



**GROWING
SMARTER**

*in Plymouth's
Fifth Century*

A Strategic Action Plan for the Town of Plymouth, MA



**Plymouth Planning Board
Master Plan Committee**

OCTOBER 2004

Consultants:
Goody Clancy
RKG Associates



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Thanks to everyone in Plymouth who helped create the Master Plan and the Strategic Action Plan.



Growing smarter in Plymouth's fifth century: a letter from the Master Plan Committee and the Planning Board

Fall 2004

In 2020, Plymouth will enter its fifth century. What do we want Plymouth to be like at our 400th birthday celebration? What do we have to do as a community to make sure we preserve the qualities of our community that are so important to us while taking advantage of all the opportunities the future can bring? This Plymouth Strategic Action Plan-2005/2025 is our road map to the future. Based on the results of the Town's recent planning projects, especially the Economic Development and Cost of Services Study, the Master Plan and the Open Space Plan, the Strategic Action Plan presents a clear framework and action agenda for implementing the recommendations of those plans.



Over the centuries we have changed from a tiny settlement perched on the Atlantic coast to one of the fastest-growing communities in New England. In the late 1990s, Plymouth residents recognized that the Town needed a new master plan to help us make the right choices as we face new challenges. A Master Plan Task Force was established that later became the Master Plan Committee, with representatives from a variety of town boards, commissions, neighborhood groups, as well as other citizens.

In town-wide workshops, surveys, and neighborhood meetings we asked you what you were concerned about and what you wanted for Plymouth's future. You told us you were worried about rising taxes, the pace and impacts of development, and the importance of school quality. You wanted Plymouth to keep its small-town qualities, to shape and direct residential growth, and to preserve our open spaces and the quality and quantity of the water in our ponds, streams, and aquifer.

This Strategic Action Plan is our report to you. It summarizes the findings of the Master Plan, describes a vision for the future, sets forth a policy framework to guide town decision makers in the future, and advances an action agenda to achieve the vision. It is a plan for "smarter growth" that balances preservation of our exceptional natural and cultural heritage and our quality of life with pursuit of new and exciting opportunities for economic growth. The plan asks us to be innovative so that we can protect the things most important to us while making sure that we have a robust economic foundation for successful community life.

Plymouth is a special place and each of us, whether life-long residents or new arrivals, has a stake in its future. We invite all members of the Plymouth community to join in putting the Strategic Action Plan into practice.

Master Plan Committee

Plymouth Planning Board

The strategic action plan—

THE VISION FOR PLYMOUTH'S FUTURE

With vibrant and pleasant village centers, a preserved and enhanced historic heritage, long stretches of accessible coastline, integrated areas of commerce and compact housing, and vast connected areas of open space for environmental protection, outdoor activities and appreciation of nature, Plymouth will be an even more desirable town to live in that it is today.

- First, the Town will retain its outstanding visual character, which is defined by its vast natural areas, pristine ponds, rivers, and wetlands, extensive coastline, and wooded ambiance.
- Second, the Town will efficiently provide a full array of services and amenities through its success in achieving and sustaining smart growth.
- Third, economic prosperity will be enhanced through desirable and sustainable business investment, employment, shopping, tourism, housing choice, and entrepreneurship.

The successes in plan-making and plan-implementation will be reflected in a beautiful, maturing community with something for everyone.



from sprawl growth to smarter growth

Critical Questions Facing Plymouth

- **Where should we grow?**
Plymouth will grow and change. The majority of new development is occurring in the rural parts of town where there is a large amount of undeveloped land. Is this where we should grow?
- **How should we grow?**
Most recent developments are single family houses on large lots. Do we want to continue to promote this kind of development? How can we encourage non-residential development?
- **How do we preserve our most treasured assets?**
We value the diversity of our landscape—villages and open spaces, ponds and beaches, historic sites and pine barrens—and we have some of the most important environmental resources and wildlife habitat in Massachusetts. Can we be better stewards of this heritage from the past and pass it on to the next generation?
- **How do we succeed in a highly competitive economic environment?**
We need to improve our economy—but the regional economy is very competitive. How do we make the most of our economic, environmental and cultural assets?

