



Volume II THE PLAN

Monmouth County Planning Board
Monmouth County, New Jersey

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COASTAL MONMOUTH PLAN – VOLUME II

THE PLAN

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1.0 INTRODUCTION

The *Coastal Monmouth Plan (CMP)* was initiated by the Monmouth County Planning Board (MCPB) to construct a plan for the future development and natural resource conservation of the County's Atlantic coastal region. This region spans 27 miles of the New Jersey shoreline and includes four major rivers – the Navesink, Shrewsbury, Shark and Manasquan Rivers. Thirty of the 53 Monmouth County municipalities, and 40% of the entire County population, are within this region. Funded through a Smart Futures Grant from the New Jersey Office of Smart Growth (NJOSG), the study's goal is to plan for sustainable development balancing growth with protecting the unique environmental resources of the Coastal Monmouth Region (CMR).

The *CMP* process involved working with 30 municipalities, County and State agencies, regional stakeholders and the public through a Regional Collaborative that was established to guide the study. Five workshops and two public meetings were held, in addition to meetings with each of the municipalities and interested stakeholder groups, to gather and discuss ideas that should be addressed in the *CMP*.

Volume I of the *CMP* is the *Regional Profile* which provides background information on the Coastal Monmouth Region (CMR). It provides an inventory of existing conditions to assist in the formulation of ideas to be incorporated in the *CMP*. The *Regional Profile* includes information from various Monmouth County plans and reports, the *2004 Monmouth County Cross-Acceptance Report* and related State and Federal data. At the beginning of the planning process, a questionnaire was distributed to all municipalities and the results incorporated into the *CMP*. The *Regional Profile* includes a wide range of information: demographics, land use, ecological resources, historic resources, economic, infrastructure and transportation conditions. The *Regional Profile* also includes a development build-out analysis prepared by Monmouth County which identifies future growth areas for year 2025 and full build-out conditions based upon current zoning. This will help assess transportation, infrastructure and other service.

Volume II is the *Coastal Monmouth Plan*. Working collaboratively with the Regional stakeholders, five major issue areas were identified: Regional Cooperation, Housing, Economy, Transportation and the Environment. The *CMP* process identified the problems or needs within these five areas, evaluated alternative solutions to address these problems, and identified possible strategies for implementation. A total of 48 separate alternative strategies were developed to address current problems and conditions in the Coastal Monmouth Region (CMR). A Planning Implementation Agenda (PIA) provides a detailed summary of the *CMP* implementation strategies to address both local and regional issues. Each strategy identifies a lead agency or agencies, assisting agencies and recommended time frames for ultimate planning targets. The PIA also includes ultimate target or goal and planning indicators, or benchmarks, to assist in the evaluation of each strategy.

Volume III is the Appendix to the *CMP* and contains a project time line, municipal fact sheets which summarize local conditions and issues that may be of relevance to the Plan, Watershed Management Planning Regions Issues List, transportation information including transportation problem statements prepared by CMR municipalities, Intra-County routes lists, meeting minutes and agendas, and copies of the project newsletters.

Key to implementing the *CMP* is setting up an enabling framework. A coordinating committee (CMR Committee) is recommended to guide and coordinate the Plan. This is especially important given the many problems which extend beyond the local municipal borders. Equally important, the *CMP* recommends subcommittees be set up within the CMR Committee to address specific issues. These subcommittees will address Housing, Marketing, Transportation, and the Environment. Other subcommittees may need to be formed to address subregional or multijurisdictional environmental problems such as an Inter-Agency Dredging Committee or Sea Level Rise Subcommittee. This is the first step of the *CMP* - to organize for sustainable balanced development in the region.

2.0 REGIONAL CONTEXT

The CMR comprises the easternmost portion of Monmouth County. It is bounded to the north by the Navesink River, south by the Manasquan Inlet, and lies east of the Garden State Parkway. The CMR is also bounded to the east by the Atlantic Ocean and to the west by the municipalities of Tinton Falls and Middletown. Major north-south corridors serving the CMR include the Garden State Parkway and New Jersey State Routes 18, 71, 34, 35 and 36. The CMR is also served by eight major east-west corridors, including Interstate 195; New Jersey State Routes 33, 66, and 138; and Monmouth County Routes 520, 524, 537 and

547. Several of the roadways within the CMR, such as New Jersey Routes 35 and 36, serve as gateways into the regions and major access roadways for commercial hubs. Major intersections occur at the crossings of Routes 35 and 36 in Eatontown and Routes 34 and 35 in Wall. An important transportation link in the CMR is the New Jersey Transit North Jersey Coast Line system which runs generally north-south from Red Bank to Manasquan. There are 10 year-round transit stations along the rail line. These stations are located in 11 of the 30 municipalities within the CMR.

The CMR is comprised of 30 of Monmouth County's 53 municipalities. The CMR has been further subdivided into four regions (Northern Region, North Central Region, South Central Region and Southern Region) for the purposes of this study. (See Study Area Map II-1 and Table II-1.) These regions were used to evaluate and compare demographic, employment and housing data within the study area, the County and State.

In addition to these four Coastal Monmouth regions, the CMR is within four watershed areas which do not follow municipal boundaries. (The watershed areas are described in the *Regional Profile* Section 9.2 Watershed Management Area 12 Monmouth Atlantic Coastal Region.)

Table II - 1 Coastal Monmouth Plan Regions

Northern	North Central	South Central	Southern
Fair Haven	Eatontown	Allenhurst	Belmar
Little Silver	Long Branch	Asbury Park	Brielle
Monmouth Beach	Oceanport	Avon-By-The-Sea	Lake Como
Red Bank	West Long Branch	Bradley Beach	Manasquan
Rumson		Deal	Sea Girt
Sea Bright		Interlaken	Spring Lake
Shrewsbury Borough		Loch Arbour	Spring Lake Heights
Shrewsbury Twp.		Neptune	Wall
		Neptune City	
		Ocean	



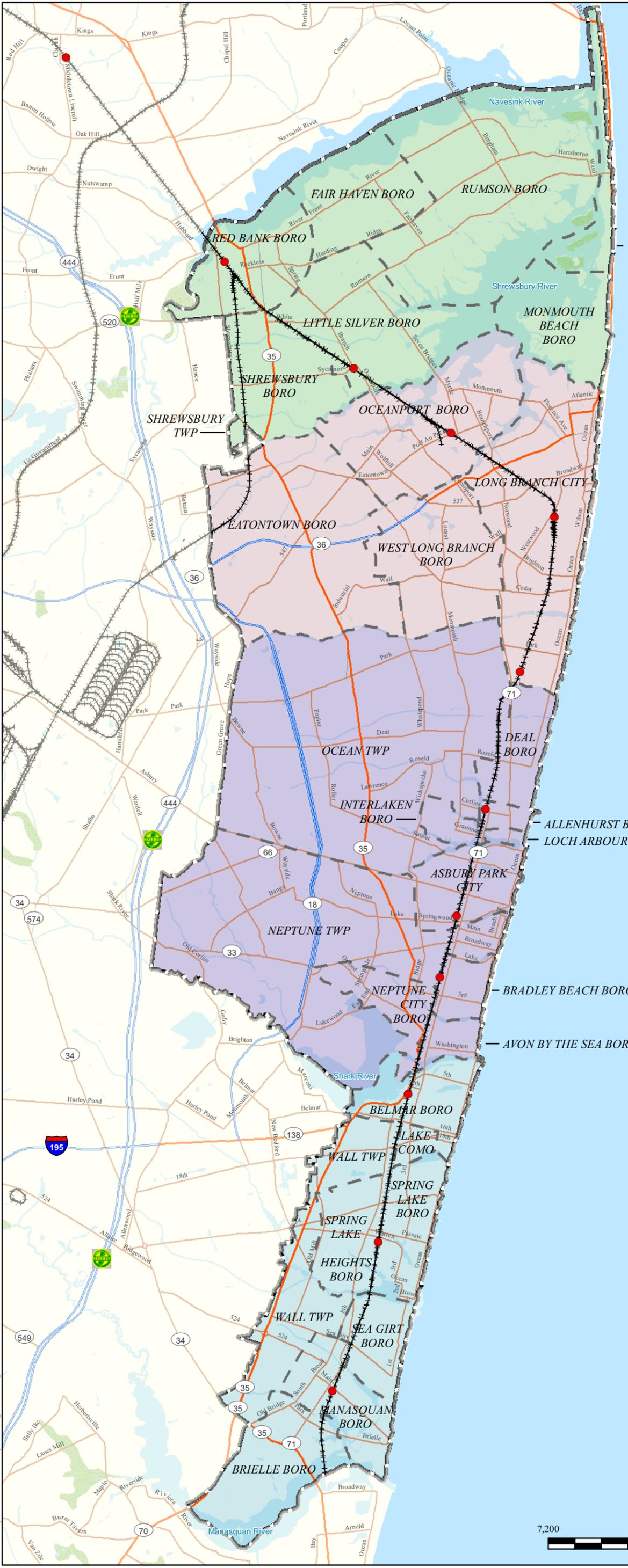
LEGEND

-  MUNICIPAL BOUNDARIES
-  NORTHERN REGION
-  NORTH CENTRAL REGION
-  SOUTH CENTRAL REGION
-  SOUTHERN REGION
-  LIMITED ACCESS ROADWAY
-  HIGHWAY
-  MAJOR ROAD
-  LOCAL ROAD
-  MINOR ROAD
-  OTHER ROAD
-  RAMP
-  RAILROADS
-  TRAIN STATION
-  WATER BODIES
-  SWAMP/MARSH

THIS MAP WAS DEVELOPED USING MONMOUTH COUNTY DIGITAL DATA FROM THE 2003 LANDBASE PROJECT. THE MAP ALSO USED DATA FROM THE NJDEP. THIS SECONDARY PRODUCT HAS NOT BEEN VERIFIED AND IS NOT COUNTY OR STATE AUTHORIZED.



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3.0 PUBLIC VISIONING

3.1 PROCESS



Regional Collaborative Meeting



Regional Collaborative Meeting

The *CMP* process involved extensive community outreach activities. A Regional Collaborative was organized between municipal representatives, State and County agencies, business organizations, community groups, interested citizens and others. Five workshops were held at key points in the study process. Representatives of each of the 30 municipalities met to review issues and identify their community's agenda. Meetings were also held with regional stakeholder groups as well as State and County agencies.

At the beginning of the planning process, a questionnaire was distributed to each municipality. The results were incorporated into the *Regional Profile* and the municipal fact sheets. A *CMP* web page was created linked to the Monmouth County Planning Board website to widely distribute pertinent study materials. Two newsletters were distributed to keep the public informed. The first newsletter described the background of the Plan and identified possible alternatives. The second summarized the Draft Coastal Monmouth Plan. All Regional Collaborative meetings were placed on the County website and announced through press releases. Two public meetings were held: the first to introduce the *CMP* and the second to review the Draft Plan. Comment sheets were distributed at the public meetings. Copies of all public involvement activities are included in Appendix Volume III of this report. Further information is available on the Monmouth County Planning Board website, www.monmouthplanning.com.

3.2 PLAN GOAL AND OBJECTIVES

The *CMP* goal is:

“To create a Vision and Planning Strategy for the Coastal Monmouth Region (CMR) by cooperatively addressing development issues on a regional scale in a manner that is sensitive to the region’s unique coastal setting, diverse community character, and critical environmental, cultural and aesthetic resources.”

The following objectives were also developed to guide the *CMP* process.

COASTAL MONMOUTH PLAN OBJECTIVES

- *Preserve and enhance area character and quality of life.*
- *Identify and assess current and future land use, economic development, natural resources, public services, transportation, and design issues including:*
 - *Development and redevelopment opportunities*
 - *Conservation strategies*
 - *Transportation strategies*
 - *Public infrastructure capacities and limitations*
 - *Alternative community design strategies*
 - *Regional mechanisms to encourage regional cooperation*
- *Cooperatively prepare *CMP* for Regional Plan Endorsement.*

3.3 REGIONAL VISION STATEMENT

Regional and municipal vision statements function together to provide both a micro and macro level approach to planning at various jurisdictional levels within the same study area. Maintaining individual community character is a high priority for many municipalities as expressed in their own individualized vision statements (see Section 3.4). However, when approaching Coastal Monmouth from a regional perspective, the Collaborative identified five primary issues of importance to be addressed through the CMP. The vision statements below are intended to provide guidance on achieving boarder, regional goals:

Regional Cooperation: *The CMR communities are engaged in an ongoing cooperative approach to comprehensively address regional issues.*

Housing: *The Monmouth Coastal Region provides a wide range of housing choices serving all income levels, including affordable housing, and promotes sustainable housing development through green building.*

Economy: *The Monmouth Coastal Region is home to vibrant, pedestrian friendly and sustainable places having year-round economic activity with a focus on tourism, arts, culture, entertainment, and natural resources.*

Transportation: *A multimodal transportation network provides alternative transportation options to serve the Coastal Monmouth Region while considering public safety, accessibility and quality of life.*

Environment: *The Monmouth Coastal environment has witnessed improved water quality, reduced flooding, preserved and restored natural resources, expanded public parks and open space, and implemented sustainable development measures.*

3.4 MUNICIPAL VISIONS

Municipal long range visions were derived from the Municipal Fact Sheets reflecting the diversity of the CMR. (See Appendix Volume III.)

- **Allenhurst** – Preservation of unique character of an historic and tranquil suburban community.
- **Asbury Park** – Implementation of planned redevelopment projects.
- **Avon-by-the-Sea** – Maintain community stability with limited growth.
- **Belmar** - Continue redevelopment of Seaport and Transit Village.
- **Bradley Beach** - Maintain present town character to limit additional growth.
- **Brielle** - Maintain stable and limited growth.
- **Deal** – Maintain present character.
- **Eatontown** - Address Impact of Fort Monmouth reuse and COAH obligation; implement Historic District Development Plan; consider implications of potential MOM rail line.
- **Fair Haven** - Achieve limited revitalization.
- **Interlaken** - Retain current character.
- **Lake Como** - Support and maintain current character.
- **Little Silver** - Follow current development patterns with limited growth.
- **Loch Arbor** - Seeks to maintain existing small town character but it is impacted by regional development and redevelopment in Asbury Park.
- **Long Branch** - Limited growth and incorporation of revitalization and redevelopment projects.
- **Manasquan** - Continue pattern of redevelopment along the beach area and in business districts.
- **Monmouth Beach** - Preserve the small town feel, growth will remain fairly stable in the foreseeable future.
- **Neptune Township** - Seeks improved quality of life and economic opportunity for residents and businesses.
- **Neptune City** - Implement redevelopment plan.
- **Ocean** - Focus on redevelopment and expansion of existing uses on developed lands.
- **Oceanport** - Preserve quality of life, encourage economic growth and maintain current historic character.

- **Red Bank** - Retain current character in residential areas while supporting growth and encouraging unified mixed use in the downtown district
- **Rumson** - Maintain current character through continuation of existing development patterns and preservation as well as minimizing overdevelopment.
- **Sea Bright** - Promote redevelopment of business district area and redevelopment of select areas.
- **Sea Girt** - Maintain existing residential character and enhance commercial area streetscape.
- **Shrewsbury Borough** - Protect the historic small town character and provide maintenance of recreational and conservation lands.
- **Shrewsbury Township** - Maintain and improve existing facilities.
- **Spring Lake** - Maintain existing small town character through minimum residential growth and revitalization of downtown area via redevelopment plan.
- **Spring Lake Heights** - Seek minimal changes to retain current character of Borough.
- **Wall** - Proposed redevelopment of the West Belmar Gateway area.

4.0 PLAN OVERVIEW

The *Regional Profile* provides a comprehensive review of conditions in the CMR. Through the process of five regional workshops, 30 municipal and a number of stakeholder and agency meetings, issues were identified and alternatives formulated. Five overarching problem areas were identified: Regional Cooperation, Housing, Economy, Transportation and Environment. A PIA was developed along these five problem areas, which form the basis for the *CMP*. The PIA was refined through the regional workshops as the Plan progressed.

Central to the *CMP* is the need to develop a mechanism to have the 30 diverse municipalities work together to address local and inter-municipal problems. Some recommendations are specific to individual municipalities and should be addressed through changes in their master plan, ordinances, and other follow-through local activities. Other recommendations will address common concerns and will require inter-municipal and possibly inter-agency efforts.

The *CMP* is organized around the five major problem or 'needs' areas:

- *Regional Cooperation*
- *Housing*
- *Economy*
- *Transportation*
- *Environment*

A regional vision or ultimate goal for each problem area is provided. Each section begins with a needs or problem summary. Alternative scenarios and suggested implementation strategies are presented. The PIA provides a detailed summary of the alternatives and proposed implementation strategies. Each strategy identifies a lead agency or agencies, assisting agencies and recommended time frames to achieve the identified targets. The PIA also includes planning indicators, or benchmarks, to assist in the evaluation of each strategy.

5.0 REGIONAL COOPERATION

Regional Vision: *The CMR communities have engaged in an ongoing cooperative approach to comprehensively address regional issues.*

5.1 NEEDS - REGIONAL COOPERATION

Because the 30 CMR municipalities are very diverse in size, population, planning policies and the issues they face, an organizational framework with procedures for coordinating the *CMP* recommendations is vital. Certain issues may be local or have a limited subregional context. Others may be broader and require multiple jurisdictions. The lead role for each strategy may vary depending upon the particular problem. The *CMP* must provide the framework for coordinating the strategies.

Another issue raised during the *CMP* process was the question of shared services and potential municipal mergers brought on by State pressures to reduce costs. The *Regional Profile* documents current shared service activities between municipalities. The expansion of these services is further considered in the *CMP* as described in Section 5.3 and within the PIA.

5.2 CMR COORDINATION

A CMR Committee should be established. The Monmouth County Planning Board (MCPB) could serve as a facilitator for this committee. The CMR Committee would be composed of representatives of each of the 30 municipalities. Operating guidelines would be developed to establish policies and procedures. Because of the scale and diversity of problem areas, subregional groups would take the lead to address specific issues. These subregional groups could include established entities such as the Watershed Councils, or groups such as the Wreck Pond and Deal Lake Commissions. There are also existing community and not-for-profit groups (such as the Two Rivers Mayors Council) that can assist in implementation of the *CMP*. For transportation issues, a CMR Transportation Subcommittee should be established that can work with the Monmouth County Planning Board and State agencies.

5.3 EXPANDED SHARED SERVICES

As documented in the *Regional Profile*, CMR municipalities have varying levels of shared services agreements. A number of municipalities have received grants to study shared courts, police and other services. Recent State actions have strongly encouraged municipal consolidations and the sharing of services.

Monmouth County Shared Services has taken the lead to create opportunities for shared services partnerships. Through a centralized depository of documentation and information to service, facilitate and coordinate shared services, the County is equipped to better serve and facilitate shared services projects. The County serves as a "one stop shop" for any County department or Monmouth County municipality that seeks to access cost savings through County provided resource programs. Municipalities, schools and local authorities now have the ability to access the Shared Services web site, identify a "match" and enter into a share services agreement with another town or authority that is seeking the same savings in the same area of services. Monmouth County Shared Services has currently recorded cost savings across several municipalities in the multi-million dollar range. Shared Services can produce a positive reduction in costs to taxpayers while continuing and potentially expanding the routine delivery of services. In addition, by participating in shared services through Monmouth County government, municipalities can save an enormous amount of time and additional taxpayer money on the legal, administrative, bidding and processing costs that cannot be readily measured.

Monmouth County continues to offer shared services opportunities in the fields of 911 Dispatch, Automated Flood Warning Systems, Commodity Resale Programs, CO-Op Purchasing Programs, Wellness Medical Discount Program, Municipal Assistance/Shared Services, Open Public Records-Records Information Management, Tax Assessment, School District Shared Services and other services.

Municipalities may access information and make shared services requests going forward on the County of Monmouth Shared Services website and by contacting the Monmouth County Shared Services at the Administrative Department, Hall of Records Annex, Freehold, NJ 07728. Email: econdev@co.monmouth.nj.us.

There are also varying levels of shared services underway within the Monmouth County school districts as documented by the Monmouth County Superintendent of Schools in the *Regional Profile*. These include sharing academic services agreements with local Townships on maintenance, custodial and recreation programs, data processing, special services from the Monmouth

Ocean Educational Services Commission and purchasing cooperatives for emergency telecommunications, insurance and other services.

Funding is also available through New Jersey Department of Community Affairs (DCA) for evaluating the options for shared services. In 2007, DCA established the SHARE Program (Sharing Available Resources Efficiently). The program offers three assistance options: (1) Implementation Assistance, (2) Feasibility Studies and (3) Regional Coordination Grants. Priority is given to implementation assistance grants. All grants are on a reimbursement basis. At least two or more political entities such as local municipalities, special districts and not-for-profit organizations may participate in this program. Also eligible are general government administration, environmental services and safety, financial administration, municipal courts, police and fire protection, youth and senior citizen services, computers and technology services, welfare and social services, code enforcement, public health services and recreation services. Grants up to \$200,000 for implementation assistance are available and no local match is required. Grants for capital equipment purchases and facility improvements for shared services are limited to the lesser of \$40,000 or the five percent capital cash down payment required under the Local Bond Law Ineligible Activities.

6.0 HOUSING

Regional Vision: *The Monmouth Coastal Region provides a wide range of housing choices serving all income levels, including affordable housing, and promotes sustainable housing development through green building.*

6.1 NEEDS – HOUSING

Housing was extensively discussed by the Regional Collaborative housing advocacy organizations and the general public. Providing affordable and sustainable housing for families and seniors was considered a critical need, especially given the high housing costs in most CMR municipalities. The need to provide housing for artists and craftsmen, who represent important elements of the CMR cultural activities, was also identified. Providing sustainable housing to reduce long-term costs was considered a critical strategy, as was developing an educational process to support affordable housing efforts. Many CMR municipalities also identified the need to preserve their unique residential character.

This section of the *CMP* addresses six key problem areas related to housing:

- Housing Affordability
- Senior Housing
- Artist Housing
- Sustainable Housing
- Affordable Housing Education
- Neighborhood Preservation

6.2 HOUSING AFFORDABILITY



The Laurels – Long Branch

Rising housing costs have limited affordable housing options in the CMR, especially for families, seniors and service workers. Housing affordability within the CMR varies greatly by municipality. The high demand to live near the beach or in communities with easy access to employment centers has caused the assessed values of properties in many municipalities to skyrocket this past decade. Recent efforts to revitalize and restore decaying seaside communities have caused a shift in market price and affordability.

Based upon the *2005-2007 American Community Survey*, the median value of owner-occupied units in Monmouth County is \$438,200; more than double the median value of \$203,100 in 2000. Median monthly rental has increased to \$1,048 from \$759 in 2000.

Between 2000 and 2006, the average home sale price in twenty-two of the thirty CMR municipalities increased by 100% or more. Based upon the 2008 New Jersey Council of Affordable Housing (COAH) data, housing costs for a moderate income family of four would only support a housing mortgage of up to \$138,520.



McBride Avenue -- Neptune

In Monmouth County, as in much of New Jersey, the typical housing unit is a single-family detached home. For many households of singles, young professionals, starting families and elderly couples, a single-family detached home is not within their means or no longer suitable for their needs. By diversifying housing choices, municipalities can create a

housing stock that spans a person's life cycle. There should be variety in the housing stock where young couples can raise a family, where they can relocate to a smaller home when the children are grown, where the children can return to after college and where the elderly parents can receive care and assistance.



Samaritan Center - Neptune

Affordable housing choices can be addressed locally through adoption of a Third Round Housing Element and Fair Share Plan. The COAH Third Round affordable housing regulations have been under litigation since 2004 with updated regulations adopted in 2008. Municipalities that pursue the Third Round with COAH certified Housing Elements and Fair Share

Plans are protected from builder's remedy suits. The Third Round rules provide that new development will have a 'growth share' affordable housing obligation based upon new housing construction or job growth. The opposition of many municipalities to the current COAH system is due to high implementation cost and ever burdensome State requirements.

With the adoption of P.L. 2008 c.46 on July 1, 2008, options such as regional contribution agreements and housing partnerships (except regional housing partnerships including Fort Monmouth) were eliminated. In addition, non-residential development fees were restricted to 2.5% of the assessed equalized value and with the July 2009 New Jersey Economic Stimulus Act ,



The Laurels -- Long Branch

a moratorium was placed on these fees. Because rules relating to affordable housing have been in flux, it has been even more financially difficult for a municipality to address its growth share obligation.

Regional housing partnerships may also work with non-profit agencies and the affected municipalities to address affordable housing opportunities.

The Final *Fort Monmouth Reuse and Redevelopment Plan* (August 2008) provides over 1,600 housing units including mixed income and affordable units. Not-for-profit housing advocacy organizations also serve a valuable role in supporting and funding affordable housing opportunities.

Table II - 2 CMR Rehabilitation Obligation

Municipality	Rehabilitation Obligation
Allenhurst	1
Asbury Park *	299
Avon-by-the-Sea	13
Belmar	55
Bradley Beach	31
Brielle	0
Deal	1
Eatontown	32
Fair Haven	5
Interlaken	0
Lake Como	12
Little Silver	0
Loch Arbour	0
Long Branch *	322
Manasquan	31
Monmouth Beach	5
Neptune	173
Neptune City	9
Ocean	52
Oceanport	0
Red Bank	86
Rumson	0
Sea Bright	21
Sea Girt	3
Shrewsbury Borough	0
Shrewsbury Township	1
Spring Lake	40
Spring Lake Heights	5
Wall	45
West Long Branch	0
TOTAL	1,242
* Not Eligible for County CDBG Funds	

Redevelopment and revitalization are powerful tools municipalities can use to create unique and exciting places. With redevelopment comes site control and the ability to provide more flexible design standards. A variety of housing types can be included – apartments above new retail stores, townhouses, condominiums, accessory units, etc. The size, type, number and percent of affordable versus market-rate units can be varied to provide a wide range of housing choices.

Revitalization tools may include amending zoning ordinances to permit accessory apartment units, smaller housing units or work/live units within particular zoning districts. Scattered infill affordable development could be encouraged. Unobtrusive two-family to four-family affordable housing units in a one-family zone might be permitted that look like a single-family house at first glance.

New housing rules are under consideration that will greatly affect the approach to affordable housing in New Jersey. It is important that municipalities are aware of any pending proposals or new rule changes. The material presented within this section should be considered within the context of affordable housing rules present at the time of this report's preparation.

6.2.1 County Housing Improvement Program

Based upon the June 16, 2008 COAH regulations, the thirty CMR municipalities have a total 1,242 unit rehabilitation obligation. The Monmouth County Planning Board Community Development Program (MCPB-CDP) has an established housing rehabilitation loan/grant funding program in place. This program is funded through the annual Community Development Block Grant (CDBG) program. This would be available to all CMR municipalities, except Asbury Park and Long Branch which are eligible to apply for their own Community Development Block Grant funds. Since the year 2000, 159 homes in the CMR have been rehabilitated under this program.

Loans are used to improve the existing low and moderate-income housing stock. Eligible homeowners must meet the income guidelines, provide verification of income, and a copy of their deed. Applicants can receive up to a maximum of \$20,000 for rehabilitation once approved. A mortgage lien in the amount of the repairs is attached to the property to be satisfied only if the property is transferred before the deed restriction is lifted. Deed restrictions are typically a minimum of ten years. (See Table II-2 CMR Rehabilitation Obligation.)

6.2.2 Housing Resources

There are a number of funding resources that can be employed to create affordable housing while improving existing neighborhoods. In New Jersey, the Neighborhood Preservation Program, Neighborhood Revitalization Tax Credit Program and the New Jersey Housing Mortgage Finance Agency (HMFA) are three key resources. The use of Federal tax credits is another primary funding source for 100% affordable housing. Beyond these funding sources, there are many for-profit and not-for-profit affordable housing builders that have experience and can assist in providing affordable housing. COAH recently released a "Guide to Affordable Housing Funding Sources". This guide can be found at the following link: (<http://www.nj.gov/dca/codes/affdhousing/affdhsgguide/index2.shtml>)

- Neighborhood Preservation Plan - The New Jersey Department of Community Affairs, Division of Housing provides Balanced Housing Neighborhood Preservation Grants (NPP), which targets households that are low and moderate income as defined by COAH. The purpose is to support the creation of affordable housing using United States Department of Housing and Urban Development (USHUD) funds for project-related capital costs including construction costs, professional fees, financing fees, acquisition and contingency. Eligible applicants include municipal governments that have petitioned COAH for substantive certification, or have received substantive certification, or are subject to a judicially-approved compliance agreement or are subject to a court-ordered builder's remedy. Grants range from \$100,000 to \$6,000,000.
- The Neighborhood Revitalization Tax Credit Program (NRTCP) provides grants to assist qualified not-for-profit organizations to prepare a neighborhood plan. CMR municipalities eligible to participate in this program include Asbury Park, Long Branch, Neptune City and Neptune Township. The NRTCP encourages the revitalization of New Jersey's distressed neighborhoods by offering business entities that invest in the eligible municipalities a 100% tax credit against State taxes. Of the tax credit funds, 60% must be used to develop housing or for economic development. The remaining 40% can be used to provide assistance to small businesses, promote mixed-income neighborhoods, etc. To qualify for this tax credit, a not-for-profit organization must choose an eligible municipality, prepare a neighborhood revitalization plan and submit the plan to the DCA for approval. If the plan is approved, the not-for-profit organization can then prepare and submit a specific project for DCA approval.

- The HMFA provides many funding sources for developers, non-profits and units of government. The multi-family financing programs include the multi-family programs and a credit division that evaluates and processes rental housing loans and assists applicants in applying for additional funds from other sources. The HMFA Supported Housing and the Special Needs Programs Department administers financing and support programs for housing for people with special needs.

6.3 SENIOR HOUSING

Seniors on fixed incomes are those most likely to be forced out of their homes as operating and maintenance costs rise. Some solutions to this growing problem include Elder Cottage Housing Opportunities (ECHO) units, accessory apartments, 100% affordable senior housing projects, residential healthcare facilities and assisted living residences.

An Elder Cottage Housing Opportunity (ECHO) unit is a small modular home on a temporary foundation. This unit is occupied by an elderly family member that benefits from independent living while having the support of the family nearby. The unit has one bedroom and is temporarily placed on the property of a relative. The unit's utilities are connected to the existing property's utilities, and it is removed when it is no longer needed. Occupant eligibility is based on HUD Section 8 guidelines, and rent is based on 30% of income. These ECHO units are considered rehabilitation credits under the current COAH regulations.

In northern New Jersey, NORWESCAP, a non-profit group, operates a number of these units. The municipality must have zoning and ordinances in place that allow ECHO units, and the applicant must meet the income guidelines to qualify. Once approved, the applicant's site must receive the appropriate permit approvals from the Board of Health, Planning Board or Board of Adjustment, local code officials for unit placement and the utility company for service connection. NORWESCAP provides transportation to the site and installation of the unit. NORWESCAP does not service Monmouth County, but it is an example of an opportunity that may be implemented through not-for-profits or the County. For more information: <http://www.norwescap.org/programdetails.asp?ID=3>

The Township of Readington in Hunterdon County has its own ECHO program, whereby the Township purchased seven cottages and operates them. The Township leases the units to qualified applicants and the applicants must pay for the transportation and installation of the unit. When it is no longer needed, the unit is removed and relocated to the next eligible applicant's site. For more information, see the following link: http://www.readingtontwp.org/housing_dept_main.html.

Affordable accessory apartments are sometimes also known as 'granny flats'. An accessory structure is a structure such as a freestanding garage that has been converted to an apartment, or an apartment carved out of a larger residence. These small units utilize existing structures to provide affordable housing options for seniors as well as provide a supplemental income to the homeowners. Belmar recently enacted an ordinance (Belmar Ordinance 2008-13) that permits conversion of seasonal secondary dwelling structures to year-round use. These uses would fall under a conditional use permit and would be limited to age-restricted affordable units.

"Mother/Daughter" homes are permitted in some municipalities to address caring for older family members. Specific conditions may be required to limit kitchens, separate entrances and utilities to avoid creating a separate non-family rental unit.

A Model Accessory Apartment Ordinance, which can be used for both senior and family accessory apartments, has been provided. A municipality may be eligible to receive COAH credit for these accessory apartments. Under the current COAH regulations, the municipality must provide a minimum \$20,000 subsidy per moderate-income and a minimum \$25,000 subsidy per low-income accessory apartment in addition to meeting COAH unit marketing requirements and tenant income certification. A minimum 10-year deed restriction is also required.

One hundred percent (100%) affordable senior housing projects can provide an opportunity to locate seniors near shopping, transit or other facilities seniors typically rely on. These developments can be eligible for tax credits or other types of funding. Medicaid recipients automatically qualify as low or moderate-income households. Please note that COAH rules currently cap credits for age-restricted housing at 25% of the fair share obligation for each municipality.

Residential healthcare facilities also provide housing with support and special needs assistance and are licensed by the DCA or the New Jersey Department of Health and Senior Services (NJDHSS). Medicaid recipients automatically qualify as low or

moderate-income households. COAH credit is by the bedroom in this type of facility, which is not be confused as a nursing home. Closely related to residential health care facilities are assisted living residences that provide apartment-style housing and congregate dining. COAH credit is by the apartment and recipients of Medicaid qualify as affordable households.

Being able to maintain one's home is an important consideration and there are a number of programs available to assist the elderly. The Monmouth County Human Services Department offers a residential maintenance program that provides emergency home cleaning through the Association of Retarded Citizens. The Monmouth County Office on Aging also offers a home repair/barrier free program to qualified seniors. The County's Division of Social Services provides emergency home repair to low-income homeowners. The Division of Social Services also maintains a webpage on energy services and sources of help. Monmouth County also provides an on-line guide to resources for older adults. Some housing assistance contacts are listed in Table II- 3.

Table II - 3 Housing Assistance Contacts

MONMOUTH COUNTY RESOURCE GUIDE

Monmouth County provides an online guide of resources for older adults, which includes a housing section that contains retirement communities, assisted living facilities, housing assistance sources and subsidized apartments.

http://co.monmouth.nj.us/documents/54/Resource_Directory2008_Aging8608.pdf.

THE NEW JERSEY UNIVERSAL SERVICE FUND (USF)

Eligible households income must be less than or equal to 175% of the Federal Poverty Level. The household must be paying more than 3% of its income on electric bills or more than 3% of its income on natural gas bills. If the home has electric heat, the household must be spending more than 6% of its income on electricity.

USF HOTLINE 1-866-240-1347

www.energyassistance.nj.gov

NJ LIFELINE: 1-800-792-9745

NJ Lifeline helps with gas and electric bills for disabled or senior homeowners and renters with limited incomes.

NJ COMFORT PARTNERS: 1-888-773-8326

NJ Comfort Partners helps qualified low-income households lower natural gas and electric bills through energy education, the installation of energy efficiency measures and repairing or replacing heating and cooling equipment.

MODEL ACCESSORY APARTMENT ORDINANCE

Where Permitted

"Affordable Accessory Apartments" shall be permitted in the _____, _____ and _____ Zoning Districts on lots that have an existing single-family detached dwelling.

Definition

An **AFFORDABLE ACCESSORY APARTMENT** shall be a self-contained residential dwelling unit with a kitchen, bathroom, sleeping quarters and a private entrance which is created to be occupied by a "low" or "moderate" income household in accordance with the applicable provisions of the "Substantive Rules" of the New Jersey Council On Affordable Housing (COAH) at N.J.A.C. 5:97-6.8.

Additional Conditions

The "Affordable Accessory Apartment" shall be rented only to a "low" or a "moderate" income (age-restricted) household at the time of initial occupancy of the unit.

The "Affordable Accessory Apartment" shall, for a period of at least ten (10) years from the date of the issuance of a Certificate Of Occupancy, be rented only to "low" or "moderate" income (age-restricted) households.

Rents of "Affordable Accessory Apartments" shall be affordable to "low" or "moderate" income households in accordance with the applicable provisions of N.J.A.C. 5:97-9, and shall specifically include an allowance for utilities in accordance with Uniform Housing Affordability Controls set forth in N.J.A.C. 5:80-26.1 et. seq.

There shall be a recorded deed or declaration of covenants and restrictions applied to the property upon which the "Affordable Accessory Apartment" is located running with the land and limiting its subsequent rental or sale.

No more than _____) "Affordable Accessory Apartments" shall be permitted.

The "Affordable Accessory Apartment" program shall be affirmatively marketed to the _____ Housing Region consisting of _____, _____ and _____ Counties in accordance with the "Affirmative Marketing Plan" provisions in _____ of this Ordinance.

