Types of Land: Freshwater wetlands, saltwater
 wetlands, deciduous forest, fields
Types of Wildlife: Migratory and local fowl, saltwater
 fish, small game, rodents, etc.
Permitted Uses: Hiking, birdwatching, fishing
29. Property: Nune's Farm
Land Area: 55 Acres Ownership: Town
Location: Market Street District: III
Contiguous Open Space: Land Trust Wetland
Types of Land: Freshwater wetlands, saltwater
 wetlands, deciduous forest, fields
Types of Wildlife: Arctic migratory fowl, saltwater
 fish, small game, local birds, rodents, etc.
Permitted Land Uses: Hiking, birdwatching, fishing
30. Property: Railroad Right-of-Way
Land Area: 5 Acres Ownership: Town
Location: Asylum Road District: IV
Contiguous Open Space: Hugh Cole Recreation Park,
 Warren High School, Town Wetlands, Town's Hugh
 Cole Monument
Types of Land: Built-up railroad bed
Types of Wildlife: Saltwater fish, migratory and
 native birds
Permitted Land Uses: Walking, bicycling, fishing
31. Property: Frerish Farm
Land Area: 10.75 Acres Ownership: Town/Frerish's
Location: Kinnicut Avenue District: IV
Contiguous Open Space: Kickemuit Reservoir, Warren
 Green Acres
Types of Land: Prime agricultural land
Types of Wildlife: Freshwater fish, local birds,
 rodents
Permitted Land Uses: Farming
32. Property: Hanley's Point
Land Area: 10.00+Acres Ownership: D.E.M. Easement
Location: Prov./Bris. Bike Path District: I
Contiguous Open Space: Warren River, Narragansett Bay,
 Bike Path, Jacob's Point
Types of Land: Saltwater wetlands, beach
Types of Wildlife: Migratory and local fowl, saltwater
 fish, small game, rodents, etc.
Permitted Land Uses: Saltwater fishing, hiking
 birdwatching

Table 3.2 continued...

33. Property: Souza's Farm (Pending)
Land Area: 54 Acres Ownership: D.E.M./Souza's
Location: Touisset Road District: IV
Contiguous Open Space: Chase Cove, Manchester's Farm
Types of Land: Prime agricultural land, deciduous
 forest
Types of Wildlife: Migratory and local fowl, small
 game
Permitted Land Uses: Farming

IV. NATURAL RESOURCES

This section of the report identifies Warren's natural resources. These include the land and water areas in the variety of combinations that create Warren as a unique and personable town.

Land Use

The heart of Warren is the central business district, a multi-use area comprised of residences, businesses, manufacturing plants, parks and the Belcher's Cove conservation area. This section of town is dominated by the Waterfront Historic District with many structures dating between 1750 and 1820. Although streets are narrow and little undeveloped property remains, many buildings have been improved or restored since 1973 when the Waterfront Historic District was included in the National Historic Register.

South Warren developed as mostly single family residences with commercial strips along Main Street and Metacom Avenue. Since 1960 development has become more dense, filling in empty lots and open spaces. Much of this development has been adjacent to the waterways with single family residences overlooking the Kickemuit River and condominiums overlooking the Warren River.

North Warren remains rural, characterized by working farms. Some of this prime agricultural land has been protected through purchase of the Wujcik Farm for Green Acres and state purchase of development rights to the Chace Farm. Much of the open land is under heavy pressure for development as zone changes allow commerce and industry to creep up Market Street and individual homes are built on large lots. A major condominium development is planned for the shore of the Palmer River.

Although extensive single family residential development has occurred in East Warren between School House Road and Child Street and south of Child Street, much of the prime farmland in Touisset remains in agriculture. However, the use has changed from dairy farms to nursery stock and none of this land is protected. Additional development has been construction of individual single family homes and small plats and expansion of small, seasonal homes as they are converted to primary residences.