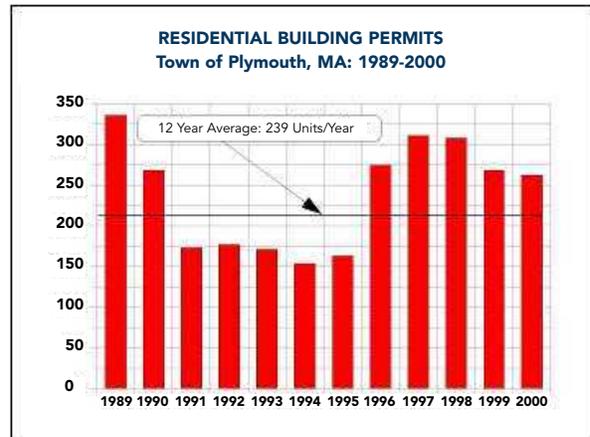
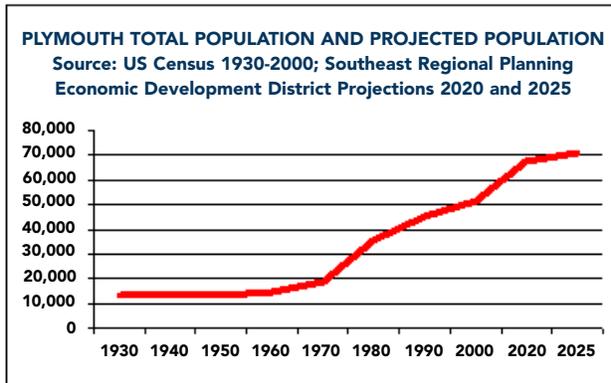
Guiding Principles to Answer the Questions

- **Control sprawl**
Sprawl is large-lot, low-density development that consumes open space and costs more in town services than it returns in property taxes.
- **Encourage economic development**
Economic development provides jobs for Plymouth residents and tax revenues to help pay for town services.
- **Balance costs and growth**
Sprawling residential growth is the most costly to town government while business growth and compact residential growth cost less in services and result in retaining more open space.
- **Preserve character**
Historic sites and buildings, village settlements, rural vistas, and the interplay of ocean, ponds, streams, and wetlands make Plymouth unique; this diversity in landscape and building types should be preserved.
- **Protect the environment**
Plymouth is a significant center of biodiversity and lies above the second-largest aquifer in Massachusetts.
- **Improve quality of life**
Residents seek an environment that allows them to live, work, and play in Town and to enjoy Plymouth's uniqueness.

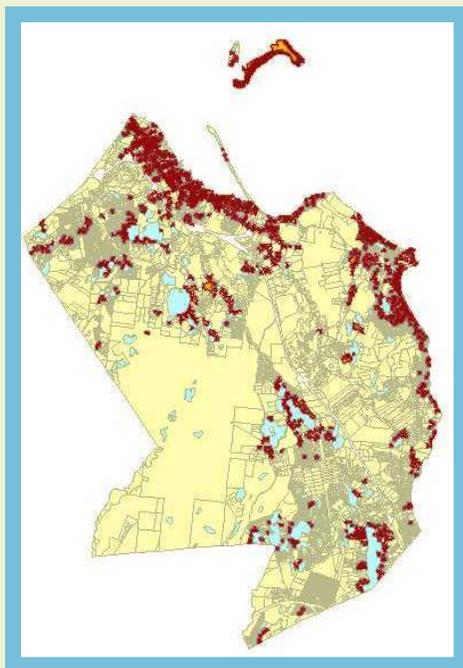
The Policy Context for Decision-Making

- **Plymouth respects the rights of private property owners.**
- **The Town will promote changes to outdated state laws**, such as Approval Not Required Subdivisions on road frontage, which constrain Town regulation of development and settlement patterns.
- Plymouth needs to protect critical natural and historic resources, but the **Town cannot protect all critical resources by purchasing land or development rights.**
- Plymouth needs **growth as well as preservation** to create jobs for residents and pay for the services desired by residents.
- The Town will use **a combination of incentives and regulation** to shape both preservation and development decisions.
- The Town will use **public-private partnerships** where possible to achieve the community's goals through implementation of the Master Plan.