Administration of the "Affordable Accessory Apartment" Program

The Governing Body of _____ shall designate an "administrative entity" to administer the "Affordable Accessory Apartment" program in accordance with the following:

The administrative entity shall administer the "Affordable Accessory Apartment" program including advertising, income qualifying prospective renters, setting rents and annual rental increases, maintaining a waiting list, distributing the subsidy, securing certificates of occupancy, qualifying properties, handling application forms, filing deed restrictions and monitoring reports, and affirmatively marketing the "Affordable Accessory Apartment" program;

The administrative entity shall only deny an application for an accessory apartment if the project is not in conformance with COAH's requirements and/or the provisions of this Ordinance. All denials shall be in writing with the reasons clearly stated; and

In accordance with COAH requirements, the _____ shall provide at least \$20,000 to subsidize the physical creation of an "Affordable Accessory Apartment" conforming to the requirements of this Ordinance section and COAH requirements. Prior to the grant of such subsidy, the property owner shall enter into a written agreement with _____ insuring that the apartment shall meet the requirements of this Ordinance and COAH regulations.

At the termination of the deed restriction, the unit will no longer be subject to the income requirements unless the unit restrictions shall be extended through COAH procedures.

Application Procedures

Each application for the creation of an "Affordable Accessory Apartment" shall submit the following information to the designated administrative entity:

A sketch of floor plan(s) showing the location, size and relationship of both the "Affordable Accessory Apartment" and the primary dwelling within the building or in another structure;

Rough elevations showing the modification of any exterior building facade to which changes are proposed; and

A site development sketch showing the location of the existing dwelling and other existing buildings; all property lines; proposed addition if any, along with the minimum building setback lines; the required parking spaces for both dwelling units and any natural or man-made conditions which might affect construction.

Source: Blairstown Township, Warren County, New Jersey, modified by Maser Consulting, PA.

6.4 ARTIST HOUSING

Artists provide a unique resource in the CMR. The *CMP* emphasizes the importance of the Arts, Cultural and Entertainment (ACE) nodes which include Red Bank, Long Branch, Asbury Park, Belmar and Manasquan. (These ACE nodes are discussed in detail in the Economy Section 6.0.) Artist incomes typically are on a lower income scale and they have difficulty finding affordable housing. To encourage artists to live and work in the ACE nodes requires innovative measures. Amending zoning ordinances to allow for work/live units, reserving units in redevelopment areas, creating art-oriented communities and taking advantage of national artist-housing developers are just some of the options to support artists.

Artists need space to work, preferably close to where they live. A few New Jersey municipalities even provide for artist studios or lofts in the ordinances, such as the Jersey City code cited below:

WORK/LIVE ARTIST STUDIO. *A single, enclosed, private space of nine hundred (900) square feet or more, where at least one-half of the volume of the total space is devoted to work space for the creation, display and sale of art, and the remainder is used for living purposes. A minimum of one hundred fifty (150) square feet of living space per person occupying such work/living space shall be required. Nothing in this definition shall prohibit the use and occupancy of a "work/live artist studio" in a setting where shared kitchen and/or bath facilities are available, provided that applicable health and safety codes are met and maintained. (Jersey City Ordinance)*



Red Bank Artist Lofts



Public Art

Asbury Park permits artist loft apartments in commercial buildings as a conditional use within the central business district. The ordinance requires the loft to be at least 900 square feet and limits the occupancy to one person per 300 square feet of floor area, exclusive of the work area.

In Red Bank, a proposed mixed-use development next door to the Two River Theatre Performing Arts Center will include six artist lofts. The work/live units will have space for both the creation and selling of artist's wares.

Reserving space within redevelopment areas for artists is another means of integrating the arts into new development. Redevelopment areas could include space for the artists to live, work, display and sell their wares. Depending on the artist's income, they could qualify as an affordable household. A local artist's work could be included in a redevelopment project which can have a major positive impact on the quality of the area. A percentage of the project cost of redevelopment projects could be targeted for artwork installations. Public projects can require a percentage of the construction costs be allotted for art. In addition, local New Jersey artists could receive priority in the selection process. Zoning regulations could also require that a percentage of the building area – internal or external – be devoted to public exhibition and/or performance space, i.e. plazas, courtyards or lobbies.

Within the ACE nodes, the municipalities should consider regulatory options to provide artist housing opportunities, such as:

- *Permit work/live units for artists as a principal permitted use in select zone districts.*
- *Require a percentage of affordable units in redevelopment plans be marketed to artists.*
- *Provide a density bonus to encourage affordable artist housing within market rate housing or mixed use projects.*

Examples of successful artist housing projects follows including those in Millville, New Jersey, Washington, D.C. and the multi-city supported ArtsSpace Projects, Inc.

EXAMPLES OF ARTIST HOUSING

Millville, New Jersey

Millville's Glasstown Arts District is a growing artist hot spot in southern New Jersey. The City has numerous events and activities that promote the artists as well as the town. Glasstown Arts District was established in 1999 and covers 12 blocks. One of the major draws to Millville was the Pioneer Arts Program that gave professional artists who relocated to Millville a \$5,000, 0% interest loan to assist in moving. It also provided a marketing package with press releases. Due to the overwhelming interest and use of the program it has been temporarily discontinued until additional funds materialize.

Washington, D.C.

The Cultural Development Corporation (www.culturaldc.org) (CDC) created affordable work/live opportunities for area artists. The group is working to counteract the displacement of artists from the Capital by providing these affordable spaces for artists to live and create. The housing created addressed the basic living necessities with high ceilings and natural light in a large work area. Artists must meet the income guidelines and other application requirements to be eligible for the work/liveunits CDC has built.

ArtSpace Projects, Inc.

A national non-profit developer for the arts based out of Minneapolis, Minnesota works to create and preserve affordable space for artists. ArtSpace began because of the problem of finding and keeping affordable work/livespace in Minnesota, today they have completed eleven projects from Seattle to Pittsburgh. Currently in progress, ArtSpace is working in Scranton, Pennsylvania to transform a former lace factory into a mixed-use development that will ultimately contain 35 affordable work/live artist studios. In 2005 Scranton Tomorrow invited ArtSpace to their City to identify a suitable artist site. The project is expected to be completed in late 2009.

6.5 SUSTAINABLE HOUSING

When planning for or rehabilitating housing, long term maintenance and energy costs must be considered. Design, building materials and appliances need to be energy efficient and reduce long-term costs. Proper site planning is also important for solar accessibility. These decisions may potentially increase the initial cost of the unit; however, the long-term benefits will likely outweigh the initial cost increase. Not only are the upfront costs of buying a home significant, but the operating expenses of a home continually increase as utility charges and maintenance bills rise. It is important to provide affordable housing that is not only affordable to purchase or rent, but is also cost efficient over the long-term. Sustainable development is integral to 'green' affordable housing.

The New Jersey Housing Mortgage Finance Agency Green Homes Office website provided a wide range of information on green building resources for homeowners and developers. The Green Future program consists of a list of basic green building items that have a minimal impact on project cost if designed from the beginning. Items cover building siting, energy efficiency, resource efficiency, water conservation, operations and maintenance. For example, SUNLIT is a program developed in conjunction with the New Jersey Clean Energy Program that supports solar installations for multi-family affordable housing. The program employs equity generated from low-income housing tax credits, HMFA financing and solar rebates to make it financially feasible to install solar panels.

The New Jersey Special Needs Housing Trust Fund provides capital financing to create permanent supportive housing for those with special needs. Funding is prioritized for projects that have reduced operating and maintenance costs. The design criteria have three categories, one of which is sustainability.

The HMFA Choices in Home Ownership Incentive Created for Everyone (CHOICE) Program supports the construction or rehabilitation of single-family homes. CHOICE is designed to provide home ownership opportunities for low, moderate and market rate housing through low interest loans and subsidies. All units must be Energy Star certified.

These are just a few of many sources that can provide funding for the installation for solar panels, sustainable design and construction. It is also important to educate and certify municipal staff in green housing development initiatives. (See <http://www.state.nj.us/dca/hmfa/gho/index.shtml>).

6.6 AFFORDABLE HOUSING EDUCATION

Affordable housing often runs into roadblocks in many public arenas. The housing stakeholders stressed the importance of educating the public about affordable housing. It is important to understand that affordable housing can include housing for young couples just starting out at lower salaries. It can also be housing that serves government workers, teachers and service workers. The need to educate the public about the benefits of affordable housing and who it serves is important. (See Table II - 4 Typical Starting Salaries).

Table II - 4 Typical Starting Salaries

Occupation	Average Starting Salary
Bank Teller	\$25,400
Receptionist	\$31,200
EMT	\$31,400
Security Guard	\$33,500
Dental Assistant	\$36,100
Architect	\$41,200
Public School Teacher	\$43,000
Correctional Officer	\$43,259
Electrician	\$46,000
Paralegal	\$50,000
Civil Engineer	\$59,000

*Salary.com

COAH provides income limits based upon the median gross household income of the COAH housing region in which it is located. Monmouth County is located in COAH's Region 4, which also contains Mercer and Ocean County. A moderate income household is one with a gross household income equal to or more than 50%, but less than 80%, of the median gross regional household income. A low-income household is one with a gross household income equal to 50% or less of the median gross regional household income. Using the 2008 weighted regional income limits adopted by COAH, a moderate-income four-person household could earn a maximum of \$67,653 (80% of regional median) and a four person low-income household could earn a maximum of \$42,283 (50% of regional median). Income levels for one to five person households as of 2008 are shown on Table II - 5.

Table II - 5 2008 Regional Income Limits for Region 4 Municipalities

	1 person	2 person	3 person	4 person	5 person
Median	\$59,196	\$67,653	\$76,109	\$84,566	\$91,331
Moderate	\$47,357	\$54,122	\$60,888	\$67,653	\$73,065
Low	\$29,598	\$33,826	\$38,055	\$42,283	\$45,666

Many professional's starting salaries would qualify a household for affordable housing. For example, a single first year teacher with the average starting salary of just over \$43,000 would qualify for affordable housing, as would a single parent with one child working as a paralegal making an average starting salary of \$50,000.

A well run public educational program on affordable housing could dispel myths about affordable housing. Such a program could be developed with not-for-profit housing advocacy groups. Local cable television, a speaker's bureau, and knowledgeable volunteers could be recruited to meet with municipalities and community groups to discuss affordable housing. Funding could be sought through grants from private foundations or the State to start up pilot programs.

The National Association of Realtors (NAR) has published a useful document on compact disc called *Housing Opportunity Tools* that includes a report called "Blueprints for Success, A Media Guide for Affordable Housing Advocates" and "Communication

Tools”¹. The “*Blueprints for Success*” report contains a section on affordable housing facts and methods to educate the public. NAR recommends making community fact sheets with verified facts and tables that clearly convey the information. Also include pictures of affordable housing from nearby communities; compare average mortgages and rents with typical incomes. Other ideas include a poster campaign with faces of local people that make incomes that fall within COAH’s low and moderate-income range.

COAH’s website also provides background information regarding how the Council was created, its process and its accomplishments. <http://www.nj.gov/dca/coah/about.shtml>.

6.7 NEIGHBORHOOD PRESERVATION

A majority of CMR municipalities identified maintaining their character and limiting the impact of new development in their Municipal Vision Statement. A community’s character is defined by its homes, commercial centers, historic buildings and its history. To preserve its identity, many CMR municipalities want to maintain themselves as unique places. For some municipalities, the high cost of land has encouraged speculation which may not be compatible with the existing neighborhood scale. Large additions to existing houses have also created havoc within some neighborhoods.

A number of municipalities in New Jersey have created design guidelines, usually for their downtowns. Other municipalities have established design guidelines which regulate architectural design in historic districts and/or redevelopment areas. For example, Asbury Park has adopted comprehensive guidelines as part of their Urban Enterprise Zone regulations. These design guidelines establish criteria for those planning new buildings, facade improvements, storefront renovations, signage and outdoor displays. Dr. David Listokin’s *Infill Development Standards and Policy Guide*² discusses design and zoning techniques for development to infill spaces between existing homes, while maintaining that neighborhood’s character. The report suggests communities develop design standards that reflect their goals and to regulate the scale of replacement infill and regulate teardowns and the scale of the replacement. This report can be found at http://www.nj.gov/dca/codes/infill_study/infstudy.pdf.

Community preservation has become an issue in many towns due to the rise of “McMansions” or oversized generic style of houses that are out of character with the existing neighborhood. Many communities have tried to deal with this problem solely by decreasing the FAR (floor area ratio). A more holistic alternative is to complete a thorough spatial analysis. Some municipalities have used parcel by parcel aerial photographs to determine a neighborhood’s existing spatial characteristics. Utilizing the square footage contained in the tax records, the range and average of each of the bulk standards can be deduced. Calculating the setbacks, coverage and square footage yields the numerical data necessary to tweak the existing zoning ordinance or create a new zoning district reflecting existing characteristics to guide new development in a manner that is consistent with existing development. It is not only the size of the house, but also the relation of the home to the street, adjacent homes, its placement on the lot, building height, and lot coverage standards which can be used to preserve a neighborhood’s character.

Design guidelines work in conjunction with defined bulk standards that not only respects the size and location of the house, but also the existing architectural styles of the neighborhood. Architectural guidelines vary from municipal pattern books to guidelines that address materials, spacing, roof type, proportion, windows and doors. A good example is the Township of Bernards, Somerset County: *Neighborhood Conservation, 2003 Master Plan*. The plan outlines the various bulk components that will maintain the particular neighborhoods as new development or rehabilitation occur.

Another mechanism used to preserve existing neighborhoods is Form Based Codes. The Form Based Codes Institute defines a form-based code (FBC) as “a means of regulating development to achieve a specific urban form”. A FBC addresses the relationship between the building and the public realm – the size of the building and how it relates to the structures around it. FBCs are illustrated with pictures and graphics to show examples to developers and homeowners, to make the FBC user friendly. The basis of a FBC is a regulating plan that labels the form and scale of development, not the land uses permitted. The regulating plan is a map illustrating the locations where different building form standards apply (mixed-use buildings at the right-of-way as opposed to single family homes set back from the street). In addition to the regulating plan, there are building form

¹ National Association of Realtors. Undated. *Blueprints for Success, A Media Guide for Affordable Housing Advocates*.

² David Listokin. June 2006. *Infill Development Standards and Policy Guide*, Rutgers Center for Urban Policy Research. New Brunswick, New Jersey.

standards that specify the requirements that control the building arrangement, features and other bulk standards. FBCs also include a section on administration, application and review process and a definitions section. FBCs sometimes include architectural standards, landscaping standards, signage standards and environmental resource standards. For more information on FBCs see the following link: <http://www.formbasedcodes.org/definition.html>

7.0 ECONOMY

Regional Vision: *The Monmouth Coastal Region communities have been revitalized into vibrant, pedestrian friendly and sustainable centers with year-round activity focused on tourism, arts, culture, entertainment, natural resources and the Monmouth Jersey Shore.*

7.1 NEEDS - ECONOMY

The CMR has a diverse economy with significant disparities in income and employment. Economic development tends to occur in the downtown districts and along the major traffic corridors. Long Branch and Asbury Park are undergoing revitalization as destination centers for entertainment. Red Bank has continued to expand as an important cultural center. Historically, the shore towns have attracted tourists and locals alike with summer tourism supporting many of their businesses. The *CMP* has identified the need to attract quality businesses that operated beyond the summer season. The municipalities of Allenhurst, Belmar, Fair Haven, Lake Como and Spring Lake, among others, have initiated revitalization or redevelopment efforts to improve the economic climate of their communities. For the commercial corridors along Route 35 and Route 71, redevelopment and revitalization opportunities either exist now on the older properties or can be expected in the future to upgrade or modernize these sites to meet up-to-date market standards that provide opportunities for new development programs.

Economic development planning should build on the amenities that currently draw visitors and residents to the CMR. These are the entertainment and cultural venues, the unique natural resources and the shore activities. But to realize a regional vision for the coastal Monmouth economy, there needs to be a comprehensive approach to market the cultural and natural resource amenities of the CMR.

The following *CMP* section is broken down into four main categories:

- Revitalization
- Marketing the CMR
- Transit Village Planning
- Sustainable Development

7.2 REDEVELOPMENT AND REVITALIZATION EFFORTS

Redevelopment and revitalization efforts are already underway in many municipalities. There is a need to coordinate these revitalization efforts to gain synergy and mitigate adverse impacts. Red Bank has experienced revitalization that has created a vibrant town center serving the Northern Region. The North Central Region is expanding cultural and entertainment venues through the on-going Long Branch redevelopment program along the oceanfront and Broadway. In the South Central Region, Asbury Park redevelopment efforts are promoting entertainment venues, in addition to almost 4,000 new housing units. The Southern Region will focus on Belmar which is a designated Transit Village and is undergoing redevelopment to expand the Seaport Village area. The decommission of Fort Monmouth by 2011 will have a significant effect on the County's economy both directly and indirectly. In 2008, the State established the Fort Monmouth Economic Revitalization Planning Authority (FMERPA) to develop a reuse and redevelopment plan that meets State, County and municipal needs and creates a sustainable

redevelopment plan for Fort Monmouth. The 2008 Final Base Reuse Plan provides for significant redevelopment opportunities in Eatontown, Oceanport and Tinton Falls.^{3 4}

Fort Monmouth Redevelopment Plan

Fort Monmouth military installation is scheduled to be closed by September 2011 as result of the 2005 Base Realignment and closure decision and the land disposed of in coordination with the Fort Monmouth Economic Revitalization Planning Authority (FMERPA). It consists of 1,127 acres located in three municipalities: Eatontown, Oceanport and Tinton Falls. The issue of closure of this facility and the loss of over 5,000 jobs and supportive services was very critical to Monmouth County and the affected municipalities and supporting region.

The Fort Monmouth Reuse and Redevelopment Plan was adopted by FMERPA on September 3, 2008 after intensive community participation and review. The twenty-year Plan horizon projects a total of over 1,600 housing units, 3,700 new residents and 6,500 new employees. Fifty existing non-residential buildings or 2,085,992 square feet are proposed for adaptive reuse. One hundred seventy-seven historic housing units will be reused. Mixed-income housing types are proposed including small lot single family, rental units, garden apartments and townhomes including affordable housing and homeless accommodations.

Implementation of the Plan still requires completion of a number of critical activities including the NJDEP cleanup, addressing COAH requirements, compliance with the NJ State Historic Preservation Office requirements long-term protection of historic resources and addressing the HUD Homeless Screening Process. Also to implement the zoning, the Plan recommends that the Fort Monmouth Local Redevelopment Authority (LRA) adopt a Form Based Code.

The Plan discusses implementing a marketing plan to focus on Fort Monmouth as a Sustainable Technology Community. Another issue is the need to implement infrastructure improvements to support the Plan and the costs to implement these improvements.

The Plan also provides over 500 acres as a green belt and ballfields and identified areas for wetlands restoration along Parkers Creek and Oceanport Creek. This greenbelt is included in the CMP as an Environmental Center of Activity (ECA), which can support recreation, environmental education and tourism activities. The CMP also recommends that a long-term restoration and management plan be developed for this ECA.

Connections to this Fort Monmouth greenway and blue way must be planned and linked to the proposed County Greenway and bicycle link from Long Branch to Fort Monmouth along the vacant right-of-way. A future shuttle to connect to the Little Silver train station is also proposed in the Fort Monmouth Plan. Critical is the need to connect beyond the Fort Monmouth border to integrate with the CMR.

The following table details the development program for Fort Monmouth as adopted by FMERPA in September 2008.

Fort Monmouth 20-Year Development Program				
	Tinton Falls	Eatontown	Oceanport	Total
Office/R&D	839,817 SF	521,605 SF	737,119 SF	2,098,541 SF
Retail	81,335 SF	220,459 SF	146,550 SF	448,334 SF
Mixed Income Residential	288 DU	577 DU	749 DU	1,605 DU 2,407,500 SF
Hotel		150 RM	75 RM	225 RM 310,000 SF
Health/Medical Office			80,000 SF	80,000 SF
Community/Civic Facilities	88,416 SF	76,469 SF	299,709 SF	464,594 SF
Greenbelt Parks/Ballfields	99 AC	232 AC	173 AC	504 AC
Suneagles Golf		157 AC		157 AC
TOTAL				5,788,979 SF

³ Economic Research Associates (ERA). Regional Economic Profile and Market Analysis. Draft for Discussion. September 28, 2007. Prepared for FMERPA. Fort Monmouth, NJ.

⁴ EDAA, Inc. Fort Monmouth Reuse and Redevelopment Plan, Final Plan, August 2008. Fort Monmouth Economic Revitalization Planning Authority.

Coordination among the CMR municipalities considering revitalization or redevelopment efforts is crucial in addressing any inter-municipal impacts. For example, Belmar's Seaport Village and Neptune's Shark River Waterfront redevelopment project could be coordinated to provide synergistic support and marketing. The recommendation to implement the Shark River water taxi service can draw visitors to support the economy of both areas. A Transit Village is planned for Neptune Township near the Bradley Beach train station. Coordination between all three municipalities would address shared conditions.



Route 71 – Avon

Other revitalization efforts in the CMR include streetscape and boardwalk improvement projects as in Avon-by-the-Sea, Manasquan, and Bradley Beach. Sea Bright has a grant to develop a redevelopment plan for their business district. Spring Lake is planning to reinvigorate its downtown and ongoing planning is underway. Fair Haven is planning streetscape improvements for their business district.

For the commercial corridors of Route 35 and Route 71, there are redevelopment and revitalization opportunities, especially for the aging commercial centers. Municipalities should proactively address these areas through their master plan process. Opportunity areas should be identified and the 'vision' of the community for these areas reassessed.

Recent examples of neo-traditional design with mixed commercial and residential uses should be considered as these areas become candidates for change.

Efforts to revitalize Monmouth Park, to improve the viability of horseracing, and to increase additional revenue from racing, venues must continue if there is to be a lasting equine industry presence in Monmouth County. Monmouth Park is a premier horseracing facility that derives enormous economic benefits not only for the Coastal Region but also elsewhere in Monmouth County. As stated in the Governor's Advisory Commission Report (*July 2010*), "Monmouth Park Racetrack has near-historic landmark status in the eyes of the general public and has established itself as a viable summertime family entertainment option that appeals to a broader segment of the public than just big bettors...". The loss of Monmouth Park and horseracing statewide would not only effect the tourism and gaming industry in and around towns with racing venues, it has the potential to decimate many local Monmouth County based businesses that supply needed goods and services to the racing industry.

Importance of Monmouth Park and Horseracing

According to the Rutgers University Equine Science Center, horseracing in New Jersey produces \$780 million in economic impacts annually, supports 7,000 jobs, and generates \$115 million in tax revenue. Without racing, there is a question as to whether the remaining agribusiness market would be significant enough to sustain an equine based economy in the County. Presently, Monmouth County has more than 27,000 facility acres devoted to equine associated operations. Of the 12,863 acres of preserved farmland in Monmouth, almost 4,900 (38%) are related to equine uses. Monmouth County is home to 960 equine related enterprises providing such products and services as feed, transportation, training, breeding, boarding, and veterinarian medicine. Many of these well established businesses located in Monmouth County due to its proximity to major race tracks such as Monmouth Park and Freehold Raceway. The retention of these types of local businesses is very dependent upon the success of the State's horseracing industry.

As discussed in the Regional Cooperation Section 4.0, the CMR Committee should be established to coordinate and assist in implementation of the *CMP*. Existing organizations such as the Two Rivers Mayors Council can also be used as forums to coordinate future development opportunities. New organizations may be needed on the larger projects, such as the Fort Monmouth Economic Renewal and Planning Authority (FMERPA).

The CMR has a diverse economy with strong retail services along Route 35 within Eatontown and Shrewsbury, Ocean and Wall. Many shore municipalities have established downtowns whose economic well being is affected by seasonal tourism, and the changing residential mix from seasonal renters to second home owners. The need to expand business opportunities to support and expand their downtowns has been noted.

The economic development program should look beyond traditional or 'seasonal' activities to include year-round diverse commercial businesses and services. The *CMP* Marketing Plan should build on tourism and recreation amenities, but should also promote more year-round efforts or greater 'shoulder season' entertainment venues to draw visitors. Key to the plan is the

integration of the arts, cultural and entertainment (ACE) venues that have year-round activities. The redevelopment of the ACE nodes, especially Long Branch and Asbury Park, has already begun to draw visitors and residents.

7.3 TRANSIT ORIENTED PLANNING



Red Bank Train Station

The North Jersey Coast Line with the 11 rail stations in the CMR provides train service from its southernmost station in Bay Head, Ocean County directly to Pennsylvania Station in New York City. The Long Branch station serves as a transfer station between all points north or south along the rail line.

Train stations provide opportunities for higher density development as part of 'smart growth' goals. They are important transportation facilities which provide transit access within the CMR, and to employment centers in New Jersey and New York City. Red Bank has taken the lead in terms of value improvements around the train station and its downtown planning program is tied to the renovated train station. For many of the other

stations, the level of development or planned revitalization varies. The Manasquan, Belmar, Bradley Beach, and Little Silver stations have been revitalized by NJ Transit with improved parking, design amenities, building improvements, landscaping and street furniture. For stations such as Long Branch and Asbury Park, transit station improvements will go hand-in-hand with the on-going redevelopment efforts. These stations provide enormous opportunities for new development that can be partnered with NJ Transit.

Allenhurst is considering redevelopment activities within walking distance to the train station which can build on its location and accessibility. Little Silver is one area where obsolescent development around the train station area provides an opportunity for redevelopment and revitalization that can build on its attractive station location with mixed-use opportunities. Little Silver station can serve as a rail station for Fort Monmouth. A shuttle could be provided to offer transit service the short distance to the fort. The Oceanport station currently is only a seasonal train stop for Monmouth Park. Here is an opportunity area that could be considered by Oceanport to expand development at and around Monmouth Park to encourage year-round activities. The train station can be a catalyst for new development that can help invigorate the municipal economies.

The New Jersey Department of Transportation (NJDOT) and New Jersey Transit (NJ Transit) have joined together to produce this unique partnership that "helps to redevelop and revitalize communities around transit facilities to make them an appealing choice for people to live, work and play, thereby reducing reliance on the automobile". The goal of the Transit Village Initiative is to "bring more housing, more businesses and more people into communities with transit facilities". Currently, there are 19 designated Transit Villages in New Jersey. Within the CMR, Belmar is the only designated New Jersey Transit Village, although Neptune Township is considering a Transit Village for an area west of Memorial Drive (CR 40A) between Fifth and Ninth Avenues. This area would be within walking distance to the Bradley Beach train station. Red Bank is also investigating this option. Designation as a Transit Village may provide planning grants and improvement funds to the area making it a desirable designation.



Elberon Train Station

The second resource for communities promoting transit village planning is the Voorhees Transportation Center's (VTC) Transit Oriented Development website (<http://policy.rutgers.edu/vtc/tod/index.html>). VTC produces a newsletter called Transit-Friendly Development that discusses the best practices, legislation and local developments. In addition to the newsletter, VTC's website has a documents library that covers topics that range from housing diversity and affordability to TOD benefits.

For municipalities that wouldn't qualify, or prefer not to become a designated Transit Village, similar planning is still possible. Municipalities can first define themselves as a transit village, which is typically a 5 to 10 minute walk from the station, i.e. a 1/4 mile radius). Within that circle is the target area for revitalization and smart growth. To encourage revitalization and transit-oriented development, municipalities should first look at their zoning to see whether it permits mixed-uses, dense development and compact design. Successful transit village planning allows mixed-use, higher densities development and shared parking standards. It should be noted that the 2008 COAH rules permit bonus credits for new affordable units located within a 5 to 10 minute walk of a bus, train, light rail or ferry stop within a larger, pedestrian-friendly, transit-supportive neighborhood. With NJ Transit and other agencies, funds should be allocated to multimodal improvements such as bike storage, circulation improvements and parking. These efforts are important to provide seamless transportation system to support higher density development and to reduce automobile use. (This is further discussed under Transportation Section 7.0 recommendations.)

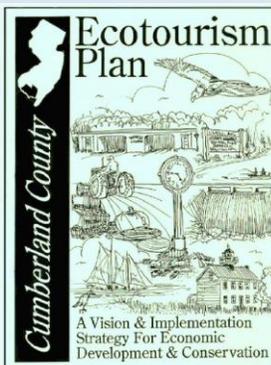
7.4 MARKETING THE CMR

There is currently no unified comprehensive marketing effort to promote the Region's assets. There is an opportunity to generate revenue and jobs through regional marketing efforts. Marketing should focus on both cultural and environmental resources to broaden the visitor base. It should build efforts currently underway in a number of the municipalities. This may be through the local chambers of commerce or other existing organizations such as Red Bank Alive and ArtsCAP. There are currently eight chambers of commerce promoting Asbury Park, Belmar, Eatontown, Long Branch, Manasquan, Ocean Grove, Ocean Township and Red Bank. The local chambers should work together on regional marketing issues. There is coordination currently occurring such as the "Tri-Cities" initiative that coordinates marketing efforts between Asbury Park, Long Branch and Red Bank. The marketing strategy proposes the creation of a regional CMR Chamber of Commerce to coordinate and expand these marketing activities.

A regional marketing plan should devise a branding of the CMR with a unique logo and tag line that can be used for marketing. It should be multilayered and coordinated with other marketing efforts that emphasize art and entertainment venues, the natural environment and recreation resources unique to the region. A typical marketing plan includes the following elements⁵:

- Overall objectives - What you want to accomplish; these should be 'reasonable', not a wish list;
- Assessment of the market environment – What factors may affect the marketing efforts (See the Regional Profile Section 5.0 Demographics);
- Business community profile – What resources are available (See *Regional Profile*, Section 12.1 Economic Profile);
- Market identification (segmentation) –Who are the specific groups or clientele sought, lifestyle attributes, target markets, and potential marketing mixes;
- Marketing objectives for each market segment with measureable objectives for each target market, and time period;
- Marketing strategies for different markets targeted—the best combination of price, product, place and promotion;
- An implementation plan – How to 'make it work';
- Marketing budget – How much is available annually to spend which should include separate budgets for activities and should consider costs, projected revenues, desired profitability, objectives and time frame.
- A method of evaluation that evaluates performance standards/objectives against actual results, and determines where changes are required to better address market objectives.

The proposed Arts Cultural and Entertainment (ACE) corridor and Environmental Centers of Activity (ECA) should be the focus of these marketing efforts. They are described in the following sections and shown on the Coastal Monmouth Centers Map II – 2. The proposed Scenic Byway will also be another layer in the activity mix of the CMR. This is also important to draw on the history of the Region to support economic growth and stability. For example, the Ocean Grove National Registered Historic District is a prime example of an activity center that promotes tourism in the Region. The Marketing Plan should also focus on year-round activities that will support business growth. Cumberland County, New Jersey is a successful example of a regional marketing plan for ecotourism activities that was promoted by the County.



Cumberland County, New Jersey Ecotourism Plan

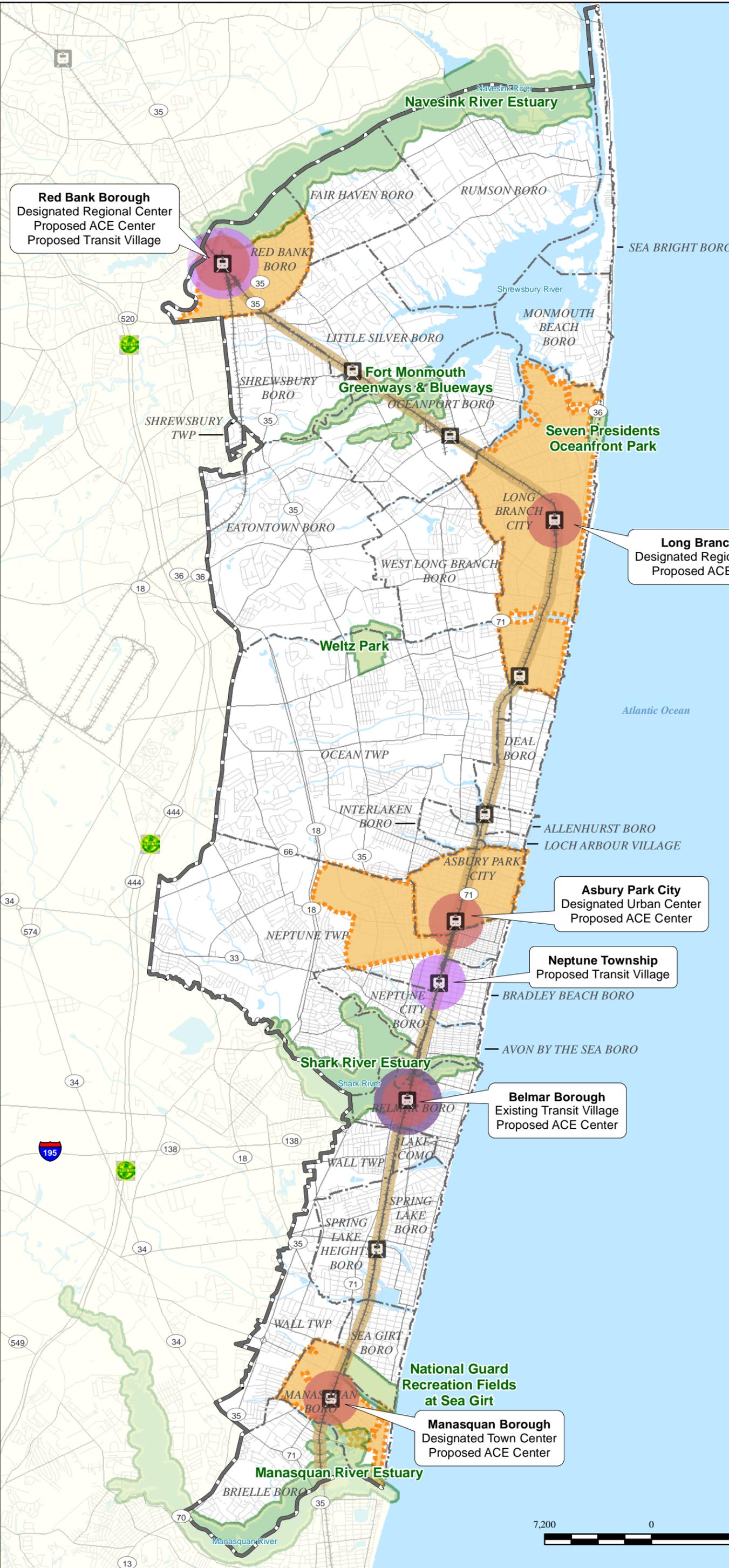
In 1996, Cumberland County, New Jersey adopted an Ecotourism Plan that provided a blueprint for economic development and conservation for the County. This builds on the 1993 Ecotourism Workshop co-sponsored by the County and the South Jersey Land Trust. The Plan establishes the goals and strategies upon which ecotourism can be promoted. The unique characteristics of the County's natural resource base and its economy are reviewed and the important ecological tourism issues are identified. Other effective ecotourism initiatives in the region and nation are also outlined. The Plan defines ten themes and places in the County where ecotourism efforts should be focused for example, (1) Tracing the County's Maritime Heritage, (2) The Heart of Farming in the Garden State and (3) Cumberland County's Wild and Scenic Rivers. Specific steps to implement the plan are outlined ranging from development of new infrastructure to special marketing suggestions. The Plan also offers specific ideas for State, Federal, County and local government, non-profit organizations and the private sector to implement the Plan.⁶

⁵ Mahoney, Edward, Warnell, Gary. *Tourism Marketing*, June 2002. Michigan State University Extension, Tourism Education Materials – 33700082.

⁶ Cumberland County Department of Planning and Development. 1996. *Cumberland County Ecotourism Plan, A Vision and Implementation Strategy for Economic Development and Conservation*. Cumberland County, NJ.

COASTAL MONMOUTH CENTERS

COASTAL MONMOUTH REGION
MONMOUTH COUNTY NEW JERSEY



Red Bank Borough
Designated Regional Center
Proposed ACE Center
Proposed Transit Village

Long Branch City
Designated Regional Center
Proposed ACE Center

Asbury Park City
Designated Urban Center
Proposed ACE Center

Neptune Township
Proposed Transit Village

Belmar Borough
Existing Transit Village
Proposed ACE Center

Manasquan Borough
Designated Town Center
Proposed ACE Center

Legend

- COASTAL MONMOUTH REGION
- MUNICIPAL BOUNDARIES
- ROADWAY NETWORK
- RAILROADS
- TRAIN STATION
- ACE CENTER
- ACE CORRIDOR
- EXISTING TRANSIT VILLAGE
- PROPOSED TRANSIT VILLAGE
- ENVIRONMENTAL CENTERS OF ACTIVITY
- DESIGNATED CENTER
- WATER BODIES

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7.4.1 Arts, Culture and Entertainment (ACE) Nodes.