Critical Environmental Areas

Water Resources

Warren's history, culture, and social activities have

been shaped by the rivers that carved the Town's landscapes. Warren residents look to the rivers for their recreation and inspiration. The rivers provide a sense of space, a feeling of peace. The rivers and lands bordering their shores comprise Warren's critical environmental areas, areas with exceptional ecological and aesthetic value. Figure 4.1 shows Warren's water resources and 100-year floodplains.

The Kickemuit River watershed includes land and water areas of both local and statewide importance. The freshwater Kickemuit watershed encompasses approximately seventy-six acres of productive farmland protected by state purchase of development rights, an eighty-five acre wetland rated as one of the best wildlife habitats in Rhode Island, an eighty-two acre Green Acre site, and an active drinking water reservoir.

The salt water Kickemuit River, the only SA water in the northern part of the Narragansett Bay, supports commercial fishing grounds and recreational boating and swimming. It is ringed with extensive fresh and salt water wetlands and bordered on the east by prime agricultural soils, which together create significant wildlife habitat.

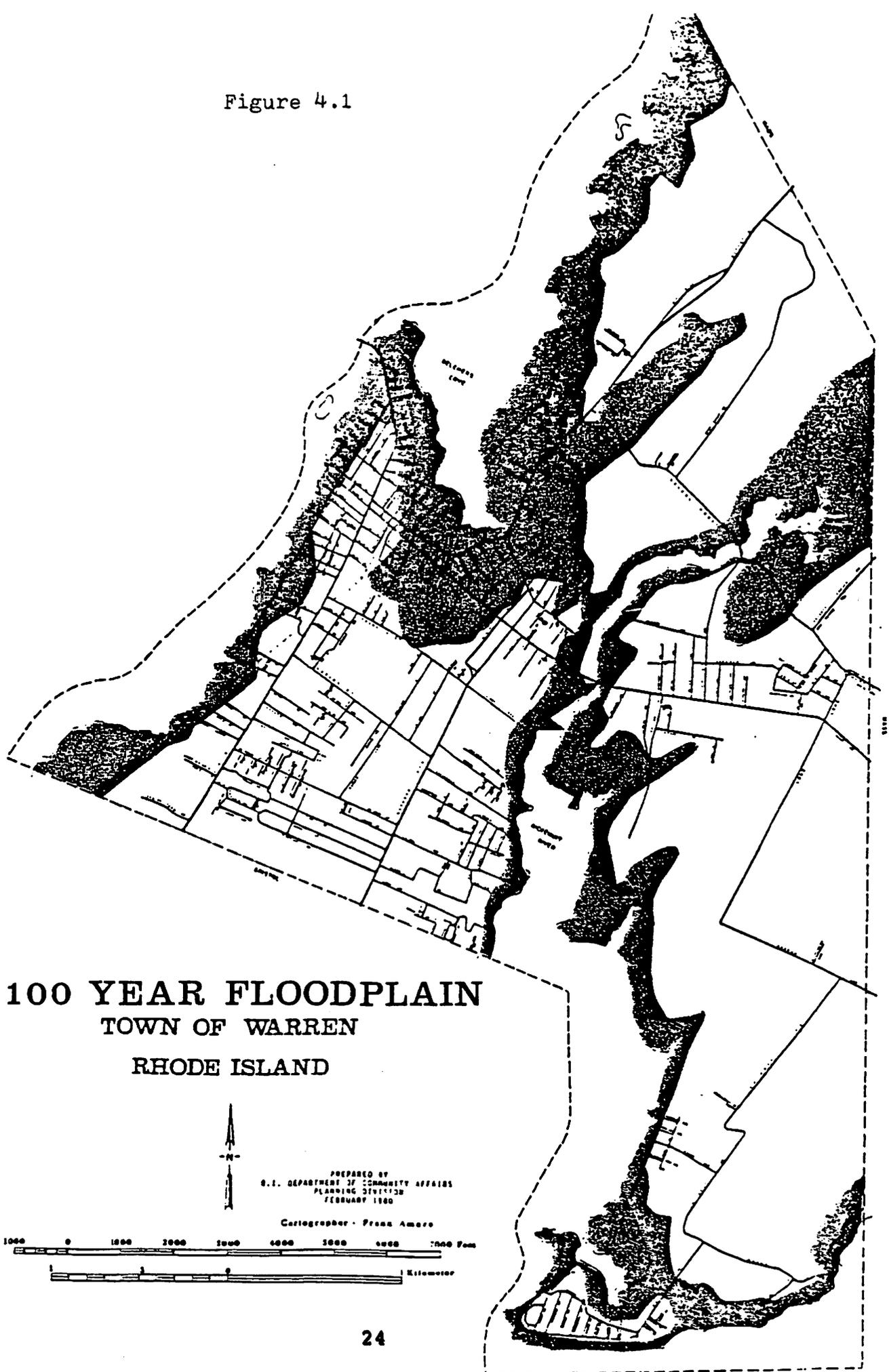
The Palmer and Warren Rivers flow through rural and urban areas. Largely undeveloped, the northern reaches of the Palmer River was identified as one of the top fifty sites in the 1983 study, Open Space Preservation in Rhode Island. Important wetlands in this area provide habitat for Osprey, Northern Diamond Back Terrapin and several unique plant species. Although threatened by runoff and closed following rainstorms, this area supports commercial shellfishing, recreational boating and swimming. The banks of the Palmer River are prime agricultural lands. Belcher's Cove is zoned for recreation and conservation use.