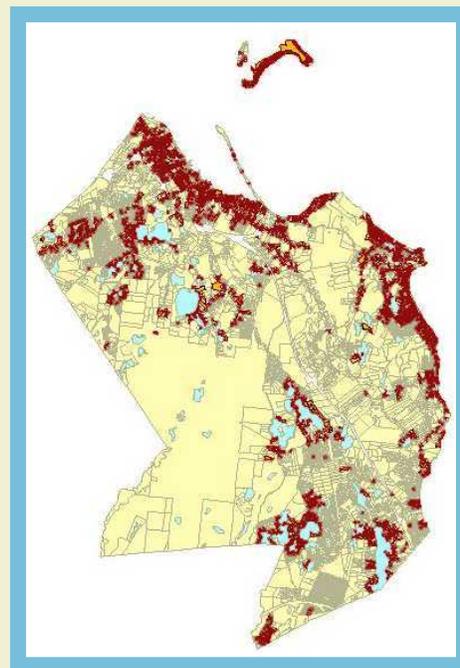
Plymouth at the crossroads—



Southeastern Massachusetts is the fastest growing region in the Commonwealth and one of the fastest growing on the East Coast. Plymouth's population almost doubled between 1970 and 1980 and it grew another 26% during the 1980s. During the 1990s, population growth moderated somewhat, but still grew another 13%. Based on current trends, regional planning agencies forecast continuing high growth until stabilization in the 2020s.



RESIDENTIAL DEVELOPMENT



1950

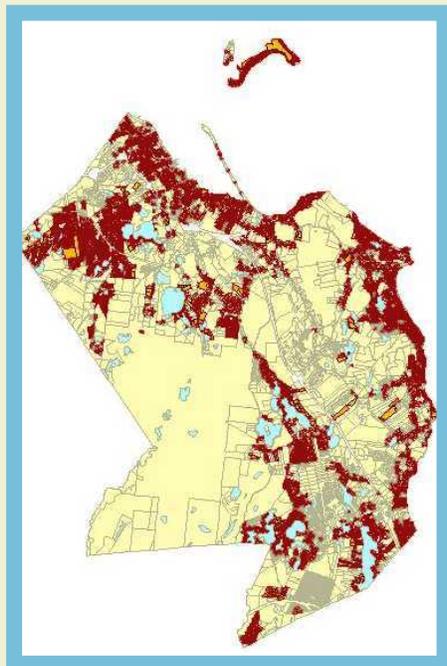
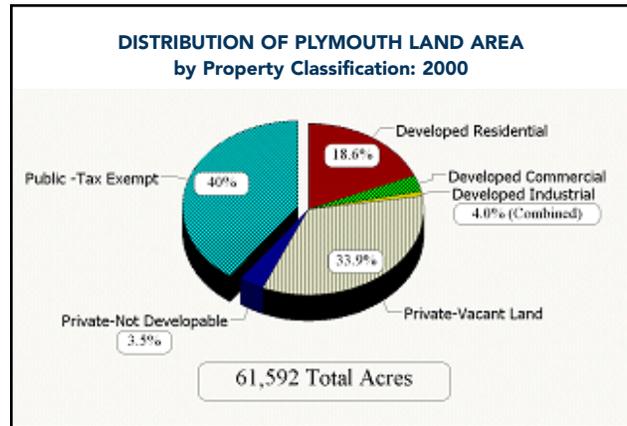
RESIDENTIAL DEVELOPMENT OVER TIME

1970

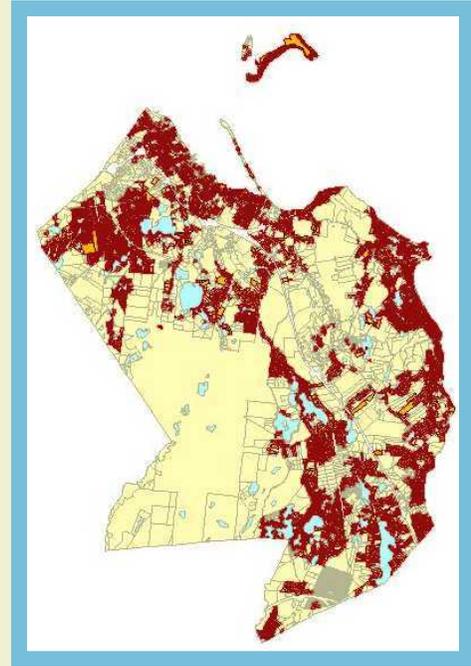
where have we been?

Since 1998, the number of new house lots has averaged 276 a year. Housing growth and values have outpaced business growth and values. The result is an ever-increasing reliance on single-family homeowners to pay for municipal services.

Overall, residential development costs the town \$1.14 for every \$1 in property tax collected. But average costs disguise the difference between the costs of sprawl growth and smarter growth. Sprawling growth of single family homes on large lots brings higher costs in town services because it consumes more land and requires services over larger distances. The average cost to service a single family home in Plymouth's rural areas exceeded \$8,600 in Fiscal Year 2001—more than double the \$4,200 cost of servicing housing units in older, higher density neighborhoods located in Plymouth's Village Centers. Similarly, the average cost to service an "empty nester" unit, such as at White Cliffs or the Pinehills, is roughly \$2,200, half the cost of conventional high-density residential development.



