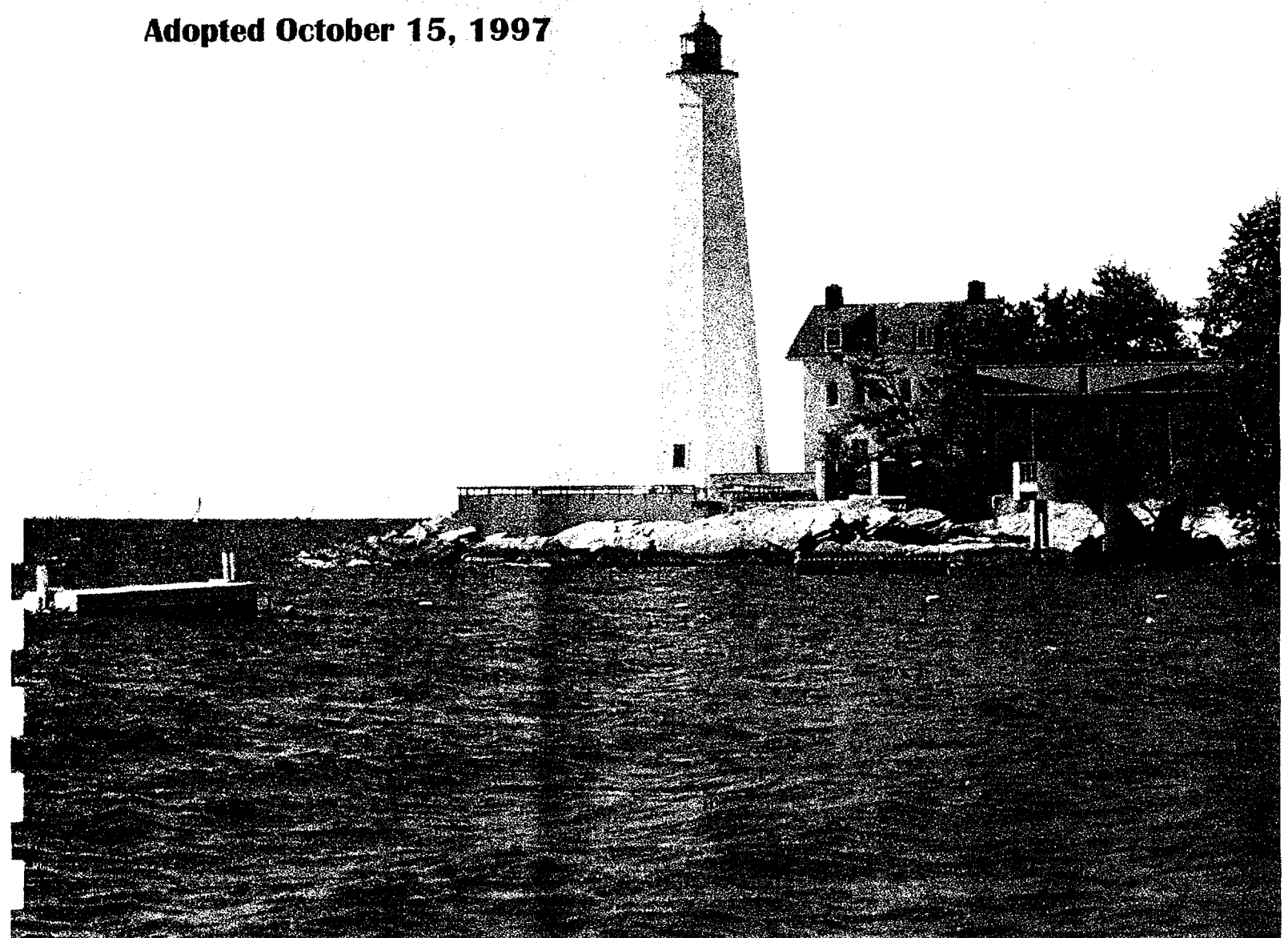


REGIONAL CONSERVATION AND DEVELOPMENT POLICY GUIDE FOR SOUTHEASTERN CONNECTICUT

**Southeastern Connecticut Council of Governments
139 Boswell Avenue, Norwich, Connecticut 06360**

Adopted October 15, 1997



**REGIONAL
CONSERVATION AND DEVELOPMENT POLICY GUIDE
FOR
SOUTHEASTERN CONNECTICUT**

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SOUTHEASTERN CONNECTICUT COUNCIL OF GOVERNMENTS
139 Boswell Avenue, Norwich, Connecticut 06360

Adopted: October 15, 1997

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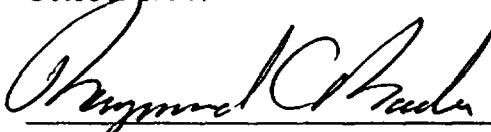
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Certification of Adoption