The CMR has a great wealth of arts and cultural activities which serve as destinations for both locals and visitors. Five major areas along the North Jersey Coast Line corridor have been identified as ACE nodes where there exists a planned mix of cultural activities that helps support the economy of the area. The ACE nodes include the cities of Red Bank, Long Branch and Asbury Park which are the growing destinations for year-round entertainment and arts activities. Belmar Borough can also become an ACE node with its planned development agenda and Manasquan Borough has the well known Algonquin Arts Theatre. (See Arts, Cultural and Entertainment [ACE] Nodes and Corridor Map II- 3).

Arts, cultural and entertainment activities are a primary component of marketing. The Monmouth County Arts Council developed the *Blueprint for the Arts*, a plan for developing, expanding and marketing arts and cultural activities. There are already organizations to promote and market these areas. For example, “Red Bank Alive, A Cultural Partnership”, is a task force made up of arts and business organizations that was created to promote and market Red Bank as an arts and cultural destination and to develop the Westside Arts Corridor. Red Bank has two major regional theatres: the Count Basie Theater and Two Rivers Theater Company. It also has fine restaurants, art galleries and prime shopping facilities. (See Arts, Cultural and Entertainment [ACE] Nodes and Corridor – Red Bank Map II- 4)

Asbury Park is becoming a year-round destination city hosting the Garden State Film Festival, the Black Box Theater, El Lobo Negro and the Dunbar Repertory Theatre. Redevelopment plans for the oceanfront include a major entertainment complex, renovation of the historic Convention Hall, Paramount Theatre, Grand Arcade and the Carousel. The boardwalk is being revitalized with shopping and restaurants. The Asbury Park Urban Enterprise Zone Program is supporting the revitalization of the downtown shopping district. Key to these efforts is strong support for the arts and cultural activities in Asbury Park.

Long Branch is the third major ACE destination. It is undergoing resurgence with successful redevelopment along its oceanfront with Pier Village and Ocean Place. The Broadway Arts District has been planned as a ‘showpiece of the New Long Branch’. Renovation of the historic Paramount Theatre is underway. Other current arts venues include the New Jersey Repertory Company and the nearby Shore Institute of Contemporary Art. (See Arts, Cultural and Entertainment (ACE) Nodes and Corridor – Long Branch and Asbury Park Map II-5.)

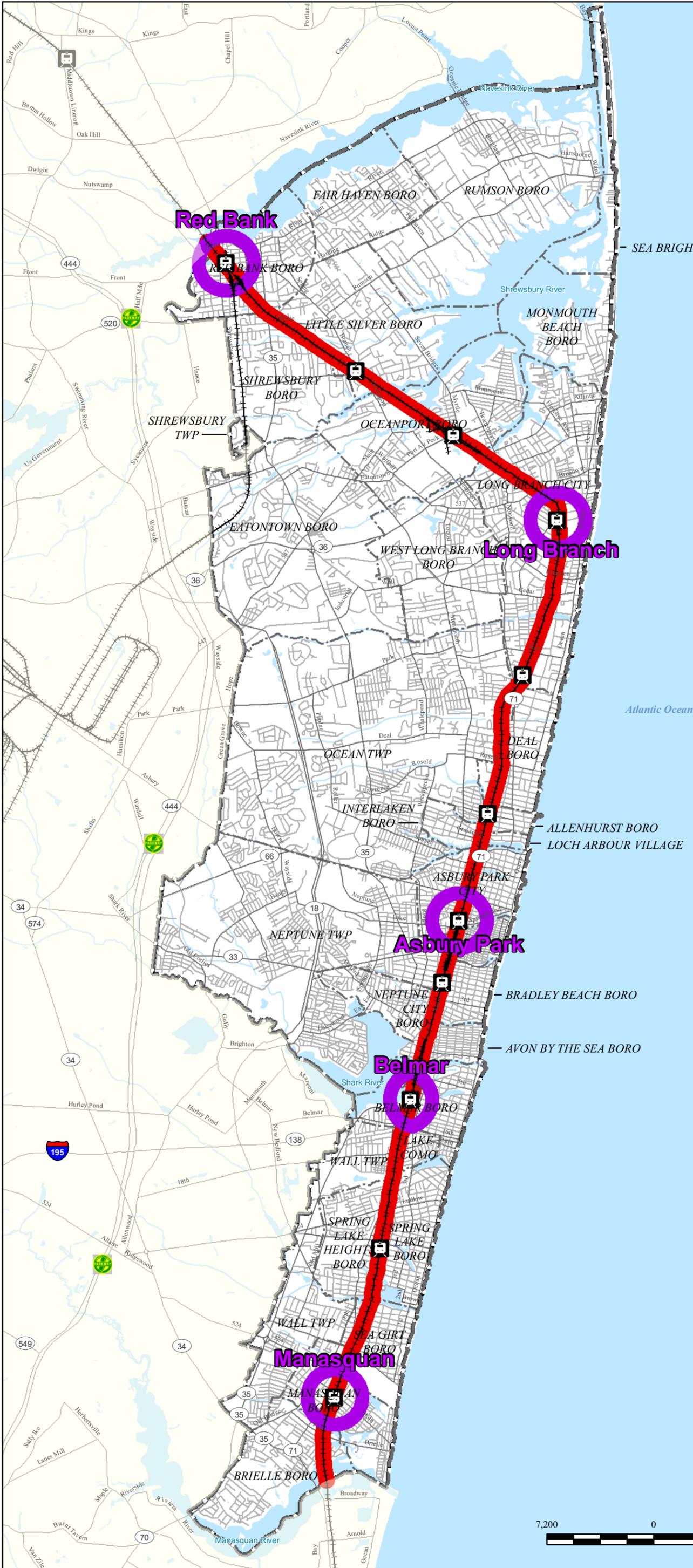
Belmar, the fourth ACE node, is in its initial stages of becoming an ACE destination. The Borough is undergoing redevelopment and revitalization. It was designated a Transit Village in 2003. Belmar’s planned redevelopment is focused on the downtown, the Seaport area near the Shark River Inlet, the marina and the train station.

Manasquan, the fifth ACE node is a historic small town with restaurants, galleries, shopping and the Algonquin Arts Theatre. The Manasquan train station has been renovated and connects to the Edgar Felix Bikeway providing alternative transportation opportunities to access this ACE. (See Arts, Cultural and Entertainment (ACE) Nodes and Corridor – Belmar to Manasquan Map II-6.)

The North Jersey Coast Rail Line provides a transportation link between each ACE nodes creating an “Arts Corridor”. The rail stations also provide a marketing tool for visitors to obtain information about the resources and activities in the region. Some of these marketing activities are already underway. For example, the TriCities Arts Tour is a well publicized three-day event to link Red Bank, Long Branch and Asbury Park in multiple venues including theatre, music, regional festivals, galleries, crafts and design workshops and guided tours of historic homes. Design and marketing strategies can support ACE activities. Some are graphically shown on the ACE Image Board. (See Arts, Cultural and Entertainment (ACE) Idea Board, Map II-7.)

**ARTS, CULTURAL &
ENTERTAINMENT (ACE)
NODES & CORRIDOR**

COASTAL MONMOUTH REGION
MONMOUTH COUNTY NEW JERSEY



Legend

-  COASTAL MONMOUTH REGION
-  MUNICIPAL BOUNDARIES
-  ROADWAYS
-  RAILROADS
-  TRAIN STATION
-  ACE - ARTS, CULTURAL & ENTERTAINMENT CENTER
-  ACE - ARTS, CULTURAL & ENTERTAINMENT CORRIDOR

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Red Bank



Red Bank Train/Transit Station
Key to providing alternative travel accessibility; renovated station serves as focus of development for vibrant revitalized community.



Red Bank Marina Park
Part of Navasink "ECA" with recreation, entertainment and marine oriented activities.



Red Bank Visitors Center
Vital to showcasing the wealth of cultural, arts and recreational activities and destinations for both local residents and visitors.



Red Bank River Center
Prime retail, restaurants and civic uses in the downtown create vibrant activity mix.



Red Bank Theatres
Two Rivers Theatre Company and Count Basie Theatre and other entertainment venues are essential for anchoring and enhancing the ACE designation.



Red Bank Galleria Shops
Retail and restaurant services expand around the train station to energize the area and expand the economy.

Arts Corridor

Arts, Cultural and Entertainment (ACE) Nodes Coastal Monmouth Region - Monmouth County, New Jersey

Red Bank

Long Branch



Long Branch: Pier Village
As part of on-going redevelopment and revitalization in Long Branch, Pier Village provides accommodations, year-round living, and shopping and dining for visitors and residents.



Long Branch: Transit Station
Serves as key transfer station between all points north and south along the North Jersey Coast line; can become hub to encourage redevelopment in the area.



Long Branch: Monmouth Medical Center
Important economic anchor for the area; planned expansion will further enhance economic opportunities.

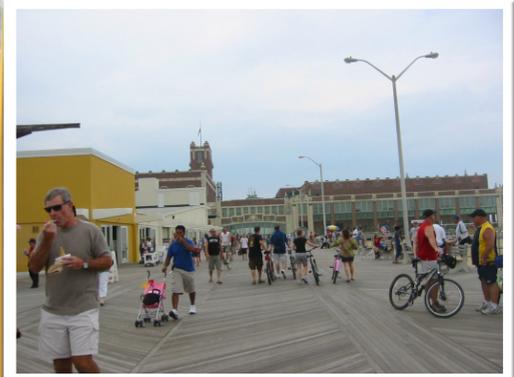


Long Branch: Hotel/Convention
Part of resurgence along the oceanfront; convention function important for bringing business and visitors into the area.



Asbury Park: Redevelopment
Housing and accommodations near train station fits into Transit Village Planning goals.

Arts Corridor



Asbury Park: Boardwalk and Convention Hall
Key to anchoring and enhancing the Arts, Entertainment and Culture (ACE) designation and part of the plans for a major entertainment complex along the boardwalk.



Asbury Park: Transit Station
Provides desirable alternative travel accessibility; station serves as focus of development for vibrant revitalized community.



Asbury Park: Coliseum Casino Area and Carousel
Historic element of the heyday of Asbury Park under renovation. Linkage needed to train station and downtown.

Asbury Park

Arts, Cultural and Entertainment (ACE) Nodes Coastal Monmouth Region - Monmouth County, New Jersey

Long Branch to Asbury Park



Belmar: Train Station
 Important part of marketing the area as an Arts, Entertainment and Culture (ACE) designation. Belmar is a designated Transit Village.



Belmar: Redevelopment Areas
 Shaded area indicates one of several designated redevelopment areas in Belmar. These support Transit Village Planning goals and enhances Belmar's image as a family destination, as well as extending tourism season into spring and fall.



Belmar: Shark River Inlet
 Possible new water taxi service can provide desirable alternative transportation links in and around Belmar.

Manasquan: Algonquin Theatre



Manasquan: Downtown
 Revitalization efforts such as streetscape enhancements make the community more pedestrian friendly.



Manasquan: Train Station
 Focus of development to promote area revitalization and support higher density living as part of "smart growth" goals.



Manasquan: Beach
 Beach and boardwalk provide key elements in marketing the area as an Arts, Entertainment and Culture (ACE) designation.

Arts, Cultural and Entertainment (ACE) Nodes

Coastal Monmouth Region - Monmouth County, New Jersey

T O U A C E A

Belmar to Manasquan





Safe Walking Environment

Traffic calming techniques create settings where pedestrians feel comfortable. For example, curb extensions at intersections define parking and reduce crossing distance.



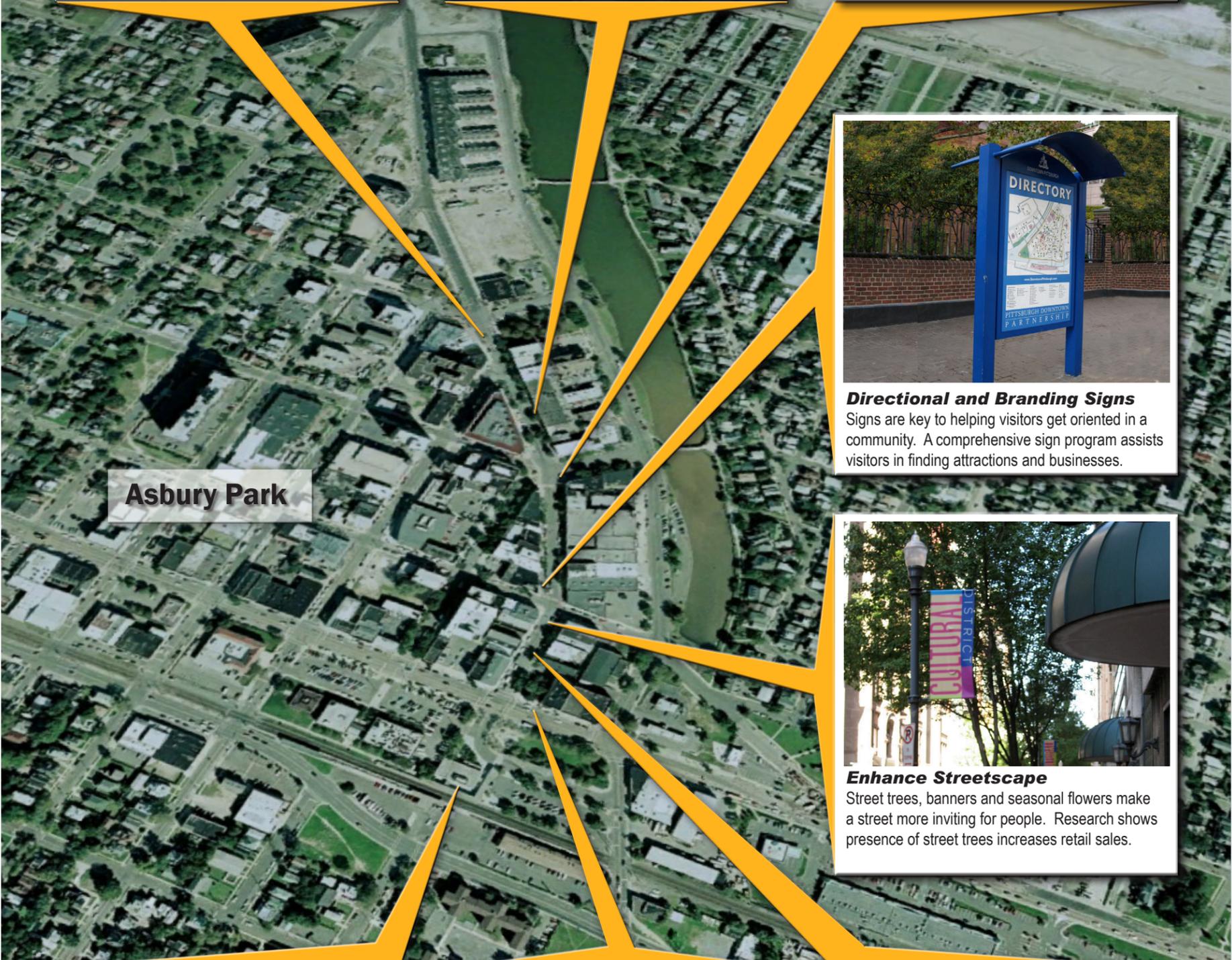
Restore Historic Character

Preservation of a community's rich history through saving and restoring historic buildings and features will enhance the "cultural" aspect of the ACE.



Bike-friendly Community

Ample bikeracks and specially designated trails or bike lanes make it easy and safer for bicyclists. Biking is a desirable alternative form of transportation.



Asbury Park



Directional and Branding Signs

Signs are key to helping visitors get oriented in a community. A comprehensive sign program assists visitors in finding attractions and businesses.



Enhance Streetscape

Street trees, banners and seasonal flowers make a street more inviting for people. Research shows presence of street trees increases retail sales.



Murals Enliven Blank Walls

Colorful murals can reinforce arts theme while making a blank wall into an amenity. Local artists can be engaged to create these.



Incorporate Art on the Street

Reinforce ACE theme by including art in the public realm. Examples include sculpture, art embedded in paving or specially designed bikeracks or bollards.



Street Furniture

Kiosks, benches, light poles, trash receptacles, and transit shelters can all be selected from the same "family" of fixtures or custom designed to provide integrated, coordinated look.

Arts, Cultural and Entertainment (ACE) Idea Board
Coastal Monmouth Region - Monmouth County, New Jersey

TO THE ACE

Shown are a variety of examples and ideas for options that can assist in revitalizing a community in support of the Arts, Culture and Entertainment (ACE) goals. This is only a sampling; other ideas can work well too.



7.4.2 Environmental Centers of Activity

Environmental Centers of Activity (ECA) can serve as ecotourism and recreation destinations. Seven ECA have been identified for public recreation, education and conservation. (See Table II-6.) Recreation facilities may be either passive, such as trails, greenways, picnic areas, sitting areas; or active recreational facilities. Some ECA are considered areas of future opportunities such as Weltz Park and the Fort Monmouth Greenway.

The ECA should be marketed as places where there is a convergence of natural systems and human activities; i.e. recreation, economy and conservation intersect. The ECA combined with the ACE nodes provide multilayered activities to draw visitors and to serve area residents. The marketing plan should comprehensively address integrating and linking the different activities available. It is important to protect and preserve these ECA which are part of the unique environment of the Region. Although not noted as ECA, due to their peripheral location and enormous influence on both the culture and economy of the area, the beaches of Monmouth County provide visitors and locals alike with the best example of the interdependency between nature and the economy. The region's economic dependency on this highly valuable natural resource necessitates the need for continued beach replenishment as a sustainable economic strategy.

The ECA also provide opportunities to encourage ecotourism with ancillary supportive businesses and activities that expand recreation opportunities for the public. Expanding public access, especially to the water-related ECA, is important. Ensuring that there is convenient access and parking in the ECA is critical as is the need to provide linkages between the ACE nodes and ECA. The use of alternative transportation modes, such as the greenways, bike routes, pedestrian facilities, shuttles and jitneys to link between transportation centers, ACE nodes and ECA, should be considered. This is further discussed in Section 8.4. A full palette of environmental education programs to add value to the ECA is important and is discussed in Section 9.5. (See Environmental Centers of Activity Map II-8.)

Table II - 6 Environmental Centers of Activity

- #1 **Navesink River Estuary** - Red Bank, Fair Haven and Rumson
- #2 **Seven Presidents Oceanfront Park** - Long Branch
- #3 **Shark River Estuary** - Belmar, Neptune Township, Neptune City and Wall
- #4 **National Guard Recreation Fields at Sea Girt**
- #5 **Manasquan River Estuary** - Manasquan, Brielle and Wall
- #6 **Weltz Park (Future ECA)** - Eatontown and Ocean
- #7 **Fort Monmouth Greenways and Blueways (Future ECA)** - Eatontown, Oceanport and (Tinton Falls outside CMR)

The Navesink River ECA is accessible only through local access points such as the Marine Park in Red Bank, and at selected points in Fair Haven and Rumson. These areas provide water views, marinas, boat launch areas and related services. (See Environmental Centers of Activity – Navesink River Estuary Map II - 9.)



Red Bank – Marine Park

The ECA may have multiple amenities. The Seven Presidents Oceanfront Park includes a public beach, a new skateboard park, unique dune vegetation, and parking facilities. The Weltz Park in Eatontown Borough and Ocean Township is a 'Future ECA'. There is limited parking and no services currently at this park; however, its north-central location in the CMR provides an opportunity for future expansion.

The Fort Monmouth Redevelopment Plan proposes to create linked greenways and parks along Parkers Creek and Oceanport Creek. It can serve as a future educational resource for the County that links other parks and open space areas. (See Environmental Centers of Activity– Fort Monmouth Greenways and Blueways, Seven Presidents Oceanfront Park and Wetzl Park Map II-10.)



Wetzl Park



Seven Presidents Oceanfront Park



Fishermans Cove



Fisherman's Cove

Some of the ECA are large natural areas suitable for diverse activities. They include the Shark River Estuary which includes the Monmouth County Shark River Park, Shark River Golf Course, Neptune Memorial Park, McClearie Park along the Shark River basin, and the Belmar Natural Area near Ocean Boulevard. The Manasquan River Estuary is also a large diverse natural recreation area with the Fisherman's Cove Conservation Area, a Monmouth County Park, with access to a beach along the Manasquan River, with walking trails and public parking.



Fair Haven

The New Jersey National Guard Training Center in Sea Girt currently provides ball fields used by public recreation groups. Sea Girt is seeking to preserve the site as public open space should the National Guard facilities be relocated. There are also areas of rare and threatened vegetation along the beach that can provide educational opportunities. (See Environmental Centers of Activity – Shark River Estuary, National Guard Recreation Field at Sea Girt and Manasquan River Estuary Map II - 11.)



Belmar Nature Trail

These ECAs can be promoted with maps, brochures, an informative website, etc. As part of the *CMP*, the future ECA will require supportive analysis and planning. For example, Fort Monmouth should be used as a model for sustainable development and for the greenway network. It should be linked to trails, bikeways, and planned shuttles to the Little Silver train station. The wayfinding sign plan, discussed in detail in the Transportation Section 7.0, is an important element to market these areas. (See Environmental Centers of Activity Idea Board Map II- 12.)

ECA public education and environmental awareness programs can be planned through the public schools, the County Park system, and local colleges and universities. Public education opportunities are further discussed under the Environment Section 8.0.

A graphic representation of ECA recommendations is provided in the ECA Idea Board which includes the following ideas:

- Educational Programs
- Walking and biking trails
- Nature Themed Play Areas
- Scenic Byways
- Interpretive Signage
- Covered Pavilions
- Special Eco-Friendly Parking Areas



TOWNSHIP

ENVIRONMENTAL CENTERS OF ACTIVITY (ECA)

COASTAL MONMOUTH REGION
MONMOUTH COUNTY NEW JERSEY

Seven Presidents Oceanfront Park



Legend

- COASTAL MONMOUTH REGION
- MUNICIPAL BOUNDARIES
- ROADWAYS
- RAILROADS
- WATER BODIES
- ENVIRONMENTAL CENTERS OF ACTIVITY

Shark River Estuary

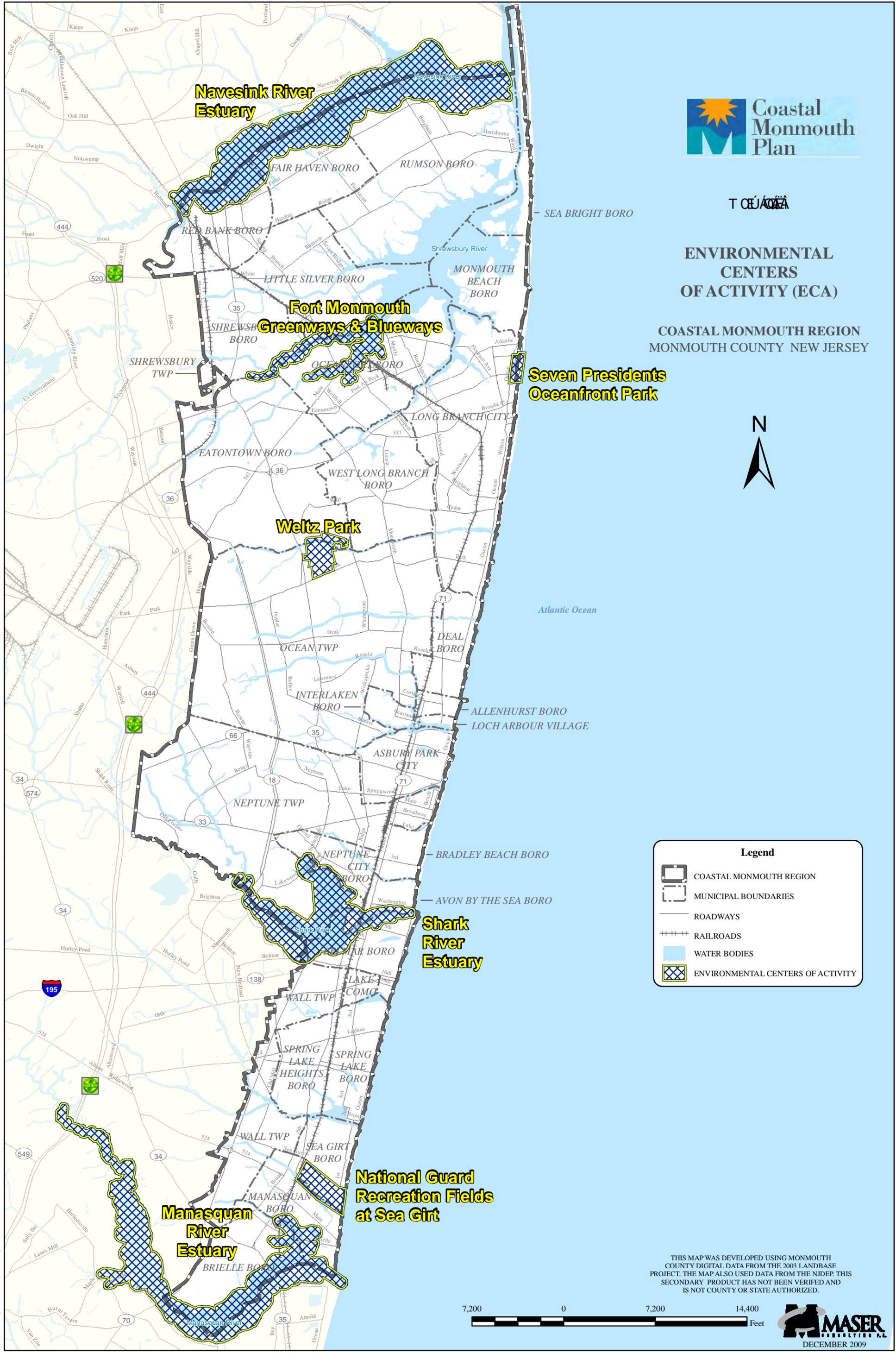
National Guard Recreation Fields at Sea Girt

Manasquan River Estuary

Wetz Park

Fort Monmouth Greenways & Blueways

Navesink River Estuary

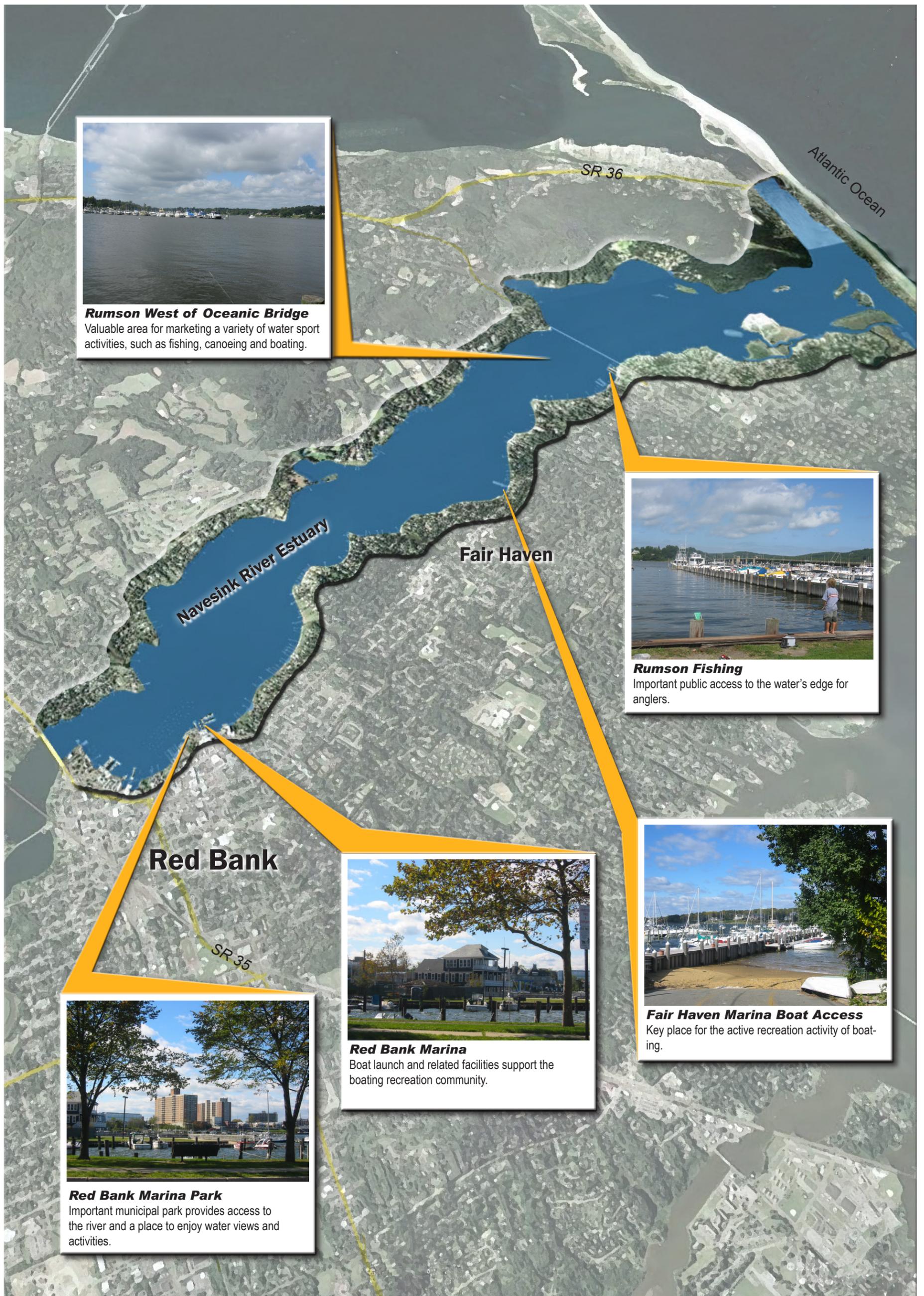


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DECEMBER 2009



Rumson West of Oceanic Bridge
Valuable area for marketing a variety of water sport activities, such as fishing, canoeing and boating.



Rumson Fishing
Important public access to the water's edge for anglers.



Fair Haven Marina Boat Access
Key place for the active recreation activity of boating.



Red Bank Marina
Boat launch and related facilities support the boating recreation community.



Red Bank Marina Park
Important municipal park provides access to the river and a place to enjoy water views and activities.

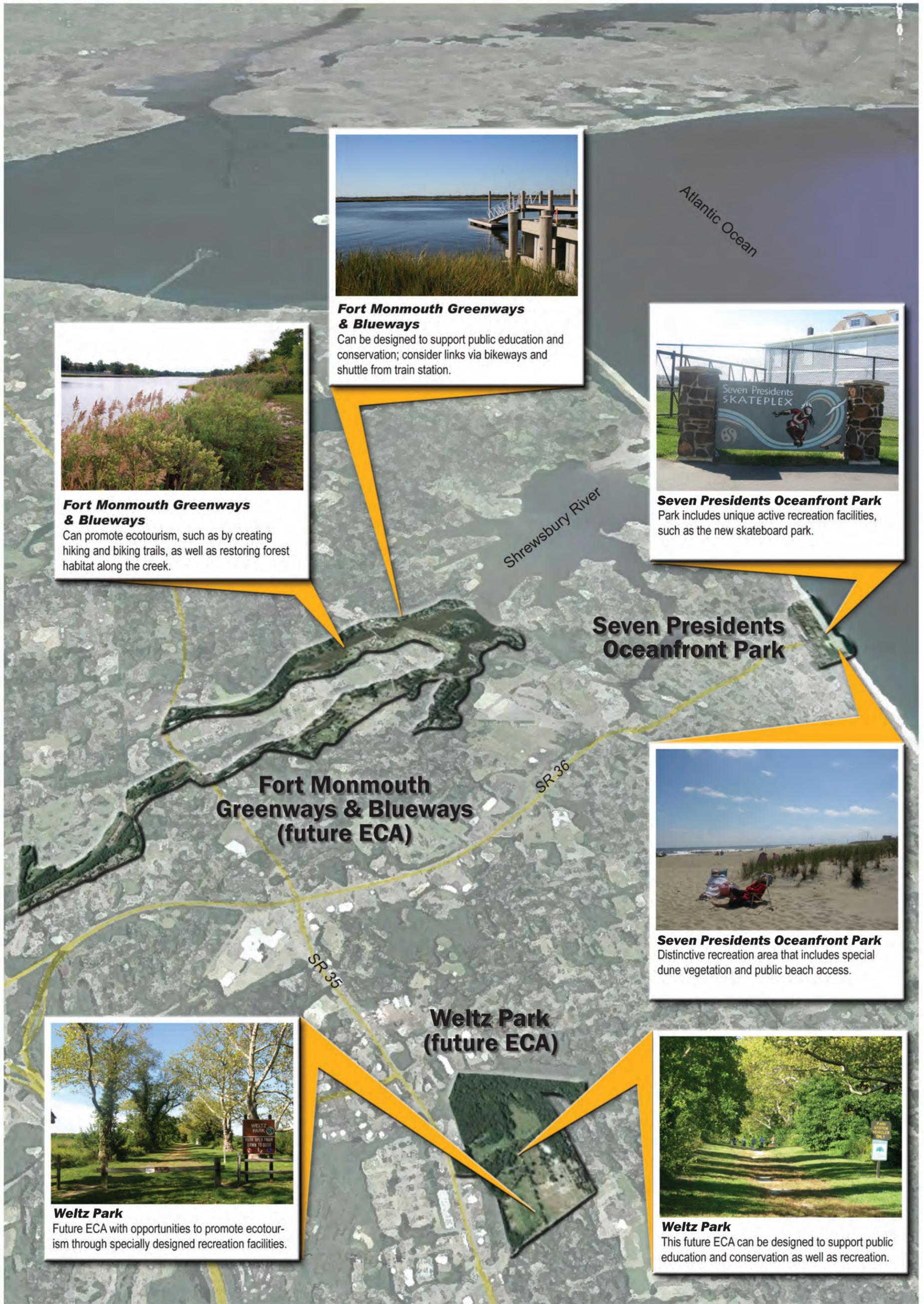
Environmental Center of Activity (ECA)

Coastal Monmouth Region - Monmouth County, New Jersey

T O U A C E A

Navesink River Estuary





Atlantic Ocean



Fort Monmouth Greenways & Blueways
 Can be designed to support public education and conservation; consider links via bikeways and shuttle from train station.



Fort Monmouth Greenways & Blueways
 Can promote ecotourism, such as by creating hiking and biking trails, as well as restoring forest habitat along the creek.



Seven Presidents Oceanfront Park
 Park includes unique active recreation facilities, such as the new skateboard park.

Shrewsbury River

Seven Presidents Oceanfront Park

Fort Monmouth Greenways & Blueways (future ECA)



Seven Presidents Oceanfront Park
 Distinctive recreation area that includes special dune vegetation and public beach access.

SR 36

SR 35

Weltz Park (future ECA)



Weltz Park
 Future ECA with opportunities to promote ecotourism through specially designed recreation facilities.



Weltz Park
 This future ECA can be designed to support public education and conservation as well as recreation.

Environmental Center of Activity (ECA)
 Coastal Monmouth Region - Monmouth County, New Jersey

TOWNE

Fort Monmouth Greenways & Blueways,
 Seven Presidents Oceanfront Park and Weltz Park





Shark River Estuary

Large natural area with diversity of activities such as County's Shark River Park and the Shark River Golf Course.



Belmar Natural Area

Special area devoted to natural resource conservation and passive recreation.



Shark River

Access to Atlantic Ocean for marine activities.



Shark River Estuary

Mcclerie Park

National Guard Recreation Fields at Sea Girt



National Guard Recreation Fields

Key recreational amenities are active use ball fields; should Guard leave, opportunities for more open space/ passive recreation.



Manasquan / Brielle

Important public access to the river and a place to enjoy water views and activities.

Manasquan River Estuary



Manasquan/Brielle

Valuable area for marketing a variety of water sport activities, such as fishing, canoeing and boating.



Fisherman's Cove

Park can be designed to support public education about the unique ecosystem, as well as include passive recreation and water access.

Environmental Center of Activity (ECA)
Coastal Monmouth Region - Monmouth County, New Jersey

Shark River Estuary, National Guard Recreation Fields at Sea Girt and Manasquan River Estuary

TOWNSHIP





Educational Programs

Having facilities, such as a boardwalk, enables people to access sensitive areas. These facilities can be used for education programs to introduce youth to the wonders of nature.



Walking Trails

Providing trails that lead to different natural features is a valuable approach to immersing people in the area's unique resources. Seating at points along the way adds to enjoyment.



Nature-themed Play Areas

While young children will enjoy touring in the park, they will equally enjoy frolicing on specially designed play equipment. The design can encourage play while retaining a nature theme.