RESIDENTIAL DEVELOPMENT

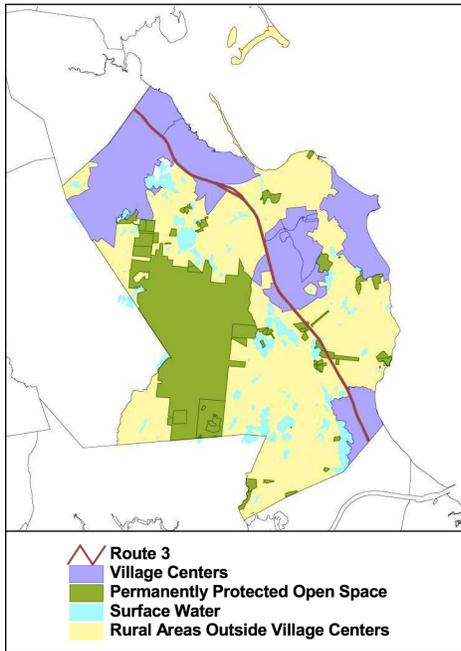


1990

RESIDENTIAL DEVELOPMENT OVER TIME

2004

Plymouth at the crossroads—

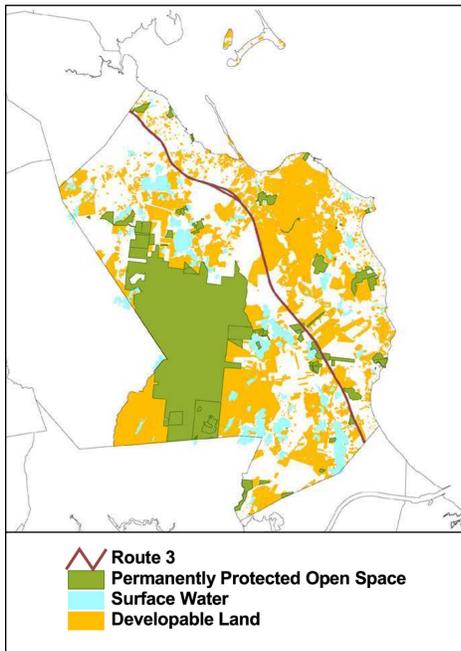


Development since the Village Centers Plan

Since the 1980 Village Centers Plan, Plymouth has embraced the concept of encouraging growth within the existing Village Centers. But current land use policies have been less effective than hoped in curbing sprawl and helping the Town maintain a balance between growth and preservation that Plymouth citizens desire. Since 1980:

- Most new housing has taken the form of single family homes.
- 58% of all single-family houses have been built outside the Village Centers.
- 82% of all single family housing has been built in the larger-lot zoning districts.
- Average land consumption per single family unit has almost doubled from an average lot size of 0.6 acre to 1.0 acre.
- Average lot size within the Village Centers has grown to 0.7 acre and outside the Village Centers to 1.26 acre.

Building caps do not stop sprawl. The 1998 cap on building permits does not affect the geographical distribution of new housing units in town.



