

7. COMMUNITY FACILITIES AND SERVICES

7.1 TRANSPORTATION

7.1.1 INTRODUCTION

Provincetown's roadway layout reflects its historic past, when horse-drawn vehicles serviced the working waterfront. As the Town grew it spread out along the waterfront with Commercial and Bradford streets developing as the main streets. As the Town's popularity as a tourist destination grew and the fishing industry declined, automobile and pedestrian traffic began to place tremendous burdens on the small-scale streets, especially in the downtown area, most specifically along Commercial Street and its cross-streets.

Substantial road expansion or other improvements have not accompanied changes in use and increasing numbers of cars and pedestrians to the circulation system. Current problems during the summer include difficulty in parking cars, conflicts between pedestrian and automobile traffic and difficulty getting in and out of Provincetown. Efforts to address these issues must be undertaken without compromising Provincetown's scenic and historic character.

The Provincetown Transportation Center Master Plan (1995) addresses parking issues in the downtown area. It was intended "to improve the conditions for transportation and circulation in the downtown area while simultaneously improving its open space and townscape qualities." (p. 1) That plan focuses on the area surrounding the Municipal Parking Lot (MPL), including MacMillan Wharf and Fisherman's Wharf. Its findings and recommendations are incorporated in this Section of the Community Facilities and Services Element.

Automobile mobility during the tourist season is very limited as large numbers of pedestrians and tourist vehicles crowd the overburdened streets. In part, this is the price to pay for reliance on a tourism-based economy. However, appropriate measures for reducing pedestrian automobile conflicts and congestion and increasing mobility should be investigated.

Limited access to and from Provincetown by automobile is more the result of congestion on Route 6 in neighboring towns than in Provincetown itself. Improved air and water transportation service, primarily between Provincetown and Boston are recognized needs, including regular daily commuter services to and from Boston and Cape Cod Community College. Recent improvements in this area

include the construction of a new terminal building at the airport and the introduction of high speed ferry service to Boston. The Town should continue implementing the transportation goals outlined in the 1988 Master Plan.

7.1.2 GOALS AND POLICIES

GOAL 1: To foster and maintain a multimodal transportation system for present and future year-round and seasonal needs which is safe, convenient, accessible, efficient, economical, and consistent with the Town's historic, scenic, and natural resources, and land use development and growth management policy.

POLICY A: Development projects shall mitigate all year-round and summer transportation impacts at regional intersections and on all regional road links where the project traffic is expected to add 25 new vehicle trips or more during the project area's typical peak hour.

POLICY B: The Town shall recognize the regional road system and functional classification of highways for Cape Cod as adopted by the Cape Cod Commission.

POLICY C: Regardless of project size or traffic generation, there shall be no degradation in public safety as a result of a development project. Public safety should include consideration of pedestrians and bicyclists.

POLICY D: Transportation mitigation measures required of development projects shall be consistent with community character and shall not degrade historic, scenic or natural resources.

POLICY E: In recognition of the seasonal changes in traffic, measures such as road widening, intersection widening and signalization are to be avoided unless the improvement will be of substantial benefit to the transportation system (including pedestrian safety and mobility) throughout most of the year. Improvements should not adversely affect Provincetown's scenic historic character.

POLICY F: Permissible mitigation strategies shall be as follows, and must also be consistent with Policies D and E above, as well as local and regional transportation plans. Strategies should include public education programs.

a) Travel demand management strategies including the development and use of transit, park & ride lots, bicycle and pedestrian facilities, car/van pooling, and employee incentive programs that reduce automobile trips.

b) Transportation systems management strategies that preserve the capacity of existing facilities and increase the efficiency of existing facilities. These strategies include the application of real-time information-based technologies, signage, changes to pavement

markings, turn restrictions, changes in traffic patterns, and limited removal of obstructions to provide safe sight distances.

c) Access Management strategies such as curb cut consolidation, joint access, connections between adjacent parcels, and conflict point reduction.

d) Road widening, intersection widening and new traffic signalization are to be avoided, as stipulated in Policy G, below.

POLICY G: Since structural improvements to the local circulation system are undesirable, unwarranted and unlikely to occur, the widening of public ways or intersections or new traffic signalization shall not be allowed as traffic mitigation measures. In rare circumstances, they might be considered in limited locations if, and only if, the following conditions are met:

The road widening, intersection widening or new traffic signalization is necessary to provide public safety. Solely peak season travel demands shall not be mitigated by road widening, intersection widening or new traffic signalization, and

The road-widening, intersection widening or new traffic signalization is not within a historic district, on any designated Scenic Road or Scenic/Historic Byway, and

The road widening, intersection widening or new traffic signalization is consistent with community character and will not have an adverse impact on historic, scenic or natural resources.

POLICY H: Existing transportation rights-of-way shall be preserved for transportation and transportation-related uses.

POLICY I: Adjacent commercial uses shall share access points and provide connections between parcels so as to minimize curb cuts, driveways, and vehicular turning maneuvers, where appropriate.

POLICY J: Internal site circulation and access/egress shall be designed to minimize impacts on the adjacent road system.

POLICY K: New development and redevelopment should minimize adverse traffic impacts on the adjacent road system.

POLICY L: New development and redevelopment should not increase traffic on road links or through intersections with safety deficiencies such as inadequate sight distance or adverse grades.

POLICY M: Roadway access for new development should be consistent with the functional classification of the road. Where possible, driveways should gain access to collector and arterial streets via the local street system.

POLICY N: Transportation improvements and proposed mitigation should be consistent with the Americans with Disabilities Act, the Clean Air Act Amendment of 1990, the Transportation Equity Act for the 21st Century (TEA 21), and the Cape Cod Long Range Transportation Plan.

POLICY O: Road and intersection improvements should include the burying of overhead utilities and the removal of utility poles and associated structures, where possible.

GOAL 2: To decrease dependence on private automobiles, address demonstrated public needs for convenient, accessible, economical alternatives to private automobiles, and promote energy efficiency and reduced pollution. Develop and integrate alternate modes (e.g., rail, bus, ferry, air, bicycle, and pedestrian) into the transportation system and promote telecommunications and other substitutes for transportation.

POLICY A: Road or intersection improvements shall provide for safe bicycle and pedestrian travel and accessibility, where appropriate.

POLICY B: Bicycling and walking shall be encouraged as an alternative to automobile trips. Where appropriate, historic footpaths shall be maintained and safe bicycle and walking links shall be created to establish an interconnected regional transportation system. Where appropriate, bikeways and footpath connections between commercial and residential neighborhoods, and between compatible uses shall be provided to create a safe alternative to travel on major roads.

POLICY C: Bus, ferry, water taxi, air, and rail modes of public transportation should be encouraged not only as alternatives to automobile trips but also to improve mobility for non-drivers, those preferring not to drive and those without access to a car. To serve both residents and visitors, transit service frequency should be increased and the routes expanded.

POLICY D: New developments shall be designed to reduce dependence of private automobiles and to specifically provide a 20% trip reduction by encouraging alternative modes of transportation within the project area or site or by making contributions to shuttle services and bicycle and pedestrian facilities.