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Raymond C. Barber, Chairman


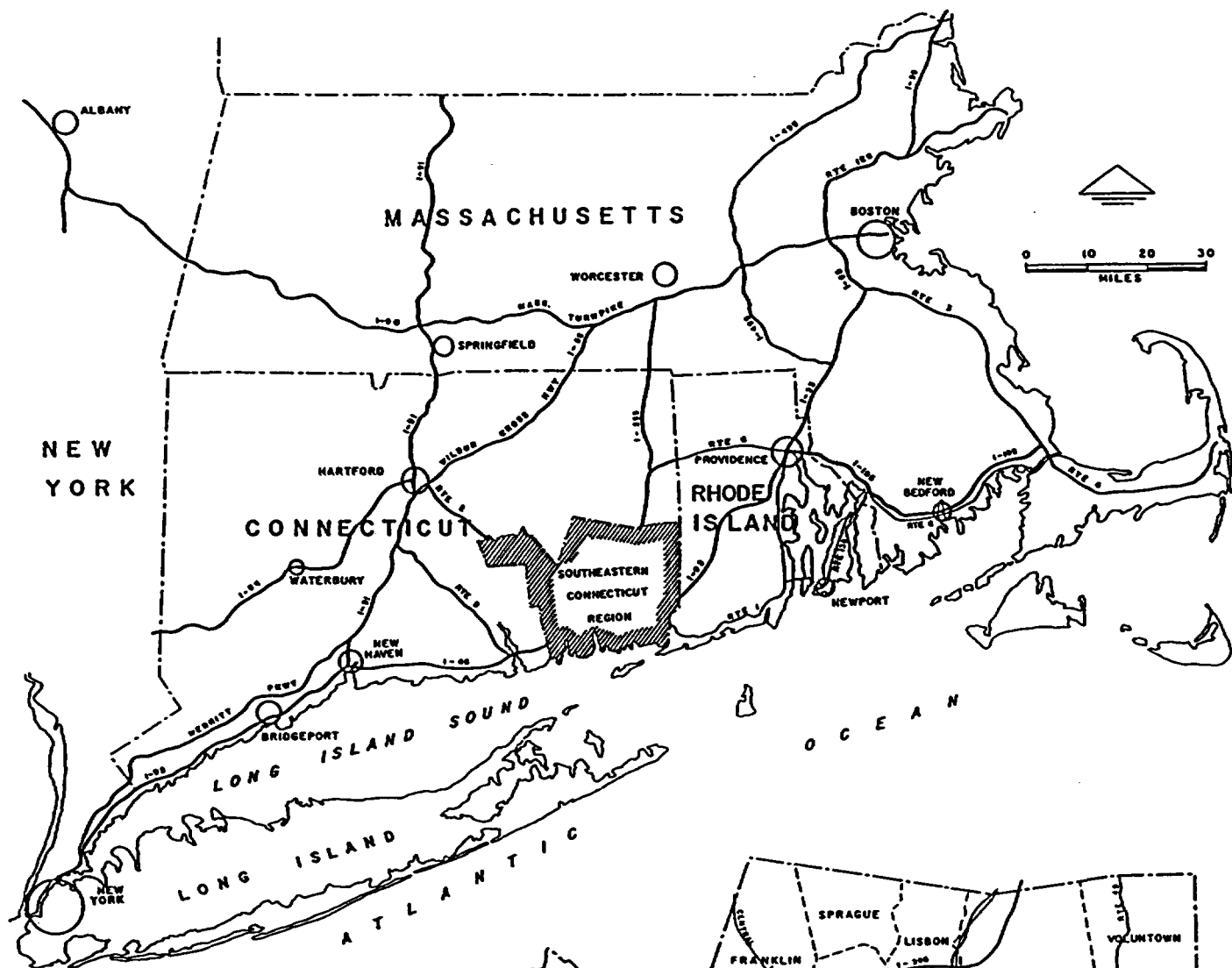

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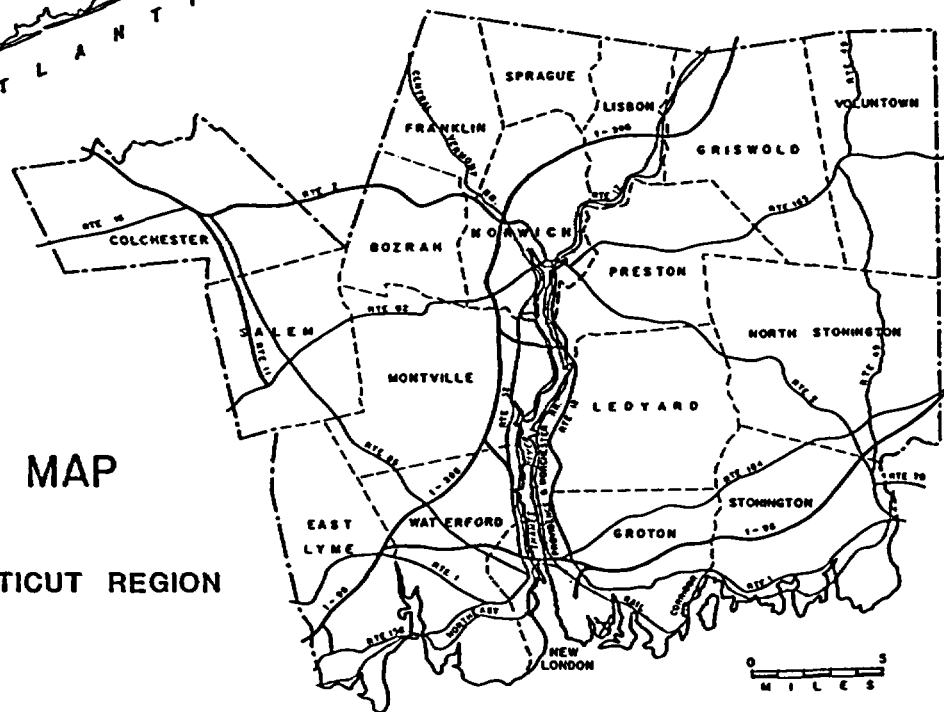
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LOCATIONAL MAP

SOUTHEASTERN CONNECTICUT REGION



I. INTRODUCTION

LEGISLATIVE CHARGE

"Each regional planning agency shall prepare a plan of development for its area of operation, showing its recommendations for the general use of the area Any regional plan so developed shall be based on studies of physical, social, economic and governmental conditions and trends and shall be designed to promote with the greatest efficiency and economy the coordinated development of its area of operation and the general welfare and prosperity of its people." *Section 8-35a of Chapter 127 of the Connecticut General Statutes.*

PURPOSE

A regional plan (hereinafter referred to as the Regional Conservation and Development Policy Guide) has several important functions. It is a guide for coordinating land use planning at the municipal level. It aids planning efforts by state agencies. It provides data needed for preparing specialized functional plans for such things as transportation, water supply or sewerage facilities. It is an important consideration in the review of applications for federal aid or of proposed municipal zoning changes. It is a requirement to establish local eligibility for some federal grant programs. Because of its significance, the regional plan should be kept reasonably up-to-date.