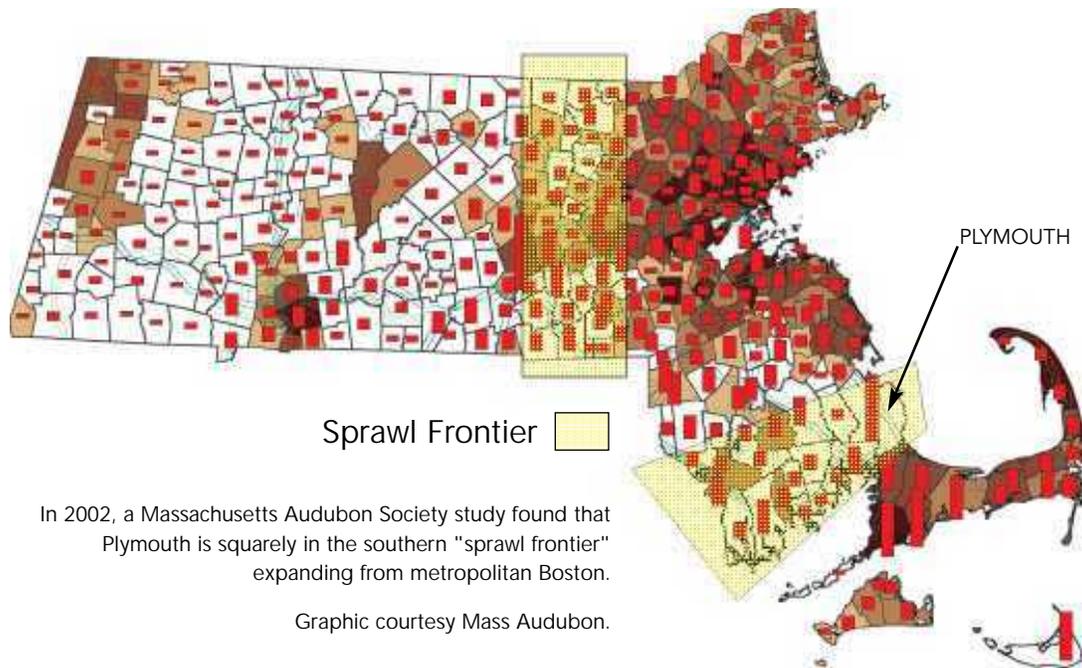
Land Available for Development

Except for the state forest, Plymouth has a relatively small amount of permanently protected open space and a large amount of open land that could be developed under current zoning as large-lot single family houses.

- 34% of Plymouth's land area could be developed for new housing.
- 88% of that land (28% of Plymouth's total land area) is located in the large-lot, Rural Residential zoning district.

Much of this land is fragile pine barren country. More sprawling development could deplete the water table, increase pollution of ponds and streams and contaminate the aquifer, and require more suppression of the natural cycles of wildfire essential to this ecosystem. More houses would create more demand to pave rural gravel roads, resulting in higher speeds and more traffic. The globally rare coastal plain pond ecosystems can be permanently damaged by development impacts.

on the road to sprawl



PLYMOUTH ON THE SPRAWL FRONTIER

As housing development has spread outward from the Boston metropolitan area, Plymouth's combination of beaches, open space, a historic town center, developable land, and relatively affordable housing prices have put the Town near the top of the list in the number of new housing units produced in Massachusetts towns and cities.

- 38% of Plymouth workers have a job in town and the rest commute to locations on the South Shore and elsewhere.
- Between 2000 and 2002, Plymouth issued more permits for single family houses than all but one other Massachusetts community.
- Based on existing trends, regional planning agencies project a 31% increase in Plymouth's population from 51,701 people in 2000 to 67,778 in 2020. Using the 2000 average of 2.67 persons per household, that would mean that Plymouth in 2020 would have nearly 7,000 new households - and housing units.

PLYMOUTH IS ON THE SPRAWL FRONTIER - BUT SPRAWL HAS NOT YET CONQUERED PLYMOUTH

This is a moment of opportunity for Plymouth to avoid irreversible sprawling development and establish smarter growth policies that accommodate growth while protecting town character and heritage.

The master plan alternative—

Smarter growth means the right development in the right place.

And it also means that places that should be preserved from development will retain their open space character. By implementing a plan for smarter growth, Plymouth will be able to manage and direct change towards accomplishing town goals rather than simply react to change that has already happened. To take charge of Plymouth's destiny and make the most of new opportunities while preserving what we value most, Plymouth citizens will have to embrace new ideas about preservation, growth, regulation, and investment in the future.

What would a smarter-growth Plymouth be like?

The model for new development would be Plymouth's historic village centers with their walkable streets, mixture of uses in commercial districts, and friendly neighborhoods. Redevelopment of sites such as the old cordage mill in North Plymouth or the Revere Copper site in Plymouth Center will bring new activities and vitality. The edges of Plymouth's village centers and specific Route 3 interchange areas would be designated for new, compact development that favors easy access for both auto and public transportation. Town policy would direct infrastructure and service investments to support a high quality of life in the villages and designated growth areas. By directing growth to these areas, Plymouth would protect its exceptional natural resources and environments.

Smarter growth means investing in both Green Infrastructure and Growth Infrastructure.

Green Infrastructure is the interconnected system of land and water resources that sustains a healthy environment for Plymouth's people and its wildlife. Growth Infrastructure in the widest sense encompasses the transportation, water supply, wastewater, regulatory, and public services systems that promote growth while providing a high quality of life. All parts of Plymouth would fall into one of two overall land use and development categories, preservation areas or growth areas.