GOAL 3: To support transportation solutions that preserve and enhance Cape Cod's character by considering the interrelationship between land use and transportation.

POLICY A: Mixed use development that minimizes dependence on the automobile shall be encouraged.

7.1.3 INVENTORY

A. Roadway Network

Major Regional Roadways

This classification refers to limited access roadways and other roads that provide mobility to and within highly developed commercial areas. Route 6 is the only major regional roadway. Though it is the major regional road on Cape Cod, the Outer Cape portion of Route 6 is

particularly scenic. This is the road by which one dramatically enters Provincetown. The portion of Route 6 that runs through Provincetown has a landscaped median separating two double lanes, with widely-spaced intersections limited to public roads.

Regional Roadways with Scenic and Historic Value

These are regional roads that have scenic and historic value inherent to Cape Cod and must be preserved as such. Route 6A is the only such road that runs through Provincetown.

Rural Major Collectors

The following Provincetown roads are classified as rural major collectors:

Snail Road , Conwell Street, Shank Painter Road, Commercial Street, Province Lands Road

Local Roadways

The following are some of the most important local roads in Provincetown providing circulation within the Town:

Howland Street, Harry Kemp Way, Race Point Road, Cemetery Road, Bradford Street, Alden Street, Winslow Street, Captain Bertie's Way

B. Parking

Downtown parking is limited to several lots and on-street parking in specific locations. There are three large lots, including the Grace Hall lot and the centrally located Municipal Parking Lot (MPL) between MacMillan and Fisherman's wharves. Parking use and availability is conditioned by the peaking characteristics at the MPL. The peaking is associated with whale watching schedules and the weather and time of day during the summer. During the off-season, some on-street parking is available on Commercial Street and convenient resident parking is marginally protected downtown, with restricted spaces. As the Provincetown Transportation Center Master Plan points out, there is a distinct relationship between use of the National Seashore lots and downtown area parking during the summer peak. Good weather tends to attract greater numbers to the beaches rather than to downtown, leaving downtown parking space below capacity. When the weather is poor, beach use is minimal and the downtown spots are filled. (PTCMP, p. 11)

Residents generally have less interest in parking in the MPL for brief stops, preferring the resident spots near Town Hall and on the northern edge of the Ryder Street extension.

C. Pedestrians and Bicycles

During the tourist season the safety of pedestrians and bicyclists is compromised as Provincetown's narrow streets become overcrowded. On the bicycle path in the National Seashore the presence of rollerbladers and joggers causes additional conflicts. Downtown,

beachfront access is limited, particularly when traffic volume is high. Bicycle racks are limited.

D. Public Transportation--Land

The Plymouth and Brockton (P&B) Street Railway Company operates bus service between Provincetown and Hyannis. Many scheduled trips are through-trips to Boston. Others, including the Logan Airport Express, require a change at Hyannis. An adequate daily commuter schedule is not provided to and from Boston. In the winter, the frequency of scheduled bus transportation is sharply reduced, causing difficulties for Provincetown residents with off-Cape business.

Bonanza Bus Lines operates inter-city express buses from Falmouth to Boston and from Hyannis to Providence and New York. Connector bus service to Hyannis, the nearest point of departure and arrival, is not adequately coordinated with train and bus schedules in Boston and Providence.

In the "high season" only, a flat rate shuttle runs a loop from Truro through Provincetown to Herring Cove and back on an hourly basis. Additional local transportation service is provided by the "B Bus," which is operated by the Cape Cod Regional Transit Authority, providing door-to-door service by appointment to seniors and the disabled.

E. Water Transportation

Three ports in Massachusetts, Gloucester, Boston and Plymouth, offer seasonal water transportation to Provincetown. The companies are privately owned and operated with respective business and marketing arrangement. They can be characterized as providing both excursion and transportation services in varying degrees. Combined, their current daily seasonal capacity offers the potential of delivering 1,725 car-less visitors to Provincetown. This qualifies them as a serious transportation asset, especially given their record of 96% reliability and exemplary safety record.

F. Air Transportation

Provincetown Municipal Airport (PMA) is a 378-acre facility with parallel taxiways surrounded by the Cape Cod National Seashore. Parking is provided at the PMA for both commuter and private aircraft.

In 1990 there were 17,490 operations (landings and takeoffs) at the PMA, with a projected estimate of 20,000 operations annually by the year 2010 (Provincetown Municipal Airport Master Plan, 1991). The number of operations peaks in the summer but an increasing number of off-season flights is needed by year-round residents. The total number of aircraft of all types on a typical summer weekend is expected to reach 85 by the year 2010.

Planned improvements at the PMA include the development of unpaved safety areas beyond the end of each runway and additional parking areas. Extensions to the runway in order to accommodate larger, 19 to 30 passenger aircraft, and improvements to the water

supply, septic system and emergency equipment are also expected. The percentage of the cost of these improvements to be paid by the Town is expected to be minimal.

7.1.4 ANALYSIS

A. Roadway Trends and Patterns

Most roads in Provincetown, particularly in the downtown area, are narrow, reflective of the Town's original settlement patterns. As the local population rises dramatically in the summer, automobiles, pedestrians, bicyclists, and rollerbladers come into increasing conflict with one another. With the potential for road improvements minimized by the existing scale of the infrastructure and community character concerns, non-structural traffic mitigation measures are generally most appropriate.

The lack of available parking contributes to traffic congestion downtown, as cars circle the Commercial Street/Bradford Street area in search of available spaces. The Municipal Parking Lot, in connection with water-based activities at MacMillan and Fisherman's wharves, presents a major source of congestion and pedestrian/automobile conflict as well.

When the ratio of traffic volume to capacity reaches 80% on a road segment it is considered "congested." At 100% or more the theoretical capacity of a road is exceeded. Despite heavy traffic Town-wide in the summer, the only road segments listed as "congested" at summer peak traffic times by the Outer Cape Capacity Study (December, 1996) are a portion of downtown Commercial Street and a small segment of Route 6 near the Truro line. No roads currently exceed capacity. It should also be noted that sections of Route 6 are vulnerable to erosion.

Traffic congestion and automobile, pedestrian and bicycle conflicts are most prevalent in the Commercial Street/Bradford Street downtown area. Peak summer congestion and delay in the downtown area occurs at most intersections, including Bradford/Standish, Commercial/Standish, Commercial/Ryder, Ryder/Bradford, Commercial/Court, and Lopes Square/MacMillan Wharf. Many downtown streets are historic and others in outlying areas have the potential for local "scenic roads" designation.

B. Future Traffic Growth and Impacts

Both the Commercial Street segment downtown and a small stretch of Route 6 near the Truro line are projected to exceed capacity by 2020 (outside Provincetown, the rest of Route 6 on the Cape is projected to exceed capacity). Buildout conditions show the same results.