PREVIOUS REGIONAL PLANS

Immediately on its formation in 1961 the Southeastern Connecticut Regional Planning Agency (SCRPA), predecessor of the Southeastern Connecticut Council of Governments (SCCOG), began work on the studies necessary to preparing a regional development plan. These studies culminated in the adoption by the agency of a Regional Development Plan for Southeastern Connecticut in 1967. That plan was extensively updated and readopted by the agency in 1976 and 1987.

SCCOG's charge under the state statutes is to prepare a plan to coordinate the physical development of Southeastern Connecticut. In doing so, the council recognizes that a number of other regional agencies with specialized planning and/or service responsibilities have been formed over the years. These include: The Southeastern Connecticut Water Authority; the Southeastern Connecticut Tourism District, now known as Mystic and More; the Southeastern Connecticut Regional Resources Recovery Authority; Thames Valley Council for Community Action, Inc.; the Eastern Regional Mental Health Board; the Eastern Connecticut Area Agency on Aging, Inc.; the Southeastern Connecticut Private Industry Council, Inc./Regional Work Force Development Board; Southeast Area Transit; and the Southeast Area Regional Economic Development Corporation (SEA-RED). SCCOG has attempted to reflect in its Regional Conservation and Development Policy Guide the interests of these more specialized agencies, but it has tried to avoid duplicating their efforts.

Southeastern Connecticut has undergone many physical and economic changes over the past several decades. The on-going dramatic reduction of defense-related and manufacturing employment and an equally dramatic boom in casino-related development and employment, are altering, in a fundamental way, the economic geography of Southeastern Connecticut. The Mashantucket Pequot Tribal Nation, through their Foxwoods Casino, is now the region's single largest employer, and a second casino was opened in the fall of 1996 by the Mohegan Tribe. These specific developments, and those that will likely follow as a result, will profoundly affect development patterns and pressures in the region.

II. ISSUES OF REGIONAL CONCERN

BACKGROUND:

In the course of preparing the Regional Conservation and Development Policy Guide, the Regional Planning Commission identified a series of issues the resolution of which will help guide regional development in the years ahead. Five major topic areas were identified: governmental structure, economic development, environmental protection, transportation systems, and public utilities infrastructure.

The process of issue identification grew out of a positive response to a questionnaire developed by the Regional Planning Commission as a vehicle to provide guidance for preparing of the Regional Conservation and Development Policy Guide. The questionnaire was given to the members and alternates of the planning and zoning commissions in all the municipalities that comprise the Southeast Region. The questionnaire elicited responses on a number of specific issues of broad regional and local concern. It was also structured in a way that allowed for analysis based on the degree of a community's urbanization. This is an important factor in assessing the overall validity and reliability of the responses. Finally, the questionnaire enabled the Regional Planning Commission to gauge the pulse of a broad representative sample of the people who work on a regular basis at the local level with land use and development issues and who are in touch with the residents in their respective communities.

In the process of examining these issues, the Regional Planning Commission identified a central theme. It is that the essence of regionalism is a set of natural and manmade resources shared by a given population.

The notion of shared resources in the context of regionalism is vitally important because it supersedes rigid municipal boundaries in ways that are broadly understood and appreciated. For example, an industry located in one town employs people from many towns. Likewise, a restaurant, park, beach, museum, hospital or movie theater draws its users from many communities not simply from the town in which it is located. The Regional Conservation and Development Policy Guide is being "built" to address the issues of the region to insure preservation and enhancement of the region's resources.

RELATED PLANNING ACTIVITIES:

As a final note, it is important that the reader understand the context of this Regional Conservation and Development Policy Guide in relation to other local regional and state planning activities that continue to occur concurrently. The following list, while by no means exhaustive, illustrates the wide range of planning activities and documents in which have provided background for this plan.

State:

- Connecticut Conservation and Development Policies Plan 1992-1997
- State of Connecticut 1996 Master Transportation Plan, 1997-2006
- State of Connecticut State Implementation Plan for Air Quality
- State of Connecticut Rail Plan Update, 1996
- State of Connecticut Intermodal Plan and Management System, 1996

Regional:

- SCCOG - Recommended Regional Development Plan, 1987
- C.RED - Economic Development Strategic Plan Update for Southeastern, CT, 1995

- SEAT - Southeast Area Transit: A System In Transition, 1997
- SCCOG - Background Material for the Updating of the Regional Development Plan, 1996
- CRERPA - Connecticut River Estuary Region Plan of Development, 1995

Local:

- Local Plans of Development, Southeast Region

REGIONAL ISSUES:

Issue # 1: Governmental Fragmentation:

In Connecticut, governmental fragmentation restricts a region's ability to deal effectively with many problems of a regional nature. Achievement of a true regional approach to future development will require much higher levels of governmental integration and cooperation.

Discussion: Connecticut's strong tradition of home rule and its lack of regional government results in a highly fragmented governmental structure that is inadequate to deal effectively and efficiently with a variety of problems that are regional in scope. The responsibilities and powers of regional Councils of Government, authorized under the general statutes, are extremely limited. COGs may discuss, recommend and coordinate responses on a variety of different issues. However, without regulatory or taxing powers, COGs must look to other levels of government to implement actions.