Scenic Byway

All the ECAs can be linked together and with the ACEs to form a unique "Scenic Byway." People enjoy following a special route with points of interest. This can also be a tourist draw.



Special Parking Lots

Parking lots at ECAs can be designed to be environmentally friendly. They can have a porous surface and/or include planted bioswales to filter pollutants.



Biking Trails

Biking is a growing active recreation sport. Bike trails enable people to cover a lot of ground, while easily stopping to see a special feature. Bike trails between ECAs can be linked.



Interpretive Signage

Well placed signs that provide details about the area's natural resources is an important strategy to gently engage and educate the public.



Covered Pavilions

People can be encouraged to stay longer if they plan events in covered pavilions. Picnics, birthdays, other celebrations and education programs make for an enjoyable stay in the park.

Environmental Centers of Activity (ECA) Idea Board

Coastal Monmouth Region - Monmouth County, New Jersey

Environmental Centers of Activity (ECA) are natural places where there is a convergence of opportunities for public recreation, education and conservation. Shown are a variety of examples and ideas that can assist in creating and enhancing Environmental Centers of Activity.



7.4.3 Scenic Byways

“A scenic byway is a transportation corridor of regionally outstanding significance containing one or more of the following intrinsic qualities: scenic, natural, recreational, cultural, historic and archeological.”⁷



Fletcher Lake – Bradley Beach



Avon

Scenic byways promote natural and cultural tourism and economic activity. Designating a Scenic Byway provides State and Federal funding for planning and management. Two scenic byways are proposed in the CMR: the Coastal Monmouth Scenic Byway and the Two Rivers Scenic Byway.

The CMR fits most of the qualifications needed to be defined as a scenic byway. It exhibits diverse character of the communities along the 27 mile long Atlantic Coastline and between the Two Rivers – the Navesink and Manasquan Rivers. This area includes multiple historic structures and historic districts such as Ocean Grove, the oceanfront beaches and related recreational resources, County parks, natural areas and four major river systems that outlet into the Atlantic Ocean.

These CMR scenic byways can be linked to other scenic byways outside of the CMR. Monmouth County is proposing to expand the Upper Freehold Byway by creating a new byway connecting Upper Freehold to Sandy Hook via the Monmouth Battlefield. If successful, this byway could be expanded from Sandy Hook southward to the Henry Hudson Trail, Seven Presidents Park, East Coast Greenway, Capital to Coast Trail, New Jersey Coastal Heritage Trail and Fisherman’s Cove. The conceptual location of the two scenic byways is shown on the Scenic Byways Map II-13.

The *CMP* should pursue scenic byways designation from NJDOT for the Coastal Monmouth Scenic Byway and the Two Rivers Scenic Byway. The Monmouth County Planning Board could partner with the CMR municipalities to develop the required supporting documentation. Once designated as a State Scenic Byway by the NJDOT Commissioner, a Scenic Byway Corridor Management Plan is then prepared. Various Federal funding sources are available to help this process.

⁷ New Jersey Scenic Byways Program Presentation

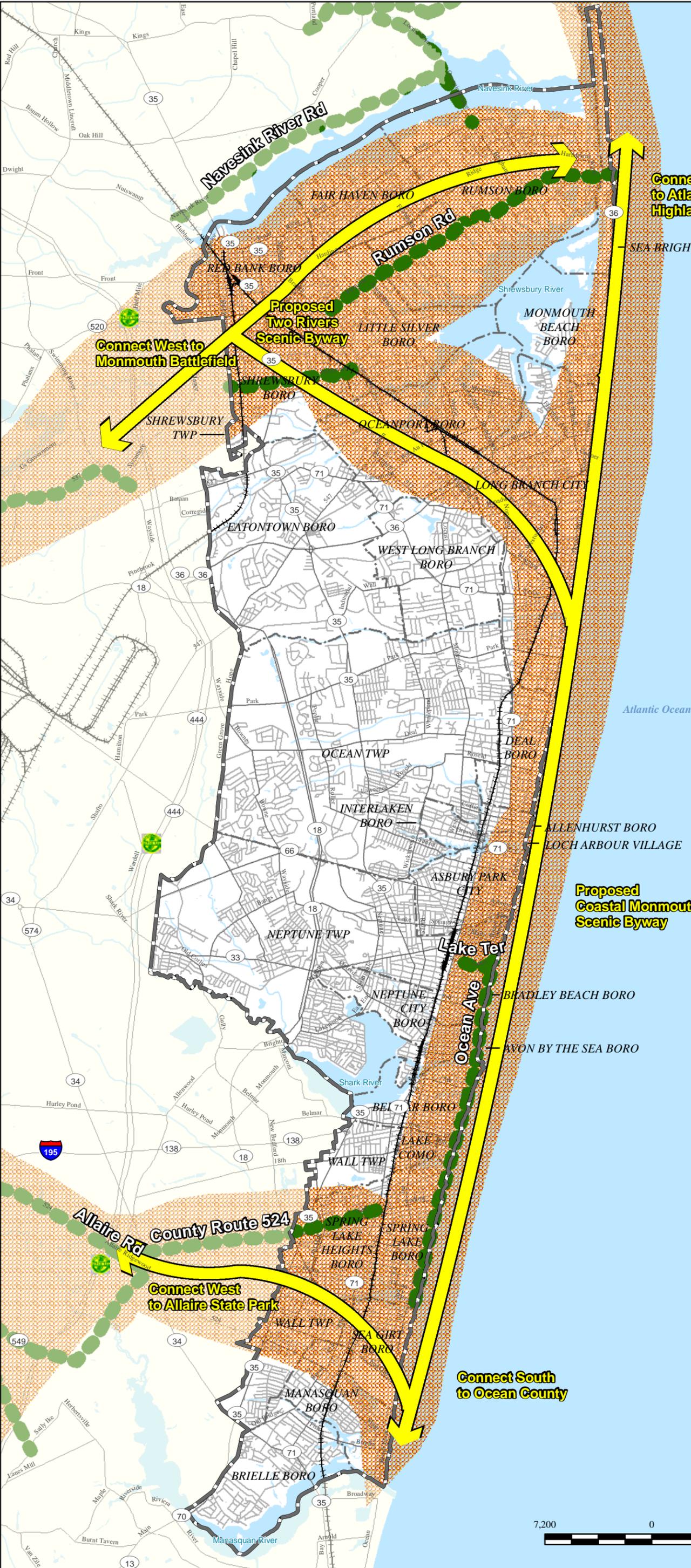
SCENIC ROADS & BYWAYS

COASTAL MONMOUTH REGION
MONMOUTH COUNTY NEW JERSEY



Legend

- COASTAL MONMOUTH REGION
- MUNICIPAL BOUNDARIES
- ROADWAYS
- RAILROADS
- COUNTY DESIGNATED SCENIC ROAD
- POTENTIAL SCENIC BYWAY CORRIDOR



Proposed Coastal Monmouth Scenic Byway

Connect West to Monmouth Battlefield

Connect North to Atlantic Highlands

Connect South to Ocean County

THIS MAP WAS DEVELOPED USING MONMOUTH COUNTY DIGITAL DATA FROM THE 2003 LANDBASE PROJECT. THE MAP ALSO USED DATA FROM THE NJDEP. THIS SECONDARY PRODUCT HAS NOT BEEN VERIFIED AND IS NOT COUNTY OR STATE AUTHORIZED.



GIS\New Jersey\Counties\Monmouth County\COASTAL_MONMOUTH_REGION\MAPS\SCENIC_ROADS.MXD

7.5 SUSTAINABLE DEVELOPMENT

Sustainable development has been promoted throughout the *CMP*.

*“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”*⁸

The CMR municipalities are beginning to take increased interest in sustainable development. Some are already identifying and implementing green policies. Awareness of the fragility of our environment and ecosystems is propelling efforts to protect these sensitive areas.

The Monmouth County Board of Chosen Freeholders passed a resolution requesting the Planning Board embark on preparing a Greenhouse Gas Reduction Plan. Spring Lake Borough has undertaken an evaluation of its ‘carbon footprint’ to establish a baseline for new green policies. Long Branch has also been considering green ordinances. The Urban Coast Institute has provided a \$5,000 grant to the Borough of West Long Branch for a Sustainability Project that will determine the Borough’s energy use and carbon footprint.

Green development guidelines can vary greatly. Clinton Township, Hunterdon County, New Jersey has a one page energy conservation ordinance. These guidelines can include not only the type of materials allowed to be used in building construction, but also the type of hot water heaters, windows, insulation and energy-efficient appliances allowed. Some ordinances specify the building orientation and siting as well as the required landscaping treatment.

If a municipality does not wish to create mandatory green ordinances, they can create incentive programs giving builders an increase in floor area, density or height in return for building sustainable development. The Township of Cranford, Union County, NJ has this type of incentive system for redevelopment activities.

In addition to green building ordinances and regulations, other sustainable development policies and ordinances can be targeted at reducing energy consumption. Some municipalities within New Jersey have already adopted sustainable development ordinances. In 2002, Montclair Township’s Environmental Commission (Essex County) created the “*Sustainable Montclair Planning Guide*” to guide the Township’s future planning goals. Montclair has purchased six alternative fuel vehicles that are operated by their Parking Enforcement and Health Departments. In addition, the Township upgraded its traffic lights to light-emitting diodes (LEDs), which save the Township about \$10,000 per year. Finally, Montclair completed a comprehensive energy audit on all municipal buildings to assess current energy usage and costs.

In 2007, West Windsor Township, Mercer County, NJ adopted the “*Sustainable West Windsor 2007 Plan*”. It was prepared in conjunction with the Association of New Jersey Environmental Commissions (ANJEC), the New Jersey Department of Community Affairs (NJCA) and Rutgers, the State University. See: <http://www.westwindsornj.org/EC-sustainability.html>.

At the municipal level, communities can work towards sustainability by purchasing recycled paper, promoting recycling, buying electric or hybrid vehicles and creating sustainable plans to guide the municipality’s sustainability goals.

Sources for information on sustainability are listed below.

Sustainable Jersey is a certification and incentive program for municipalities that want to “go green, save money, and take steps to sustain their quality of life”. As of June 2009, 127 municipalities have registered to participate in this program. This includes four Monmouth County municipalities: Asbury Park, Belmar, Oceanport and Manalapan. It provides a comprehensive toolkit, guidance materials and financial incentives for municipalities to implement programs to address sustainability and create green communities. In fact, Asbury Park and Ocean Township were both recipients of grants sponsored by Walmart for sustainable projects. It is a collaborative effort between the New Jersey State League of Municipalities’ Mayors’ Committee for a Green Future, Municipal Land Use Center at the College of New Jersey, New Jersey Sustainable State Institute at Rutgers University, NJ Department of Environmental Protection, Rutgers Center for Green Building, New Jersey Board of Public Utilities, and a coalition of New Jersey non-profit organizations, State agencies and experts in the field.

⁸ The United Nations World Commission on Environment and Development (The Brundtland Commission), 1987.

The New Jersey Sustainable State Institute (NJSSI) is a policy group affiliated with New Jersey Institute of Technology and the Bloustein School of Planning and Public Policy at Rutgers. NJSSI's mission is to determine "where we are, and where do we need to be in order to preserve our quality of life and become a sustainable State". In 2004, the NJSSI published "*Living with the Future in Mind: Goals and Indicators for New Jersey's Quality of Life*". The document includes 11 goals, each with indicators to track State progress. The entire report can be found at NJSSI's website.

Table II - 7 Sustainable Development Resources

<p><u>MUNICIPAL RESOURCES</u></p> <ul style="list-style-type: none"> ▪ http://www.greenhp.org/ ▪ http://sustainablelawrence.org/ ▪ http://www.sustainablehillsborough.org/ ▪ http://www.summitgreen.org/index.html <p><u>STATE RESOURCES</u></p> <ul style="list-style-type: none"> ▪ http://www.sustainablejersey.com/ ▪ http://www.greenbuildingrutgers.us/ ▪ http://www.njssi.org/ ▪ http://www.westwindsornj.org/EC-sustainability.html ▪ http://www.anjec.org/html/tools_sustainable.htm ▪ http://www.nj.gov/dep/opsc/ ▪ http://www.state.nj.us/dca/hmfa/biz/development/gho/pdf/08njgreenbuilding_resources%20.pdf
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Association of New Jersey Environmental Commissions (ANJEC) works to promote public interest in natural resource protection and sustainable development. Their website includes tools and resources for open space preservation, water resource protection and sustainable communities.

The New Jersey Department of Environmental Protection (NJDEP) Office of Planning and Sustainable Communities was formed to promote proactive planning based on sustainability and environmental capacity-based planning. Their website contains an informative guide for creating sustainable communities, which provides fact sheets on sustainable practices and technologies. For example, to reduce the heat island effect suggested actions include conversion of rooftops to green roofs and tree planting, landscaping and the installation of porous pavement.

Leadership In Energy And Environmental Design (LEED). Leadership in Energy and Environmental Design (LEED) is a green building rating system that encourages the use of sustainable green building and development practices through the creation of universal performance criteria. LEED is a whole site approach with measurement areas in sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. There are nine LEED rating systems: new construction, existing buildings, commercial interiors, core

and shell, schools, retail, healthcare, homes and neighborhood development. In New Jersey, the leader in developing LEED certified buildings is the PNC Bank. The Freehold PNC Bank received LEED certification, while the Spring Lake Heights bank received a Silver LEED rating. Also, site planning and building construction can use LEED or similar standards to achieve higher sustainability practices. Redevelopment projects can also gain density bonuses for incorporation of LEED standards. In 2005 Cranford Township, Union County, NJ adopted a sustainable building standard to meet a minimum LEED silver rating for redevelopment activities.

Coastal Resiliency and Sustainability Initiative – The Urban Coast Institute at Monmouth University has a program to provide information and technical assistance (via the Sustainable Coastal Community Liaison) to communities on sustainability, resiliency, coastal hazard and flood mitigation.

A Model Energy Conservation Ordinance and Model Sustainable Redevelopment Incentive Ordinance to assist the CMR municipalities in their conservation efforts are provided on the next page.

§ _____ Model Energy Conservation Ordinance

A. Energy Conservation: Subdivisions/Site Plans

- (1) To the greatest degree possible, buildings shall be oriented to maximize solar gain. Where possible, building walls with the greatest number of windows or window area shall face in a southerly direction.
- (2) The use of energy efficient building materials is encouraged.
- (3) Site arrangement shall take advantage of topographic features to maximize solar gain and afford protection from winter winds.
- (4) The site shall be designed to minimize pavement and afford efficient circulation. The use of footpaths and bike paths in multi-family housing developments, in order to reduce motor vehicle use, is encouraged.
- (5) Street Orientation. The layout of new streets shall provide the greatest practicable opportunity for a southern orientation of new buildings.
- (6) Solar Easements. To the maximum extent practicable solar easements shall be recorded, in accordance with N.J.S.A. 46:3-24 et seq., to protect solar access prior to the installation of solar collectors for residential development.

Source: Bass River Township, Burlington County, NJ and Butler Borough, Morris Township, NJ, and modified by Maser Consulting, PA.

§ _____ Model Sustainable Redevelopment Incentive Ordinance

- A. Purpose:** The _____ of _____ recognizes that development, no matter its shape or size impacts our environment. The _____ of _____ supports the use of sustainable building practices and has created this program to incentivize redevelopers to utilize sustainable building practices. Redevelopers shall be permitted to request an incentive, such as a density or FAR or height increase than would normally be allowed if the project attains a certain number of green points. The points program allows redevelopers to select from a menu of options while in the design phase to meet the point requirements to gain increased floor area or density.

50 points = 5% FAR increase or 5% density increase (i.e. DU/AC)
65 points = 10% FAR increase or 10% density increase (i.e. DU/AC)

Points. The following is a **sample** menu of points that can be allotted for various types of construction techniques, building materials, water conservation, plumbing and electrical appliances and solar installations.

- a. Wall Insulation
 - i. R-13 = 1 point
 - ii. R-15 = 2 points
 - iii. R-19 = 3 points
 - iv. R-24 = 4 points
 - v. R-25 or greater = 5 points
- b. Glass U-factor/R-factor
 - i. R-2.2/U-0.46 = 1 point
 - ii. R-2.5/U-0.42 = 2 points
 - iii. R-2.8/U-0.37 = 3 points
 - iv. R-3.3/U-0.33 = 4 points
- c. Construction debris recycled
 - i. 75% of all clean wood waste recycled = 5 points
 - ii. 100% of all metal scrap recycled = 5 points
 - iii. 90% of all cardboard generated at the site recycled = 5 points
- d. Use of reclaimed lumber
 - i. Use as trim, flooring, decorative elements = 5 points
- e. Planting trees beyond required minimum
 - i. For every 3 additional trees above requirement = 1 point, max 6 points
- f. Tankless water heater in residential units
 - i. 50% of all residential units = 4 points
 - ii. 100% of all residential units = 8 points
- g. Radiant floor heat
 - i. 50% of all residential units = 3 points
 - ii. 100% of all residential units = 6 points
- h. Solar generated electricity – 20 points

- B. Redevelopers must submit information to the _____ detailing which sustainable building practices they will be utilizing, where within the redevelopment area these practices will be applied and the number of points they have attained according to their plan. The _____ of _____ will review the report, determine the points the redeveloper will achieve upon completion of the redevelopment project and award the redeveloper the appropriate FAR/density increase.**

Source: City of Boulder, Colorado and Maser Consulting, PA.

8.0 TRANSPORTATION

Regional Vision: *A multimodal transportation network provides alternative transportation options to serve the Coastal Monmouth Region in a manner that considers public safety, accessibility and quality of life.*

8.1 NEEDS - TRANSPORTATION

The CMR roadway system is comprised of major roadways which create a strong interconnected system. This system facilitates easy movement within the region, as well to other destinations. Major north-south corridors include the Garden State Parkway and New Jersey State Routes (SR) 18, 71, 34, 35, and 36. The CMR is also serviced by eight major east-west corridors, including Interstate 195; SR 33, 66, and 138; and Monmouth County Routes (CR) 520, 524, 537 and 547. Several of the roadways within the CMR, such as SR 35 and 36 serve as major access roadways for commercial hubs. Major intersections occur at the crossings of SR 35 and SR 36 in Eatontown and SR 34 and SR 35 in Manasquan. They are essential for mobility. However, these intersections may also result in traffic delays and congestion at peak traffic volume periods. (See Transportation Network Map II-14)

The CMR accounts for over 39% of Monmouth County's population while only comprising approximately 23% of the County's overall land area. Its population density is 2,307 persons per square mile, nearly twice the population density of Monmouth County. The increased density within the CMR, in turn, affects roadway congestion, especially during peak times. Over the next 25 years, the CMR expects a population increase of approximately 20,867 persons, or a 7.9% growth, which is just under one-quarter (25%) of the population growth for the entire County.

Extensive research utilizing the NJDOT, County and local municipality transportation records, studies and databases was performed. Questionnaires were sent to each CMR municipality to identify major planning issues, including transportation. The Monmouth County Cross Acceptance Report (2005) was also examined to extract transportation needs. Furthermore, municipal representatives were interviewed to obtain a more in-depth profile of transportation needs. These included the following concerns:

- *Seasonal and year-round traffic congestion.*
- *Overdevelopment of major thoroughfares, parking, and its relation to increased traffic/speeding along secondary roadways.*
- *Need to increase pedestrian access and promote pedestrian-friendly facilities.*
- *Need for traffic calming.*
- *Need to address pedestrian and bicycle safety.*
- *Need to address mass transit issues.*
- *Need for revitalization transit facilities with increased parking facilities.*
- *Need for a Regional Emergency Management Plan.*

Most of the strategies developed in the *CMP* are regional or subregional in coverage. The CMR Committee should form a CMR Transportation Committee (CMRTC) to assist prioritizing and implementing the *CMP* strategies working with the affected municipalities. The MCPB can help to facilitate activities between State and County. Representatives of the MCTC participated in the *CMP* workshops and meetings as have representatives from New Jersey Department of Transportation (NJDOT), New Jersey Transit (NJ Transit), and North Jersey Transportation Planning Authority (NJTPA). The proposed implementation strategies vary depending upon whether the strategy is a regional or subregional action requiring coordination with different agencies. A number of strategies also involve municipal actions to implement transportation related improvements at the local level. Background information on the CMR Transportation network is included in the *Regional Profile* (Section 15.0 Transportation). This transportation section is structured around the following categories:

- County Roadways
- State Roadways
- Transit
- Pedestrian/Bicycle Facilities
- Emergency Management
- Gateways and Signage
- Transportation Coordination

TRANSPORTATION NETWORK

COASTAL MONMOUTH REGION
MONMOUTH COUNTY NEW JERSEY



Legend

-  COASTAL MONMOUTH REGION
-  MUNICIPAL BOUNDARIES
- ROADWAY NETWORK**
-  LIMITED ACCESS ROADWAY
-  HIGHWAY
-  MAJOR ROAD
-  LOCAL ROAD
-  MINOR ROAD
-  OTHER ROAD
-  RAMP
-  RAILROADS
-  TRAIN STATION
-  PARK AND RIDE FACILITY
-  BUS ROUTE
-  EDGAR FELIX BIKEWAY
-  WATER BODIES



THIS MAP WAS DEVELOPED USING MONMOUTH COUNTY DIGITAL DATA FROM THE 2003 LANDBASE PROJECT. THE MAP ALSO USED DATA FROM THE NJDEP. THIS SECONDARY PRODUCT HAS NOT BEEN VERIFIED AND IS NOT COUNTY OR STATE AUTHORIZED.



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8.2. COUNTY ROADWAYS

A number of the CMR municipalities have expressed interest in developing flexible road design standards that reflect the municipal ‘vision’ for their “Main Street” or local residential roads, particularly along the coastline, where there is a high degree of interaction between vehicles and pedestrians.

A more ‘context sensitive’ approach is needed to ensure that the traffic is not only “moving safely and efficiently”, but is also in harmony with the natural, social, economic and cultural environment.

The unique nature of the CMR lends itself to pedestrian and bicycle-friendly streets. The on-going interest in rehabilitation and revitalization of the commercialized districts within many CMR municipalities also provides opportunities for streetscape improvements. However, generic road design standards may not support pedestrian-friendly and walkable streets. Municipalities should work with the County and State (depending upon road jurisdiction) to evaluate their transportation needs and create refined design standards that work in their community. The NJDOT has published *Flexible Design of New Jersey’s Main Streets* (NJDOT, undated) as a guide for ‘context sensitive’ design. The County encourages a context sensitive design approach and will work with municipalities and State agencies to positively accomplish this effort. The NJDOT is also promoting “complete streets” which provide multimodal uses including pedestrian, bicycle, transit and motor vehicle facilities.

Context Sensitive Design

Six key principles:

- 1. Balance safety, mobility, community and environmental goals in all projects.*
- 2. Involve the public and affected agencies early and continuously.*
- 3. Use an interdisciplinary team tailored to project needs.*
- 4. Address all modes of travel.*
- 5. Apply flexibility inherent in design standards.*
- 6. Incorporate aesthetics as an integral part of good design.*

Municipalities should take the lead on advancing “context sensitive design” on local “Main Streets” which are County roads. The County would review and have final approval of modifications to roadways which are under its jurisdiction. The municipalities could also coordinate this effort with other State agencies. The State may also provide sources of funding and help prioritize needed improvements.

Revisions to current County roadway standards may include changes in functional road classification to direct traffic either to alternative routes or else to acknowledge the nature of the road and its multiple functions. Pedestrians, bicycle, and motor vehicles needs should be balanced and accommodated through a more flexible, but safe, street design. Updated road design standards should be adopted by the municipalities to address new local streets. Municipalities should take the lead to identify affected roads that need a more context sensitive design approach.

8.2.1 Identified County Corridor Issues

There are a number of County roadways in the northern section of the CMR which have been specifically identified at municipal meetings, within municipal master plans or other planning studies, by the Regional Collaborative or in Traffic Problem Statements submitted by CMR municipalities as being heavily congested and requiring improvements. These include the Rumson Road (CR 520), River Road (CR 10), and Ridge Road (CR 34) corridors within Fair Haven, Rumson, Red Bank and the Newman Springs Road (CR 520) corridor within Red Bank, Shrewsbury, and Tinton Falls corridor east of the Garden State Parkway Exit 109. The municipalities indicated that excessive speeding, congestion, and a lack of bicycle and pedestrian facilities are their main concerns along these corridors. They also stressed that improvements should be sensitive to the character of their municipality. (See Table II-8 and Composite Transportation Issues Map II-15)

Municipalities should work collectively with the MCDOE to assess and implement a comprehensive improvement program for each corridor. The MCDOE should take the lead to determine the need and scope of such studies. The NJDOT and NJTPA must be involved to include these projects for funding in their Work Programs. Although the subject corridors are not under the jurisdiction of the State, intersections along the County routes may be controlled by the State; therefore, it is important to include State agencies in these discussions. For the Newman Springs Road Lincroft Area corridor, a pedestrian Improvement study was

completed⁹. This study can form the basis for funding pedestrian improvements. All four corridors will first require a traffic evaluation.

8.2.2 Identified County Road Intersection Issues

Numerous congested intersections have been identified by CMR municipalities. Most of the congestion is a result of the summer traffic. Traffic Problem Statements were prepared by eight municipalities to begin the process for design and funding many of these congested intersections. Traffic Problem Statements are included in Appendix Volume III. The intersections are shown on the Composite Transportation Issues Map and further described in the *Regional Profile* (Section 15.0 Transportation).

Congested intersections can be alleviated as funding permits through a variety of strategies. Signal timing, lane assignment optimization and prohibiting turning movements are improvements which can be made without widening or increasing capacity. However, dependent upon traffic variables, widening for additional lanes may be the only viable option. Affected municipalities should work with the MCDOE who will assess, prioritize and develop recommendations for intersections under County jurisdiction. The NJDOT and NJTPA should also be participants, depending on funding.

8.2.3 Speeding and Cut-Through Traffic

Many municipalities have expressed interest in implementing traffic calming measures within residential neighborhoods. Speeding was identified as a major problem. Heavy traffic congestion, especially during the summer season, was another issue. Drivers are using local streets to avoid congestion, raising safety concerns. Traffic calming measures are a proven tool to reduce traffic speed and redirect non-local traffic. These techniques are location specific. Municipalities should begin by identifying the roadways they wish to evaluate. After data collection and evaluation, different traffic calming strategies can be reviewed. A cost-benefit ratio approach should be used to determine the most appropriate mechanism. Depending on the jurisdiction, certain roadways will require County or State approval to implement the changes. A case study is provided below of Rocky Hill, Somerset, New Jersey, which installed traffic calming measures through its Main Street which is CR 518.

Case Study: Traffic Calming Network, Rocky Hill, Somerset County, NJ.

A residential neighborhood in Rocky Hill wanted to decrease speeding and cut-through traffic through their community and petitioned the Borough to install speed humps, curb bump-outs, appropriate signage and pavement markings to curtail the undesired traffic. A pilot program was conducted within the community utilizing temporary measures to compare the before and after traffic operations. The desired results were met, so the Borough completed the installation of the traffic calming network.



⁹ Orth-Rodgers & Associates. March 2006. *County Route 520, Newman Springs Road Corridor Study. Monmouth County, New Jersey.*

8.3 STATE ROADWAYS

8.3.1 Identified State Road Corridor Issues

A number of congested State highway locations have been identified by the NJDOT Congestion Buster Force in 2002. These include segments along SR 35, SR 36, and SR 66. These highway segments are shown on the Composite Transportation Issues Map II - 15 and are listed below with the key findings noted:

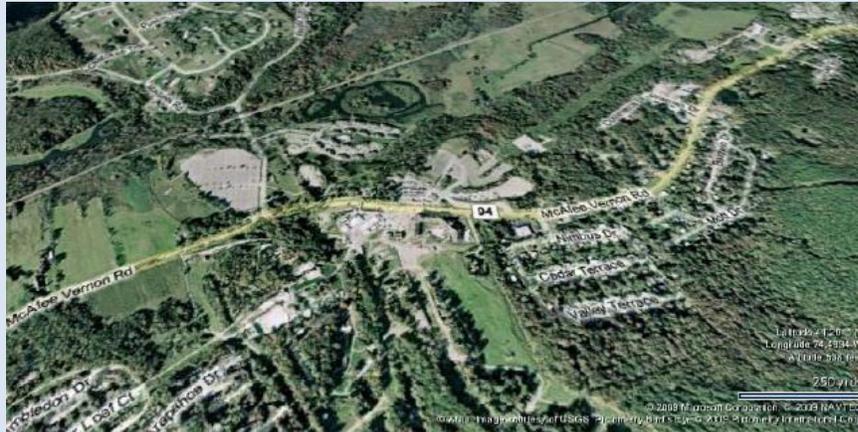
- **Route 36 (MP 0.00 - 5.78)**
 - Within Eatontown Township, West Long Branch and Long Branch.
 - Local agencies have expressed the desire to address Route 36 congestion such as in Long Branch with the congestion along Jolie Avenue.
- **Route 138 (MP 0.00 - 3.52)**
 - Within Wall Township.
 - Gateway into CMR, intersections with Allenwood Road and New Bedford Road in the summers months cause severe congestion.
- **Route 66 (MP 0.00 - 3.62)**
 - Within Neptune Township from the municipal boundary to Wayside Road.
 - Gateway to Neptune Township and link to Asbury Park.
 - Additional lanes needed to accommodate traffic and future growth.
 - Consider implementing a Transportation Development District (TDD) along Route 66 in Neptune, Ocean and Asbury Park to fund improvements.
- **Route 35 (MP 12.93 - 43.11)**
 - Extends from southern boundary of the CMR to the northern boundary.
 - Improvements are vital to realize the development/redevelopment of highway area in Eatontown.
 - Realignment of Route 35 needed in southeastern portion of Neptune Township (MP 21.77 to 22.25).
 - Route 33 (Garden State Parkway interchange to Route 35).
 - Address left turn conflicts and safety.

These segments experience a considerable amount of congestion, which in turn causes motorists to utilize local roadways as cut-throughs to circumvent bottlenecks. This disrupts resident's quality of life, decreases safety and causes traffic congestion that cannot be handled at local intersections. Furthermore, as seen in the population projections for the CMR, the traffic volumes on these State corridors will continue to grow.

Problem statements must be prepared to be considered in the NJTPA's State Transportation Plan for project funding. A number of problem statements have already been submitted as part of the *CMP* process and are included in Appendix Volume III. For example, Wall Township and Asbury Park have indicated Route 71 as a concern. Although speed humps or rumble strips are not feasible on a heavily traveled State road, variable message signs and striping are reasonable alternatives. Congested corridor issues can be handled by coordinating signal timings at adjacent intersections. Widening roadways to increase capacity is not always a viable option. Access Management Plans should also be considered to reduce driveway cuts along corridors. (See Case Study Vernon Township I-94 Access Management Plan.)

Another option is a Transportation Development District (TDD) to act as the entity responsible for transportation needs of the area in which the TDD is located. Many of the efforts presented above would need to be initiated by the municipality, with funding available through the NJDOT.

Funding is also available from the Federal government through the NJTPA Local Scoping Program to provide Counties for preliminary engineering. The scoping phase identifies a transportation problem (i.e., congested roadway, structurally deficient bridge, missing link in a bike or pedestrian system) and provides possible solutions.



***Case Study: Vernon Township, Sussex County, NJ
Rt. 94 Access Management Plan.***

NJDOT, Vernon Township and Maser Consulting collaborated on the first Access Management Plan (“AMP”) in the State of New Jersey. The plan is designed to avoid uncoordinated access permits which lead to excessive access points and a future deterioration of roadway operations. The AMP also takes into account the development potential of underdeveloped or possible redevelopment of parcels along the given corridor. Traffic mobility along Route 94 was greatly enhanced through the AMP. Also, intersection improvements were provided, as needed to improve traffic operations. Pedestrian facilities were provided.

8.3.2 Identified State Road Intersection Issues

Maintaining mobility and improving vehicular capacity of roadways is vital to the sustainability of economic growth in the CMR. Numerous congested intersections have been identified by Regional Collaborative Members or Municipal Representatives for further consideration by the County, State or municipality with jurisdiction. The municipalities also identified two traffic circles and an interchange as specific problem areas. Traffic Problem Statements have been provided by municipalities for 11 State road intersections. These are described in the *Regional Profile* (Section 15.0 Transportation).

In order for an intersection or existing safety problem to become part of the NJDOT’s Capital Improvement Program, several steps need to be taken. Municipalities should compose initial transportation problem statements to get NJTPA listing on the *State Transportation Improvement Program* for funding. Those municipalities approved for aid from the NJDOT may then conduct studies at the problematic intersections and submit them to the NJDOT. The NJDOT will then study and identify the cause and source of congestion. A plan will be developed and solutions will be proposed. Information on the NJDOT design development and funding process can be found at: <http://www.state.nj.us/transportation/eng/documents/procedures/>.

There are many options to improve highway conditions. A context sensitive design approach is recommended. Widening is not always desired, and given the unique nature of the CMR, alternative options should be pursued. Emphasis should be placed on alternative transportation modes and transit service improvements which are discussed in the following section. Every effort should be made to offset any adverse impacts from development.

8.3.3 Summary of Identified Transportation Issues

Table II – 8 Transportation Issues identified by Regional Collaborative Members or Municipal Representatives provides a detailed listing of (1) Transportation Issues; (2) Planned Transportation Improvements and Studies; and (3) Identified State Roadway Issues. Map II – 15 Composite Transportation Issues is keyed to Table II – 8. Transportation Issues identified by municipalities or the Regional Collaborative may require further study to determine the full extent of the problem. Identified state roadway issues were specifically defined in the 2002 NJDOT Congestion Buster Task Force Maps. Planned transportation improvements are based on the NJDOT 2007-2010 Statewide Transportation Improvement Program list. A number of these project improvements or studies have been completed as of May 2010. Other NJDOT transportation funding programs (as of

2007) were used to develop the list of planned improvements. This list is regularly updated and the NJDOT webpage should be referred to for current projects.