C. Traffic Mitigation Measures

Clearly, the provision and appropriate siting and use of parking rather than road improvements should be the Town's top priority in

addressing traffic issues locally. Roadway "improvements" should be intended to minimize congestion without expanding road capacity, in keeping with the existing scale and character of the Town. Recognizing the need to maintain local roads at their current quality or better, the OCCS estimates that by the year 2010, Provincetown's 16.4 miles of local roads are likely to require improvement of some kind to approximately 1.15 miles of roadway at a projected cost of \$1.15 million. Intersection improvements could cost the Town another \$240,000 (1993 dollars). Specific intersection improvements recommended by the Provincetown Transportation Center Master Plan and the Conwell Street Traffic study include the following:

Bradford/Standish: reconfiguration of the intersection to meet safety, convenience, capacity, and open space needs.

Bradford/Ryder: pavement widening on Bradford Street east of the intersection, allowing westbound vehicles to take a left onto Ryder Street. Any widening of the pavement in this area should be based on a demonstrated year-round need for such an improvement, and should be designed to not cause degradation of the scenic and historic character of the area.

Commercial/Ryder: marked crosswalks on all four segments of the intersection.

Other possible improvements include redesign of the entrance/exit to Duarte's Parking Lot to reduce congestion on Bradford Street, and clearer striping for the benefit of pedestrians as well as drivers at the convergence of Bradford Street and Shank Painter Road and at other locations throughout the Town. Measures to lessen peak summer congestion entering the Town from Route 6 should be considered, especially at the Conwell Street exit. Additional exit and signage improvements are among potential options.

Alternatives to structural changes that should be considered to mitigate traffic are ride-sharing and carpooling programs. Because Route 6 is the only way in and out of Provincetown, ride sharing would be beneficial to local and regional residents for trips to other Cape destinations.

D. Parking Needs/Measures/Actions

Inefficient signage and driver information contributes to some parking facilities being underutilized; drivers are too-often uninformed about the whereabouts and/or existence of parking other than at the MPL. Signs and promotional material should direct motorists to alternative parking sites

Use of existing parking spaces at churches, schools and beaches should be encouraged. Land in the Route 6 right-of-way should be considered for parking only as a last resort. Employee incentives to park in designated lots and walk to work, reducing extra trips, should

be initiated; Town employees should be encouraged to participate in such efforts.

The Town should cooperate with the National Seashore in coordinating the parking facilities of each as well as encouraging alternative transport modes such as bicycles. Seashore facilities should be considered for additional space needed for shuttle parking and access fees for pedestrians and bicyclists should not be charged. Throughout the Town, but especially in proximity to attractions in the downtown area, there is a need for more and better-marked parking for people with disabilities.

E. Bicycle and Pedestrian Needs and Concerns

The safety of pedestrians and bicyclists should be emphasized in all transportation plans and improvements. While some conflicts with automobiles and rollerbladers are inevitable in a tourist Town where outdoor recreation is popular, the situation could be improved. Encouraging fewer automobile trips, providing better pedestrian and bicycle path systems and bicycle storage facilities, and concentrating on improvements that expand pedestrian and bicycle capacity and safety rather than automobile capacity on local roadways should be considered.

Addressing the need for more bicycle facilities, the Provincetown Transportation Center Master Plan calls for the provision of storage facilities for 100 bikes. Additionally, public and commercial buildings should be encouraged to provide bicycle racks for public use. The locations of any additional racks should be carefully considered. The Rail Trail bicycle path should be completed, linking Provincetown with the rest of the Cape; cooperation with Truro is necessary to make this connection. Improvements should also be made to facilitate a connection between Town streets such as Conwell Street and Bradford Street Extension and the fourteen miles of bicycle trails in the National Seashore.

Specific pedestrian-oriented improvements recommended by the Transportation Center Master Plan include pedestrian paving and improvements to Town landing access points and better downtown beachfront access. The Conwell Street Traffic Study recommended alternative pedestrian access to the downtown via Cemetery Road and Standish Street. Construction of a sidewalk on Conwell Street is also recommended.

F. Signage

The Town has developed a comprehensive signage plan through the collaboration of the Parking Director, staff Transportation Team and Visitor Services Bureau. Key needs addressed include uniform design, clearer and consistent signs, better directions to parking within the downtown area and from Route 6, and clearer marking of existing

available parking (where it is, whether it is at or below capacity, etc.). The Town should continue and expand this program. In coordination with improved pedestrian access to the waterfront, signage should be provided indicating public access.

G. Public Transportation Issues - Land

Clearly, year-round residents are dissatisfied with available land transit. Among the key issues that must be addressed are better connections to and accessibility of bus and train service to off-Cape destinations, especially year-round commuter service to and from Boston and Providence. Winter bus service is severely curtailed and year-round residents have difficulty with inadequate information and scheduling inconsistencies. Concerns about the summer shuttle center on the need for greater frequency, better fare, route and scheduling information and publicity, and the need for a more attractive and accessible vehicle.

H. Water Transport/Ferry Service

Consideration should be given to an intra-Harbor water taxi. Specific services could include high tide beach to beach service and transport between the Town wharf and Herring Cove. Another water transit possibility would link the Pamet River and Provincetown. With an increasing number of Provincetown residents reliant on access to the Boston area, convenient ferry service should be coordinated with 9 to 5 commuter patterns. A concerted effort must be made to influence the introduction of such service. Both Provincetown and general Cape Cod congestion could be addressed by a park-and-ride ferry service on the mainland side of the canal. Immediate efforts should be pursued on this initiative as well.

I. Air Service

The importance of the airport economically for both tourist-related travel and the livelihood of many year-round residents is undeniable. The presence of the National Seashore and the vulnerability of nearby wetlands hold capacity expansion and other improvements in check. Air travel to and from the PMA reduces Cape-wide road congestion, as well as providing more convenient and expedient off-Cape travel options. In order to make PMA service even more effective, connections to T.F. Green Airport and Bradley International Airport, serving the Providence and Hartford areas respectively should be promoted.

7.1.5 ACTIONS AND IMPLEMENTATION PROGRAM

ACTION 1: Establish a traffic impact assessment and mitigation program to identify and mitigate the impacts of new development and redevelopment on the transportation system (in accordance with the Regional Policy Plan), with additional local limitations.

ACTION 2: Review thresholds for traffic impacts of proposed projects within zoning or site plan review by-laws.

ACTION 3: Consistent with community character and historic preservation, establish the development of parking facilities and optimal use of existing facilities as a top local priority and, on an ongoing basis, identify public land appropriate for parking use. Signage should be clear, ensuring easy access to underutilized parking facilities.

ACTION 4: Evaluate parking requirements to assess their effectiveness and relevance to existing local development patterns and circulation issues.

ACTION 5: Work with the Cape Cod Commission to develop an impact fee system for transportation improvements that is consistent with the goals of the Regional Policy Plan and this Local Comprehensive Plan. Such fees could be used to encourage trip reduction and to add to the resources to create and enhance bicycle paths and connections and other alternative transportation such as expanded bus services.

ACTION 6: Continue development of a comprehensive, Town-wide signage plan addressing the need for clear directions and convenient access to the downtown area, appropriate parking facilities, pedestrian and bicycle paths and facilities.

ACTION 7: As part of an overall effort to encourage ride-sharing, carpooling and vanpooling, develop a voice mail ridesharing program for the Outer Cape in coordination with neighboring towns.

ACTION 8: Promote more convenient and frequent express bus service to the Boston and Providence areas and to the Cape Cod Community College campus.