Within Southeastern Connecticut, there are 21 towns, cities or boroughs, two sovereign Native American Tribal Nations, and four independent public service authorities or districts. Developing consensus among these separate governmental entities is enormously cumbersome and frequently impossible. Initiating action is even more difficult.

With respect to the Regional Conservation and Development Policy Guide, the issue of governmental fragmentation becomes immediately evident as it relates to local government's control of land use. The tradition of local land use regulation exists side by side with the high dependence of local governments in Connecticut on the taxation of real property. Direct linkage of these functions is necessary to derive the financial base to underwrite the costs of operating local government.

Under this system of public finance, municipalities must do three things. First, they must continuously search for new tax-yielding development in order to expand their tax base to meet growing local expenses. Second, they must zone the most suitable sites within the community to support such new development. Third, by virtue of the first two activities, towns must be in competition with their neighboring communities for tax-producing development.

All of the major issues pertinent to the Regional Conservation and Development Policy Guide can be traced to one or more of these activities. Along with the locational and financial decisions of the private sector, it is these activities that give form and shape to our communities and, ultimately, our region. Consequently, until the dependence on the property tax is substantially reduced, local governments cannot be expected willingly to relinquish any significant degree of land use control to a regional entity.

Since reform in local governmental financing is unlikely in the foreseeable future, it suggests that the function of regional land use policy making will continue to be coordinative rather than regulatory. Overcoming the inherent handicaps of this fragmented governmental structure into the 21st Century will require much closer

working relationships among all the region's municipalities, state agencies, tribal nations and service authorities.

Goal: Reduce intergovernmental fragmentation to enable SCCOG to deal more effectively with issues of a regional nature.

Objectives:

1. Long-term, move to enable SCCOG oversight of regional public service organizations. At a minimum these would include the following: Southeast Area Transit (SEAT), Southeastern Regional Resources Recovery Authority (SCRRRA), Southeastern Connecticut Water Authority (SCWA), Mystic and More, Thames Valley Council for Community Action (TVCCA), Private Industry Council (PIC), Southeastern Connecticut Mental Health Authority (SCMHA) and the region's full- and part-time health authorities.
2. In the interim, increase coordination through the use of MOUs, inter-municipal agreements, partnerships and other means.

Actions:

1. Develop an inventory and profile of the major regional service agencies noted above.
2. Invite the above agencies to brief the council on their purpose, structure, funding, programs, and inter-relationships and on issues they see as having a high priority for the region.
3. Identify those agencies whose activities, structure, and/or funding suggest the need for close coordination with the council.
4. Establish a mechanism for enabling the council to coordinate policies closely with those agencies identified in No. 1 above.
5. Establish or maintain close staff-level cooperation with other major regional organizations.

Issue #2: Restructuring The Regional Economy:

Events beyond the region's control require that Southeastern Connecticut's economy be restructured. The process of change is bound to be disruptive and unsettling. Accomplishing the economic readjustment with the least adverse effects will require time, resources, and new levels of cooperation among many interests.

Discussion: The end of the Cold War brought the prospect of peace to the world. But it also destabilized a Southeastern Connecticut economy historically dependent on federal defense contracts. But as defense employment began to decline, a new force for economic growth emerged: casino gaming. With the opening of the Mashantucket Pequot Foxwoods Resort Casino in 1992, Southeastern Connecticut's economy began a sudden shift in direction. The addition of the Mohegan Sun Resort, which opened in 1996, reinforces this new economic reality. Together, these gaming enterprises will be by far the largest employers in the region. They also have the potential to be the economic engine to stimulate major growth in the region's tourism industry and to generate revenues that could be invested productively in other sectors of the region's economy. Pequot River Shipworks, a Mashantucket Pequot Nation company, is building high speed ferries in New

London. This is a good example of secondary investment derived from gaming revenues.

But the region must recognize, from the dramatic reductions in the defense sector of its economy, the risks of over dependence on a single industry. To avoid the risks of substituting gaming and tourism for defense industries, efforts will have to be focused and sustained on seeking the revitalization of the region's manufacturing base.

In the global economy of the 21st Century, the region must focus its resources on creating a supportive environment for manufacturing, both to retain current manufacturers and to attract new firms. Marshaling these resources effectively will require new levels of cooperation among many interests, some of whom have been traditional competitors. Municipalities accustomed to competing for tax base will need to begin to view the entire region as a shared resource that provides the human and physical capital for economic growth. Likewise, we must seek new ways of sharing both benefits and impacts of economic development if the region is to revitalize its economy in the 21st Century.

Goal: Actively seek to create opportunities for the development of a balanced and diversified economic base to minimize risks of high unemployment and over dependence on any single economic sector.

Objectives:

1. Coordinate council activities with those of entities having primary economic development responsibility.

Actions:

1. As appropriate, enter into memoranda of understanding or agreement with the entities listed below, individually or collectively, regarding mutual relationships and/or economic development activities.
 - Southeast Area Regional Economic Development Corporation (SEA-RED);
 - Technology for Connecticut (TECHCONN);
 - Mystic & More;
 - Mystic Coast & Country;
 - Norwich Community Development Corporation (NCDC);
 - Southeastern Connecticut Private Industry Council/Regional Workforce Development Board (PIC);
 - Connecticut Department of Economic and Community Development;
 - Mashantucket Pequot Tribal Nation;
 - Mohegan Tribe.
2. Where possible, designate specific council representatives, alternates or staff as liaison to key economic development entities.
3. Encourage and support the increased efficiency and effectiveness of economic development agencies through their consolidation or coordination.
4. Within the resources of the council, give priority to work tasks that will support the efforts of the lead economic development agencies.