The more urban Warren River, south of Route 114, consists of a commercial area with many water-dependent industries, the Historic Waterfront District, the harbor mooring area, and the Town Beach.

In addition, the river watersheds include most of Warren's scenic places and views and are the sites of parks and playgrounds.

Pressures on the watershed land and water areas result from problems created by intensifying development and construction on lands previously considered unsuitable, especially floodplains. Runoff pollution associated with agricultural, commercial, and residential use, including septic system leaching, and application of pesticides, herbicides, and fertilizers, threatens to degrade the

Figure 4.1



quality of all waters. The quality of water both at the town beach and in the reservoir is stressed by discharges upstream, including some in Massachusetts. Mooring and recreational boating waters are strained by increased demand for space. Access to waterways is being limited by construction on former open lands.

Wetlands

Wetlands are valuable resources which serve several valuable functions. Wetlands provide for wildlife habitat, fishery habitat, food supply, water purification and groundwater recharge, flood storage, nutrient retention and removal, and active and passive recreation.

In 1987, an inventory of Warren's wetlands and deepwater habitats was conducted by the University of Rhode Island. The study found that wetlands and deepwater habitats in Warren cover some 1,430 acres; 575 acres of wetlands and 855 acres of deep waters. Two wetlands areas, Jacobs Point and east of Cole School Road, were rated as having outstanding habitat value. In addition, the north Kickemuit Reservoir area was designated one of the most valuable wetland wildlife habitats in the state, and the forested swamp east of Long Lane was cited as one of the best examples of such habitat in the East Bay. Figure 4.2 is a generalized map based upon the study which shows the major wetland areas in Warren.

The report concluded that Warren should move quickly to regulate land uses that threaten to degrade this valuable resource and establish undisturbed upland buffer zones around wetlands.

Soils

Identification of soil resources is important in determining the potential of soils for land use planning, food and fiber production, and in enhancing, protecting and preserving the environment. This section examines Warren's soils in terms of their suitability for development and agriculture.

This study created three classifications of soil. These classifications are soils unsuitable for development, soils with septic system constraints to development, and soils with limited constraints to development. Figure 4.3 shows the soil classifications for Warren. The soil classifications are based upon data in the Rhode Island Soil Survey.

Soils suitable for agriculture are divided into two categories, prime and additional. Prime farmland is land best suited to agricultural production. It has the soil quality, growing season, and moisture supply needed to economically produce sustained high yield crops.