ACTION 9: Complete the Provincetown link of the Rail Trail bicycle way and improve access from Town street to bicycle paths in the National Seashore.

ACTION 10: Develop a comprehensive pedestrian walkway plan, incorporating appropriate public access to the water and throughout Town, considering appropriate signage and individual rights to privacy.

ACTION 11: Assess the adequacy of existing bicycle facilities including the number and locations of bicycle racks, facilities for bicycle storage and the capacity of the existing bicycle paths and connections to paths from Town.

ACTION 12: Develop commuter schedule water transportation.

ACTION 13: Develop a park-and-ride ferry service from the other side of the canal.

ACTION 14: Support improvements which provide safe year-round commuter air service to the Outer Cape; discourage Massport efforts to limit commuter air service to Logan Airport.

ACTION 15: Review and begin implementing recommendations made in transportation studies by the Cape Cod Commission on pedestrian safety at the Veterans Memorial School, Conwell Street traffic improvements and establishing a link between the Town center and CCNS bike trail near the transfer station in order to improve safety for pedestrians and bicyclists.

ACTION 16: Explore opportunities for shared parking and develop a plan to coordinate use of existing parking facilities during off peak hours or hours that businesses and institutions are closed. Encourage the use of shared parking in new developments and consider adopting by-laws and other regulations requiring shared parking.

ACTION 17: Develop and distribute a parking map to distribute to visitors to avoid motorists circulating through the congested downtown area searching for parking. This might be accomplished in collaboration with the Visitors Services Bureau and the Parking Department.

7.2 SOLID AND HAZARDOUS WASTE MANAGEMENT

7.2.1 INTRODUCTION

Along with the rest of the towns on Cape Cod, Provincetown faces a continuing challenge in managing solid and hazardous waste in an environmentally sound manner. Waste management has become increasingly sophisticated in order to comply with regulations and ensure continued environmental protection. Recycling, composting and safe hazardous waste disposal are recent points of emphasis on both the regional and local levels. Solid waste management is increasingly treated as a regional issue on environmentally sensitive Cape Cod.

7.2.2 GOALS AND POLICIES

GOAL 1: To manage solid waste using an integrated solid waste management system that includes waste reduction, recycling, composting, and regional incineration and landfilling, and to emphasize source reduction. The Town will aim to compost and recycle 20% of solid waste by the year 2000 and 25% by 2005.

POLICY A: Waste to be generated will be handled using the following integrated solid waste management system:

The highest priority, and thus the most preferred method of waste management, is to reduce as much as possible the amount of solid waste created. The second priority is to recycle or compost waste that cannot be avoided. The third priority is to utilize and support development of regional facilities to incinerate waste that cannot be recycled or composted, and finally, to landfill only those wastes that cannot be recycled, composted or burned.

POLICY B: Development and redevelopment shall allocate adequate storage space for interim storage of materials to be recycled.

POLICY C: Construction and demolition debris from development and redevelopment shall be removed from construction sites and disposed of in accordance with the integrated solid waste management system in Policy A., above.

GOAL 2: To dispose of hazardous wastes generated by Provincetown households and businesses in an environmentally sound manner.

POLICY A: Reasonable efforts shall be made to minimize hazardous waste generated by development and redevelopment through source reduction, reuse, material substitution, employee education, and recycling.

POLICY B: Development and redevelopment shall comply with Massachusetts Hazardous Waste Regulations, 310 CMR 30.00.

POLICY C: Development or redevelopment using or storing hazardous materials or wastes should prepare an emergency response plan which identifies potential environmental and health risks and recommends ways to reduce those risks. Such plans should be provided to the Provincetown Fire Chief and Police Chief.

POLICY D: Development and redevelopment that involves the use, treatment, generation, storage or disposal of hazardous wastes or materials, with the exception of household quantities, shall not be allowed with Wellhead Protection Districts.

7.2.3 INVENTORY

Existing Conditions

The Town runs a recycling program with curbside pickup. Recyclable materials collected at curbside include newspaper, cardboard, mixed papers, plastics, metals and glass containers. (Provincetown 1996 Annual Town Report, p. 175) There are currently no plans for regional facilities. Composting of leaves and brush is part of the recycling program at the Transfer Station.

Following curbside pickup, non-recyclable refuse is transported to the SEMASS facility in Rochester, MA. After extensive negotiations with the Cape Cod National Seashore (National Park Service) the Town was able to acquire "Site 9" (the old landfill) to use as a transfer station and recycling site. The Town's contract with the SEMASS facility runs through 2015 (OCCS FIA, p. 35). The transfer station has the capacity to adequately serve Provincetown's needs through buildout.

The Bourne regional landfill currently accepts construction, demolition and other bulky waste. While this meets the needs of contractors and other businesses, there is no current local household service or roll-off container available at the transfer station for Provincetown residents needing to dispose of large items not suitable for curbside pickup.

Provincetown's septage waste is hauled to the Tri-Town Septage

Treatment Facility in Orleans. The Provincetown Board of Health conducts hazardous waste collections on a bi-annual basis. The Town should develop a plan for the short-term and long-term management of hazardous waste at the Transfer Station. Currently, the Transfer Station regulations do not accept any hazardous materials.

7.2.4 ANALYSIS

The following are breakdowns of the amounts of waste generated in Provincetown and on the Cape as a whole that were composted, recycled, incinerated, and landfilled in **FY 1998**:

| <u>Provincetown</u> | Tons | Percent |
|---------------------|---------|---------|
| Composted | 130 | 2% |
| Recycled | 870 | 14% |
| Incinerated | 5,154 | 82% |
| Landfilled | 123 | 2% |
| TOTAL | 6,277 | 100% |
| <u>Cape Cod</u> | Tons | Percent |
| Composted | 22,859 | 10% |
| Recycled | 19,940 | 8% |
| Incinerated | 166,653 | 68% |
| Landfilled | 34,358 | 14% |
| TOTAL | 243,810 | 100% |

The recycling figures above do not include deposit containers taken to redemption centers, home composting activity, or goods recycled through swap and thrift shops. The Town's composted material as a percentage of total waste is low more as the result of the lack of compostable leaves and grass than due to a lack of diligence; additionally, the Town has facilitated home composting. Provincetown compares favorably to the Cape as a whole with respect to recycling figures and the amount of waste that does not go into landfills. As late as 1985, the Town landfilled all of its waste, making current figures all the more impressive.

An issue not addressed by current waste collection services is the disposal of large household goods including furniture, mattresses, carpeting, tires, and construction and demolition (C&D) waste. Residents are currently left to their own devices with respect to the disposal of these and other large items; unlike businesses, households cannot typically be expected to rent dumpsters and hire private haulers. As of August 1999, the Town of Provincetown now owns the Transfer Station property. The Board of Health, in conjunction with the DPW, is working to add more recycling services. These additional services will include the collection of materials restricted by the State

and Federal government for disposal at incinerators or remaining landfills.

The addition of collection service (or at least a roll-off container at the transfer station) for large household waste items would go beyond added convenience for Town residents, allowing the weighing of trash to be landfilled and undoubtedly resulting in a reduction of illegal dumping. The prompt addition of such service should be a top Town priority. Completion of the land swap will also allow for necessary expansion of the Town's recycling program.