Issue #3: Environmental Effects of Suburbanization:

Continued suburbanization poses the single largest threat to the region's natural resource base. Without the ability to establish regional growth boundaries, the region's shared natural resources will be placed under growing pressure through random development actions in the less developed areas of the region.

Discussion: For the past 30 years, despite minimal population growth, the focus of regional development has shifted from urban centers to the region's rural and suburban outskirts. This new development pattern is supported both by local zoning and an active private sector marketplace. The need for each municipality to encourage new commercial and industrial development to build tax base has been previously identified. But the continuing effects of this municipally-based development process on the region's shared natural resource base, especially as related to air and water quality, poses by far the biggest environmental challenge for the region, both presently and in the future.

Over the last several decades, large-lot zoning has become the preferred form of residential development. Likewise, geographical separation of commercial and industrial uses enhances suburban residential property values but has created a lifestyle which virtually requires one automobile for every licensed driver in the region. Trips once made by foot, bicycle or public transportation now require a private automobile. The cumulative impact of this suburbanized development pattern has been a measurable reduction of air quality. Likewise, on-site waste water disposal, a by-product of this low density development pattern, is the most common technique employed to avoid the costs of public sewerage systems. Unfortunately, these on-lot systems, especially the older ones, have a limited life simply as a function of the generally poor soils that characterize the geology of the region. Over time, this set of conditions has created a formula for the potential of groundwater contamination further jeopardizing one of the region's most valuable shared natural resources, water.

Goal: Strive to preserve the region's natural resource base by concentrating future development in areas with the fewest natural resource development limitations and the greatest access to existing public facilities.

Objectives:

1. Strongly encourage compatibility of local plans with regional and state land use policies.
2. Educate local officials and the general public on the costs and impacts of low density development.
3. Encourage and support legislation that would expand regional advisory review powers on matters related to land use.
4. Encourage and support legislation for property tax reform so as to lessen its influence on land use decision-making.

Actions:

1. Meet with local officials to discuss differences in regional and local land use policies.
2. Conduct studies related to land and zoning trends to track changes in development patterns.
3. Provide technical assistance and education to member municipalities in the development and administration of land use policies.

4. Give priority to the programming of infrastructure improvements in the region's urban core.
5. Support efforts that would broaden the regional review of proposed major changes in land use.

Issue #4: Changing Transportation Demands:

Changes in the national and local economies are resulting in new demands and challenges on all major transportation facilities in the region. Airports, highways, railroads and ports will all be under new pressures in the years ahead. Unfortunately, in meeting these challenges, local, regional, statewide and national interests frequently find themselves in conflict over the development or expansion of transportation infrastructure systems in and through the region. Achieving a consensus on what best serves the region's interests for all these systems is extremely difficult.

Discussion: As a result of both external and internal changes, the region is beset with challenges and opportunities for which transportation is a key underlying requirement.

- **State Pier:** The State Pier has the potential to become a key freight handling resource in helping the region recover its manufacturing base. Its future, however, has undergone a series of intensive technical and political re-examinations. Local interest in converting the surrounding property for tax-generating purposes needs to be resolved.
- **High Speed Rail:** Amtrak has initiated a program to electrify the Northeast Corridor. In Southeastern Connecticut the rail line runs along the shoreline from East Lyme through Stonington crossing the Niantic, Thames, Mystic and Pawcatuck Rivers. When completed, rail service is expected to increase from 14 to as many as 52 trains per day passing through the region. The impacts of this change on the region will be significant.
- **Airport:** Groton-New London Airport functioned as the region's main air carrier facility for decades. Since deregulation of air service in the 1980's, competition among air carriers has resulted in a consolidation of air services in the best markets with the best facilities. The constrained physical layout of Groton-New London Airport and the current limited market has resulted in a loss of service. The long-term future of Groton-New London Airport as an air carrier facility remains in doubt given the existence of other nearby, larger airports.
- **Transit:** Modern public transit bus service in the region was initiated in the '70s as a result of an oil embargo. The future of transit service must be evaluated in terms of the low-density development patterns that dominate the regional setting, new major employment destinations, the need to serve visitors, and funding constraints.
- **Highway:** As a result of expansion of the gaming industry and other tourism development, future highway congestion in portions of the region is inevitable. However, widely differing views among citizen groups, municipalities, and tribal nations has created an almost insurmountable barrier to any major road/highway response on which consensus is required.
- **Air Quality:** With the passage of the Clean Air Act Amendments of 1990, transportation activities became fully integrated with air quality mitigation. From this, the development of a clean fuels system emerges as a top priority. However, while the COG is vested with oversight responsibility for clean air through its transportation activities, no one party controls all the resources necessary for the

development of a clean fuels system.

- **Freight:** Movement of goods into and through the region is accomplished by two principal means: rail and truck. The interstate highway system and network of state and local roads coupled with scattered suburban development in the region has weighed heavily in favor of trucking as the primary means of freight movement. Over the long term, reversing this trend in favor of rail freight is in the region's best interest. To do so will require regional land use as well as national regulatory changes.

Transportation has emerged as one of the region's most sensitive priority issues for the '90s. Rapid increases in demand, especially for highways, will continue to be perceived as disruptive to the quiet suburban quality of life sought by many. To the extent that individual communities continue to vie to avoid infrastructure impacts at all costs, regional solutions, in any form, will not be achievable.

Goal: Develop a balanced regional transportation system that strives to meet the needs of all segments of the population, including visitors, regardless of age, income or disability, and which promotes development within the region's core.

Objectives:

1. Strive to coordinate policies among key transportation stakeholders.
2. Ensure protection of natural and cultural resources in the development of new transportation infrastructure.
3. Recognize fiscal constraint in developing regional transportation systems.
4. Expand opportunities for intermodal linkages among various elements of the transportation system, including freight.
5. Strive to develop alternative modes to single-occupant highway transportation, including mini-buses, ferries, bicycle and pedestrian ways and light rail.
6. Strive to implement the "Safety" goals of the Regional Transportation Plan as outlined under General Goals, A. Safety.