PRESERVATION AREAS where the goal is to constrain development and preserve open space:

- The Town should be committed to focusing open space preservation in these areas.
- Zoning should keep the total number of housing units low.
- Infrastructure investments should be limited to maintaining the existing rural infrastructure.
- Small centers to provide limited services for rural residents should be provided for in the form of rural service convenience centers.
- Open space should be protected for environmental, scenic, cultural, recreational and fiscal reasons through a variety of methods in addition to acquisition.

GROWTH AREAS where the goal is to accommodate development through redevelopment of existing sites, infill development on vacant sites, and new development in compact locations at the edges of existing growth areas, with access to regional roads and future public transportation:

- The Town should be committed to providing and maintaining adequate infrastructure and municipal services in the growth areas, including neighborhood open space.
- Design and development guidelines should ensure that new development will fit appropriately into existing neighborhoods.
- New development at the edges of growth areas should be compact and not sprawling.
- A mixture of business and housing uses should be encouraged in areas designated for commercial growth with greater permitted densities and heights where appropriate.
- The Town should be committed to accommodating affordable housing throughout the growth areas.

smarter growth for Plymouth

HOW DO WE IMPLEMENT SMARTER GROWTH FOR PLYMOUTH?

- Set the regulatory framework.
- Provide incentives and disincentives to shape development.
- Take a strategic approach.
- Invest in the necessary institutional capacity and staff.
- Strengthen public-private partnerships.

KEY ACTIONS TO SET THE FRAMEWORK

- Establish natural resource and open space and cultural heritage networks (Green, Blue and Cranberry Networks).
- Establish Growth Areas and Preservation Areas.
- Establish a People Network where most people will live and where businesses will be located.
- Plan for economic growth based on Plymouth's natural and cultural heritage assets.
- Provide the human infrastructure and capacity to implement the plan.