The costs of waste collection, transport and incineration are high and may become severe when the SEMASS contract expires in 2013. For FY 1996, the cost per ton was \$76.20. Recycling, reuse and composting are the best ways of defraying costs in an environmentally sound manner. Other methods of reducing the generation of trash should be considered, including economic incentives. One such measure is a "pay per bag" system whereby residents pay a direct fee based on the amount of waste they generate. This provides an incentive for citizens to reduce and recycle, easing pressure on both the Town budget and waste disposal facilities.

Public education programs should be continued to underscore the link between the use and disposal of potentially toxic chemicals and environmental degradation. Use of alternatives to toxic chemicals should be encouraged whenever possible and the proper storage and disposal of all hazardous materials and waste must be ensured. The vulnerability of Provincetown's wetlands, water table and coastline make this a particularly crucial issue here.

7.2.5 ACTIONS and IMPLEMENTATION PROGRAM

ACTION 1: Continue to promote recycling and reuse and expand the current recycling program.

ACTION 2: Re-establish the Recycling Committee and recruit members.

ACTION 3: Address the need for household bulky waste disposal services.

ACTION 4: Implement accounting methods that reflect all capital costs and operational expenses of municipal recycling and waste disposal services, and inform taxpayers.

ACTION 5: Investigate economic and other incentives to reduce the generation of household waste including a "pay per bag" system.

ACTION 6: Adopt a toxic and hazardous waste by-law or regulation, using the county model.

ACTION 7: Hold regular household hazardous waste collection events and consider establishing programs at the transfer station for paint wastes and oil (as space permits).

ACTION 8: Develop and maintain an emergency response plan for spills of hazardous materials during transit.

ACTION 9: Develop and conduct a public awareness program addressing the environmental hazards of toxic chemicals.

7.3 CAPITAL FACILITIES AND INFRASTRUCTURE

7.3.1 INTRODUCTION

This Section of the Services and Facilities element contains an inventory and assessment of Town buildings, offices, properties, equipment, staff, and services. Further, this section addresses future service and facility needs and the capacity of the Town to provide them while ensuring protection of the environment and the health, safety and welfare of the public.

7.3.2 GOALS AND POLICIES

GOAL 1: To provide adequate community and regional facilities to meet community needs that are consistent with the goals and policies established in the Local Comprehensive Plan and the Regional Policy Plan.

POLICY A: Approval of development or redevelopment that increases the intensity of use shall be based on existing infrastructure and system capability or on a development's ability to provide for or contribute to the infrastructure and services necessary to support it. The provision of infrastructure and services should be consistent with the Regional Policy Plan, the Local Comprehensive Plan, the Capital Improvements Plan, and the Zoning By-laws and Development Impact Standards. Installation of necessary infrastructure shall be timed to meet the need generated by the development or a contribution of funds toward the necessary improvements shall be provided.

POLICY B: Development of new infrastructure shall occur only after an analysis of its impacts with regard to land use, traffic, water supply, natural resources, historic preservation, and community character. Other applicable issue areas identified in the Regional Policy Plan and shall be consistent with the Local Comprehensive Plan and Town's Capital Improvements Plan.

POLICY C: Privately provided infrastructure to service development and redevelopment shall be consistent with the Local Comprehensive Plan and, when constructed off-site, shall receive formal approval from the Town prior to construction.

POLICY D: Public investments, including construction or expansion of infrastructure and facilities, including but not limited to municipal buildings, water supply and distribution, sewage collection and treatment, roads, telecommunications, and related facilities should reinforce Provincetown's traditional character and development patterns.

GOAL 2: To encourage the provision of adequate and appropriately-sited telecommunications facilities so as to promote economic development and preserve Provincetown's quality of life and visual character.

POLICY A: Telecommunication facilities shall be reviewed in accordance with Article X, Wireless Telecommunication Towers and Facilities, of the Provincetown Zoning By-law. The by-law calls for and the Town should support collocation of facilities on any monopoles that are erected in accordance with the by-law.

7.3.3 INVENTORY

A. Government Facilities and Staff

Provincetown Town Hall houses the Town Manager, Director of Municipal Finance, Town Clerk, Town Accountant, Principal Assessor, Department of Regulatory Management (DRM), and the Board of Selectmen. It is also regularly used for Town Meeting, public hearings, meetings of Town boards, commissions and committees, and other public events.

The Grace Gouveia Building on Alden Street houses the Department of Public Works, Water Department, the Town Nurse's Office, the Council on Aging, the Grant Administrator, the Domestic Violence Program, and Veterans Services.

Other Town facilities include the Police Station, Fire Facility, Community Center, Public Library, MacMillan Pier, Heritage Museum, Cape End Manor Nursing Home, Transfer Station, cemetery, and municipal parking lots, as well as the schools.

Town administrative staff includes the Town Manager, Assistant Town Manager, Town Clerk, Grant Administrator and support staff.

The Department of Municipal Finance, which includes the Director of Municipal Finance, the Town Accountant, the Assessor's Office and the Treasurer/Collector's Office, has a staff of 10.

Other municipal departments include the DPW, Parking Department, Department of Regulatory Management, Marine Department, Water Department, Health Department, Cape End Manor, Library Department, Recreation Department, Veteran's Services/Civil Defense, the Council on Aging, and the Heritage Museum.

B. Police

The Police Department is housed in a modern facility on Shank Painter Road. The department employs a staff of 25 full-time employees as well as supplemental summer employees.

C. Fire

The new fire station on Shank Painter Road was built at a cost of \$1.2 million and opened in 1993. Five engine companies serve the Town.

The only paid Fire Department staff for 1995, other than part-time EMTs and paramedics, were the Fire Chief and Department Secretary.

D. Other Public Safety/Rescue

Public safety services include the local Rescue Squad and the Lower Cape Ambulance Association, Inc., which serves Truro and Provincetown.

E. Education

Provincetown's public schools are Provincetown Junior/Senior High School and Veterans Memorial Elementary. The total enrollment in both schools for 1995-96 was 350 pupils, down from 384 the previous year. That total is expected to continue to drop in the near future. The Town is currently recruiting high school students from neighboring towns. Cape Cod Regional Technical High School represents another (regional) educational option for Provincetown youngsters; in 1995-96, six local students were enrolled at Cape Cod Tech, down from a ten-year high of 21 in 1985.

F. Public Works

The Town's Department of Public Works (DPW) employs 28 persons and consists of six divisions: Solid Waste/Recycling, Water, Highways, Cemetery, Buildings and Grounds, and Forestry. The following are summaries of major public works inventories and projects. The DPW has a fleet of some 22 vehicles, as well as mowers, backhoes and other equipment. The Highway Department is currently replacing all of the Town's sidewalks at a cost of \$350,000. No other major road improvement projects are anticipated other than ongoing maintenance and repairs, which are funded partly by the State's Chapter 90 program. (OCCS FIA, p. 41)

The Town continues to consider transferring Route 6 to Town jurisdiction, acquiring land in the right-of-way for potential use for Town facilities. While such a move would increase Town landholdings, the addition of 8 miles of road would also increase local public works operating costs. Additional Highway Department tasks include street sweeping, painting, cold patching, hot mixing, cleaning and repairing drains, and storm and emergency service.