Table II - 8 Transportation Issues Identified by Regional Collaborative Members or Municipal Representatives

No.	ROADWAY/INTERSECTION	CATEGORY	MUNICIPALITY
Transportation Issues Identified by Municipalities and Regional Collaborative			
I-1	Grassmere Avenue ("Cut Through" Road) Between Main Street (CR 15) & SR 35	Highway	Interlaken
I-2	Industrial Way	Highway	Eatontown *
I-3	Hope Road (CR 51) & Industrial Way West	Intersection	Eatontown *
I-4	South Street & Wycoff Road (CR 547) -- (UD)	Intersection	Eatontown *
I-5	Allaire Road (CR 524) & SR 35	Intersection	Wall Township
I-6	Allaire Road (CR 524) & Old Mill Road	Intersection	Spring Lake Heights
I-7	Allaire Road (CR 524) / Ludlow Road & SR 71	Intersection	Spring Lake Heights *
I-8	Ocean Avenue	Highway	Spring Lake
I-9	Old Mill Road	Highway	Spring Lake Heights *
I-10	Sea Girt Avenue & SR 35	Intersection	Wall *
I-11	Sea Girt Avenue (CR 49) & Broad Street (CR 20)	Intersection	Manasquan
I-12	White Road (Cut Through Road) Between Branch Road (CR 11) & SR 35	Highway	Little Silver
I-13	Bingham Avenue (CR 8A) & Rumson Road (CR 520) -- (UC)	Intersection	Rumson
I-14	Bingham Avenue (CR 8A) & River Road (CR 10) -- (PC)	Intersection	Rumson
I-15	Manasquan Circle (SR 35 / Atlantic Avenue (CR 524)	Highway	Wall *
I-16	Asbury Avenue Circle (CR 16 / SR 66 / SR 35)	Highway	Neptune Township Ocean Township
I-17	South Street (CR 20) & Lakewood Road	Intersection	Manasquan
I-18	Main St (CR 524) & Atlantic Avenue	Intersection	Manasquan
I-19	Rumson Rd (CR 520) & Branch Avenue (CR 11)	Intersection	Little Silver
I-20	Phillips Road & SR 71	Intersection	Deal
I-21	Replacement of Tinton Avenue Railroad Bridge	Bridge	Eatontown
I-22	River Road & Ridge Road Corridors	Corridor	Rumson
I-23	Newman Springs Road Corridor	Corridor	Multiple
I-24	Wycoff Road & Broad St (SR 71)	Intersection	Eatontown *
I-25	West Bangs Avenue (CR 17) & Wayside Road -- (UD)	Intersection	Neptune *
I-26	West Bangs Avenue (CR 17) & Green Grove Road	Intersection	Neptune *
I-27	Ocean Avenue (CR 18)	Highway	Belmar *
I-28	16 th Avenue between SR 35 & Ocean Avenue (CR 18)	Highway	Belmar *
I-29	Main Street (CR 30) between 8 th Avenue & 16 th Avenue (CR 18)	Intersection	Belmar *
I-30	Old Mill Road & 18 th Avenue (CR 30)	Intersection	Wall *
I-31	Ocean Avenue (SR 36)	Highway	Monmouth Beach *
I-32	Shark River Bikeway	Bicycle/Pedestrian	Neptune Township *
I-33	Sycamore Avenue (CR 13A)	Highway	Shrewsbury Borough *
I-34	Broad Street & Sycamore Avenue (CR 13A)	Intersection	Shrewsbury Borough *
I-35	Broad Street & Patterson Avenue	Intersection	Shrewsbury Borough *

No.	ROADWAY/INTERSECTION	CATEGORY	MUNICIPALITY
I-36	Broad Street & White Road	Intersection	Shrewsbury Borough *
I-37	Wall Road	Highway	Spring Lake Heights *
I-38	SR 35 & Old Mill Road	Intersection	Wall Township *
I-39	SR 35 & Church Street	Intersection	Wall Township *
I-40	SR 35 & New Bedford Road	Intersection	Wall Township *
I-41	SR 35 & 17 th Street	Intersection	Wall Township *
Planned Transportation Improvements & Studies			
P-1	Ocean Avenue (CR 18)	Bicycle/Pedestrian	Bradley Beach, Spring Lake Borough, Avon-by-the-Sea, Belmar Borough
P-2	Rumson Road (CR 520) Railroad Bridge	Bridge	Rumson Borough, Sea Bright Borough
P-3	West Front Bridge (S-17) -- (UD)	Bridge	Red Bank Borough
P-4	Sunset Avenue (O-10)	Bridge	Asbury Park City, Ocean Twp.
P-5	Route 35 Eatontown Borough Downtown Replacement	Highway	Eatontown Borough
P-6	Route 35 Eatontown Borough Intersection Improvements	Highway	Eatontown Borough
P-7	Route 35 Red Bank Northern Gateway Operational Improvements	Highway	Red Bank Borough
P-8	Route 35, Shrewsbury Borough Intersection Improvements	Highway	Eatontown & Shrewsbury Boroughs
P-9	Route 71, Wyckoff Road (CR 547) Intersection & Sidewalk Improvements	Highway	Eatontown Borough
P-10	Long Branch Ferry Terminal	Ferry	Long Branch City
P-11	Monmouth County Bridges (W7, W8, W9)	Bridge	Brielle Borough, Manasquan Borough
P-12	Park Ave Railroad Bridge	Bridge	Long Branch City
P-13	Route 35 & Route 36 Safety Improvements	Highway	Eatontown Borough
P-14	Route 35 Manasquan River Bridge Rehabilitation	Bridge	Brielle Borough
P-15	Route 36 Highlands Bridge over Shrewsbury River	Bridge	Sea Bright Borough
P-16	Route 36 Long Branch Drainage Improvements	Highway	Long Branch City
P-17	Route 70 Manasquan River Bridge	Bridge	Brielle Borough
P-18	Asbury, Bangs, Springwood, Sunset & Third Avenues – Safe Routes to School	Bicycle/Pedestrian	Asbury Park City
P-19	Route 71 & Higgins Avenue Improvements	Intersection	Brielle Borough
P-20	Markham Place – Safe Routes to School	Bicycle/Pedestrian	Little Silver
P-21	Ocean Boulevard Bikeway Improvement	Bicycle/Pedestrian	City of Long Branch
P-22	West Sylvania Avenue - Pedestrian Corridor Improvements	Bicycle/Pedestrian	Neptune City Borough
P-23	Pedestrian Access Improvements - Patterson Avenue – Safe Routes to School	Bicycle/Pedestrian	Shrewsbury Borough
P-24	Divine Park, Potters Park, downtown, Borough Hall & Spring Lake Station Sidewalks	Bicycle/Pedestrian	Spring Lake Borough
P-25	Richard Lane, Poplar Avenue, Linden Ave, Forest Ave, Community Drive – Safe Routes to School	Bicycle/Pedestrian	West Long Branch Borough
P-26	Ocean Boulevard (CR 57) - Bikeway Improvement	Bicycle/Pedestrian	City of Long Branch
P-27	Main Avenue Streetscape Project	Streetscape	Neptune City Borough
P-28	Asbury Park 2004 Bikeway System	Bicycle/Pedestrian	Asbury Park City
P-29	Capitol to Coast Bike Path	Bicycle/Pedestrian	Wall Township, Manasquan Borough
P-30	Route 18 Bike Path	Bicycle/Pedestrian	Wall Township
P-31	Bingham Avenue Bridge (S-31)	Bridge	Rumson Borough

No.	ROADWAY/INTERSECTION	CATEGORY	MUNICIPALITY
State Roadway Issues			
C-1	Route 35 & County Route 13 (Bridge Avenue)	Intersection	Red Bank
C-2	Route 35 & CR 10 (West Front Street)	Intersection	Red Bank
C-3	Route 35 & CR 520 (Broad Street)	Intersection	Red Bank/Shrewsbury
C-4	Route 35 & Route 71	Intersection	Eatontown
C-5	Route 71 & CR 537 (Eatontown Road)	Intersection	Eatontown
C-6	Route 35 & CR 547 (Wycoff Road)	Intersection	Eatontown
C-7	Route 36 & CR 51 (Hope Road)	Intersection	Eatontown *
C-8	Route 36 & Route 35	Intersection	Eatontown *
C-9	Route 36 & Route 71	Intersection	West Long Branch
C-10	Route 36 & CR 537 (Eatontown Blvd)	Intersection	West Long Branch
C-11	Route 35 & West Park Avenue	Intersection	Ocean
C-12	Route 35 & Deal Road	Intersection	Ocean
C-13	Route 66 & CR 16 (Asbury Avenue)	Intersection	Neptune/Ocean
C-14	Route 71 & CR 15 (Main Street)	Intersection	Asbury Park
C-15	Route 71 & CR 16 (Asbury Avenue)	Intersection	Asbury Park
C-16	Route 71 & Route 33	Intersection	Neptune
C-17	Route 71 & CR 2 (Brinley Avenue)	Intersection	Bradley Beach
C-18	Route 71 & Route 35	Intersection	Brielle
C-19	Route 138 & Allenwood Road	Intersection	Wall
C-20	Route 138 & New Bedford Road	Intersection	Wall
C-21	Route 35 & Allaire Road	Intersection	Wall
C-22	Route 35 & Ocean Road	Intersection	Wall
C-23	Route 35 & Sea Girt Avenue	Intersection	Wall *
C-24	Route 35 & Lakewood Road	Intersection	Wall *
C-25	Route 18 from Route 138 in Wall, Monmouth County to Route 27 in New Brunswick, Middlesex County *	Corridor	Wall to New Brunswick (Middlesex County)
C-26	Route 35 from Route 35S in Point Pleasant, Ocean County to Route 36 in Keyport, Monmouth County *	Corridor	Point Pleasant (Ocean County) to Keyport
C-27	Route 36 from CR 51 in Eatontown Borough to Joline Avenue in Long Branch	Corridor	Eatontown to Long Branch
C-28	Route 66 from Route 33 in Tinton Falls to Route 35 in Ocean	Corridor	Tinton Falls to Ocean
C-29	Route 138 from Route 34 to Route 35 in Wall	Corridor	Wall

*Traffic Problem Statements provided by Municipality

(UD) – Under Design

(UC) – Under Construction

(PC) – Project Completed

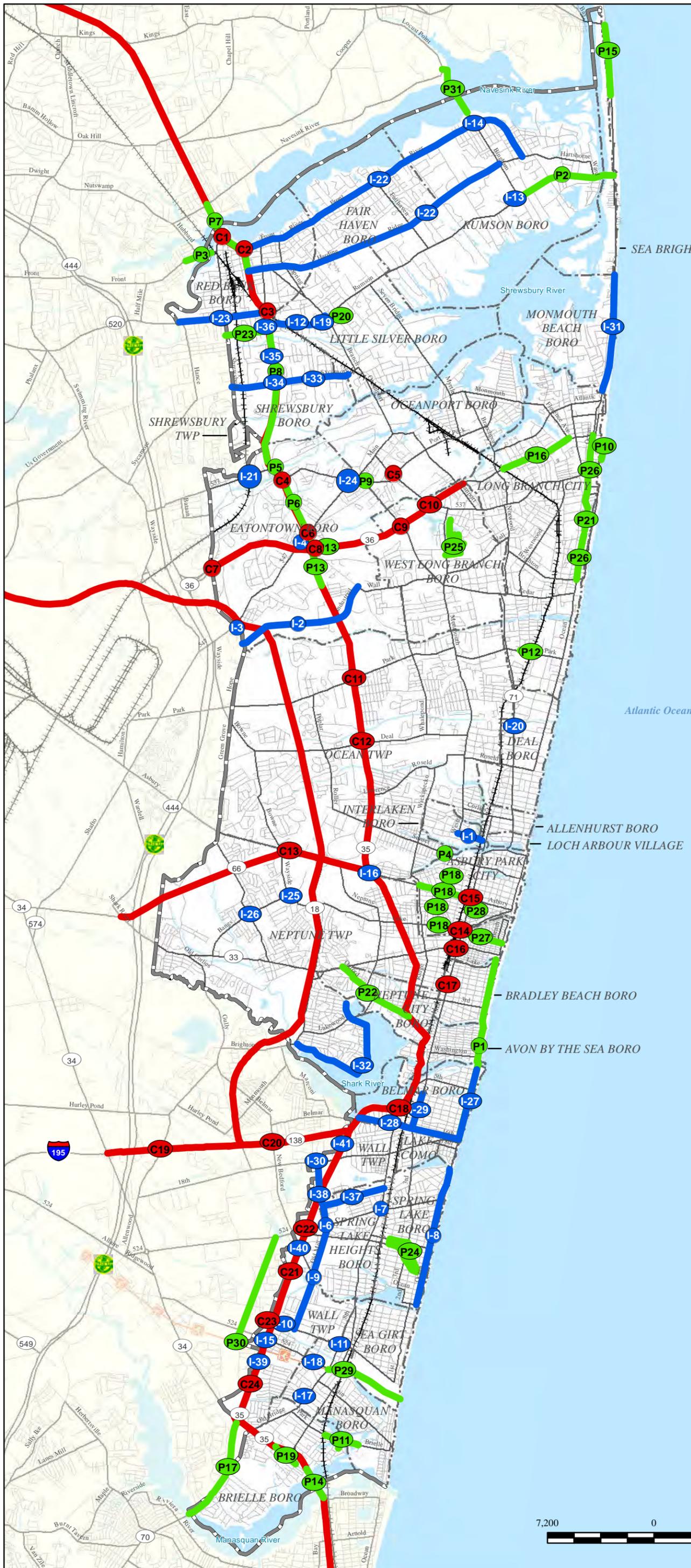
Source: NJDOT, Monmouth County, CMR Regional Collaborative

Planned Transportation Improvements from NJDOT 2007-2010 Transportation Improvement Program.

Identified State Roadway Issues are based upon the NJDOT 2002 Congestion Buster Task Force Maps.

**COMPOSITE
TRANSPORTATION
ISSUES**

COASTAL MONMOUTH REGION
MONMOUTH COUNTY NEW JERSEY



Legend

-  COASTAL MONMOUTH REGION
-  MUNICIPAL BOUNDARIES
-  ROADWAYS
-  EDGAR FELIX BIKEWAY
-  RAILROADS
-  WATER BODIES
-  CONGESTED STATE INTERSECTIONS
-  CONGESTED STATE CORRIDORS
-  IDENTIFIED ROADWAY & PEDESTRIAN ISSUES
-  PLANNED ROADWAY & PEDESTRIAN IMPROVEMENTS

NOTE: THIS MAP WAS DEVELOPED BASED ON ISSUES IDENTIFIED BY REGIONAL COLLABORATIVE MEMBERS AND STAKEHOLDERS. PLANNED TRANSPORTATION IMPROVEMENTS WERE SOURCED FROM NJDOT 2008-2011 TRANSPORTATION IMPROVEMENTS PROGRAM. IDENTIFIED STATE ROADWAY ISSUES ARE BASED ON THE NJDOT 2002 CONGESTION BUSTER TASK FORCE MAPS.

THIS MAP WAS DEVELOPED USING MONMOUTH COUNTY DIGITAL DATA FROM THE 2003 LANDBASE PROJECT. THE MAP ALSO USED DATA FROM THE NJDEP. THIS SECONDARY PRODUCT HAS NOT BEEN VERIFIED AND IS NOT COUNTY OR STATE AUTHORIZED.



8.4 TRANSIT

8.4.1 Rail Service

The Monmouth County Coastal Region is serviced by the New Jersey Transit North Jersey Coast Line System with one seasonal and ten year-round train stations. Train stations are located in eleven of the thirty municipalities within the Monmouth Coastal Region. (See *Regional Profile*, Section 15.0 Transportation.) The North Jersey Coast Line provides train service from its southernmost station in Bay Head, Ocean County directly to Pennsylvania Station in New York City. In addition to the eleven stations within the CMR, the North Jersey Coast Line also stops at three additional stations in Monmouth County: Middletown, Hazlet and Aberdeen-Matawan. The Long Branch station serves as a transfer station between all points north or south along the rail line. Travel time from the Manasquan Station, the first stop in the CMR, to New York Penn Station is approximately 2 hours. Travel time from the Red Bank Station, the last stop in the CMR, to New York Penn Station is approximately 1 hour 10 minutes. Communities with rail stations, and those located adjacent to rail stations, experience the highest rates of use. Over 70% of the public transit commuter populations in West Long Branch, Shrewsbury Borough, Sea Girt and Avon-by-the-Sea utilized rail services. This may likely include the North Jersey Coast Rail Line or other stations outside of the region such as along the Northeast Corridor in Metro Park

Municipalities have identified the need to improve train service. The length of trip time, especially with the transfer at Long Branch and delays in the schedule, were noted by municipal representatives. Specific improvements would be to decrease train headways, improve crossings and increase train capacity. The proposed use of dual engine locomotives to eliminate the need for the transfer between electric and diesel trains would reduce travel delays and provide a one-seat ride. This could also promote the use of the Long Branch station rather than commuters driving to either Metro Park or Matawan stations. Bicycle storage at train stations and on trains and improving handicapped accessibility to the train platforms should also be implemented. NJ Transit should also consider eliminating some of the secondary stations north of Aberdeen/Matawan Station to improve travel time for Monmouth rail commuters.

The Regional Collaborative identified specific transit system improvements which should be included in the *CMP*. The Long Branch Transportation Center needs substantial upgrades and Long Branch is working with NJ Transit on its implementation. Railroad delays at crossing gates that affect traffic flow and air quality were identified specifically at the Red Bank station. As a first step, this train station should be assessed to determine alternative options. Other stations experiencing similar problems should coordinate with the CMRTC to document problems.

8.4.2 Bus Service

The need for improved bus service in the Two Rivers area (Navesink River and Shrewsbury River) has been identified. There is no rail line service in the Two Rivers area, especially to Monmouth Beach, Sea Bright, Rumson and Fair Haven. Fair Haven representatives identified a lack of adequate transit service as a serious problem. Expansion of the Red Bank trolley to serve Fair Haven was cited as an option. Also, improved bus service or development of a bus shuttle to connect to the train stations in Red Bank and Long Branch and to existing ferry service in the Bayshore Region and to future ferry service in Long Branch is important. Monmouth County should request NJ Transit fund a study to assess expanded bus transit facilities. These transit services could help to alleviate the influx of vehicles into coastal areas. In turn, this will have a positive effect on parking and help to relieve congestion on CMR roadways.

NJ Transit's Community Shuttle Program offers a community the opportunity to provide its residents with shuttle service to and from a rail station, major bus corridor or a light rail station, during "peak" periods (6-9 a.m. and 4-7 p.m.). The program is competitive, open to any municipality or County. NJ Transit uses Federal funds to purchase 20-passenger minibuses that are leased, at no cost, to municipalities/counties for use in providing shuttle service. This should be considered a high priority.

8.4.3 Bus Rapid Transit

A Bus Rapid Transit (BRT) system permits bus service on a separate, dedicated travel lane to allow buses to operate at a very high level of reliability and frequency. A side benefit of this is lower construction costs; bus lanes can be engineered to higher standards and still remain safe compared to general purpose roadways. A pilot program of a dedicated bus lane on the shoulder of Route 9 in southern Middlesex County is currently being implemented for this heavy commuter corridor. The use of BRT should consider major travel routes, travel demand, commuter traffic, road right-of-way availability and travel time. NJ Transit should consider funding a pilot study to evaluate this option for the CMR. Route 35 may be a good candidate for a BRT. Please

note that the Transportation Network Map II-13 illustrates existing bus routes. The major routes are along Route 35 between Brielle and Red Bank, Route 71 from Brielle to Long Branch and beyond and along Ocean Avenue from Asbury Park to Long Branch, Sea Bright and north. Further bus transit information is provided in the *Regional Profile*, Transportation Section 15.0.

8.4.4 Alternative Transportation Services



Pedicabs

Improvements to local alternative transportation services have been identified: ferry service, water taxis, shuttles, jitneys, pedicabs, zip cars and bike rentals. These service modes should be coordinated and are considered an important element to support the CMR economic objectives. The influx of summer traffic greatly impacts the road infrastructure. Alternative transportation modes deserve a high priority to reduce the number of vehicles on the CMR roadway network and should be a prime component of the future transportation plan.

Increasing waterborne transportation opportunities is important for the CMR. The need for improved transit service between Sea Bright and Monmouth Beach to the existing ferry services currently operating from the Highlands and Belford to New York has been identified by the Regional Collaborative. Also, funding for the proposed Long Branch Pier and Ferry Terminal is important to create a multi-modal (ferry, automobile, bus, train) transit center linking the CMR with New York. According to plans for this project, it will provide planned green energy technologies including wind, wave and solar power that will provide a model for sustainable development. This planned ferry terminal must be efficiently and effectively linked to the Long Branch Transportation Center to create an integrated system.

The use of pedicabs or jitneys are eco-friendly solutions to providing alternative transportation services with the added benefit of jobs. For example, New York City now permits pedicabs which provide an alternative to taxis use. Shuttles to carry visitors around the ACE nodes and the ECA should be developed as part of a CMR Marketing Plan to ensure there is coordination between the various locations. For example, the Shark River connected municipalities could develop an interconnected transportation network to expand access to entertainment and recreation venues, and provide 'added marketing value' to the area. Belmar indicated an interest in a pedicabs/trolley circuit linking the train, beach and marina. Neptune and Neptune Township also saw value in a larger sub-regional transportation network. These alternative modes should be pursued.

Bike rental facilities should be implemented at the transit centers. These facilities operate effectively in other tourist areas to promote recreational travel, especially for summer visitors. Bicycle usage would also be improved with allowing bike access on the NJ Transit rail lines. NJ Transit has begun the process of allowing bike access, although it is not yet instituted on all lines. At present, long delays and unreliable service for bicyclists are major deterrents for visitors to use these services.



Red Bank Train Station

Designated bike routes must link to the transit centers to provide connectivity to the ACE nodes and ECAs, the oceanfront and other activity generators.

This requires easily accessible facilities with good directional signs, tourist information and connections between bus transit, taxis, shuttles, pedicabs, zip cars and bike facilities. For example, the Red Bank train station provides links to bus transit, cabs, and bike facilities by maintaining an historic train station, installing attractive bus shelters and offering bicycle parking. In fact, additional bicycle storage is needed at the Red Bank station. Zip car rentals based at the transit stations can also take care of short term car needs while reducing overall trips and parking requirements especially for visitors.

8.4.5 Transportation Services for Persons of Need

Monmouth County has an ongoing transportation coordination program to address the needs of seniors, persons with disabilities and transit dependant populations. In 2004, the *Monmouth County United We Ride Transportation Study*¹⁰ was prepared to address the Federal Executive Order 1330 which required that all government agencies collaborate to ensure transportation services are seamless, comprehensive and accessible." Of the twenty-four study recommendations, some specifically involve the CMR in terms of increasing services to these population groups. These recommendations support transportation improvements already being considered in the *CMP* such as providing rail electrification or dual mode service south of Long

¹⁰ Monmouth County Board of Chosen Freeholders, Department of Human Services. *United We Ride Transportation Study* (DRAFT). October 2007. Monmouth County, New Jersey.

Branch which will enable a single-seat ride and make it easier for persons requiring mobility assistance to use the train and expanding transit linkages such as from the Long Branch area north through Monmouth Beach and Sea Bright to Highlands ferry terminals and shopping, residential and employment opportunities. New recommendations include providing improved transit services for Route 66 which is a developing corridor with shopping and employment opportunities and Route 34 south of the Route 33/Route 34 connection which is a developing employment center. This can include NJ Transit buses or a van shuttle. Another recommendation includes providing circulators for door-to door dial-a-ride service for areas that feed into the transportation hubs that link residential and employment centers. Examples include linking Asbury Park and Neptune and Long Branch and the Bayshore communities from Keyport to the Highlands. The circulator would distribute customers within the centers and address juvenile transportation needs.

8.4.6 Transportation Connections between ACE Nodes and ECA

A CMR Transportation Plan should be structured around the ACE nodes in Red Bank, Long Branch, Asbury Park, Belmar and Manasquan using train stations as key local connections. NJ Transit should assist in station improvements to provide adequate parking and to integrate services. This has been done at a number of stations already including, but not limited to, Manasquan, Red Bank, and Little Silver. Municipalities should identify transit station area plans and coordinate their efforts with the CMR Marketing Plan.

Implementing these alternatives begins with developing, installing and upgrading existing pedestrian facilities in local CMR's. These facilities are vital in reducing congestion. Bicycle facilities should also be planned, installed and integrated with other modes. The most efficient way to encourage integrated transportation is to provide clear pathways for travel. The improvement of bicycle paths is crucial in this effort. A second strategy is to regulate time sensitive travel. For example, it may not be reasonable or practical to allow pedicabs during peak hour operations.

8.4.7 Train Quiet Zones

Reducing train noise can improve the quality of life in a town or neighborhood. Municipalities may designate locations as quiet zones to reduce train horn signals. A quiet zone allows the governing municipality to implement better safety measures at an at-grade crossing. In addition to improved safety measures, way-side horns can be used at a crossing to prevent the train from sounding the horn when approaching each crossing. A number of CMR municipalities have identified this strategy as warranting further consideration. Asbury Park has submitted a traffic problem statement regarding this issue. The cooperation of the Federal Railroad Administration (FRA) and the owners of the rail line is required to implement these measures. The process of establishing a quiet zone requires the collaborative effort of several organizations and agencies. Forming a diagnostic team is the most vital step in determining the quality of a crossing and the upgrades required to meet quiet zone standards. Quiet zone measures are dependent upon the surrounding land uses. In most cases, crossings that lack the basic equipment (i.e. flashing light assemblies, mast arms and pavement markings) qualify for establishing a quiet zone. However, recognizing locations where quiet zones would be most effective is crucial. The NJTPA recently released an informational brochure on Train Quiet Zones that can be accessed at: <http://www.njtpa.org/Plan/Element/Freight/quietzone.aspx>.

**Case Study: Quiet Zone Designation,
Hillsborough Township, Somerset County, New Jersey**



Through the use of developer fees, Hillsborough Township installed improvements to improve the safety of four at-grade crossings. The improvements raised the level of safety high above the risk threshold determined by the Federal Railroad Administration (FRA) so that a train horn is no longer required. Above are photos of a curbed island median, designed to increase the safety index to make a Quiet Zone possible.

8.5 PEDESTRIAN AND BICYCLE FACILITIES

A ‘complete street’ is defined as a means to provide safe access for all users by designing and operating a comprehensive, integrated, connected multimodal network of transportation options. Monmouth County adopted a complete streets policy in June 2010 to support these efforts. Pedestrian and bicycle facilities are important components of a complete street. Providing an integrated network linking activities with bicycle facilities and complete sidewalk facilities is a critical aspect of this policy.

Pedestrian facilities are fairly common within the CMR. In addition to the miles of boardwalk which complement seaside communities, most municipalities in the region have fairly extensive sidewalk systems; however, there are “missing links” that must be addressed regarding bicycle facilities. There is currently no unified defined bike route throughout the CMR. The latest Monmouth County Bike Map is dated 2003 and it illustrates road conditions for biking – Good, Fair, and Poor conditions and identifies current bike paths and activity areas to visit. The updated County Bicycle Map with links to existing and proposed greenways and trails should be available countywide in both printed and electronic form in the near future. Future versions of transit and trails maps should be integrated with the County Bicycle Map in order to create a comprehensive picture of the County’s alternative transportation network. It is an excellent start; however, the next step is to plan for and program improvements to accommodate bicycle use. The development of an overall Bicycle Facilities Improvement Plan would provide the framework for a comprehensive bike route system in the CMR and beyond and it should provide a capital program for improvements such as widening, striping, path development and signage.

Current bicycle paths in the CMR include the 5.4 mile Edgar Felix Bikeway, which is a multi-use trail running from the beach town of Manasquan to the Visitor’s Center of Allaire State Park. It is a bike trail that occupies a track of the former Farmingdale and Squan Village Railroad and Freehold and Jamesburg Agricultural Railroad. It operates as part of the Capital to Coast Bike Trail and connects Hospital Road in Wall Township to the oceanfront. Other smaller bike paths exist within the Edgar Felix Bikeway area. Within Wall Township, the Route 18 bike trail connects the Township Municipal Complex to the Edgar Felix Bike Path.



Asbury Park

Certain areas in the CMR, such as Long Branch, do not permit bicycles on the boardwalk. Other municipalities limit use to selected non-peak travel hours. Asbury Park’s boardwalk does not currently restrict bicycle access, but this policy may likely be revisited as pedestrian activity increases. Municipalities with interconnected boardwalks should coordinate permitted bicycle use times on the boardwalk. Currently there are no standard permitted bicycle times along the entire length of the boardwalk in the CMR. Essentially, the boardwalk could be considered an oceanside bicycle / pedestrian path in off-peak times.



Long Branch

Designating new and enhancing existing bicycle facilities will help alleviate congestion while increasing recreational opportunities. Particularly during the summer months, the opportunity for bicycle travel should be encouraged, especially along the coast. Bicycling will play an important role in an overall seamless intermodal network. Bike storage facilities or rental shops should become commonplace at train stations and bus stops. It is clear that the popularity of bikeways and multi-use paths is increasing in the CMR. An integrated bikeway network can enable travel from Sea Bright to Manasquan and beyond and reduce reliance on vehicular travel. Travel within the Two Rivers area could link from the oceanfront to Red Bank and beyond.



Bicyclists

Because additional bike routes and facilities will be required in the CMR to manage the influx of population, a comprehensive regional bicycle plan is needed. Several municipalities including Manasquan and Brielle have expressed interest in creating a dedicated bike lane and installing additional sidewalk along Route 71. These improvements would enhance pedestrian safety, generate more walkways around town, and provide an alternative means of transportation along the southern section of the Route 71 corridor. Other municipalities will likely be interested in joining this effort as it progresses.

Proposed bicycle and pedestrian improvements are also included in the various municipal studies. Ocean Avenue improvements in Long Branch are currently part of the NJDOT

Capital Improvement program. Other improvements to Ocean Avenue in Bradley Beach, Avon-by-the-Sea, Belmar and Spring Lake are recommended in the *Monmouth County Pedestrian Corridors Mobility Concept Study*. These improvements consist of lighting upgrades, increasing sidewalk width, reducing the cartway width, modifying the parking, installing bump-outs at the corners to shorten the crossing distance and providing a bike lane. These improvements should calm traffic on Ocean Avenue and increase pedestrian safety.

A bike network is also proposed for Asbury Park to allow pedestrians to connect a variety of neighborhoods throughout the City. Municipalities need to think long-term; a good example is the improvement and expansion of the Edgar Felix bike path in Manasquan and Wall Township linking to Allaire State Park as part of the Capital to Coast Trail. The Neptune Township Master Plan recommends that the Shark River waterfront be improved with a bicycle route along the water on Riverside Drive and the North and South Concourses. This recommendation is reinforced by the recent acquisition by Neptune Township of properties along the Shark River Waterfront for recreational purposes.

The Bicycle Facilities Map 11 - 16 illustrates planned bicycle improvements and provides additional recommendations. These include extending the Ocean Boulevard improvements north to Sea Bright and beyond and south to extend through Sea Girt to link to Manasquan. Bicycle facilities are proposed in the Twin Rivers area providing an opportunity for a connection between Sea Bright and Red Bank. From Long Branch to Fort Monmouth, the planned County greenway along the abandoned railroad right-of-way provides an opportunity to connect these areas. A more detailed bicycle facilities study is beyond the scope of the *CMP*, but it should be programmed for the future.

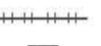
The NJDOT, Bureau of Systems Development & Analysis (BSDA), provides funding to municipalities to develop local transportation planning initiatives. Also, the NJDOT Division of Local Aid and Economic Development has a funding program designed to assist municipalities who have formally participated in implementation of the New Jersey State Development and Redevelopment Plan (SDRP). The program provides the opportunity to apply for funds to support non-traditional transportation improvements that advance municipal growth. Municipalities should consider upgrading the Circulation Plan Element of their Master Plan to include a Bicycle and Pedestrian Circulation Plan. Municipalities must coordinate with the NJDOT to implement bike lanes for State roads and with the Monmouth County Division of Engineering along County roads. These municipal Circulation Plans should be coordinated with the CMR efforts.

BICYCLE FACILITIES

COASTAL MONMOUTH REGION
MONMOUTH COUNTY NEW JERSEY



Legend

-  COASTAL MONMOUTH REGION
-  MUNICIPAL BOUNDARIES
-  EXISTING BICYCLE FACILITIES
-  PROPOSED BICYCLE FACILITIES
-  ROADWAY NETWORK
-  RAILROADS
-  TRAIN STATION
-  ACE CENTER
-  ACE CORRIDOR
-  ENVIRONMENTAL CENTERS OF ACTIVITY
-  REDEVELOPMENT AREAS
-  OPEN SPACE
-  WATER BODIES



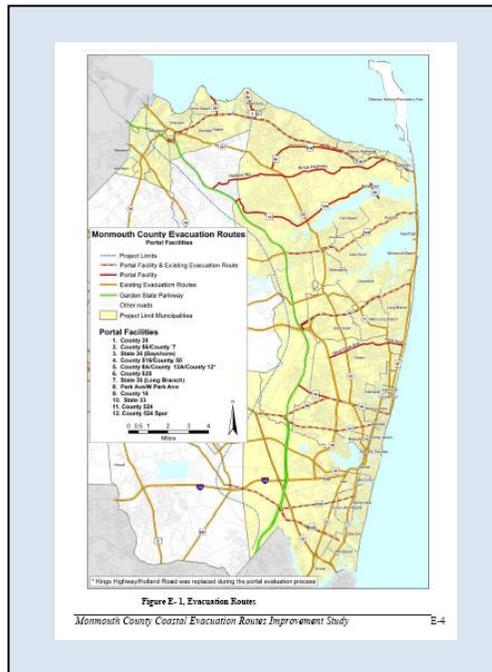
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8.6 EMERGENCY MANAGEMENT

The CMR communities need to coordinate in developing an evacuation plan in case of severe floods and storms. Currently, there are Office of Emergency Management (OEM) and State evacuation routes in place for the CMR. The County currently coordinates with local EMOs and the State for emergency management response planning.

Map II - 17 Monmouth County Evacuation Routes



The *Monmouth County Coastal Evacuation Routes Improvement Study* was recently completed in June 2009. It considered improvements to the current coastal evacuation route system to help move people away from the flood zones. The study involved (1) identifying a set of routes - roadways whose purpose is to bring people from a hazardous (flood) zone to a safe area; (2) examining physical and operational problem areas could be targeted for improvements; and (3) proposing near-term, intermediate, and long-range solutions¹¹. The *CMP* supports the findings of the completed study and encourages municipalities to work with the County on implementation¹².

The Monmouth County Office of Emergency Management (MCOEM) is responsible for the development and maintenance of all County's hazard Emergency Operations Plan. The plan is made up of 15 functional annexes that outline how the County will function during emergency or disaster conditions. The MCOEM also acts as the conduit to the New Jersey Office of Emergency Management for the 53 municipal emergency management programs. Through a multi-disciplinary working group, the office also manages all of the homeland security funding that is received by the County. The Fort Monmouth EMS Facility is an important part of the emergency facilities network. Future plans should ensure that this facility is maintained to serve nearby CMR municipalities should the need ever arise.

8.7 GATEWAYS AND SIGNAGE

8.7.1 Gateways

Gateways announce entrances into the CMR. They are an important transportation design element and must be considered with their wayfinding signage and branding image to support the CMR marketing efforts. Gateways should serve as a directional and wayfinding clues and be linked to regional programs such as the statewide tourism efforts including the New Jersey Coastal Heritage Corridor. They serve as marketing tools to brand the region according to its unique areas. Fourteen gateways have been identified in the CMR. These include eight primary gateways which provide regional connections into the CMR from State major arterial roads such Route 35, Route 36, Route 71, Route 18 and the Garden State Parkway. Secondary gateways primarily link to County major roads. Image boards have been developed to illustrate each of the gateway locations.

Each gateway may have its unique character, but there needs to be common branding elements to acknowledge its location within the CMR. Specific transportation improvements may also be needed, like along Asbury Avenue which is currently a two-lane roadway. Gateways should also provide for multimodal transportation activities and include appropriate signage. (See Table II-9 Gateways and CMR Gateways Map II-18.)

¹¹ Jacobs Engineering Inc. *Monmouth County Coastal Evacuation Routes Improvement Study*, 2009, Monmouth County Planning Board.

From the north, the Navesink River is crossed by Route 36 over the Highlands Bridge (now under construction) going to Sea Bright. The Oceanic Bridge provides entrance into Rumson from Middletown. The Cooper's Bridge along Route 35 is the major corridor south from Monmouth Bayshore Region into Red Bank. Newman Springs Road, County Route 537 and County Route 13A form secondary gateways into the CMR. (See Gateways - Highlands Bridge, Oceanic Bridge, Coopers Bridge, Newman Springs Road, CR13A and CR537 Map II-19)

From the west, the entrances into the CMR are from major State limited access roads such as Route 18 and the Garden State Parkway. These include the Route 36 and Route 18 convergence in Eatontown, Route 18/Park Avenue, the Asbury Avenue Corridor, Route 66 and Route 33 at the Garden State Parkway. (See Gateways - Route 18/36 Convergence, Route 18/Park Avenue, Asbury Avenue, Route 66, Route 33 Map II-20.)

From the south, the Manasquan River is the major crossing from Ocean County into the CMR. Route 70 and Route 35 provide entrance gateways over the bridges. Other gateways include the Garden State Parkway Exit 98 at Route 138 and County Route 524 at Route 70. (See Gateways - GSP Exit 98/Route 138, CR524, Route 70 and Route 35 Map II-21.)

The design of the gateways may vary depending upon their location. The bridge crossings provide opportunities for unique design treatments. These may be flags, signage, special lighting or other design features. The GSP and Route 18 gateways of Route 66 and Route 33 have a suburban character. In these areas, the gateway treatment may include more natural elements. Figure 17 Gateway Idea Board illustrates recommendations to address gateway areas. The design of these gateways will need to be developed and refined through future marketing efforts. (See Gateways Idea Board, Map II-22.)