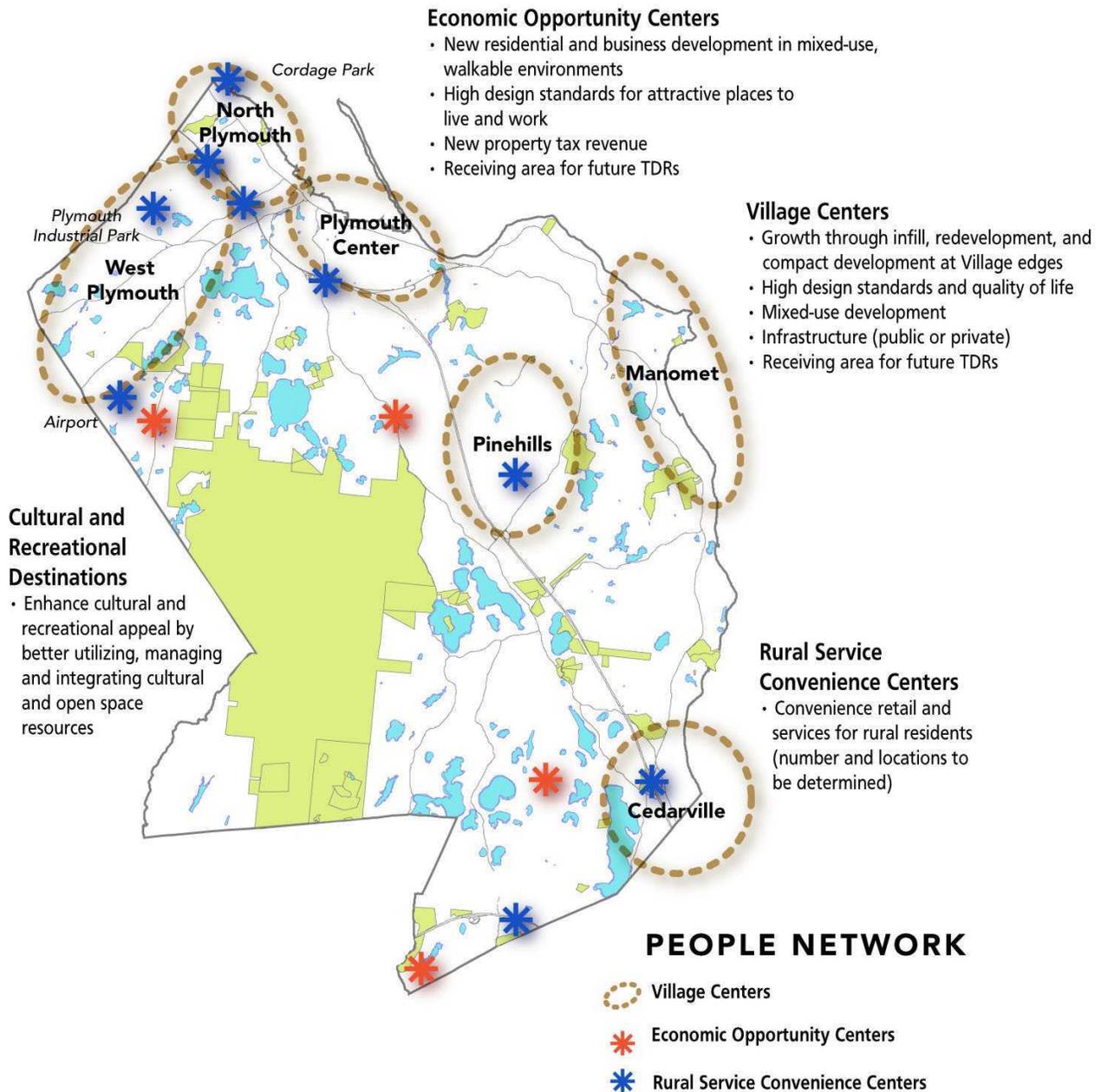
KEY TOOLS TO IMPLEMENT THE FRAMEWORK

- Infrastructure limits: geographic and conservation constraints on expanding public infrastructure
- Design makes the difference: density and design standards to ensure that development fits in with its surrounding context and protects environmental health
- Transfer of Development Rights program: a refined system linked with regulatory incentives
- Provision of open space in growth areas and the introduction of "hamlet" rural service centers in preservation areas
- Integrate a comprehensive wastewater management plan with land use goals
- Plan for transportation systems to support growth opportunity focus areas



Preservation and People Networks

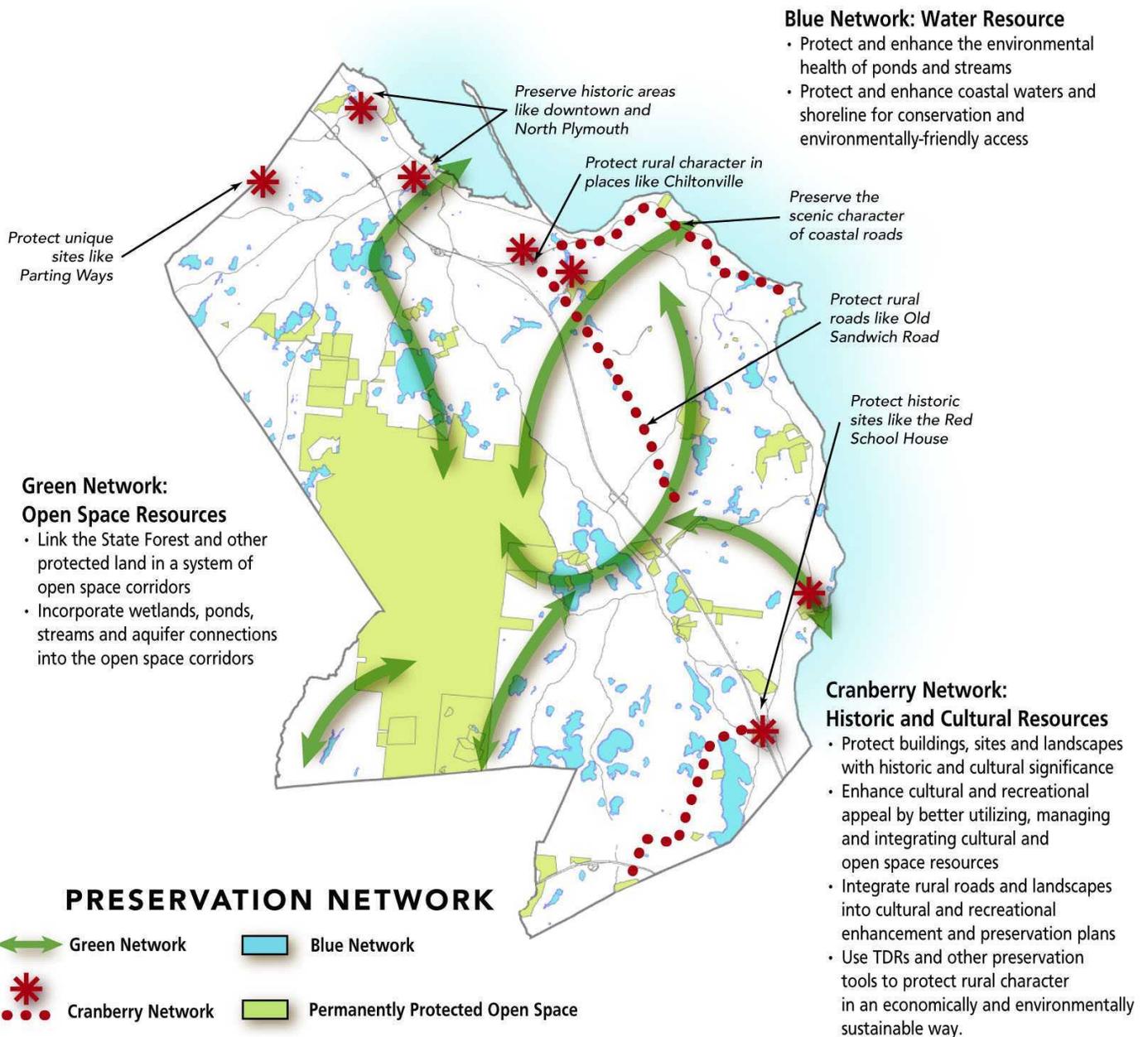
The Master Plan answers the critical questions facing Plymouth with a strategy to focus and diversify growth in a “people network” of Village Centers and Economic Opportunity Centers and a system of “preservation networks” to protect environmental resources and cultural resources, including rural heritage.