In addition to care of the Cemetery, maintenance responsibilities include the upkeep of other Town grounds including the Grace Gouveia Building, Library, Comfort Station, Harry Kemp Way, Monument Park, and Motta's Field. Cemetery Department personnel are also responsible for the sale of lots for burials.

Public Water Supply

All of Provincetown is served by the municipal water system, which draws its water from the Pamet Lens in Truro (see the Water Resources Section of the Natural Resources Element for more detailed

inventory and analysis of the public water supply). Water consumption continues to rise yearly, despite conservation efforts.

The Town recently completed a corrosion control program in order to comply with the State DEP lead and copper requirements. Total costs are estimated to be \$500,000, to be drawn from Provincetown's Water Enterprise Fund--having no effect on the general fund or tax rate.

Water Department staff includes eight full-time employees.

Sewage Facilities and Septage Disposal

Although the Town currently has no sewer system, an overall strategy for wastewater collection, treatment and disposal is currently being addressed by the ongoing Wastewater Facilities Management Plan. The density of development in downtown Provincetown and recent changes to Title 5, the State Sanitary Code, contribute to problems caused by septic systems; any potential alternative wastewater systems are contingent on the findings of the wastewater plan.

Provincetown maintained septage lagoons at the sanitary Landfill until August 1991, when the Town began disposing of its septage at the Tri-Town Septage Treatment facility in Orleans. The current contract with Tri-Town expires in 2013.

G. Harbor and Marina Facilities and Staff

The U.S. Army Corps of Engineers recently performed harbor dredging operations at no cost to the Town. The Marine Department includes the Marine Superintendent (Harbormaster), Assistant Harbormaster and Shellfish Constable .

H. Health and Welfare

Health Care Facilities and Services

Outer Cape Health Services has a facility in Provincetown and one in nearby Wellfleet. Individual practitioners maintain a small number of private medical offices in Town. It is important to note that the nearest hospital is 60 miles away, Cape Cod Hospital in Hyannis.

Public Housing

The Provincetown Housing Authority (PHA) administers 24 elderly housing units and 8 family units. The Town has developed a 10-unit housing facility for people with HIV/AIDS. This and other public housing is funded through state and federal housing grants and does not entail significant municipal expenditure.

Cape End Manor

Cape End Manor is a municipally operated nursing home. It has a capacity of 55 patients. Sixty administrative and medical staff cares for the patients. It is the only nursing home on the Lower Cape, and one of the few in the State that is operated by a municipality.

I. Culture and Recreation

Provincetown Public Library

The Library has approximately 25,600 volumes and 125 magazine subscriptions. In 1998, the Library circulation reached 44,860 (double that of 1993). Other resources include 6 personal computers, Internet service, a photocopier, a television, and a videocassette recorder. The library staff is equivalent to 3.6 full-time employees, with 56 volunteers assisting the full-time staff. Improvements were recently completed making the Provincetown Public library handicapped-accessible with the addition of an elevator and accessible lavatory facilities.

Heritage Museum

Located in the former Methodist Church on Commercial Street, The Heritage Museum has operated at a loss in recent years and currently faces some \$118,000 in necessary repairs. Approximately half of this amount was approved at Town Meeting if it is matched by State funding.

Senior Center

A grant of \$180,000 from the Massachusetts Executive Office of Communities and Development was recently used for expansion and improvement of the Senior Center at the Grace Gouveia Building.

Open Space

Provincetown has two municipal conservation areas. Totalling nearly 15 acres, Foss Woods was acquired in 1995. Also in 1995, the Provincetown Conservation Trust was given a Conservation Restriction for the Railroad Right-of-way abutting Foss Woods to Howland Street. In 1999, the Town purchased the 7.52-acre Shank Painter Pond Uplands, for a total municipal conservation area of 22.52 acres. No Town on Cape Cod has more protected land--some 70 percent of the total land area. The Province Lands, previously owned by the Commonwealth and now part of the Cape Cod National Seashore, have long been protected and have determined the location of development. Other protected land not under National Park Service jurisdiction includes the Water Resources District and over 30 acres of land held by the private, non-profit Provincetown Conservation Trust.

J. Provincetown Municipal Airport (PMA)

The PMA occupies some 332 acres of land situated within the National Seashore. The airport is operated by the Town through the Provincetown Airport Commission, by virtue of the deed conveying the Provincelands to the federal government and under the conditions of Special Use Permits issued by the National Park Service. The Airport Commission consists of five Commissioners appointed by the Board of Selectmen. Operation and maintenance of the airport are financed by airport revenues while capital improvements are generally financed through combined federal, state and local funds. Acceptance of federal

and state funds to finance capital improvements requires compliance with Federal Aviation Authority (FAA) standards.

The PMA has a single paved runway approximately 3,500 feet long and a full-length parallel taxiway. Facilities include a small terminal building with an attached hangar, a small general aviation pilot's shack, and fuel facilities. Aircraft parking is provided on two apron areas, one for commuter aircraft and the other for private (general aviation) aircraft. There is also a small turf aircraft overflow area and automobile parking.

The Cape Cod National Seashore's draft General Management Plan and a Memorandum of Understanding (MOU) with the Town of Provincetown recognize the right of the airport to exist, to provide year-round commuter air service, and to provide such improvements as are required in the interests of public safety. The MOU specifies that the Town's permitting of the Hatches Harbor restoration will be considered to be mitigation for airport safety improvements

7.3.4 ANALYSIS

The Land Use and Growth Management Element of the LCP provides population and buildout projections which will have impacts on Town services and facilities in the future. The potential for conversion of seasonal homes to dwellings that can be occupied throughout the year raises the prospect of an increasing demand for services and facilities in the future. All future development and expansion of Town buildings, facilities and services must be carried out in a manner that is consistent with the Town's historic preservation and environmental protection goals and policies.

A. Government

In the estimation of the Outer Cape Capacity Study Fiscal Impact Analysis (December, 1996), Town Hall, which houses local government, is not expected to require any major capital investments "in the foreseeable future" besides "ongoing normal maintenance." It further states that "[a]ll future investments are assumed to be fundable from within the General Fund or the normal maintenance debt load." (OCCS FIA, p. 34) The Town DPW has requested \$30,000 for Fiscal Year 1998 for electrical upgrade, structural analysis and repair and replacement of exterior doors at Town Hall, with an additional request of \$20,000 for building insulation and sidewalks in 1999.

Other facilities housing local administration and services are sufficient now and for the near future; given the shortage of available developable land and the limited prospects for expansion of existing facilities, Town employees and residents must accept the likelihood of space constraints in the future.