Table II - 9 Gateways

PRIMARY GATEWAYS	
1	<i>Highlands Bridge over Navesink River /Route 36 , South from Highlands Borough (Monmouth Bayshore Region) to Sea Bright Borough</i>
2	<i>Coopers Bridge over Navesink River/Route 35 South from Middletown Township (Monmouth Bayshore Region) south to Red Bank Borough.</i>
3	<i>Garden State Parkway Exit 109, CR 520 Newman Springs Road from Tinton Falls east to Red Bank Borough and Shrewsbury Borough</i>
4	<i>Garden State Parkway Exit 105, Route 18/Route 36/GSP convergence , Eatontown Borough east to City of Long Branch.</i>
5A	<i>GSP Exit 100 - Route 66 into Neptune Township; Neptune Township and Ocean Township east to City of Asbury Park.</i>
5B	<i>GSP Exit 100 - Route 33 into Neptune Township; Ocean Grove and Avon-by-the-Sea</i>
6	<i>GSP Exit 98, Route 138 Wall Township to Belmar (Route 35)</i>
7	<i>Route 70 (over Manasquan River) north from Ocean County into Brielle Borough.</i>
8	<i>Route 35 (over Manasquan River) north from Ocean County into Brielle Borough.</i>
SECONDARY GATEWAYS	
9	<i>Oceanic Bridge over Navesink River / CR8A south from Middletown Township (Monmouth Bayshore Region) to Rumson Borough</i>
10	<i>County Route 13A at the intersection with Shrewsbury Avenue (CR 13) to the intersection with Route 35.</i>
11	<i>County Route 537 (Tinton Avenue) east of the GSP at Hope Road (Eatontown Boarder); through greenway area of Fort Monmouth</i>
12	<i>Route 18, Park Avenue from Ocean Township east to City of Long Branch.</i>
13	<i>Garden State Parkway Exit 102, Asbury Avenue, Tinton Falls east to Ocean and Neptune Township to City of Asbury Park (Asbury Avenue Corridor from Route 35 into Asbury Park should be given special consideration as a gateway into the City).</i>
14	<i>County Route 524 (Allaire Road and Atlantic Avenue) approach to Route 35</i>

GATEWAYS

**COASTAL MONMOUTH REGION
MONMOUTH COUNTY NEW JERSEY**



Legend

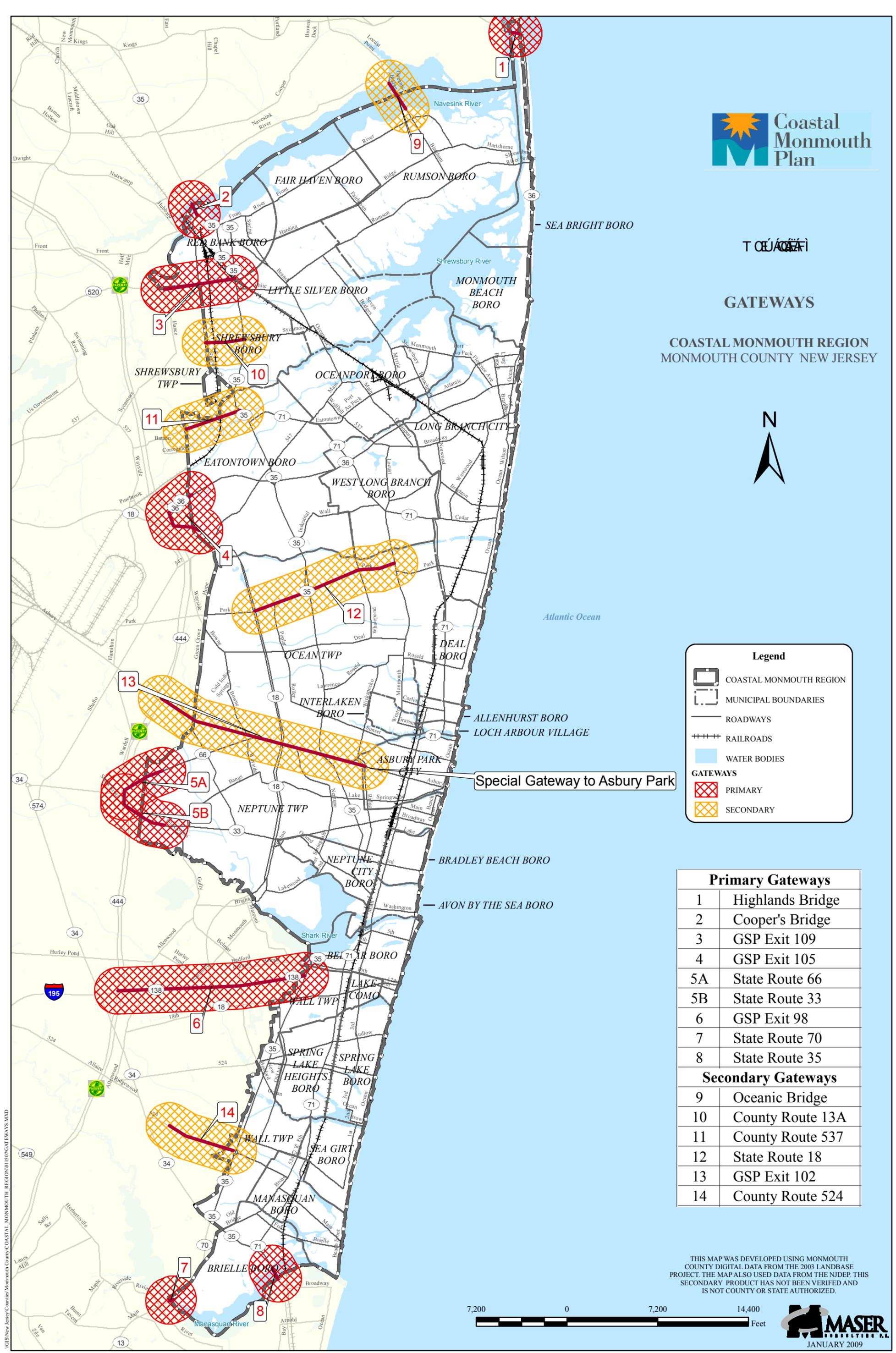
- COASTAL MONMOUTH REGION
- MUNICIPAL BOUNDARIES
- ROADWAYS
- RAILROADS
- WATER BODIES

GATEWAYS

- PRIMARY
- SECONDARY

Primary Gateways	
1	Highlands Bridge
2	Cooper's Bridge
3	GSP Exit 109
4	GSP Exit 105
5A	State Route 66
5B	State Route 33
6	GSP Exit 98
7	State Route 70
8	State Route 35
Secondary Gateways	
9	Oceanic Bridge
10	County Route 13A
11	County Route 537
12	State Route 18
13	GSP Exit 102
14	County Route 524

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Coopers Bridge
A Primary Gateway that provides link South from Middletown Township to Red Bank Borough. Augment decorative lighting with colorful banners or seasonal flower baskets to create entry rhythm.



Oceanic Bridge
A Secondary Gateway that provides link South from Middletown Township to Rumson Borough. Install wayfinding signs at bridge terminus with River Road.



Highlands Bridge

Oceanic Bridge

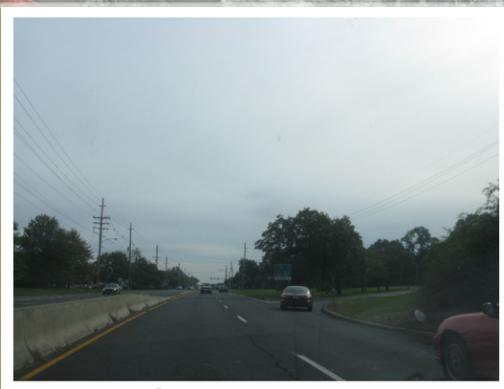
Coopers Bridge

Newman Springs Rd.



Highlands Bridge
Primary Gateway that provides link South from Highlands Borough to Sea Bright Borough linking Bayshore to the Coastal Region. Historic design elements could be augmented with decorative lighting and artist treatment on bridge walls.

County Route 13A

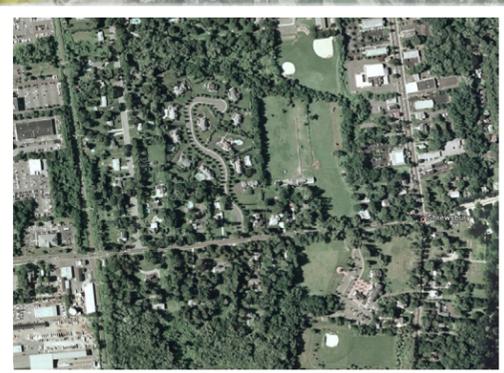


Newman Springs Road
Primary Gateway from Garden State Parkway Exit 109 East to Red Bank Borough and Shrewsbury Borough. Consider special median treatment and wayfinding signage to denote entry and improve travel way.

**County Route 537
Tinton Ave**



County Route 537: Tinton Ave.
Secondary Gateway East of the Garden State Parkway at Hope Road through greenway area of Fort Monmouth.



County Route 13A
Secondary Gateway from intersection with Shrewsbury Avenue East to the intersection with Route 35.

Gateways

Coastal Monmouth Region - Monmouth County, New Jersey

Highlands Bridge, Oceanic Bridge, Coopers Bridge, Newman Springs Road, County Route 13A and County Route 537

TOWNSHIP OF COASTAL MONMOUTH

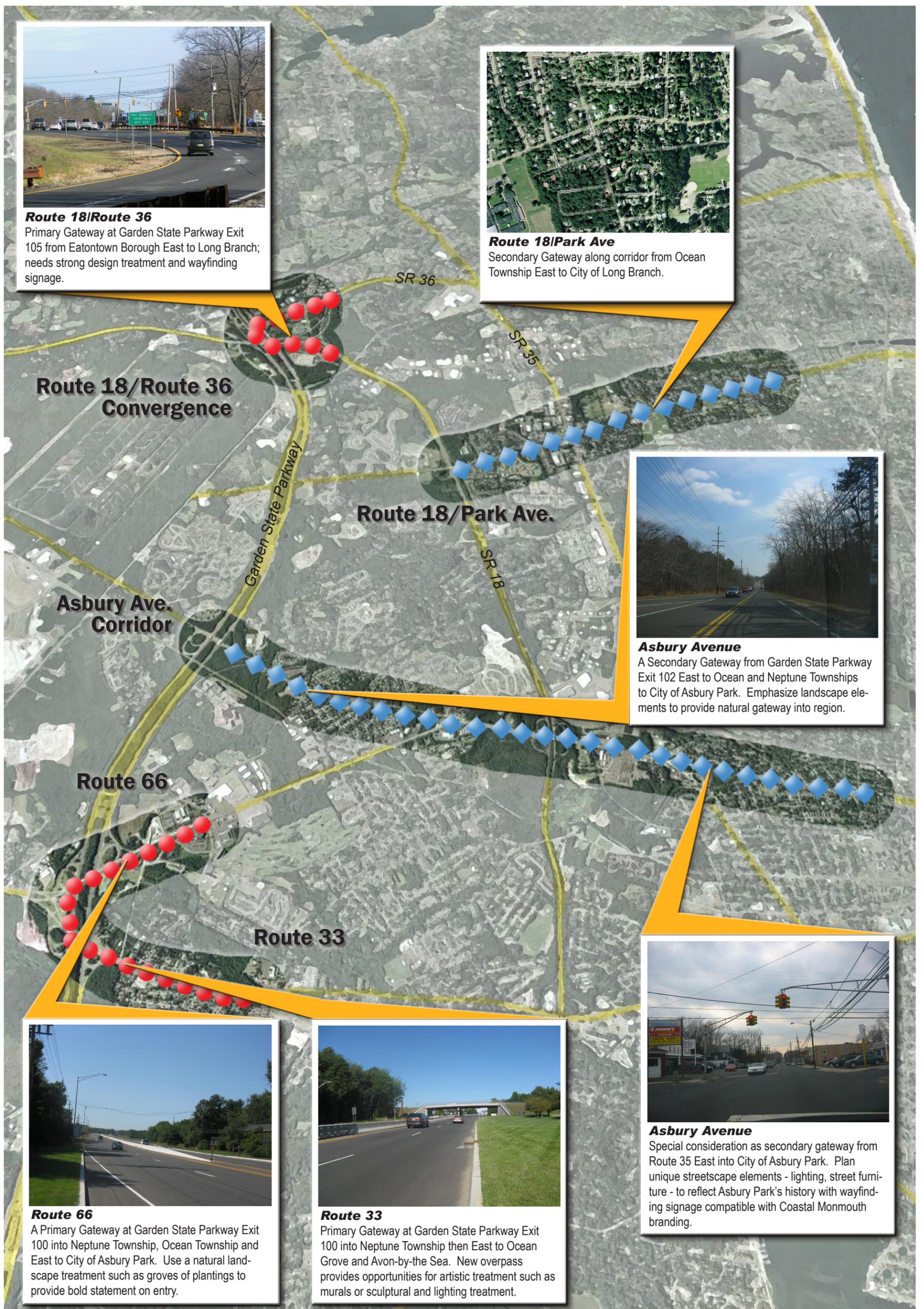




Route 18/Route 36
 Primary Gateway at Garden State Parkway Exit 105 from Eatontown Borough East to Long Branch; needs strong design treatment and wayfinding signage.



Route 18/Park Ave
 Secondary Gateway along corridor from Ocean Township East to City of Long Branch.



Asbury Avenue
 A Secondary Gateway from Garden State Parkway Exit 102 East to Ocean and Neptune Townships to City of Asbury Park. Emphasize landscape elements to provide natural gateway into region.



Route 66
 A Primary Gateway at Garden State Parkway Exit 100 into Neptune Township, Ocean Township and East to City of Asbury Park. Use a natural landscape treatment such as groves of plantings to provide bold statement on entry.



Route 33
 Primary Gateway at Garden State Parkway Exit 100 into Neptune Township then East to Ocean Grove and Avon-by-the-Sea. New overpass provides opportunities for artistic treatment such as murals or sculptural and lighting treatment.



Asbury Avenue
 Special consideration as secondary gateway from Route 35 East into City of Asbury Park. Plan unique streetscape elements - lighting, street furniture - to reflect Asbury Park's history with wayfinding signage compatible with Coastal Monmouth branding.

Gateways

Coastal Monmouth Region - Monmouth County, New Jersey

Route 18/36 Convergence, Route 18/Park Avenue, Asbury Avenue, Route 66, Route 33

T O U R I S M



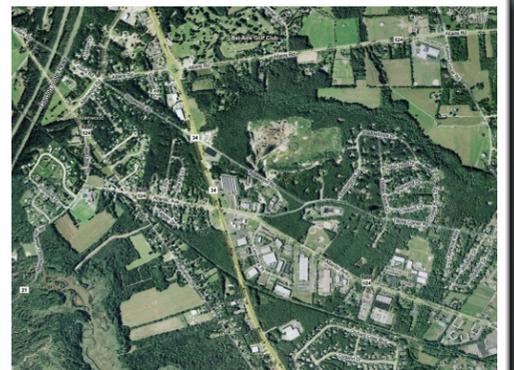


**GSP Exit 98
Route 138**



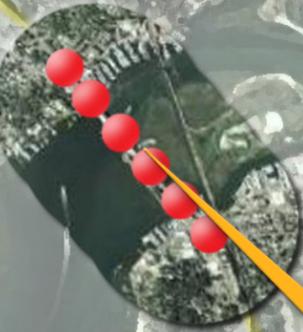
Route 138
A Primary Gateway at Garden State Parkway Exit 98 along Route 138 to Wall Township and East to Belmar. Suburban gateway needs strong design element and wayfinding signage to announce entry.

County Route 524



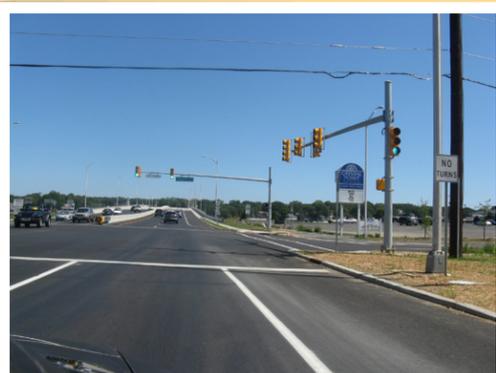
County Route 524
Secondary Gateway: County Route 524 (Allaire Road and Atlantic Avenue) approach to Route 35.

Route 35



Route 35
Primary Gateway is bridge over Manasquan River north from Ocean County to Brielle Borough.

Route 70



Route 70
Primary Gateway is bridge over Manasquan River north from Ocean County to Brielle Borough.

Gateways

Coastal Monmouth Region - Monmouth County, New Jersey

GSP Exit 98/Route 138, County Route 524, Route 70 and Route 35

T O U A C I F



Unifying Elements:



Fabric Banners

Logo and/or the theme and colors used to market the area can appear consistently at each gateway.



Fabric Banners

Banners work well in groups and co-located with lighting, making them visible at night.



Wayfinding Signs

Use of consistent signs, in color-coding, design and motif, signify entry to the area and provide key directional information. With this large an area, signs serve as an important unifying element.



Oceanic Bridge

Bridges



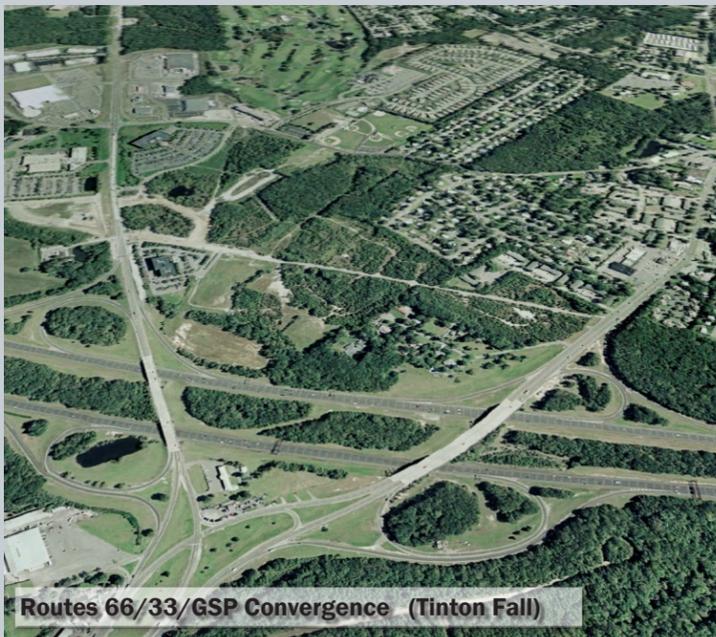
Monument Portal

Because a bridge acts as a funnel, it provides opportunity to use a monument or tall pillars on each side to form a dramatic gateway. The materials can be solid, or a more open design of metal or wood.



Lighting & Railing

Use of special light fixtures, which are sculptural during the day, and coordinated railings, can highlight the bridge entry sequence.



Routes 66/33/GSP Convergence (Tinton Fall)

Corridor



Grove of Plantings

Due to their scale and speed of travel, corridor gateways need a bold statement. A large grove of trees, shown here in a meadow setting, or similar large-scale plantings, provide the desired impact.



Sculptural Lighting

A sequential row of unique lights, which are sculptural features during the day, can provide a strong gateway entry statement.



Manasquan Circle

Intersection



Fountain or Focal Feature

Intersections, especially traffic circles, provide opportunity to focus visitors' attention at one area. The use of a fountain is a recognized approach for providing a dynamic statement.



Special Median Treatment

As one approaches an intersection, a median with special treatment, usually via plantings, calls attention to the area. A raised median provides an even stronger statement.

Gateways Idea Board

Coastal Monmouth Region - Monmouth County, New Jersey

Shown are a variety of examples and ideas that can assist in providing identity to the entrances of the Monmouth County Coastal Area. These are only a sampling of gateway enhancements; other ideas can work well too.

8.7.2 Wayfinding Signs

Wayfinding signs are usually utilized to direct motorists and pedestrians to and from local areas of interest. For the CMR, wayfinding signs are an important element of the proposed marketing. Wayfinding signs are usually located at street corners in high positions so they can be observed by on-coming traffic. Pedestrian signs are utilized similar to vehicular wayfinding signs, but are positioned at eye-level and may include a map to direct pedestrians unfamiliar with the area.



Developing a signage program is important because it helps visitors find cultural, historic and environmental points of interest. All local, County and State areas of interest should be identified. This process should be followed up with uniform wayfinding sign designs and a plan for strategic placement. Characteristically wayfinding sign programs will have an overarching program logo. Local municipalities may add unique elements representing their municipality.

New Jersey is currently completing planning for a State-wide wayfinding signage program. The Jersey Shore is one of the few areas of the State chosen to become a pilot location. The CMR wayfinding signage efforts should be coordinated with the State-

wide program with its own unique CMR elements.

Sign maintenance programs should be coordinated between State and local government so each will know its responsibilities. A coordinated strategy is needed to insure that a defined schedule is established to maintain and replace signage. This is critical to direct visitors to and through the CMR. The County and NJDOT would cooperate in this effort. Signage should be inventoried within a comprehensive database to identify age and a replacement program schedule.

8.8 TRANSPORTATION PLANNING COORDINATION

The CMR Transportation Committee (CMRTC) should be organized to assist in the planning and implementation of transportation improvements as described in the *CMP*. A comprehensive approach linking all the ACE nodes and ECA transportation system should be considered. The CMRTC would establish the mechanisms to evaluate, address, and update the transportation facilities that serve the region.

The marketing plan must include transportation as a key component of tourism and the CMRTC must be involved in this marketing plan. Transportation services must support the ACE corridors tied to major activity nodes and linked by rail and other transportation connections. There must be seamless connections between the various transportation modes to support these facilities. ACE nodes should serve as subregional hubs to disseminate regional and subregional marketing material throughout the corridor. It will take a strong inter-municipal coordination effort to be successful.

9.0 ENVIRONMENT

Regional Vision – The Monmouth Coastal environment has improved water quality, reduced flooding, preserved and restored natural resources, expanded public parks and open space, and implemented sustainable development measures.

9.1 NEEDS - ENVIRONMENT

The CMR is rich in natural resources and environmental features. Its proximity to the Atlantic Ocean and many rivers and streams that drain to the coast creates extensive shorelines and embayments. Urbanization of the region has had an adverse environmental impact including the loss or degradation of habitats, reduction in biodiversity, introduction of exotic species and the degradation of water quality. To realize the regional vision for the Coastal Monmouth environment, these harmful environmental impacts need to be reversed. We need to reach a reasonable balance between a restored environment and public access to open spaces.

The following *CMP* section is broken down into four main categories. These categories are:

- Natural Resources
- Infrastructure Resources
- Resource Access
- Outreach and Public Education

As shown in the Planning and Implementation Agenda, these categories include 18 alternatives containing 32 implementation strategies which have been identified through the Regional Collaborative by the Environmental Subgroup. The *CMP* serves as an umbrella document where planning alternatives and implementation strategies are proposed. Some of the strategies include recommendations that focus on individual resources or resource issues, management plans for riparian corridors and watersheds and habitat conservation plans for coastal ponds, lakes, coastal beaches and dunes. Although this may seem like a proliferation of planning documents, the framework provided by the Plan as a parent document serves as a guide to achieve the accompanying strategies.

The proposed CMR Committee is the major vehicle to move the Plan strategies forward. An Environmental Subcommittee should be organized to oversee environmental activities. More narrowly focused groups such as an Inter-Agency Dredging Subcommittee or a Sea Level Rise Subcommittee should be organized to address specific issues. These committees would coordinate with the affected municipalities to develop consensus on these efforts.

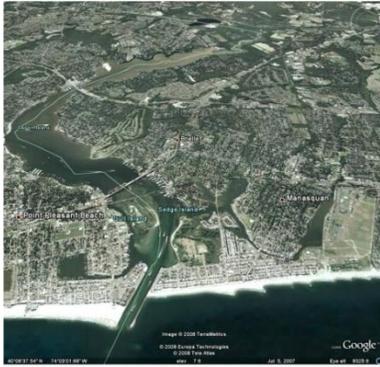
Established Environmental Stakeholder Groups (ESG) can provide information and assistance in addressing the goals and vision of the Plan. Examples of active groups include the Monmouth Conservation Foundation, Monmouth University Urban Coast Institute, New Jersey Marine Sciences Consortium/New Jersey Sea Grant (NJMSC/NJSG), Association of New Jersey Environmental Commissions (ANJEC), established Lake and Pond Commissions, Environmental Commissions and others. Representatives of such organizations are logical candidates for membership in the Environment Subcommittee of the proposed CMR Committee.

9.2 NATURAL RESOURCES

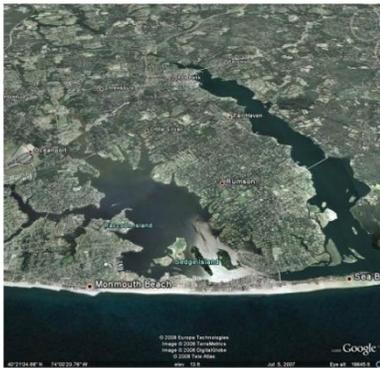
Natural resources are commonly divided into nonrenewable resources, (minerals and fossil fuels), and naturally self-renewable natural resources (plants and animals), soil and water. Our focus in this section is with renewable natural resources. (See Environmental Features Map II – 23.)

Systematic conservation, protection and restoration of natural resources have been identified as an important objective for the *CMP*. (See *Regional Profile*, Section 8.0 Environmental Resources.) These include the following habitats:

Wetlands, Waters and Deepwater Habitats: The CMR planning process has targeted wetlands and bodies of waters including deepwater habitats for protection and restoration. The entire economic base of the tourism industry in the CMR depends upon



Manasquan River Estuary



Shrewsbury and Navesink River Estuaries



Palustrine Forested Wetlands

clean beaches and clean water. The ocean shoreline of the CMR supports intertidal marine wetlands and subtidal deepwater habitats. Intertidal marine habitats are important for supporting invertebrates like sand crabs, which provide food for shorebirds. In the near shore, deepwater habitats support local fisheries and recreational surf fishing.

Harmful impacts on the estuaries include degraded water quality, increased sediment, loss in wetlands, and biodiversity. For example, reduction in the amount of submerged aquatic vegetation, due to changing land and water use practices in the Navesink River is correlated with a decline in the abundance of crabs. Accumulation of sediment in the estuaries can result in increased frequency and magnitude of flooding, loss of access, and impacts to fisheries.

Riverine systems are also impacted by degraded water quality, erosion, sedimentation, and loss or degradation of riparian buffers. Tidal riverine wetlands, (rare in the CMR), are located at the interface of riverine and estuarine environments such as where Wreck Pond Brook drains into the estuarine portion of Wreck Pond. These transitional areas are where rare plants are restricted to the narrowly defined habitats, and are vulnerable to impoundments and diversions that eliminate tidal influences.

The palustrine system is most evidenced by the coastal ponds and forested wetlands in riparian corridors along the region's rivers and streams. The important ecosystem functions of palustrine wetlands include groundwater recharge, surface water flows, improved water quality, nutrient cycling, and providing habitat for resident, migratory and special status plant and animal species.

Upland Habitats: Although the majority of the natural upland habitats have been urbanized, the remainder still contribute to the environmental quality of the region. A mosaic of upland plant communities (e.g., grassland, scrubland and forest) in proximity to wetland corridors and water bodies provides an important ecological and aesthetic value to the CMR.

NJDEP Natural Heritage Priority Sites: The Natural Heritage Priority Sites Coverage was created to identify critically important areas for conserving New Jersey's biological diversity. Particular emphasis is given to rare plant species and ecological communities. These areas should be considered top priorities for the preservation of biological diversity in New Jersey according to NJDEP. Two Natural Heritage Priority Sites have been identified: Wreck Pond and Belmar Beach.

Individual watershed management area associations such as the Shark River Clean-up Coalition and the Manasquan River Watershed Association have been established to address issues relevant to the entire naturally defined watersheds, many of which extend westward beyond the Coastal Monmouth Region. The Monmouth County

Planning Board and Monmouth County Environmental Council have prepared studies for the North Coast and South Coast Environmental Planning Regions. Coordination among the various planning areas, planning initiatives, and watershed groups will be essential to reduce duplication of efforts and to achieve the most effective results.

Wildlife Management Areas: The CMR contains portions of two State Wildlife Management Areas (WMA): the Navesink River WMA and the Manasquan River WMA. WMAs are prime locations for various forms of recreation including fishing, birding, wildlife viewing, and photography.

ENVIRONMENTAL FEATURES

COASTAL MONMOUTH REGION
MONMOUTH COUNTY NEW JERSEY



Legend

-  COASTAL MONMOUTH REGION
-  MUNICIPAL BOUNDARIES
-  ROADWAYS
-  RAILROADS
-  TRAIN STATION
-  C-1 WATERS
-  TRIBUTARY TO C-1 WATERS
-  300' BUFFERS TO C-1 WATERS
-  WATER BODIES
-  FEMA "VE" DESIGNATED AREA
-  FLOOD PRONE AREAS
-  WETLANDS
- AREAS OF SIGNIFICANT ENVIRONMENTAL QUALITY**
-  BEACH
-  BOGS, MARSHES, & SWAMPS
-  COASTAL WETLANDS
-  MEADOWS, PARKS, & FORESTS
-  WATERWAY

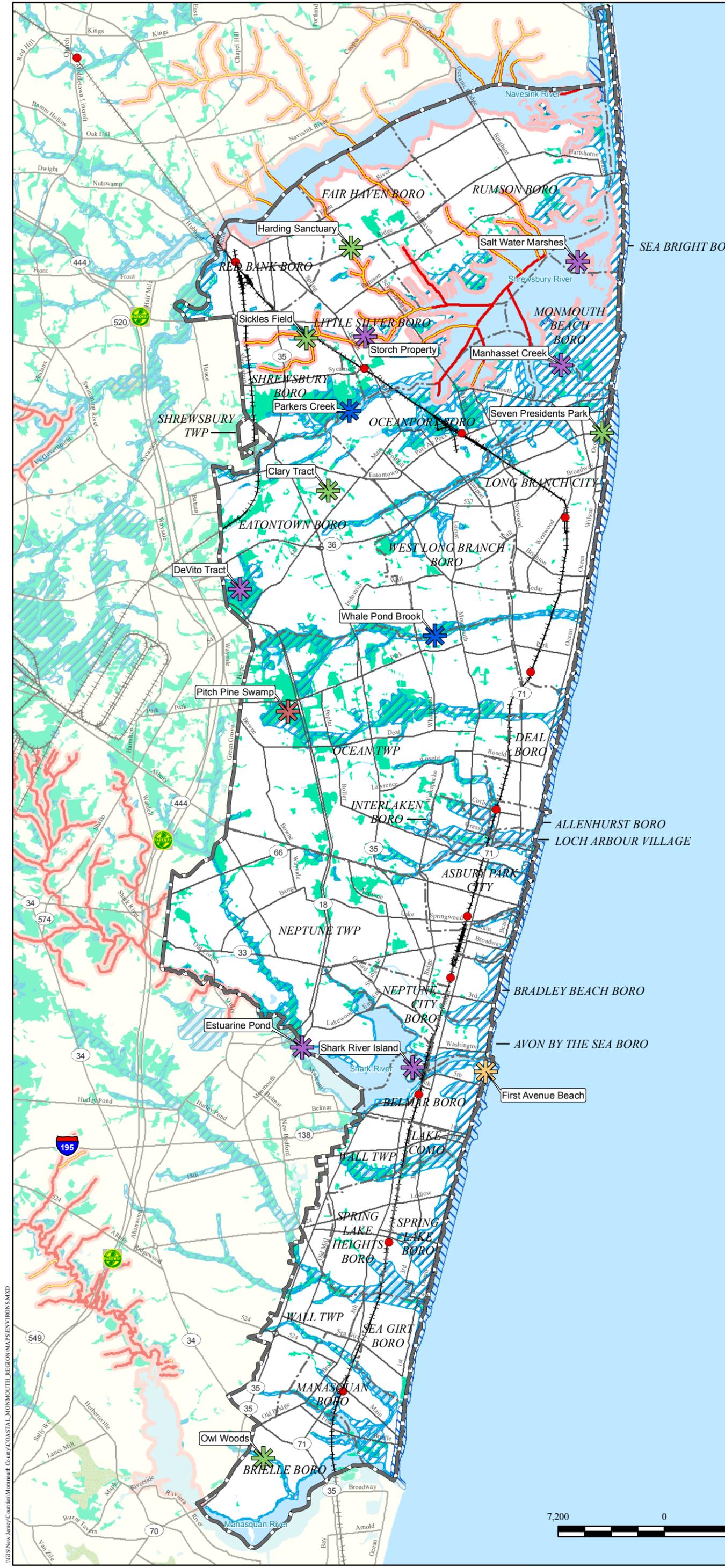
SOURCES: FEMA "VE" DESIGNATION SHOWS AREA WITH 10% CHANCE COASTAL FLOODPLAIN WITH STORMWAVE HAZZARD.

THE C-1 WATERS DESIGNATED IN THIS MAP ARE FROM THE NJDEP SURFACE WATER QUALITY STANDARDS FILE, CLASSIFIED BY THE ANTIDEG FIELD AND MODIFIED TO SHOW TRIBUTARIES OF THE C-1 WATERS.

THE WETLANDS ARE FROM THE 2002 LULC LAYER FROM THE NJDEP.

THE AREAS OF SIGNIFICANT ENVIRONMENTAL QUALITY ARE FROM THE MONMOUTH COUNTY PLANNING BOARD.

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GIS: New Jersey Coastal Monmouth County Coastal Monmouth Region Map Services M&D

9.2.1 Natural Resource Inventories

Critical natural resources distributed throughout the CMR such as wetlands and Natural Heritage Sites have already received some level of protection from NJDEP and USFWS. Other resources such as native biodiversity and natural plant communities have been the focus of county-level studies as noted in the regional reports, *North Coast, Mid-Coast and South Coast Environmental Planning Regions Monmouth County, New Jersey Ecological Resources Inventories* (Monmouth County Planning Board and Monmouth County Environmental Council 1999, 2000, and 1996, respectively). These previous inventories and collections of information on the environment are a good starting point for municipalities that wish to develop their own Natural Resource Inventories. Local NRIs would be the initial step in identifying local populations and habitats for special status plant and animal species, while at the same time providing new information for other regional environmental initiatives such as those taken on by watershed management groups.



Wreck Pond Natural Heritage Priority Site

Municipalities, local Environmental Commissions and ESG need to work together to determine which of the 30 municipalities have Natural Resource Inventories (NRI) and which existing NRI need to be updated. Detailed standards for NRI should be established so that information can be compared among the documents and municipalities. Maps of wetlands, dunes, and other sensitive habitats and locations of all special status plant and animal species are among the types of information that should be compiled. These inventories can be used by Environmental Commissions and Planning Commissions to provide a similar level of protection of natural resources throughout the CMR. A detailed knowledge base is essential to identify gaps in protection and to prioritize acquisition and preservation. Various levels of coordination would be necessary to help in the acquisition, protection and management of these areas once gaps have been identified. Municipalities, the MCPB, NJDEP and ESG are all likely to play important roles in many of the potential projects.

Some critical resources have already been identified within as Environmental Centers of Activity, such as the Sea Girt Coastal beach. In addition to critical natural resource areas, representative examples of typical CMR habitats and vegetation types are also potential priorities.

NRI are a requirement for municipalities which are seeking State Plan Endorsement. The *Regional Profile* contains natural resource information that can assist municipalities in their assessments. The Association of New Jersey Environmental Commissions (ANJEC) has grants to assist municipalities which have established Environmental Commissions. Other funding sources for updating or preparing municipal-level NRI should be sought by municipalities, or identified by ESG to help provide incentives for development of these documents in a timely manner.

Because municipal acquisition funding is likely to be limited, local ESG or regional land trusts could have an important role in implementing acquisition and protection strategies. Land trusts could either (1) acquire, hold title and manage the newly protected areas; or (2) transfer title and management responsibilities to local municipalities or other ESG. For example, the Monmouth Conservation Foundation is a not-for-profit organization founded by a group of citizens in 1977 to:

“(1) to acquire, hold, develop, preserve, and protect the open lands, historic areas, and park and recreational areas of Monmouth County, together with any buildings thereon; (2) to solicit and receive gifts, bequest, legacies, and conservation easements and conveyances of real and personal property in furtherance of its mission; to apply for, receive, and administer grants from private and public sources in furtherance of its mission, and to exercise all the rights, powers, and duties conferred on non-profit corporations under the laws of the State of New Jersey.”

9.2.2 Maintenance of Native Biodiversity

Maintaining healthy ecosystems and native biodiversity are often dependent upon the spatial relationship among habitats within an ecosystem. Landscape ecology planning principles can be grouped into four major categories: habitat/landscape patches, edges and boundaries, corridors and connectivity and mosaics.¹³ These principles have important value in habitat restoration planning. Ecological principles are also applicable not only in the design of restoration projects, but also in land management once preserved or restored.¹⁴ There are five major ecological principles: time, species, place, disturbance and landscape. These are included on Table II – 10.