Actions:

1. Regularly update pertinent transportation policy documents.
2. Conduct studies and collect data on changing transportation system trends.
3. Support the development of a regional demand-response system of transportation to complement fixed-route service.
4. Support actions to improve service levels and the use of the Groton-New London Airport.
5. Support efforts to improve shipping and freight handling capability and related economic growth in the Port of New London and throughout the region through the region's rail network.

6. Encourage Amtrak to provide a higher level of regular inter-city rail service to New London, Mystic and Westerly, Rhode Island.
7. Actively seek to build consensus among stakeholders around major transportation system improvements.
8. Support efforts to reinstitute passenger rail service on the Providence and Worcester and New England Central rail lines.

Issue #5: Public Utility Infrastructure Needs:

Management and maintenance of major public utilities infrastructure elements (water supply, waste water and solid waste facilities) are critical not only to the physical health of the region's population but also to support growth in the region's economy. Development pressures, high costs of utility infrastructure and fragmented governmental responsibilities will require the development of new agreements in order to achieve higher levels of coordination and cooperation to meet infrastructure needs.

Discussion: Perhaps more than any other single factor, utility infrastructure helps determine a region's development future. This is especially the case for public water and sewer systems, which enable more intense higher density development to occur, and it is increasingly true for electric, gas and electronic communication service.

In 1996, the region was served by over 100 separate utility entities which supply potable water to more than 70% of the region's population. Coordinating the fragmented system of water supply is fundamental to the orderly growth of the region in the future. This coordination is especially critical with respect to future water supplies and service areas.

As a matter of cost, the ethic of sewer avoidance continues to remain strong in Southeastern Connecticut. However, the desire for more intensive development as a vehicle to generate tax base or to serve other purposes may exceed the ability of poorly drained soils to absorb liquid waste. Eventually this may lead to contamination of ground water supplies and create a need for the extension of existing sewerage systems or the construction of new systems.

While the region's solid waste disposal needs have been significantly addressed through the construction of two incinerators, disposal of bulky waste, sewage sludge, household hazardous waste recycling, and low level radioactive waste remains unresolved. These are regional matters which will require sincere, serious intermunicipal cooperation if the region is to grow and prosper.

Goal: Provide a system of public utilities that will protect the health of the region's population and environment while promoting a concentration of development within the region's core to meet the expanding needs of the region's people, businesses, and industries.

Objectives:

1. Within the resources available, maintain and upgrade public water, sewerage and solid waste facilities and other essential utilities.
2. Seek coordinated, cooperative action among the various utilities and local public health authorities

serving the region to ensure that the needs of a growing population and economy are met.

3. Encourage higher density development in areas suitably served by public utilities.

Actions:

1. Conduct studies to determine growth potential within areas presently served by public utilities.
2. Conduct studies to identify new areas suitable for extension of public utilities or self-contained systems such as sequencing batch reactors (SBR).
3. Participate with the region's water utilities in development of a regional water supply plan.
4. Cooperate with the Southeastern Connecticut Regional Resources Recovery Authority in developing plans for meeting the region's solid waste management needs.
5. Support land use policies which would concentrate new intensive development in areas served by public utilities.

III. KEY FACTORS INFLUENCING THE REGIONAL CONSERVATION AND DEVELOPMENT POLICY GUIDE MAP

Over time, property development and changes in land use are inevitable. Yet in many respects the unique aspects of New England set it apart from the rest of the nation. Abundant natural resources and clustered small town settlement patterns have given New England an unmistakable character and charm that make it not only an attractive place to visit, but also an attractive place to live, work and raise a family. Therefore, the following recommendations for the conservation and development of the Southeastern Connecticut region are framed in the context of 350 years of New England cultural heritage in which development exists in the natural environment which supports it.

The Regional Conservation and Development Policy Guide Map is intended to meet the general aspirations of the region's existing and future population. Areas recommended for future conservation and development of various types and densities are influenced by the following: 1) pre-existing patterns of land development, 2) existing local zoning, 3) high yield ground water aquifers, 4) existing and proposed transportation and public water and sewer systems, and 5) limitations imposed by the region's natural environment.

Presentation limitations to a wide audience compel the use of generalized maps at a relatively small scale. However, a series of larger scale overlay maps of the above information were used as basic building blocks for the Regional Conservation and Development Policy Guide Map. These base maps are available for inspection at the SCCOG office. Likewise, a document entitled Background Material for the Updating of the Regional Conservation and Development Policy Guide is also available from the SCCOG office.

The region's present estimated population of 235,500 is expected to continue to grow modestly to approximately 264,200 by the year 2015. The Regional Conservation and Development Guide Map is intended to suggest geographic areas best suited to support the development that will accompany this anticipated population and economic growth while protecting the area's natural environment.

As of 1990, Southeastern Connecticut was already about 21% intensively developed. This 115 square miles of development is primarily concentrated along the Long Island Sound coastline and along the Thames River. However, major pockets of scattered development increasingly are found inland from these areas. Sprawl development, inefficient by its very nature, creates a fundamental policy dilemma and poses new challenges for a region of 21 individual communities in which there is no unified land use regulatory mechanism to curb such sprawl.