B. Police, Fire, Public Safety, and Rescue

The Police Department has no foreseeable expansion needs and expenditures are expected to be limited to "normal equipment replacement debt." (OCCS FIA, p. 40) The fire department believes another fire station may be necessary in the future to serve the East End fire companies. No major public safety investments are expected in the near future. (OCCS FIA, p. 41)

C. Education

Current enrollment in Provincetown schools is below the capacity of the physical plant and projections indicate that future expansion of facilities is not likely to be needed. Some growth in enrollment would actually be beneficial in that "existing facilities could be used more efficiently and capital and operating costs could be spread over a broader base, lowering the per-pupil costs." (OCCS FIA, p. 41)

If enrollment continues to decline as expected, the Town will face major decisions as to the best use of its schools. These decisions will, in turn, affect the use of other Town facilities. A plan should be developed to address potential scenarios.

D. Public Works

No expansion of the existing water supply system is anticipated, although the Town faces a tenuous future with regard to the continued long-term availability of sufficient high quality water. Water Conservation efforts should continue, as should cooperative efforts with the National Seashore and neighboring towns to ensure the fulfillment of long-term water needs. (See the Water Resources Section of the Natural Resources Element for more in-depth analysis). A capital project request for \$420,000 is slated for corrosion control at the Paul Daley Wellfield in FY 1998, with another \$200,000 targeted for corrosion control at Knowles Crossing and \$150,000 for "site treatment facility removal" in FY 1999.

The Wastewater Facilities Management Planning Study will cost a total of \$239,000 through FY 1998. Contingent upon the findings and recommendations of the plan, it is expected to be 3 to 5 years before the implementation of any major sewerage program might possibly occur. Because the Town's options are undefined at this point, cost projections are unwarranted.

"Capacity at the Tri-Town facility is said to be adequate, although anticipated improvements in the facility will increase the costs of disposal. However, no significant government costs will be involved, as consumers will pay for higher disposal rates." (OCCS FIA, p. 35) Long term septage disposal is likely to be a regional concern and solutions and costs most likely will have to be addressed regionally. The DPW has solid waste/recycling capital project requests of \$145,000 for equipment in FY 1998 and \$275,000 earmarked for "old burn dump closure construction" in FY 1999.

Highway Department capital projects requests include replacement of two dump trucks, street and sidewalk repairs, reimbursement of state funds for street and sidewalk reconstruction, and purchase of a pumper truck at a total cost of \$200,442 for FY 1998 and an additional \$140,442 through FY 2002.

No Harbor dredging costs are anticipated in the foreseeable future. Pier upgrading is necessary--the Harbor Plan recommends reconstruction, with extensive upgrades to serve small boat commercial fishing and passenger boats. A reconstruction budget has been estimated at approximately \$12.8 million. To receive unfunded authorizations from the Commonwealth totaling \$7.5 million the Town would have to provide a 25% "match" or \$2.5 million. Additional funding sources include the Commonwealth's water access grant program.

E. Cape End Manor

More than forty years ago, the Town of Provincetown decided to get into the nursing home business. It did so because the private sector would not, and because provision of nursing home services was important to and for our residents. As the new millennium approaches, the challenges of the regulated healthcare environment are much more complex, but the goal is the same. To make sure that there is a nursing home in Provincetown for our residents who need it, regardless of their ability to pay.

There remains a commitment by the Town to reexamining how the Manor is governed and operated, in order to agree upon the best means of delivering quality medical services, even if it means changes in how we do business. A number of positive changes have been made recently. With patient census stabilized, excellent ratings from State inspectors, and improved relations between management and the union, the Manor seems well on its way to carrying a greater financial responsibility for the Town. In discussions at recent Town Meetings, residents have made it clear that these services are important to them, in order that our elderly and ill residents not be removed from the community. The nearest facilities would be 20 miles away in Orleans.

F. Library

The Library has approximately 25,600 volumes and 125 magazine subscriptions. In 1998, the Library circulation reached 44,860 (double that of 1993). Other resources include 6 personal computers, Internet service, a photocopier, a television, and a videocassette recorder. The library staff is equivalent to 3.6 full-time employees, with 56 volunteers assisting the full-time staff. Improvements were recently completed making the Provincetown Public library handicapped-

accessible with the addition of an elevator and accessible lavatory facilities.

The lack of sufficient space affects everything that takes place at the library. A recent analysis has shown that a library serving the people of Provincetown needs 14,000 square feet of space. The present Library building has less than 5,000 square feet. The acquisition of new books frequently requires that old books be discarded. The tight quarters make it difficult to offer the new programs and services that patrons expect and deserve.

The Library has undertaken a study to re-locate to the Heritage Museum building. Historically, this building has been underutilized, and is badly in need of repairs and restoration. The Library hopes to solve its space problems and to rehabilitate the building at the same time. Any plan for relocation would not include removing the Rose Dortha ship model from the building.

G. Provincetown Municipal Airport

Proposed airport improvements include construction of a one-story double-bay storage facility for fire fighting equipment and vehicles. Expansion of the parking aprons to handle aircraft that remain at the airport for extended periods of time. Construction of 600' by 300' safety areas at each end of the runway, and extension of the runway by 1,000 feet to provide improved landing/takeoff opportunities for larger aircraft and a new terminal building. Approval is contingent on assurance that the effects on surrounding wetlands will be minimized.

7.3.5 ACTIONS AND IMPLEMENTATION PROGRAM

ACTION 1: Continue to review regulations and develop maps to plan for appropriate locations of community needs such as affordable housing, waste disposal, recreation, economic development, and other necessary services and facilities.

ACTION 2: Identify and plan for necessary infrastructure improvements, such as to public water supply or wastewater treatment facilities, recognizing the limitations imposed by environmental constraints, historic resources and financial considerations.

ACTION 3: Inventory existing and potential sites for cellular and other wireless communications facilities and adopt local by-laws and siting criteria to regulate communications facilities, consistent with the RPP and LCP.

ACTION 4: Maintain a 5-year Capital Improvement Plan (CIP) addressing the following:

- needed facilities & financing mechanisms for construction;
- repair, expansion, replacement of public facilities & services;
- funding priorities & sources of funds;
- impact fees if necessary.

ACTION 5: Establish levels of service for all Town services in order to spot deficiencies and to establish a base line. Develop a preferred level of service for all services which is incorporated with the Town's Capital Improvements Plan to bring deficient areas up to the desired level.

7.4 ENERGY

7.4.1 INTRODUCTION

This Section is made up of Goals and Policies and an Action and Implementation Program. In addressing all of its energy needs and issues, Provincetown must face the reality of paying energy costs that are among the highest in the nation. The average Cape Cod resident pays \$475 more annually than off-Cape residents of Massachusetts, even though usage is 11% less. (RPP, p. 83). In addition, Provincetown's energy infrastructure is years behind most other communities, still relying on above ground lines and poles that provide inadequate and poor quality service, and no pipeline for natural gas. No alternative technologies, such as wind generation, have been implemented or explored, although that is a resource Provincetown has an abundance of, especially in the winter.

The Town must make energy part of its overall plan for the future. Costs are likely to escalate further, and may become a hindrance to doing business. Already the poor quality of the infrastructure, specifically the lack of adequate and consistent electrical current, no facilities for cellular phone service, and the lack of any capability to expand services, makes it impossible for computer based businesses to locate in Provincetown.