Table II - 10 Categories of Ecology Planning Principles

LANDSCAPE ECOLOGY

Habitat/Landscape Patches: *There are four types of patches in the landscape: remnants, introduction, disturbances and specialized environmental resources. Aspects of patches are important to overall health of the site.*

Edges and Boundaries: *Edges are outer portions of patches.*

Corridors and Connectivity: *Five major functions of corridors are habitat, conduit, filter, source and sink. Corridors include those for species movement, stepping stones, road barriers, windbreak barriers, stream and river corridors.*

Mosaics: *The overall structural and functional integrity of a landscape can be expressed in terms of “pattern and scale”. The connectivity of the natural system is an important measure of the health of the landscape. Networks are the result of connectivity can be formed or designed to enhance or inhibit the inter-relationships within the landscape mosaic of patches, spaces, and corridors.*

MAJOR ECOLOGICAL PRINCIPLES FOR MANAGING LAND USE

Time - *Ecological processes function at many time scales, some long, some short; and ecosystems change through time.*

Species - *Particular species and networks of interacting species have key, broad-scale ecosystem-level effects.*

Place - *Local climatic, hydrologic, soil, and geomorphic factors as well as biotic interactions strongly affect ecological processes and the abundance and distribution of species at any one place.*

Disturbance - *The type, intensity, and duration of disturbance shape the characteristics of populations, communities, and ecosystems.*

Landscape - *The size, shape, and spatial relationships of land-cover types influence the dynamics of populations, communities, and ecosystems.*

To accompany these land use management principles, a series of strategic ecological guidelines have been developed for effective, sustainable management. (See Table II-11 Ecological Guidelines.)

¹³ Dramstad, W. E. J. D. Olson, and R. T. T. Forman. 1996. *Landscape Ecology Principles in Landscape Architecture and Land-Use Planning*. Harvard University Graduate School of Design, Island Press, and the American Society of Landscape Architects. 80 p.

¹⁴ Ecological Society of America's Committee on Land Use. 2000. *Ecological Principles for Managing Land Use*. ESA, Washington, DC.

Table II - 11 Ecological Guidelines

Examine the impacts of local decisions in a regional context.

- Plan for long-term change and unexpected events.
- Preserve rare landscape elements, critical habitats and associated species.
- Avoid land uses that deplete natural resources over a broad area.
- Retain large contiguous or connected areas that contain critical habitats.
- Minimize the introduction and spread of nonnative species.
- Avoid or compensate for effects of development on ecological processes.
- Implement land use and land management practices that are compatible with the natural potential of the area.

Applying consistent land management guidelines and ecological principles can reduce poor planning and design. For example, isolated sites such as Lake Como can benefit through such a management approach. Similarly, multi-use riparian corridors along the estuaries, rivers, and streams, that contain impacted banks, invasive exotic species, and discontinuous canopies, can also be improved upon. Designing for mosaics and networks of habitats, increasing connectivity, improvement of patch edges and development of site specific ecological guidelines are examples of how the natural resources can be enhanced.

The proposed CMR Environment Subcommittee can assist with the inter-municipal and inter-agency management of natural areas, parks, and open spaces. Federal agencies such as the US Fish and Wildlife Service, State agencies such as the NJDEP, the MCPB; municipalities and the ESG such as the Monmouth Conservation Foundation will also have an important role in this effort.

9.2.3 Threatened, Endangered and Rare Plant and Animal Species



Sea Beach Amaranth (*Amaranthus pumilus*) Restricted Area Sign

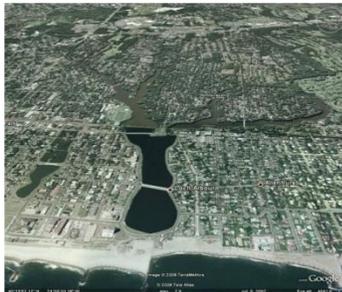
The CMR provides habitat for a number of endangered, threatened, and rare species of animals and plants as noted by the State's Natural Heritage Program. Wetlands, waters, and the immediate coastal environment support the majority of the listed species. Some bird species such as the Bald Eagle use estuaries and rivers for foraging, whereas other species, such as the Piping Plover, use beaches and dunes for breeding habitat. Bald Eagle foraging areas, for example, are located along the upper reaches of the Shrewsbury River in Little Silver and Oceanport and along the upper reaches of the Navesink River in Red Bank and Fair Haven, whereas breeding sites for the Piping Plover are located in discrete areas along the coast within Sea Bright, Monmouth Beach, Seven Presidents Oceanfront Park, Long Branch, and Sea Girt. (See *Regional Profile*, Section 8.0 Environmental Resources, Table I – 29.)

The distribution of threatened and endangered species and state-listed rare or special concern species is listed in the *Regional Profile* (Section 8.0 Environmental Resources). Different municipalities within the region provide different kinds of habitat, as noted above. For example, some animal species require large bodies of water, contiguous coastline, or mouths of estuaries. Threatened, endangered, or rare plant species within the *CMP* also use different habitats. For example, Sea-beach Amaranth, Sea-beach Sandwort, and Sea-beach Knotweed are restricted to upper beach and dune habitats such as those in Sea Girt, whereas Awl-leaf Mudwort, Slender Water-milfoil, Small Waterwort, Parker's Pipewort, and Whorled Marsh-pennywort are restricted to coastal ponds and lakes, such as Lake Como. However, in many instances, the location and habitat of rare plants and animals within the CMR is not well known and will require additional study as part of the implementation phase of this Plan to better understand their occurrence, condition and possible management needs. (See *Regional Profile*, Section 8.0 Environmental Resources, Tables I-28 & I-29).

A region-wide assessment of the habitats or threatened, endangered, and rare species should be performed. Currently available information may be out-of-date, inadequate or not integrated into the regional level. Additional species are known to be present in nearby sites beyond the boundaries of the CMR. As some regional species are endangered, recovery of healthy populations is an important environmental goal. Once an inventory is completed and made available, specific recovery plans for endangered species should be developed and implemented.

For some federally listed species, such as Sea-beach Amaranth, protective steps including use of seasonal fencing, have already been taken at known populations such as at Sea Girt by the U.S. Fish and Wildlife Service. These measures protect this unique area that is both a Natural Heritage Priority Site (i.e. Wreck Pond and vicinity), and a Federally Endangered Species site. However, in the case of State-listed species, extant populations of plants, such as Awl-leaved Mudwort, continue to be at risk. For example, proposed management actions, such as dredging or mechanical harvesting of aquatic vegetation on coastal ponds and lakes, can be in direct conflict with goals to preserve and protect threatened and endangered species unless coordination among stakeholder groups is achieved. A CMR Environmental Subcommittee should be formed that could prioritize the assessment of threatened and endangered species and implement recovery plans for at-risk populations. Individual ESG may also provide effective stewardship of individual species.

9.2.4 Coastal Ponds and Lakes



Deal Lake

The coastal ponds and lakes are valuable regional ecological resources for supporting native plant and animal populations. These ponds and lakes vary in size and context. Some are portions of estuaries e.g., Stockton Lake, Wreck Pond, and Deal Lake. Most, however, are palustrine ponds (e.g., Lake Como). Portions of Deal Lake may even have attributes of a true lacustrine lake. All of these water bodies apparently were naturally estuarine until artificially modified in the late 19th and early 20th centuries for use as nontidal recreational areas. Because of their current variability, it would be difficult to develop a single management strategy for all of them. Each has a combination of different management issues. In some cases, site specific groups have been formed to coordinate management of ponds and lakes like the Deal Lake Commission and the Wreck Pond Watershed Association. (See Coastal Lakes and Ponds Map II-24)



Awl-leaf Mudwort (a State Listed Endangered Species) at Wreck Pond

Similar ponds and lakes may not support identical natural resources. Site specific management plans may be necessary. Some conditions, such as sedimentation, degraded water quality and flooding may require a regional approach. Because many of the coastal ponds and lakes are located within more than one municipality, a regional approach for at least some aspects of their management is warranted. To ensure the protection of natural resources supported by each coastal pond and lake system, a Habitat Conservation Plan (HCP) should be prepared for each of the eleven identified water bodies. An example outline with details for the HCP contents and organization is provided in Table II-12. Historical information should be included to understand the original environment and the extent of lost or depleted resources. Proposals with implementation schedules for improvement should be included and coordination with relevant Wastewater Management Plans and Stormwater Management Plans is essential.

The development and implementation of a Regional Comprehensive Management Plan (RCMP) would help facilitate coordination among all participating groups. An example outline with details of the contents and organization of the RCMP is provided as Table II-13. State or Federal agencies should be included to help with funding. The Monmouth University Coastal Pond and Lake Initiative, spearheaded by the Urban Coast Institute, provides a logical starting point since it is already underway. Because many of the ponds and lakes are affected by similar impacts, a regional approach to management would provide a coordinated solution to problems common among the municipalities within which the ponds and lakes are located. Past, current, and future studies done of individual water bodies (e.g., Monmouth County Health Department¹⁵; Sousa 2008¹⁶; Deal Lake Commission 2008¹⁷) will provide the needed information to help set realistic goals and make informed decisions.

¹⁵ Monmouth County Health Department. 1990. Report on the Nine Coastal Lakes in Monmouth County. Fall 1989 – Summer 1989.

¹⁶ Souza, S.J. 2008. Restoring Our Coastal Lakes. Presented at “The Future of Coastal Lakes of Monmouth and Ocean Counties, New Jersey”, Coastal Watershed Seminar Series, Urban Coast Institute, Monmouth University, June 19, 2008.

¹⁷ Deal Lake Commission. 2008. The State of Deal Lake – 2007. An Environmental Status Report and Plan of Action for Deal Lake, Monmouth County, New Jersey. Deal Lake Commission, Loch Arbour, NJ.

One product of the Monmouth University Coastal Pond and Lake Initiative is the report entitled “*The Future of Coastal Lakes in Monmouth County*”¹⁸. This report provides an overview of the problems affecting coastal ponds and lakes. Recommendations for achieving sustainable improvements in water quality are stated including the preparation of resource inventories and Habitat Conservation Plans for each water body and a Regional Conservation Management Plan to coordinate the management efforts among the ponds and lakes. Actions to restore these coastal resources must take into account the important existing conditions including, but not limited to, populations of rare, threatened, and endangered plants and animals, wetlands dominated by native plants, beneficial wildlife use, and populations of native invertebrates.

9.2.5 Rivers and Estuaries

Healthy rivers and estuaries are critical for the maintenance of native plant and animal biodiversity. The Region contains portions of four important river systems and their tributaries and estuaries (the Navesink, Shrewsbury, Shark, and Manasquan systems). Also included are a number of smaller drainages terminating in estuaries or coastal ponds (Whale Pond, Hog Swamp, and Wreck Pond). The environmental health of these systems is dependent upon land use practices, riparian corridors, wetlands, and buffers that help protect the waterways. Biodiversity, hydrology, water quality, and regional drainage systems are important contributors to the quality of life. The placement of dams in the past has disrupted riverine systems within watersheds and continues to contribute to the degradation of riparian corridors.

A regional watershed approach is needed to respond to adverse environmental impacts. Watershed Management Area 12 includes 56 municipalities in three counties extending from Perth Amboy to Point Pleasant. The Area 12 Watershed Management Partnership is described in the *Regional Profile* (Section 8.0 Environmental Resources).

To reduce duplication and increase efficiency, individual watershed management plans need to be regionally coordinated to focus on the downstream effects. The Area 12 Watershed Management Partnership broadly fulfills this role. In addition to the *Ecological Resource Inventory of the South Coast Environmental Planning Region*¹⁹, there are additional County-level groups dealing with water resources such as the Navesink Swimming River Group, Shark River Coalition, Deal Lake Commission, Wreck Pond Watershed Association and Manasquan River Watershed Association. Other regional efforts (Urban Coast Institute at Monmouth University) may also provide important forums to facilitate a regional approach. In any case, the subwatersheds of Watershed Area 12 should be seen as the common element. A major benefit of this regional planning effort is that it will provide better coordination for addressing large scale issues.

The Area 12 Watershed Management Partnership members, the scientific community, regional institutions, organizations, and businesses should continue to implement this process. Because of upstream impacts on watersheds, it is essential that those responsible for management of watersheds be mindful of the entire watershed system. The existing CMR management structure provides a framework to build upon.

9.2.6 Stream Corridor (Riparian) Protection

During the planning process, concerns were expressed that stream corridors, including riparian zones and buffers, have not received adequate local and regional protection. Implementation of detailed comprehensive Watershed Management Plans for Area 12 should help protect these corridors. The Flood Hazard Area Control Act Rules (N.J.A.C. 7:13) passed by the State legislature in November 2007, should also help improve the quality of riparian zones. The purpose of the rules is to minimize damage to life and property from flooding caused by development within fluvial and tidal flood hazard areas, to preserve the quality of surface waters, and to protect the wildlife and vegetation dependent upon such areas.

Participants in the implementation of rules include NJDEP, Monmouth County, municipalities, and ESG as well as the residents who live along regulated waters (rivers, streams, ponds/lakes, and estuaries) of the Region. The intended objective is to provide or high functioning riparian corridors. Municipalities are required, as part of updated Wastewater Management Plans, to adopt riparian buffer ordinances to protect water quality. Model riparian buffer ordinances are found on the NJDEP website.

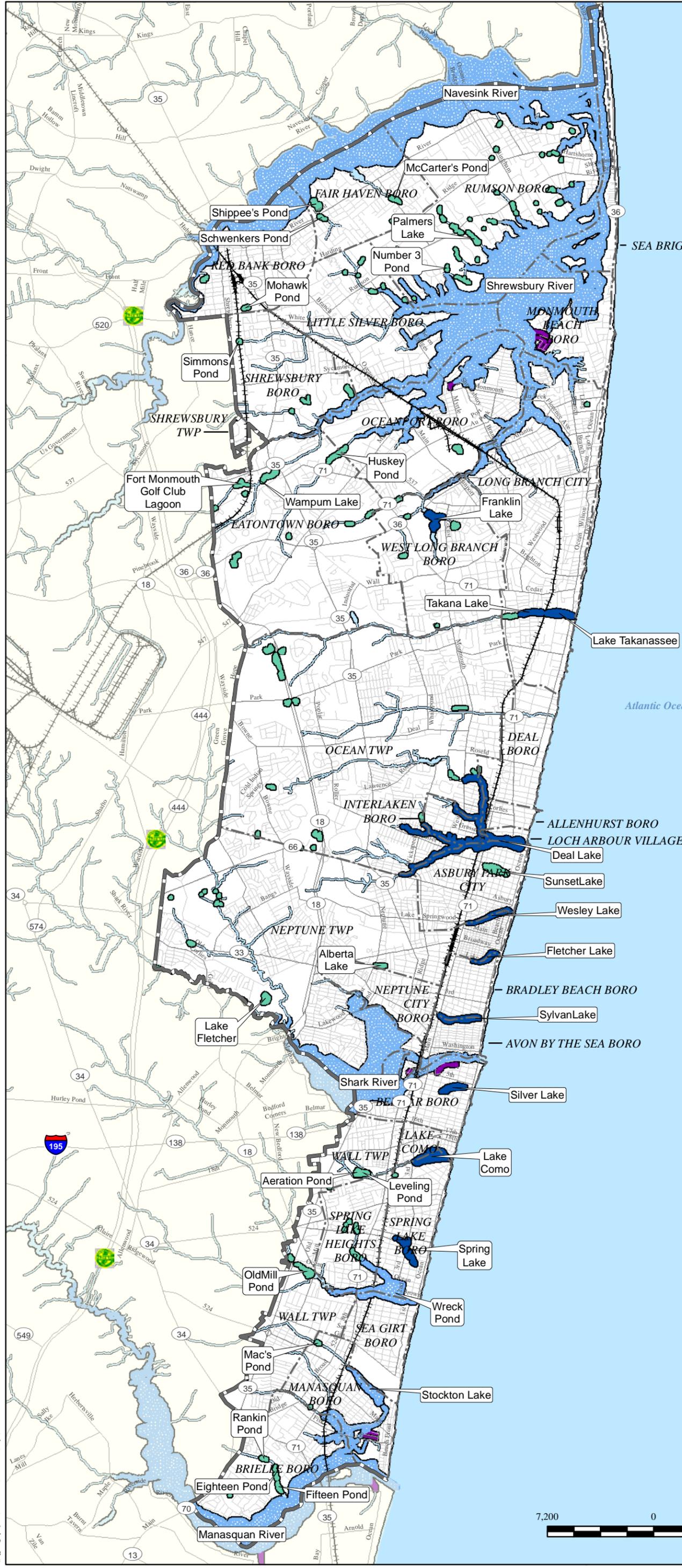
¹⁸ Tiedemann, J. A. , M. Witty, and S. Souza. *The Future of Coastal Lakes in Monmouth County*. Urban Coast Institute, Monmouth University and Princeton Hydro. Produce with funding provided by the National Oceanic and Atmospheric Administration (NOAA). September 2009.

¹⁹ Monmouth County Planning Board. 1996. *Ecological Resource Inventory, South Coast Environmental Planning Region, Monmouth County, New Jersey*. A Publication of the Monmouth County Planning Board and its advisory body the Monmouth County Environmental Council.

TOWNSHIP

COASTAL LAKES AND PONDS

COASTAL MONMOUTH REGION
MONMOUTH COUNTY NEW JERSEY



Legend

-  COASTAL MONMOUTH REGION
-  MUNICIPAL BOUNDARIES
-  ROADWAYS

COASTAL LAKES AND PONDS

-  ATLANTIC OCEAN
-  TIDAL RIVERS, INLAND BAYS, AND OTHER TIDAL WATERS
-  DREDGED LAGOON
-  NATURAL LAKES
-  ARTIFICIAL LAKES



THIS MAP WAS DEVELOPED USING MONMOUTH COUNTY DIGITAL DATA FROM THE 2003 LANDBASE PROJECT. THE MAP ALSO USED DATA FROM THE NJDEP. THIS SECONDARY PRODUCT HAS NOT BEEN VERIFIED AND IS NOT COUNTY OR STATE AUTHORIZED.

\\ngs1\lg\projects\Private\2006\060009\GIS\Maps\LAKES AND PONDS.mxd

Table II – 12

MODEL HABITAT CONSERVATION PLAN OUTLINE***Habitat Conservation Plan
For XXXX Pond
Monmouth County, New Jersey*****EXECUTIVE SUMMARY****1.0 INTRODUCTION**

- 1.1 Background
- 1.2 Site Location and Characteristics
- 1.3 Management of Non-game, Threatened, and Endangered Species in NJ
- 1.4 Threatened and Endangered Species of the Critical Habitat and Conservation Areas
- 1.5 Species of Special Concern of the Critical Habitat and Conservation Areas
- 1.6 Purpose, Scope, and Need
- 1.7 Proposed Actions and Decisions Needed
- 1.8 Goals of the HCP
- 1.9 Exemptions and Restrictions

2.0 SITE DESCRIPTION

- 2.1 Physical Resources
- 2.2 Biological Resources
- 2.3 Cultural Resources
- 2.4 Aesthetic Resources

3.0 LAND USE HISTORY**4.0 IMPACTS TO CONSERVATION AND CRITICAL HABITAT AREAS**

- 4.1 Critical Environmental Resources and Habitats
- 4.2 Summary of Environmental Analysis

5.0 LAND CONSERVATION STRATEGIES

- 5.1 General Conservation and Management Context
- 5.2 Measures to Protect Critical Habitat Areas
- 5.3 Conservation Deeds and Restrictions
- 5.4 Additional Steps to Minimize Impacts to Critical and Conservation Areas

6.0 ADAPTIVE MANAGEMENT STRATEGIES**7.0 COORDINATION WITH OTHER PLANS**

- 7.1 Coordination with Relevant Wastewater Management Plans
- 7.2 Coordination with Relevant Stormwater Management Plans

8.0 IMPLEMENTATION OF THE HCP

- 8.1 Management Structure
- 8.2 Public Access and Participation
- 8.3 Interpretation and Education
- 8.4 Implementation Actions
- 8.5 Amendment and Revision of the HCP
- 8.6 Proposed Implementation Schedule

9.0 POTENTIAL IMPACTS OF THE PROPOSED HCP

- 9.1 Beneficial Impacts
- 9.2 Potentially Deleterious Impacts

10.0 STEPS TO MINIMIZE POTENTIAL DELETERIOUS IMPACTS OF THE HCP

- 10.1 Onsite Impacts
- 10.2 Offsite Impacts

11.0 CONCLUSION**12.0 REFERENCES****13.0 APPENDICES (Examples)**

- Appendix A. Figures
- Appendix B. Compliance Statement for General Permits and Approvals
- Appendix C. Letter of Interpretation/Line Verification – Wetlands and Waters
- Appendix D. NJDEP Natural Heritage Report and Rare Species Reports
- Appendix E. Historic Resources
- Appendix F. Site Plans

Table II- 13
MODEL REGIONAL COMPREHENSIVE MANAGEMENT PLAN OUTLINE

***Regional Comprehensive Management Plan
For Coastal Ponds and Lakes
Monmouth County, New Jersey***

EXECUTIVE SUMMARY

1.0 INTRODUCTION

- 1.1 Background
- 1.2 Regional Location and Characteristics
- 1.3 Inventory of Coastal Ponds and Lakes
- 1.4 Purpose, Scope, and Need
- 1.5 Proposed Actions and Decisions Needed
- 1.6 Goals of the RCMP
- 1.7 Exemptions and Restrictions

2.0 COASTAL PONDS AND LAKES

- 2.1 Individual Summaries of "Habitat Conservation Plans" for Coastal Ponds and Lakes
- 2.2 Review of Similarities and Differences among Coastal Ponds and Lakes
- 2.3 A Regional Approach to Management

3.0 REGIONAL IMPACTS TO COASTAL PONDS AND LAKES

- 3.1 Regional Land Use History
- 3.2 Critical Environmental Resources and Habitats
- 3.3 Regional Impacts to Coastal Ponds and Lakes
- 3.4 Summary of Environmental Analysis

4.0 REGIONAL LAND CONSERVATION STRATEGIES

- 4.1 General Conservation and Management Context
- 4.2 Regional Measures to Protect Critical Habitat Areas
- 4.3 Regional Conservation Deeds and Restrictions
- 4.4 Additional Steps to Minimize Impacts to Critical and Conservation Areas

5.0 REGIONAL ADAPTIVE MANAGEMENT STRATEGIES

6.0 IMPLEMENTATION OF THE RCMP

- 6.1 Management Structure
- 6.2 Implementation Actions
- 6.3 Amendment and Revision of the RCMP
- 6.4 Public Participation

7.0 POTENTIAL IMPACTS OF THE PROPOSED RCMP

- 7.1 Beneficial Impacts
- 7.2 Potentially Deleterious Impacts

8.0 STEPS TO MINIMIZE POTENTIAL DELETERIOUS IMPACTS OF THE RCMP

9.0 CONCLUSION

10.0 REFERENCES

11.0 APPENDICES (Examples)

- Appendix A. Figures
- Appendix B. Compliance Statement for General Permits and Approvals
- Appendix C. Letter of Interpretation/Line Verification – Wetlands and Waters
- Appendix D. NJDEP Natural Heritage Report and Rare Species Reports
- Appendix E. Historic Resources
- Appendix F. Site Plans

9.2.7 Preservation and Restoration of Wetlands and Waters

Watershed plans should be used to prioritize wetlands and areas for preservation and restoration. They should define the areas for action, acquisition either through title or easement, enhancement, restoration, habitat creation and long-term management. One important example of this approach is the report entitled, “*Preservation of Critical Areas in the Manasquan River Watershed*”²⁰. As stated in this report:

“The Manasquan River Watershed Association and the New Jersey Water Supply Authority formed the Manasquan River Watershed Critical Areas Committee in 2004. The Committee is comprised of representatives from the New Jersey Water Authority, the Manasquan River Watershed Association, and nine municipal governments within the watershed. The committee was charged with the development of critical area criteria for the selection of lands capable of protecting the Manasquan River Watershed in Monmouth and Ocean County, New Jersey, and its subwatersheds.”

As in the case of coastal ponds and lakes, regional priorities should be established. Watersheds are not identical. Region-wide conservation priorities should include, for example:

- Conservation of rare and vulnerable portions of watersheds such as the freshwater tidal portion of Wreck Pond Brook, which provides important transitional habitat between the estuarine and riverine system for narrowly-restricted plant species and anadromous fish species such as American Shad.
- Restoration of shallow-flooded margins of Wreck Pond, Lake Como, and other coastal ponds to conserve endangered plant species habitat;
- Restoration of Submerged Aquatic Vegetation (SAV) in the Navesink and Shrewsbury estuaries and other estuaries to provide important fishery habitat, shoreline stability, and improved water quality;
- Enhancement of wetlands throughout the CMR by eradicating Common Reed, an invasive exotic species that threatens virtually all wetlands in the region, including riverine, estuarine, and palustrine wetlands in each subwatershed area.

The Wreck Pond watershed supports the environment along Wreck Pond Brook because there are no impoundments that have eliminated habitats. But because of a small dam along the North Branch Stream, the transition between the estuarine and riverine environments has been eliminated and created a series of degraded palustrine ponds. Conservation priorities for the CMR should protect the freshwater tidal portion of Wreck Pond Brook because of its regional significance. For the local watershed, a priority could include restoration of the impounded portion of North Branch Stream.

9.2.8 Beach and Dune Protection

The maritime environment along the Atlantic coast of Monmouth County includes subtidal deepwater habitats, intertidal wetlands and waters, and upper beach and dune habitats. The intertidal beach, upper beach, and dunes are also habitats for rare, threatened and/or endangered plants and animals, especially endangered beach nesting birds (NJDEP 2003). Beaches and dunes are managed for mixed uses including general access, recreation (fishing and swimming) and for natural resources (endangered plants and animal species).

Management practices may involve installation of groins and jetties, creation of artificial dunes for protection of coastal properties, raking and other beach grooming activities. Also, maintaining high quality environments that support threatened and endangered species located at the mouth of rivers and estuaries along the coast is important for the maintenance of native plant biodiversity. However, some types of coastal management practices, such as beach grooming, can be damaging to native plant and animal populations. Of particular concern are those practices that disturb environmentally sensitive areas that support threatened and endangered species.

²⁰ New Jersey Water Supply Authority. 2005. *Preservation of Critical Areas in the Manasquan River Watershed*. A Technical Report to identify sensitive natural resources in need of protection in the Manasquan River Watershed.

Table II - 14 NJDEP Monitored Bird Beach Nesting Sites

<i>Beach Nesting Site</i>	<i>Species Present*</i>	<i>Activity+</i>
Sea Bright North	LT, PP	signed, fenced, patrolled, enclosure
Monmouth Beach North	LT, PP	signed, fenced, patrolled, enclosure
Monmouth Beach South	PP	signed, fenced, patrolled
Seven Presidents Oceanfront Park	LT, PP	signed, fenced, patrolled, enclosure
Long Branch	LT, PP	signed, fenced, patrolled, enclosure
Belmar – Shark River Inlet	LT	signed, fenced, patrolled
Sea Girt – Wreck Pond	LT, PP	signed, fenced, patrolled, enclosure
Sea Girt – Nat'l Guard Training Center	LT	signed, fenced, patrolled

All sites managed by the NJ Division of Fish and Wildlife – Endangered and Nongame Species Program

* LT = Least Tern; PP = Piping Plover

+ Enclosure = Predator enclosure

Beach replenishment projects, usually accomplished by pumping off-shore sand onto beaches, are necessary from time to time along the New Jersey coast where beach erosion exceeds natural sand accumulation. Such projects are permitted by the US Army Corp of Engineers. The preparation and implementation of a *Beach Management Plan*, including the protection and recovery of threatened and endangered species, is often a permit requirement associated with beach replenishment. Some requirements regarding beach management can include zoned beaches for limited raking and access in some areas to protect existing or potentially reestablish rare natural resources such as threatened and endangered plant and animal species.

NJDEP currently conducts monitoring of beach nesting sites for endangered birds along the New Jersey coast. Management practices for the monitored sites include a number of protective actions: daily monitoring and patrolling, fencing, posting, and closure of feeding areas where chicks feed and rest. Predation is a major concern at some sites, particularly by birds (especially crows), by cats (both domestic and feral) and foxes. Enclosures have been added at some nest sites. (See Table II-14 NJDEP Monitored Bird Beach Nesting Sites.

The NJDEP Endangered and Nongame Species Program has made various recommendations regarding management of CMR nesting sites providing helpful guidelines. Many of these recommendations should be included in municipal and County facility management plans. (See Table II-15 Recommendations for Management of Nesting Sites on Beaches and Dunes.)

NJDEP identified a number of cases where municipalities have beach grooming practices, particularly raking, that are either in proximity to endangered species habitat or within it. Because nesting bird sites and special status plant populations may move about within an area, a balanced approach to beach grooming practices should be implemented. Grooming could be accomplished in a series of zoned areas:

- Permanently groomed zones for continual beach access and recreation
- Seasonally groomed zones for seasonal protection of nesting sites
- Grooming for recreational activities
- Permanently non-groomed zones for regular and ongoing use of highly important sites, such as endangered plant habitat

Table II - 15
Recommendations for Management Of Nesting Sites on Beaches and Dunes

- *Conduct early-season monitoring to locate specific nesting areas within the sites.*
- *Pre-fence sites and post “No Dog” signs at all beach accesses.*
- *Exclosures should be used in many cases, but foxes can cause nest destruction and abandonment despite the use of exclosures.*
- *Work with municipalities to better enforce existing domestic animal ordinances.*
- *Remove all trash receptacles from vicinity of nesting areas to reduce presence of predators and reduce activity associated with maintenance of receptacles.*
- *All dune fence projects should be completed before the start of the nesting season (April 1) and dune management projects should be coordinated with agency staff to ensure they are compatible with nesting birds.*
- *Annual beach cleanup projects through the New Jersey Clean Shores Program should be scheduled before the start of the nesting season to minimize disturbance to birds.*
- *Increase in private beach access over seawalls is a continuing concern because it can result in fragmentation of nesting habitat areas. Address in a beach nesting bird management plan and investigate permitting process and legal issues regarding private beach access at some sites.*
- *Improve communications with municipalities especially in regards to municipal projects planned for beaches and in regards to beach management practices in general that could adversely affect nesting birds and their habitat.*
- *Work with municipalities and appropriate agencies to initiate development of written beach nesting bird management plans. This is a priority for sites that are improving as nesting areas. Long Branch has prepared a management plan for beach nesting birds and Sea-beach Amaranth, an endangered plant.*
- *Raking should be limited or prohibited in nesting areas.*

9.2.9 Control of Invasive Exotic Species

Invasive exotic plants species are those plants not indigenous to an area, but which tend to dominate the landscape changing the structure and function of habitats, usually to the detriment of native plant and animal species. The Mid-Atlantic Exotic Pest Plant Council (MA-EPPC) provides regional leadership to effectively address the threat of invasive plants. The MA-EPPC coordinates regional efforts to gather and share information on the identification, management, and prevention of invasive species. They also provide training, volunteer opportunities, and identify research needs.



Wreck Pond

The MA-EPPC Plant List includes 284 species of exotic species that are known to be, or are, potentially invasive. Many of these species occur in the CMR. Several are of particular concern: Phragmites (*Phragmites australis*), Japanese Knotweed (*Polygonum cuspidatum*), Japanese sedge (*Carex kobomugi*), Multiflora Rose (*Rosa multiflora*), Japanese Honeysuckle (*Lonicera japonica*), and Purple Loose-strife (*Lythrum salicaria*). Freshwater and brackish water wetlands are particularly vulnerable to invasion by Phragmites. Freshwater marshes and pond margins are habitats where Purple Loose-strife thrives and riparian habitats are susceptible to Japanese Knotweed, Multiflora Rosa, and Japanese Honeysuckle.

Because virtually all municipalities in the CMR have serious problems with one or more invasive exotic species, especially communities with wetland habitats, watershed-based Invasive Exotic Plant Control Plans are perhaps the best approach to containing of invasive species. Unless the species are controlled in the upstream portions of a watershed, there may be little hope of controlling them in the downstream portion of watersheds. Recommendations include coordination among the Watershed Management Area 12 participants to establish priorities for eradication or control of invasive species, development of protocols for eradication including emphasis on environmentally sensitive approaches, and establishment of a monitoring program within each watershed area to determine the effectiveness of protocols and to look for new colonies of invasive species for treatment.

9.3 INFRASTRUCTURE RESOURCES

Both natural and man-made constructed infrastructure systems can protect, improve and sustain natural resources for beneficial uses. These infrastructure systems include Blue Infrastructure, Green Infrastructure and Gray Infrastructure. (See Table II – 16 and Blue, Green and Gray Infrastructure and Green and Blue Infrastructure Map II-25.)

The overall quality of life for residents and visitors, but also for wildlife is dependent upon balanced coordinated interactions among the infrastructure systems. For example, a sustainable environment must be supported by adequate potable water supplies, high quality surface water systems, improved air quality and controlled flooding and stormwater treatment.

Table II - 16
Blue, Green and Gray Infrastructure

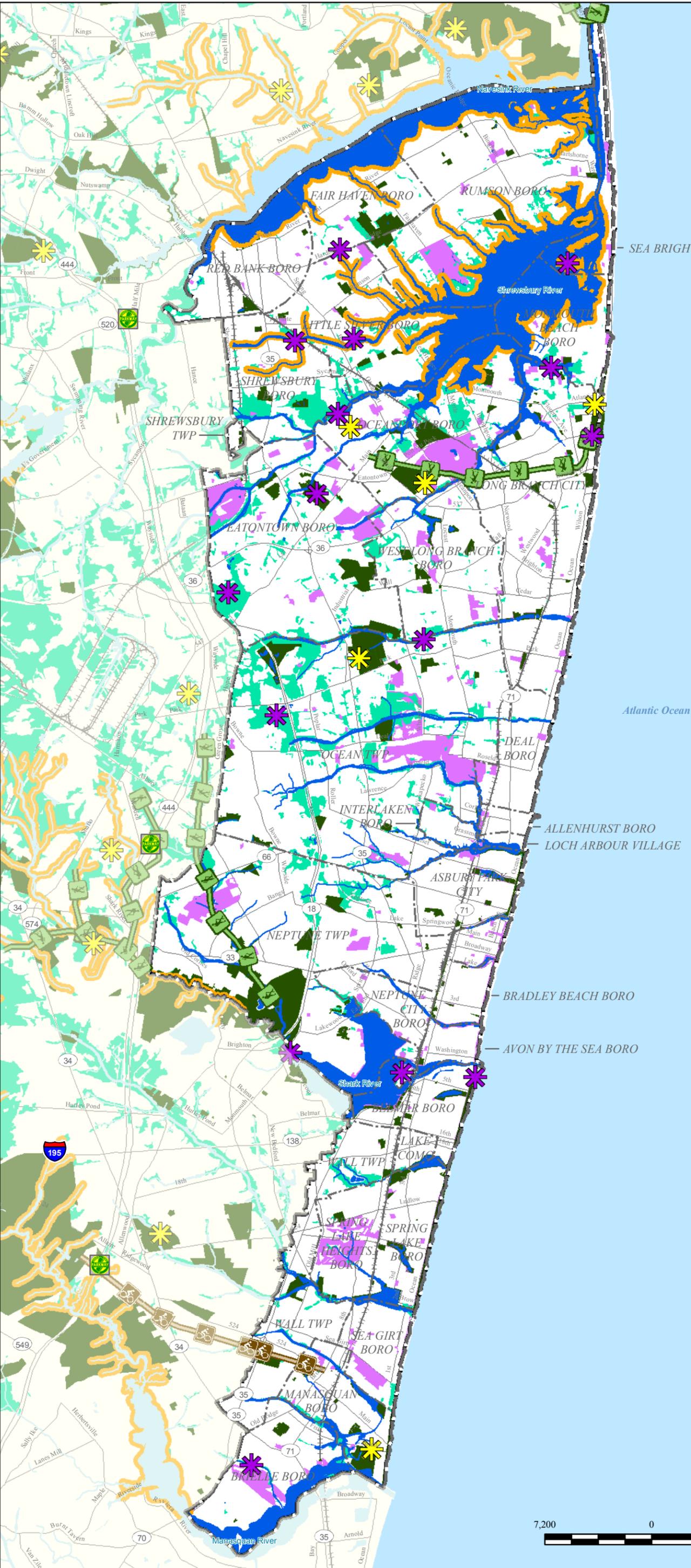
Blue Infrastructure. *Blue infrastructure is open water resources including natural features such as shallow-water open ocean, estuaries, rivers, streams, ponds, lakes, and artificial features such as agricultural ponds and other created water bodies. These “arteries” provide natural functions like conveyance of flood waters, groundwater recharge and discharge areas, and fisheries. They also serve as corridors for transportation, opportunities for recreation, and provide for sport fishing and commercial fisheries.*

Green Infrastructure. *Green infrastructure is the wetlands and uplands, horticultural and agricultural lands, and open spaces including natural features such as marshes and swamps, forests, and specialized habitats such as dunes. These features provide natural functions such as groundwater recharge and discharge, floodwater storage, maintenance of water quality, maintenance of biodiversity including rare and endangered species and food chain support. Green infrastructure is essential to maintain water quality and quantity and to reduce noise impacts and air pollution.*

Gray Infrastructure. *Gray infrastructure includes the artificial features that contribute to the use of the CMR by its human residents and visitors. Examples include transportation corridors and arteries; pedestrian walkways and bikeways; stormwater and wastewater conduits and treatment facilities and other utilities; dams, bulkheads, gabions, groins and jetties, and other artificial features.*

**GREEN & BLUE
INFRASTRUCTURE**

COASTAL MONMOUTH REGION
MONMOUTH COUNTY NEW JERSEY



Legend

-  COASTAL MONMOUTH REGION
-  MUNICIPAL BOUNDARIES
-  ROADWAYS
-  RAILROADS
-  WATER BODIES
-  300' BUFFER TO C1 WATERS
-  RECREATIONAL LANDS
-  WETLANDS
-  EDGAR FELIX BIKEWAY
-  PROPOSED COUNTY GREENWAY
-  PROPOSED COUNTY PARK IMPROVEMENT
-  AREAS OF SIGNIFICANT ENVIRONMENTAL QUALITY

SOURCES: RECREATIONAL LANDS ARE FROM THE NJDEP 2002 LAND USE / LAND COVER AND INCLUDE CATEGORIES 1800 - RECREATIONAL LANDS AND 1804 - ATHLETIC FIELDS.