The protection of water supply resources is perhaps the single most critical element in the future physical and economic health of the region. Because of this, existing and possible future water supply resources were carefully considered in preparing the land use proposals of the Regional Conservation and Development Guide. Under Section 25-32d of the General Statutes, water companies serving 1,000 or more persons, or 250 or more connections, are required to submit a water supply plan to the Connecticut Department of Public Health for approval. These plans address planning periods of five, twenty and fifty years and must be updated every five years. Within the southeastern Connecticut region, seventeen such plans have been submitted. These plans form the primary basis on which the four water supply categories in the Regional Conservation and Development Policy Guide were developed. The four categories are: 1) existing public water supply watersheds; 2) potential surface water supply watershed; 3) potential water supply diversion watersheds and;

4) existing and potential water supply aquifers.

Likewise, the region's existing and planned sewerage systems were used as a basic factor for the location of future intensive urban uses. In order to protect environmental quality by reducing water pollution, adequate sewer systems are essential to accommodate a level of development associated with urban densities. Areas designated for urban level densities fall within 1000' of existing or planned sewer lines.

Natural features are also a basic plan factor in the land use categories to be discussed below. These natural features are generally seen as significant impediments to development, although in all cases they do not necessarily preclude it. Natural features include regulated soils (wetlands), shallow to bedrock soils, and steep slopes in excess of 20%. Experience has shown that as development pressures increase, the expense of overcoming some non-regulated forms of natural feature limitations tends to be absorbed as part of the development costs.

The region's existing and proposed highway and mass transit systems are also viewed as very important future development factors for the region both in terms of mobility and access. Generally, development in the vicinity of expressway exits tends to be the most intensive and diminishes as a function of reduced proximity to major arterials. With increasing pressure on the highway system, both rubber-tired and fixed-guideway forms of mass transit are seen as re-emerging in the next several decades largely as a function of shifting development investments back into urban areas.

Description of the Policy Guide Map Land Use Categories

The following text describes the various land use categories depicted on the Regional Conservation and Development Policy Guide map. Data calculations made of various land use sub-categories for this section do not include inland water bodies which, in total, represent about four square miles, or about .8% of the total region.

Existing and Proposed Mixed Urban Uses: These are areas suggested for the most intensive residential and/or industrial and commercial development. These areas include the region's three urban centers of Groton, New London, and Norwich as well as concentrations of intensive development in some suburban towns. Areas of Mixed Urban use are determined by the existence of both public water and sewerage system service. Consequently, they can accommodate residential densities of greater than two units per acre, depending on local regulations.

This category contains 54.7 square miles, or 9.9% of the region's total area. The bulk of this land use category is located in the towns along the Thames River and Long Island Sound.

Existing and Proposed Mixed Suburban Uses: These are areas with few natural development limitations. In some cases, both public water and sewer service are either available or are programmed. Areas recommended for this level of development can accommodate residential densities ranging from one unit per one and one-half acres to two units per acre, depending on local utilities and regulations. However, densities of greater than one unit per acre are recommended only if adequate community water or sewer service is, or will be, available. Other uses also included in this category are scattered small-scale industrial, commercial, and industrial uses. These areas also can contain lands suitable for agriculture.

Over the past several decades, mixed suburban uses have been the fastest growing sector of developed land. This category contains 102.5 square miles, or 18.55% of the region's land.

Existing and Proposed Low Density Uses: These are areas with natural development limitations, limitations of access, on-site utilities limitations, or they are areas where lower densities are desirable for other reasons. These areas are primarily recommended for scattered single-family and agricultural uses. Residential densities of less than one unit per one and one-half acres are recommended, depending upon local conditions and regulations. Over time, some low density areas may become suburbanized if market-driven development pressures compel zoning changes. However, when this occurs, these changes are usually accompanied by new access and utility provisions that make such development feasible.

The total area in this category is 274 square miles, or 49.6% of the region's land area.

Existing and Proposed Major Institutional Uses: This category includes large-scale public and private institutional uses such as military, correctional, educational and medical facilities. With the closure of several major institutions in the region, rather significant changes will be occurring in future years as this property is converted for more economically productive uses.

This category contains 12.4 square miles, or 2.2% of the region's total area. Recategorization of Norwich Hospital and Seaside Regional Center properties accounts for the bulk of change in this category from past plans.

Existing Recreation and Open Space: This category is limited to existing land dedicated to this use. It includes state forests, state, local and private preserves, water company lands and cemeteries of 2 acres or larger. It also includes recreational lands designed for intensive uses such as state and local parks, camps and campgrounds, golf courses and sporting clubs as well as property under the State of Connecticut Agricultural Rights Program.

Open space and recreational uses together total nearly 86 square miles. This represents 15.6% of the region.

Proposed Conservation Areas: These are large areas with rather significant limitations to development. These areas, generally larger than 5 acres, consist of significant natural resources, such as inland wetlands, tidal wetlands, stream belts and other regulated land, which should be left in their natural state. In addition, all proposals for creating new recreation and open space uses are contained in this category.

This category accounts for 18.1 square miles or 3.3% of the region's total area.

Native American Tribal Reservations: These are special areas designated for tribal use either by the State or Federal Governments. For the future land use purposes of this guide, no distinction is made between either the State or Federal designations, since in neither case is land use control vested with the communities in which they exist.