establish the geography of growth and protection

The Strategic Action Plan coordinates policies and actions for land use, infrastructure, and environmental protection:

- Village Centers and Economic Opportunity Centers receive development rights from rural areas through the Transfer of Development Rights Program (TDR).
- Comprehensive water supply, wastewater and transportation plans focus infrastructure investments in the growth areas and limit it in the rural preservation areas.



Smarter growth creates

GREEN NETWORK

Plymouth is a center of biodiversity in Massachusetts, with 67 rare species and two areas designated as Areas of Critical Environmental Concern. The Town's pine barren, coastal pond, and frost pocket ecosystems are globally rare. Myles Standish State Forest provides the largest expanse of protected open space and habitat, supplemented by Ellenville State Park, the Town Forest and Town Conservation Land. Large expanses of significant open space remain unprotected. Morton Park, Brewster Gardens, neighborhood playgrounds and athletic fields provide recreational open space for Plymouth's neighborhoods and for use townwide by residents.

GOALS:

- **Link open space and wildlife habitat throughout Plymouth in a Green Network.**
- **Preserve sensitive ecosystems, habitats and wildlife corridors.**

HOW?

- **Evaluate and rank unprotected open space resources** according to criteria for environmental sensitivity and scenic and cultural value.
- **Work with nonprofit conservation organizations** to protect critical open space.
- **Seek donation of conservation restrictions** from landowners, who will benefit by reduced property taxes.
- **Establish low maximum densities in Rural Preservation Areas.**
- **Establish development standards with incentives for protection** of large blocks of open space, public access, or other public benefits.
- **Seek additional dependable revenue streams for conservation purposes.**

BLUE NETWORK

Plymouth has several hundred ponds, including 76 over 10 acres in size, and ten waterways (five of which are anadromous fish runs used by fish that live in the ocean and spawn in fresh water) and its coastal waters include Plymouth Harbor, Plymouth Bay, Cape Cod Bay and Buzzards Bay. Plymouth's ponds and streams are the surface manifestations of an immense underground aquifer, the 199-square-mile Plymouth-Carver aquifer. It is Plymouth's sole source of drinking water. Currently in good condition, it remains vulnerable to contamination from development impacts on very permeable soils. Plymouth Harbor, the Eel River and some of Plymouth's ponds have been affected by pollution and many are vulnerable as development increases. Despite this wealth of water resources, there are few public access points to the ocean and to ponds.



GOALS:

- **Protect and enhance the Blue Network of inland and coastal water resources, including wetlands and aquifer connections.**
- **Protect the quality and quantity of groundwater and surface water.**
- **Promote public awareness of best practices in private landscape management to protect water resources and wetlands.**
- **Expand opportunities for public access to water.**

HOW?

- **Identify the recharge areas** to large ponds and major waterways.
- **Implement a town-wide stormwater management plan.**
- **Review subdivision and building requirements to promote lower impact development.**