7.4.2 GOALS AND POLICIES

GOAL 1: To encourage energy conservation and improved energy efficiency, to encourage and stimulate investment in energy conservation and renewable energy resources, and to manage land uses to maximize energy efficiency.

POLICY A: Development and redevelopment should be designed to promote the efficient use of energy including orienting structures to take advantage of solar gain and to maintain solar access for adjacent sites. Site design should protect and optimize the potential for the use of solar energy.

POLICY B: New development should lay utility lines underground for aesthetic and security purposes and to facilitate the development of walkways and bikeways.

POLICY C: Energy saving transportation activities including carpooling, mass transit programs, bicycling and walking should be

encouraged. Bikeways and walkways should be linked together to facilitate creation of a network that ties together the entire Cape.

GOAL 2: To develop a comprehensive energy policy for the Town, and perform an energy evaluation of the Town as it applies specifically to municipal buildings, vehicles and services.

GOAL 3: To share information with the Town's citizens regarding the ongoing restructuring of the electrical industry, and to protect the interests of the Town by participating in regional planning sessions to organize cooperative purchases of electricity for obtaining a lower price.

7.4.3 INVENTORY

Section 7.4.5 contains actions requiring the Town to establish a baseline inventory of energy need and use. There are questions that should be answered in order to understand how energy is utilized and where the Town could make potential savings and improve efficiency. No such inventory exists at this time.

No reliable figures exist either on how many of the dwelling units and other structures in Provincetown would comply with current energy standards or codes. Because of the age of the building stock, and that fact that many of the structures were not originally intended for year-round use, one can hazard a guess that a substantial amount of energy is being wasted due to lack of proper insulation, windows and doors.

Electricity is provided via a long line of poles stretch along Route 6 from Orleans. Whether related to weather or to the linear nature of the system, power outages are frequent. The line of poles continues marching right down Commercial Street, and at its narrowest point, pose a real hazard to pedestrian and vehicle traffic. The Town has undertaken a study of the cost to relocate these lines underground and remove the poles. Many have suggested that during the construction of a wastewater treatment facility would be an ideal time for relocation.

Problems also exist with fluctuating current levels that adversely affect sensitive electronic equipment. Because these fluctuations consist of both peaks and valleys, installation of a surge protector is not sufficient to protect most of this equipment. The Town does not have natural gas lines. So far the underground pipe has been extended down the Cape only as far as Wellfleet. Propane tanks stored on the property supply all gas in Provincetown.

7.4.4 ANALYSIS

The Town must develop a coherent energy policy to guide its citizens through the ongoing electric industry restructuring. Town government should take the lead in understanding new rate structures and discount options as well as in adopting conservation methods and use of renewable energy sources. The Town must also focus on municipal energy efficiency by determining how much energy it uses in municipal and school buildings and in operating and maintaining Town vehicles. Much of Provincetown's housing stock fails to comply with either State or federal energy

codes. Major steps need to be undertaken to upgrade and retrofit these properties to promote energy conservation. This upgrading should also be done under the guidance of the Historical Commission and with an eye toward the historic character of the Town.

7.4.5 ACTIONS and IMPLEMENTATION PROGRAM

ACTION 1: Revise and enforce energy conservation standards for new development and redevelopment.

ACTION 2: Provide incentives for energy conserving building improvements and renewable energy devices in all existing and new buildings.

ACTION 3: Develop and adhere to an energy efficiency program for municipal buildings, facilities and street lighting. Establish an Energy Assessment for the Town.

ACTION 4: Research carpooling and ridesharing grant programs for regional application in coordination with other Outer Cape communities.

ACTION 5: Consider utilizing clean alternative fuels, i.e. propane gas, consolidated natural gas (CNG) and electricity, for all new Town fleet vehicles and shuttle buses.

ACTION 6: As an ongoing practice, take advantage of options and savings provided in the competitive electric utility market; take advantage of new energy technologies as they are market-proven.

ACTION 7: Establish a priority list of overhead utility lines and associated structures that should be installed underground for reasons of safety, enhancement of community character, heritage preservation, or restoration of scenic views.

APPENDIX A List of References

| Reference | Referenced in Plan | Source |
|--|---|---------------------|
| Cape Trends | Page 75 | |
| Provincetown Municipal Airport Master Plan | Page 104 | Town Clerk |
| Conwell Street Traffic Study | Pages 105, 106 | Cape Cod Commission |
| Exterior Lighting , Technical Bulletin 95-001 | Page 65 | Cape Cod Commission |
| Guidelines for Referral of Historic Structures | Page 63 | Cape Cod Commission |
| Regional Policy Plan | Pages 24,31,43,50, 58, 61, 70, 72, 84, 108, 113 | Cape Cod Commission |
| Designing the Future to Honor the Past | Page 5 | Cape Cod Commission |
| Cape Cod Long Range Transportation Plan | Page 101 | Cape Cod Commission |
| Outer Cape Capacity Study | Pages 15, 16, 17, 48, 87, 93, 105, 117 | Cape Cod Commission |
| Nitrogen Loading, Technical Bulletin 91-001 | Page 22 | Cape Cod Commission |
| Cape Cod Water Resources Classification Maps 1 & 2 , dated September 5, 1996 | Page 22 | Cape Cod Commission |
| Wetland Buffers, Technical Bulletin 96-00X | Page 44, 46 | Cape Cod Commission |

| | | |
|---|--|---------------------|
| Plant and Wildlife habitat Assessment Guidelines, Technical Bulletin 92-002 | Page 45 | Cape Cod Commission |
| Provincetown Harbor Plan | Pages 2, 28, 37, 39, 40, 42, 78,79, 80, 119 | Town Clerk |
| Provincetown Harbor Regulations | Page 28 | Town Clerk |
| 1988 Master Plan | Pages 1, 4, 63, 72, 75, 93, 99, 103, 104, 105, 106 | Town Clerk |
| Open Space and Recreation Plan, 1995 | Pages 27, 38, 42, 58, 60 | Town Clerk |
| Community Vision Project, July 1995 | Pages 1, 19, 31, 41, 63, 69 | Town Clerk |
| Comprehensive Survey of Historic Structures, Stage One, 1993-1994 | Page 66 | Town Clerk |
| Provincetown Capital Improvements –5 year plan | Pages 113, 120 | Town Clerk |
| Provincetown Wastewater Facilities Management Plan | Pages 18, 24, 29, 115, 118 | Town Clerk |
| Final Needs Assessment Report for Wastewater Management Facilities Planning Study, 1997 | Pages 6, 26, 30, | Town Clerk |
| Cape Cod Critical Habitats Atlas | Page 47 | Town Clerk |
| Provincetown Zoning By-laws | Pages 3, 8, 11, 15, 20, 46, 51, 64, 113, | Town Clerk |
| Provincetown General By-laws | Page 38 | Town Clerk |
| Economic Development Plan | Pages 72, 75, 76, 77, 78, 79, 80, 81 | Town Clerk |
| Provincetown Transportation Center Master Plan, 1995 | Pages 99, 103, 105, 106 | Town Clerk |
| Criteria for Evaluating Affordable Housing Proposals and Procedures for Securing Affordable Housing Permits | Page 84 | Town Clerk |