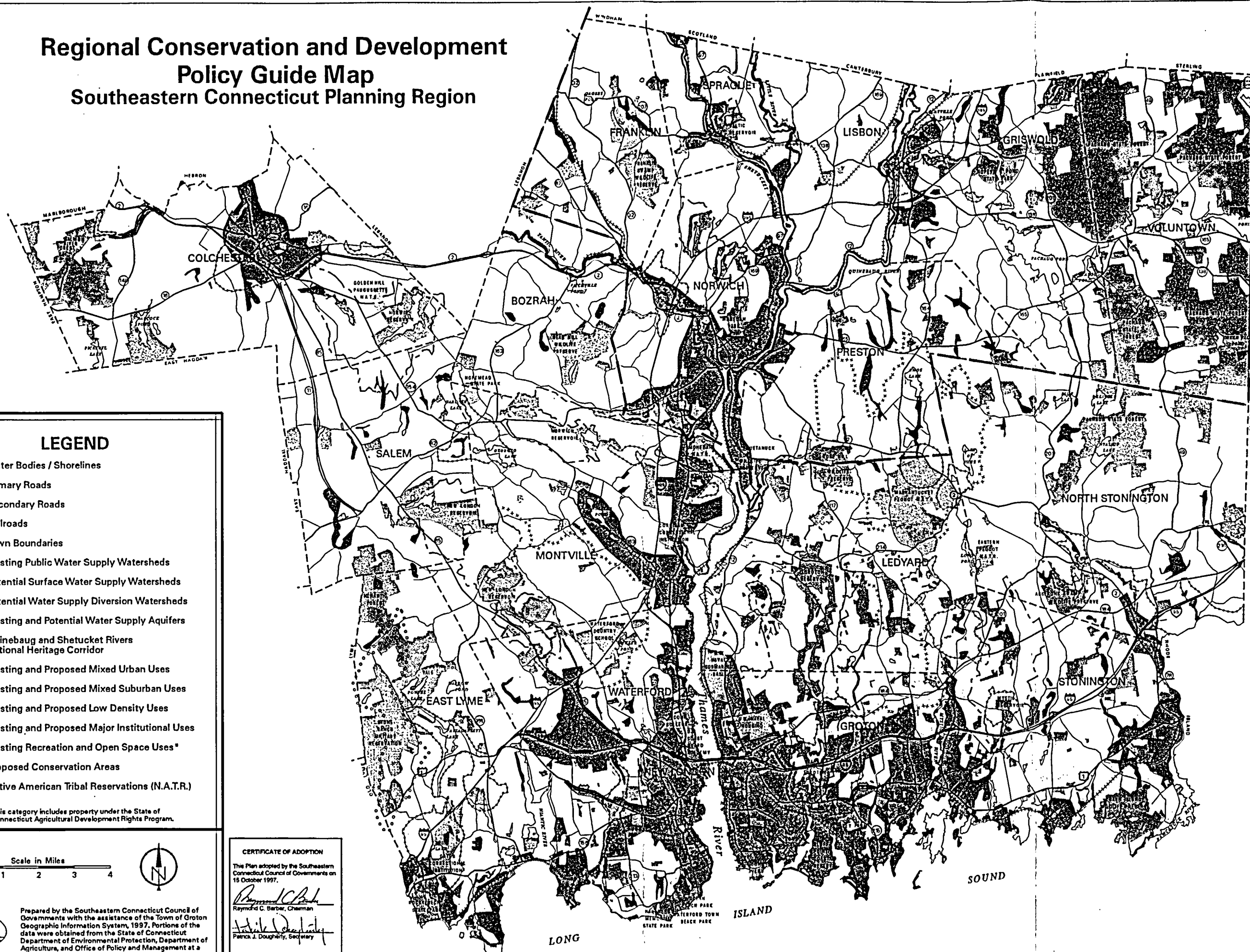
This category contains 4.76 square miles and represents .9% of the land area of the region. However, despite the relatively small size of tribal reservations, the impact of the activities on this land is proving to be extraordinarily large.

Land Use Overlay Designations:

1. **Quinebaug and Shetucket Rivers Valley National Heritage Corridor:** This is an overlay category which was made possible by Federal legislation. These areas have historical and other natural features that are considered to be significant. The Heritage Corridor is affiliated with the National Park Service in a cooperative arrangement rather than being a unit of the National Park System.

2. Existing Public Water Supply Watersheds: This overlay category depicts the drainage areas of those surface water bodies currently used for public water supply.
3. Potential Surface Water Supply Watersheds: This overlay category defines the drainage area of a potential surface public water supply. Only one such area is depicted on the map.
4. Potential Water Supply Diversion Watersheds: This is an overlay category depicting three potential drainage areas whose water flows would augment existing surface water supplies.
5. Existing and Potential Water Supply Aquifers: This is an overlay category depicting stratified-drift deposits either currently utilized for water supply or projected to yield significant quantities of water to help meet future needs.

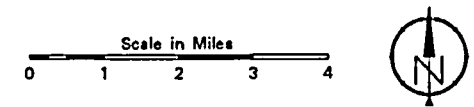
Regional Conservation and Development Policy Guide Map Southeastern Connecticut Planning Region



LEGEND

- Water Bodies / Shorelines
- Primary Roads
- Secondary Roads
- Railroads
- Town Boundaries
- Existing Public Water Supply Watersheds
- Potential Surface Water Supply Watersheds
- Potential Water Supply Diversion Watersheds
- Existing and Potential Water Supply Aquifers
- Quinebaug and Shetucket Rivers National Heritage Corridor
- Existing and Proposed Mixed Urban Uses
- Existing and Proposed Mixed Suburban Uses
- Existing and Proposed Low Density Uses
- Existing and Proposed Major Institutional Uses
- Existing Recreation and Open Space Uses*
- Proposed Conservation Areas
- Native American Tribal Reservations (N.A.T.R.)

*This category includes property under the State of Connecticut Agricultural Development Rights Program.



Prepared by the Southeastern Connecticut Council of Governments with the assistance of the Town of Groton Geographic Information System, 1997. Portions of the data were obtained from the State of Connecticut Department of Environmental Protection, Department of Agriculture, and Office of Policy and Management at a scale of 1:24,000, 1987-1996.

CERTIFICATE OF ADOPTION
This Plan adopted by the Southeastern Connecticut Council of Governments on 15 October 1997.
Raymond C. Barber, Chairman
Patrick J. Dougherty, Secretary