WETLANDS ARE FROM THE NJDEP 2002 LAND USE / LAND COVER AND EXCLUDE MANAGED, MODIFIED, BUILT-UP AND AGRICULTURAL WETLANDS.

AREAS OF SIGNIFICANT ENVIRONMENTAL QUALITY ARE FROM THE MONMOUTH COUNTY PLANNING BOARD.

PRESERVED OPEN SPACE, PROPOSED COUNTY GREENWAYS, AND PROPOSED COUNTY PARK IMPROVEMENTS ARE FROM THE 2006 MONMOUTH COUNTY OPEN SPACE PLAN.

THIS MAP WAS DEVELOPED USING MONMOUTH COUNTY DIGITAL DATA FROM THE 2003 LANDBASE PROJECT. THE MAP ALSO USED DATA FROM THE NJDEP. THIS SECONDARY PRODUCT HAS NOT BEEN VERIFIED AND IS NOT COUNTY OR STATE AUTHORIZED.



9.3.1 Blue and Green Infrastructure

New Jersey's flood hazard, stormwater management, wetlands, and water quality regulations are designed to assist with the protection, improvement and maintenance of the State's wetland and aquatic resources. Water-based inventories of the blue and green infrastructure should be prepared. Degraded areas should be identified for restoration. Important areas threatened with development should be preserved. All resource buffers should be delineated and protected. Local ordinances should also be adopted to assist with implementation of the State level rules.

Solutions to many of the region's infrastructure problems require cooperation among the thirty municipalities. Watershed-based planning is the best approach for development of green and blue infrastructure policies to preserve, restore and acquire important at-risk lands and waters from further degradation or loss through development.

Nearly all CMR watersheds are located within more than one municipality. The protection levels vary from one municipality to another within the same watershed. Although many protections are provided through State regulations, implementation at the local level requires coordination to maintain consistent infrastructure.



Wreck Pond

NJDEP funds should be sought to develop regionally based watershed plans. Green Acres funds can also contribute toward acquisition of important natural areas and open spaces. Greenbelts can provide importation linkages between protected areas along all riparian corridors.

There will be some inevitable overlap in these planning efforts simply because the same resources are being treated from different viewpoints (i.e., ecosystem functions versus infrastructure functions). Integration of these viewpoints through watershed management and regional plans will help integration of protective efforts for green and blue infrastructure systems (e.g., water supply, flood protection, wetlands, and threatened and endangered plants and animals).

Model ordinances can help promote regulatory consistency between municipalities. Areas of opportunity include tree preservation and replacement buffer management and stormwater management practices (rain gardens, bioswales and constructed wetlands). Sources for model ordinances include the Association of New Jersey Environmental Commission's *Smart Growth Survival Kit* that is available at: http://www.anjec.org/pdfs/SG_Ordinances.pdf

The NJDEP Office of Planning and Sustainable Communities provides a wide range of model ordinances at <http://www.state.nj.us/dep/opsc/envcbp.html#model>.

9.3.2 Gray Infrastructure

The environmental health of the region's blue and green infrastructure is dependent in many ways on the functional condition of the region's gray infrastructure. Polluted brownfield sites, leaking septic systems, untreated stormwater runoff, outdated dams and impoundments, undersized bridges and culverts, and extensive areas of impervious surfaces are some of the current problems that contribute to water pollution, sedimentation, flooding and reductions in groundwater recharge.

The first step in correcting gray infrastructure defects is to identify and prioritize the major problems. This would be followed by developing improvements plans. Categories of gray infrastructure include, but are not limited to, the following:

- Brownfield sites should be identified and environmental threats addressed including those impacts on water quality to coastal ponds and lakes.
- Impoundments to green and blue infrastructure should be removed to restore natural riparian corridors. Examples of outdated impoundments are dams at Wreck Pond and along Jumping Brook.



Jumping Brook Dam



Wreck Pond

- Bridges, culverts, and other restrictions along riparian corridors, which are seriously undersized, should be replaced, enlarged or otherwise improved to restore riparian corridors and reduce flood hazards. One example where improvements should occur is the undersized culvert at Rt. 33 where it crosses Jumping Brook in Neptune Township. Here the undersized and unmaintained bridge culvert has trapped sediment and debris upstream of the culvert, reducing the flow capacity and increasing flood threats.
- Storm drains and outflows should be replaced with detention or retention basins, sediment traps, rain gardens, bioswales, and constructed wetlands. The drainage pipes that flow directly into Wreck Pond without treatment is an example of this condition.
- Leaking septic and sewer systems degrade groundwater and surface water resources and should be replaced to reduce contamination. Preparing updated Wastewater Management Plans and environmental assessments will aid in identifying and prioritizing problems.

Achieving sustainable regional development will depend on the availability of potable water quantity and quality. With increasing population growth in the region there is an increased demand for resources, especially water supply. If groundwater aquifers are over-drafted, intrusion of salt water can occur, thereby rendering water supplies unusable without additional treatment. A combination of conservation, potential limits to growth, improvements in treatment of stormwater flows, and increase in groundwater recharge will likely be necessary to maintain the quality of life characteristic of the CMR.



Wreck Pond

Sustainable communities require a balance between water demands and water supplies. They must increase their water supplies through conservation efforts. CMR communities should first assess their current water supplies and water demands based upon current and projected water users, then follow up with a water conservation plan.

Compliance with the new NJDEP stormwater and wastewater management rules and use of Best Management Practices will assist in water quality improvement. Rain gardens, bioswales and constructed wetlands to treat stormwater before it is directed into the surface watershed are among the direct actions that can be taken to reduce adverse environmental impacts. Monitoring programs are important tools that can be employed at the County level to address changes in levels of contaminants. Studies of the types of deleterious bacteria should be conducted to determine the sources of contamination.

Some monitoring is already being done by the Urban Coast Institute at Monmouth University in collaboration with the NJDEP Bureau of Marine Water Monitoring, the Barnegat Bay National Estuary Program and other local and regional partners. A network of six automated monitors are collecting data for temperature, salinity, dissolved oxygen, pH, turbidity, and chlorophyll. These monitors are located on four sites within or adjacent to the CMR: the Manasquan River Estuary at Point Pleasant; the Shark River Estuary at Belmar; the Shrewsbury River Estuary at Branchport Creek; and the Navesink River Estuary.

9.3.3 Air Quality



The Federal Clean Air Act requires each State to attain and maintain specified air quality standards. In general, the air quality in New Jersey has improved during the past two decades, but there are days with unhealthy air quality. Air quality in the Northern Coastal Region was cited as being unhealthy for sensitive groups on 22 days, unhealthy on 5 days and very unhealthy on 4 days.²¹

Ground-level ozone caused by combustion engine vehicles is the primary cause of air pollution in the Region. Improvements in traffic conditions can also reduce levels of vehicle exhaust. Hot summer days with heavy shore traffic and long waits at intersections are when ozone levels are likely to be at their highest. Transportation improvements such as the congestion mitigation at intersections can contribute to ozone reduction and improved air quality. Also reducing idling of motor vehicles can significantly reduce vehicle pollution. For example, an idling vehicle emits about 20 times more pollution than one travelling at 30 mph. Improved air quality also reduces atmospheric contaminants that contribute to global climate change.

²¹ New Jersey DEP Bureau of Air Quality Monitoring – 2005.

Because combustion from home and commercial heating units contribute to air pollution, measures to upgrade these systems should be a consideration. This is consistent with the recommendation in Section 6.5 Sustainable Housing which looks to promote green affordable housing to reduce energy and long term maintenance costs and Section 7.5 Sustainable Development which promotes adoption of sustainable development practices and policy regulations on the municipal level.

9.3.4 Dredge Spoils

All of the major coastal drainage systems in the CMR share issues with excessive sedimentation in their estuaries resulting from erosion within the watersheds. In some cases, structures limiting outflows also cause the problem. In the short-term, it is important to identify both dredge spoil disposal areas and sensitive natural resource areas for protection. The balance between dredging to achieve reasonable public use and protection of natural resources is an important aspect in the management of blue and green infrastructure. Regulated natural resources of special concern include:

- Endangered or threatened wildlife and plant habitats
- Critical wildlife habitats
- Shellfish habitats
- Prime fishing areas
- Finfish migratory pathways
- Navigation channels
- Intertidal and subtidal shallows
- Wetlands and wetland buffers
- Coastal bluffs
- Historic and archaeological resources
- Scenic resources.

Solving the problems of watershed-level erosion and sedimentation will provide a sustainable blue and green infrastructure. One approach to sedimentation has been developed for the Shark River Bay Environmental Planning Committee (SRBEPC). Their purpose of their document, *Dredged Material Management Plan (DMMP)* “.....is to formalize in writing the identification and evaluation of possible actions concerning environmental issues affecting the health of the Shark River Bay Estuary.”²² The SRBEPC identified the need for the plan “...to prevent a ‘piecemeal,’ misdirected and disorganized approach to the issue of dredged material”. Alternative actions suggested in the DMMP include: no action, open water disposal (island creation), confined disposal facilities, pumping to a landfill, beaches replenishment, HARS disposal, and bayshore recycling disposal.

Other groups that have been supportive of the SRBEPC efforts include the Shark River Cleanup Coalition, Inc., Shark River Environmental Roundtable, municipal environmental commissions, and Watershed Management Area 12.

Watershed-level planning is the preferred approach to identify the upstream sources of sediment and the downstream results of erosion. Coordinated watershed management planning with implementation of the State rules on stormwater runoff, flood control and wetlands protection will help provide long-term solutions to the accumulation of sediment in the CMR estuaries.

Because Federal, State, County and municipal level agencies are all involved in regulatory approval for dredging and the disposal of dredged materials, an inter-agency committee should be established to coordinate activities within the various watersheds regarding dredging methods, disposal needs, shared use of equipment, and other inter-watershed and inter-municipal needs. Participants could include the US Army Corps of Engineers, NJDEP, MCPB, MCED, municipalities of the CMR, other affected municipalities, and the relevant watershed committee management groups and other ESG.

²² Birdsall Engineering, Inc. 2006. Second and Final Draft, *Dredged Material Management Plan for Shark River Bay, Monmouth County, New Jersey*. Prepared for Shark River Bay Environmental Planning Committee. In cooperation with I Boat NJ.

9.3.5 Climate Change and Sea Level Rise

Planning for the impact of the rise in sea level is extremely important for the CMR. State, County, and municipalities need to plan for a flexible response to sea level rise and potential impacts to not just developed areas but also to natural resources. The importance of having links to ongoing programs, such as with Monmouth University Coastal Resiliency Initiative, is also critical.

The USEPA conducted a study of anticipated sea-level rise responses in New Jersey²³. Of the four ocean counties, Monmouth County is at generally higher elevations than other more southern coastal counties with sand spits and barrier islands. The regulated coastline is narrow and mostly developed, with groins, jetties, a seawall at some locations, and bulk-heading along many estuarine shorelines. In addition to the developed at-risk shoreline, the Swimming River, Manasquan River Estuary and portions of Wreck Pond along other water bodies are likely to be affected by migrating salt fronts in tidal rivers and streams.

Developed areas in the CMR are likely to be protected from impacts, but parks and natural areas are not. Typically, private landowners and/or the State will protect densely developed and significant recreation areas, whereas the less developed areas may be too costly to protect.

Lathrop and Love conducted a study of New Jersey coastal resources and their vulnerability to threats from anticipated rise in sea-level associated with global climate changes²⁴. Their findings include:

- 16% of the predicted 100-yr tidal surge inundation zone (which equates to a 30-year storm under 2,100 sea level conditions) is in developed land, including all of New Jersey's barrier island communities;
- 17% of New Jersey's shoreline is altered due to bulk-heading, rip-rap, or other coastal protection measures;
- 60% of New Jersey's Atlantic shore beaches and dunes are in proximity to developed land uses;
- 29% of the tidal marsh retreat area is presently limited by development and roads.

This study emphasized that, *"If we are to sustain functioning coastal ecosystems, then we need to maintain our beaches, tidal flats and bars, seagrass beds and tidal wetlands. To ensure vitality of these coastal habitats for the long term, we need to plan for and design flexible adaptation strategies that recognize the dynamic nature of our coastlines. Sea level rise and associated problems of shoreline erosion and storm surges have been primarily addressed through 'hard' structural approaches to protect existing developed infrastructure. We suggest that future adaptation to sea level rise is not just an engineering issue, but rather primarily a land use issue."*²⁵

Alternative approaches to address the land use response to sea level rise have been identified. They include the following ideas:

- Minimize new development in beach, dune, and coastal wetland retreat zones to provide for shoreline retreat zones and to minimize the need for future structural responses;
- Create buffers to protect wetlands and other sensitive habitats that should be "rolling" with the shoreline retreat and not remain in a static state. They should move inland with the rising water levels.
- Where existing beach or bay-front development is threatened by shoreline erosion, "soft" approaches such as dune protection and stabilization or salt marsh restoration should be used rather than shoreline armoring;
- "Strategic adjustment" should be considered as an alternate approach, whereby developed properties in high hazard zones are acquired and removed as part of a "Coastal Blue Acres Program";

²³ Titus, J. 2002. *Anticipated Sea-Level Rise Response in New Jersey*. U.S. Environmental Protection Agency, Office of Air and Radiation, Global Programs Division. Washington, DC.

²⁴ Lathrop, R. G. Jr. and A. Love. 2007. *Vulnerability of New Jersey's Coastal Habitats to Sea Level Rise*. Grant F. Walton Center for Remote Sensing & Spatial Analysis, Rutgers University. In partnership with the American Littoral Society, Highlands, New Jersey.

²⁵ Ibid. Lathrop and Love. 2007.

- “At-risk” sensitive habitats (e.g., freshwater or slightly brackish intertidal wetlands) and special status species, e.g., Parker’s Pipewort (*Eriocaulon parkeri*) and Awi-leaf Mudwort (*Limosella subulata*) should be identified and mapped within the CMR so that changes in habitats or populations can be addressed;
- Plan to accommodate future tidal wetlands through landward migration of wetland boundaries or by use of sediments and dredged material for vertical elevation of wetlands to anticipated increasing elevations of tidal inundation;
- Prepare a “natural resource response program” to anticipated impacts from sea level rise to ensure the continuation of ecosystem functions and socio-economic values of coastal natural resources for future generations.

To prepare for anticipated sea level rise, a “Sea Level Rise Response Subcommittee” of the proposed CMR Committee should be convened. Participants should include the USEPA, USACE, NJDEP, Monmouth County Planning Board and Environmental Council, municipalities, research and educational institutions, environmental businesses and ESG.

9.4 RESOURCE ACCESS

9.4.1 Public Access to Natural Areas

Providing public access to the Region’s natural resources while protecting these resources has been identified as an important goal. In spite of an extensive shoreline and many natural attractions, few public parks, trails and natural resource interpretive areas are available to the residents and visitors. Public access should be coordinated with the transportation network to promote multimodal linkages to waterfront resources. Train, highway, and boat services allow for increased access opportunities to the waterfront areas. Transportation planning should consider linkages between train stations and primary destinations through the use of pedicabs, jitneys, water taxis, etc. Also bike routes, shared bike lands and off-road bike trails should be planned to further reduce the dependency on cars as the only way to get to beaches and coastal recreation areas. Limited public parking in some areas cannot accommodate increased demands for more beach access. Public transportation alternatives to the waterfront areas should also be included as part of any marketing effort.

Municipalities often find challenges in accommodating beach access due to a number of competing interests. Municipalities must contend with the issue of providing public access points to and from the beach along with ancillary accommodations such as vehicle parking and restroom facilities. This need is further expanded in order to provide access for those with physical disabilities by providing handicapped parking areas close to access locations, wheelchair accessible ramps to and from the beach, and in some instances specialized wheelchairs that can be used on beach surfaces. Often times, the need to provide for human access creates a challenge in protecting the dunes which help stabilize the coastline. Towns are required to maintain beach access as well as boardwalk and promenade areas along dunes in accordance with NJDEP requirements. Although the State encourages public access, special wildlife and plant habitats found immediately along the shoreline can be irreparably harmed if actions are not taken to protect them from the influence of beach visitors, as well as municipal vehicular access for beach safety patrols.

Although NJDEP rules are intended to provide for public access, dune and wildlife protection, it is often the host municipality that must bear the cost for these safeguards. Often the cost of maintaining these programs is passed onto beach visitors through increases in the price of beach passes. Thus, the final impediment to public beach access is fees. Towns must grapple with the challenge of charging beach access fees high enough to cover maintenance and operating costs but low enough not to preclude persons of lower income from their ability to use the beach.

Towns immediately along the coast should have open dialogues with one another and share their experiences on how best to manage their common considerations when dealing with public access issues.

At the State level, the Manasquan WMA is one of the few sites that has public access opportunities. The Navesink WMA consists almost entirely of wetland and has no access other than by boat. At the County level, only four regional parks are available to the public. Shark River Park, located partly in Neptune and mostly outside of the CMR, covers 933 acres and is adjacent to the Shark River Golf Course. Seven Presidents Oceanfront Park in Long Branch is a 38-acre beach-park with recreational

infrastructure and coastal habitats including a nesting site for the endangered Piping Plover. Fisherman's Cove Conservation Area in Manasquan, the last undeveloped tract of land in the Manasquan Inlet, covers 55 acres and is available for fishing, sunbathing, beach use and dog-walking. Weltz Park in Ocean Township covers 165 acres of unclassified parkland.

Various municipal parks and open spaces are also located throughout the CMR, such as at Lake Como, Wreck Pond and Spring Lake. However, there is no coordinated program to link open space and parks and to provide a coordinated interpretive program by informing visitors and residents alike as to their locations, history, resources, and permitted activities.

The *Monmouth County Open Space Plan* identifies eleven municipalities within the CMR that have short-term open space deficiencies and eight municipalities with long-term deficiencies. (See *Regional Profile*, Section 7.0 Open Space.) Because of the built-out nature of the CMR, the ability to acquire new open space and expand existing open space is limited. The *Monmouth County Open Space Plan* identifies specific properties to be acquired for additional open space, and includes a "greenway" system composed of County and municipal lands. This greenway system should be linked to the County's green and blue infrastructure planning, thus balancing public access with the need to protect and restore natural resources.

Great opportunities exist on military lands proposed for decommissioning. Management plans should provide public access for recreation while preserving and restoring wetlands and rare, threatened, and endangered plant and animal habitat. The National Guard Recreation Fields at Sea Girt, for example, supports a nesting site for the endangered Piping Plover. The *Fort Monmouth Redevelopment Plan* includes a planned greenway along Parkers Creek and Oceanport Creek. Both properties provide unique opportunities to increase park and open space access.

As already stated, the area is rich in beaches, estuaries, rivers, coastal ponds, and parks. However, adequate access is hampered by dense development, private ownership, limited parking and the lack of adequate informative signage. The public boat launch facility, fishing dock, picnic area, and signage program maintained by the Borough of Rumson is an example of a multi-use facility free to the public, but it has limited parking and is relatively isolated. Another example is the limited public parking and beach access area in Spring Lake adjacent to Wreck Pond. This area has limited signage regarding important natural resources like endangered plant and animal species. There are many other park sites with similar conditions of informal access, limited neighborhood street parking, and no interpretive signage.

The Monmouth University Coast Initiative project is underway to map public access points to water bodies along the Atlantic Coastline including the CMR. Many are located at the ends of public streets with limited parking available. Under State coastal regulations, the public trust rights include the right to pass both physically and visually to, from and along public lands and waters. Public access must be available on a nondiscriminatory basis. Public access must be clearly marked with parking provided for the public to access tidal waterways (N.J.A.C.7:7E-8.11.) As development or redevelopment occurs on the oceanfront and rivers of the CMR, public access must be provided as per NJDEP regulations. Improving public access to the water should be a long-term goal of the *CMP*. (See Open Space Map II-26.)

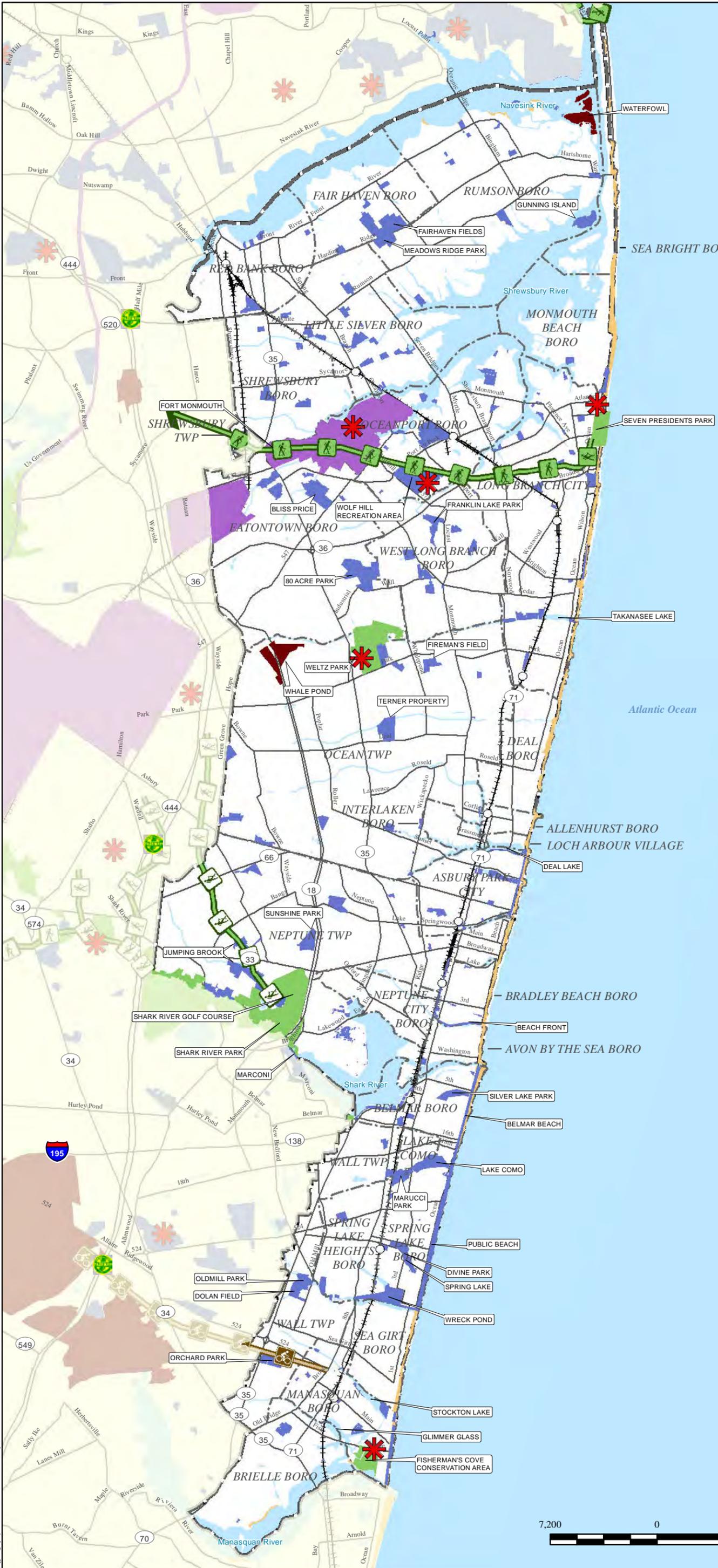
OPEN SPACE

**COASTAL MONMOUTH REGION
MONMOUTH COUNTY NEW JERSEY**



Legend

- COASTAL MONMOUTH REGION
- MUNICIPAL BOUNDARIES
- ROADWAYS
- RAILROADS
- TRAIN STATION
- WATER BODIES
- PROPOSED COUNTY PARK ADDITION
- PROPOSED GREENWAY (TIER 1)
- PROPOSED GREENWAY (TIER 2)
- EDGAR FELIX BIKEWAY
- MUNICIPAL OWNED OPEN SPACE
- COUNTY OWNED OPEN SPACE
- STATE OWNED OPEN SPACE
- FEDERAL PROPERTY (NON-OPEN SPACE)
- BEACH (OSG CROSS-ACCEPTANCE)



THIS MAP WAS DEVELOPED USING MONMOUTH COUNTY DIGITAL DATA FROM THE 2003 LANDBASE PROJECT. THE MAP ALSO USED DATA FROM THE NJDEP AND NJOSG. THIS SECONDARY PRODUCT HAS NOT BEEN VERIFIED AND IS NOT COUNTY OR STATE AUTHORIZED.



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9.4.2 Open Space

Open space will be of increasing importance as fewer areas may be available with increasing population densities and subsequent pressure to develop the remaining open lands. One important example of the existing open space preservation effort is the Monmouth Conservation Foundation (MCF) which has preserved 6,500 acres of open space. MCF also has contracted with the New Jersey Water Supply Authority (NJWSA) in 2006 to develop a GIS-based methodology for defining land preservation priorities to achieve environmental protection in Monmouth County. Titled “Great Places of Monmouth County”, the project includes a Committee that was formed to define criteria for the protection of critical areas including those within the CMR. The NJWSA works in cooperation with regional stakeholders to identify the most critical resources and thresholds for open space preservation. The focus of the project is on the preservation of new land for environmental values, rather than the stewardship and management of properties that are already preserved. Significant outcomes anticipated as a result of the protection of critical natural resources include improved water quality, habitat protection, improved wetland protection, and preservation of trout maintenance streams.

In addition to the effort to preserve additional open spaces, all open spaces preserved in the CMR should have up-to-date management plans that identify important natural resources and articulate the balance between access and resource protection. The proposed CMR Environment Committee should identify and help municipalities acquire funding for mapping and managing parks and open spaces. Table II-17 provides a suggested list of management plan components assist in the preservation of their Open Space Management Plans.

**Table II - 17
Open Space Management Plan Components**

- *Purpose of the Park or Open Space*
- *History and significance*
- *Short-term and long-term management goals*
- *Infrastructure*
- *Hydrological functioning (water quality, flooding, etc.)*
- *Wetland delineation and buffers*
- *Inventory of plants and animals*
- *Vegetation and wildlife habitats*
- *Threatened, endangered, and rare plant and animal species*
- *Public access opportunities and limitations*
- *Recreational opportunities*
- *Nature trails and interpretive opportunities*
- *Docent and volunteer programs*
- *Invasive plant control programs*
- *Animal control programs (deer, geese, swans, feral cats, etc.)*
- *Habitat preservation, enhancement, and restoration opportunities*
- *Cultural resource inventory and protection*
- *Park and open space maintenance programs*
- *Funding needs and solutions*
- *Personnel needs*

9.4.3 Ecotourism Opportunities

The abundance of natural features provides important opportunities for ecotourism. Environmental Centers of Activity (ECA) are proposed as a way to attract attention to the region’s important natural resources. These sites should provide a balance between access and resource protection. Adequate parking, basic facilities and an interpretive center should be featured at all the ECA. (ECA are discussed in detail in the Economy Section 6.0.)

Local and regional tours sponsored by academic institutions, professional societies, and environmental groups are another means of providing recreation services. Ecotourism companies can help promote additional marketing for the region. Development of a CMR ecotourism brochure, identifying important birding, botanizing, and other sites of focus, would inform visitors about the Region's natural attractions. In turn, this could translate into additional tourism dollars that would help maintain the green and blue infrastructure. The brochure could be made widely available at informational booths at the park/open space sites and tourist welcome centers and rest areas on the Garden State Parkway. The ecotourism activities should be coordinated with the ecotourism industry utilizing these environmental areas.

Tourism, a major industry for the CMR, is directly linked to clean water and clean open beaches. Improved water quality and year-round open beaches should be the result of a coordinated effort to improve water quality within the CMR. Occasional beach closures due to poor near-shore water quality can occur following the opening of coastal ponds (e.g., Wreck Pond) after some storms, which can impact beach use and tourism. Improved water quality through improvements in the treatment of wastewater and stormwater would contribute to solving this problem. As noted in Section 9.2.5, a regional approach to managing the eleven coastal ponds and lakes also could result in improved water quality. Likewise, coordinated management of the region's waterways and open spaces will assist with improvement of water quality through reduced erosion and improvements in stormwater runoff. Enhanced environmental quality is anticipated to translate into more opportunities for ecotourism.

9.5 OUTREACH AND EDUCATION

9.5.1 Environmental Education

Environmental education for both children and adults should be pursued through the schools at all levels. The CMR also provides opportunities for post-secondary academic and professional education. Brookdale Community College has several satellite centers within the CMR. The NJ Coastal Community University allows County residents to take advantage of higher education courses and degrees at the Wall campus or via online courses. Monmouth University, a co-educational private, residential university, is located in West Long Branch and offers both undergraduate and graduate degrees. It is also home to the Urban Coast Institute, which has hosted seminars and workshops on many issues addressed in the *CMR*.

All of these primary, secondary, and post-secondary education institutions are located adjacent to, within walking distance or within a short drive of one or more of the important natural resources addressed in this Plan. This provides an excellent opportunity to incorporate or expand upon educational and research programs that utilize the natural resources of the CMR. A list of possible field study subjects are:

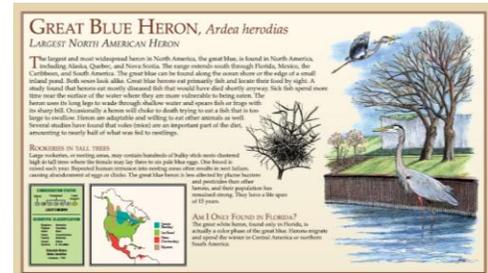
- Wetlands and wetland functions and values
- Marine environments
- Rivers and estuaries
- Coastal ponds and lakes
- Beaches and dunes
- Coastal processes
- Forest and grassland mosaics
- Endangered species and management of endangered species habitats
- Water quality problems and solutions

An environmental education program which is focused on the region's resources should be an important element of the Plan. A speakers' bureau, educational programs in the schools of all levels, parks and recreation program outreach activities, neighborhood and area volunteer activities can be used to promote environmental education. Workshops, seminars, lectures, and field trips throughout the CMR could be coordinated through the proposed CMR Committee. These programs could be offered through County or municipal parks and recreation departments. The Monmouth County Parks System already has a Speakers Program. Volunteer speakers could be drafted from the regional academic, professional, business, and non-profit communities and would cover topics relevant to current regional issues of community interest. Educational programs could be developed for primary and secondary schools to sensitize students to environmental issues. These programs can provide in-class instruction as well as opportunities for field trips to representative areas that support the habitats or species they have studied. Regional colleges and universities already include the area's natural resources in their curricula. Research programs that provide potential solutions to environmental problems are one beneficial outcome of the "thinking global and acting local" approach.

The Neptune Township School District has an excellent on-going environmental education program. The newly constructed Midtown Community Elementary School in Neptune Township has a rooftop garden environmental classroom and environmental

program for the students. The school has been described as a green, resilient, and flexible building that incorporates geo-thermal heating and cooling, waterless urinals, advanced technology lighting, and other features that promote sustainable design, energy efficiency and indoor environmental quality. Hence, the school itself is a teaching tool for environmental education.

The Summerfield Elementary School in Neptune Township is another example of eco-friendly development. It borders Green Acres land along Jumping Brook with access to nature trails and the preserved riparian corridor. This location provides excellent opportunities for incorporating the natural resources into the school curriculum. The school has been designed with groundwater recharge facilities, water quality treatment including bio-retention swales, roof-water collection for garden irrigation, a solarium corridor to support horticultural activities, and many other features that take every opportunity to connect education with the environment.



Interpretive signage is another important educational tool. The Citizens of Wesley Lake have undertaken an interpretive signage program and one of three interpretive plaques have already been installed around the Lake.

The New Jersey Marine Sciences Consortium/New Jersey Sea Grant NJMSC/NJSG), is a not-for-profit organization that provides educational resources, outreach programs and other services focused on increasing knowledge and sustainable utilization of New Jersey’s marine, coastal and estuarine habitats. It includes the New Jersey Sea Grant Extension and College Programs. Located on Sandy Hook in the historic Fort Hancock area, it offers a range of services especially in the areas of environmental education and outreach, sustainable coastal development, dune and beach protection, invasive and exotic species control, rain garden installation, stormwater management, ecotourism and climate change and sea level rise response. For more information about NJMSC/NJSG, its current programs and the services it can provide to Monmouth County’s coastal communities, visit njmsc.org.

9.5.2 Docent and Volunteer Programs

Outreach programs could be developed or expanded within parks and recreation programs affiliated with County, municipal, and non-profit organizations. Neighborhood docent and volunteer programs are likely to be an increasingly important aspect of the management of parks and opens spaces. Despite funding constraints, docent and volunteer training programs are important to achieve management goals of increasing public awareness. Volunteers can play a vital role in maintenance of these areas, controlling invasive exotic plants, giving lectures, leading field trips, and in conducting additional docent training programs. Volunteer and docent activities would be organized within the management structure of the existing programs. For example, “Friends of the Parks” is a non-profit charitable organization comprised of area citizens and businesses committed to supporting the Monmouth County Park System.

10.0 IMPLEMENTATION

As previously discussed, there is an urgent need to establish an organizational framework to implement the Plan. A CMR Committee should be established to forward this plan. The Monmouth County Planning Board can take the lead in organizing this Committee as an important first step to implement the Plan. The complexity and multi-dimensional nature of the Plan requires strong oversight to assist in forwarding its varied components.

Stakeholder subcommittees should be encouraged to continue participating in the *CMP* process. These participants are an important resource to support the plan. For example, the proposed Environment Subgroup can be formed around existing environmental groups, watershed groups, environmental commissions, and educational facilities. Other subcommittees such as the proposed CMR Transportation Committee should be formed to monitor and address transportation recommendations. Housing advocacy groups should also be encouraged to participate to implement the Plan.

Development of a marketing plan for the region to promote tourism, recreation activities, and job growth is of primary importance. Many of the alternatives recommended in the Plan will be affected by the CMR marketing efforts. For example, the ACE nodes

and ECA are important elements that give structure to the Plan and support environmental protection and preservation, sustainability, arts, tourism and other factors. In other words, there is an interconnection between the Plan elements to support the greater objectives and activities.

The *CMP* recommendations are summarized in the Strategies & Recommendations Map II-27 and separate maps for each of the four subregions are presented.

10.1 REGIONAL PLANNING IMPLEMENTATION AGENDA

A Planning Implementation Agenda (PIA) has been prepared for the Plan which summarizes its strategies and recommendations. It is divided into five major headings:

- Regional Cooperation
- Housing
- Economy
- Transportation
- Environment

The PIA is presented for each of the four subregions: North, North Central, South Central and South.

Beginning each major section, the Regional Vision for each category is presented.

For each major section, the needs or issues identified through the Regional Collaborative process are presented. **A PALETTE OF ALTERNATIVES** identified for each need and **IMPLEMENTATION STRATEGIES** are provided to address these alternatives. A total of 48 alternatives and their related implementation tools have been identified through the planning process with the Regional Collaborative. The **TARGET** or desired end-product of each strategy is identified. Suggested **PLANNING INDICATORS** or ways to measure the effectiveness of the strategy being implemented are noted.

TIME FRAME suggests a possible schedule – either Short-Term (1-2 years), Medium-Term (3-5 years) or Long-Term (greater than 5 years) - to implement the *CMP* strategies.

The PIA also includes a column which indicates **LEVELS**. This column identifies the primary participants in the implementation of the particular strategy – municipal, County, State agencies, and others. The **AGENCY INVOLVEMENT** column lists possible parties that would participate either directly or with assistance and potential funding for the strategies considered.

10.1.1 INITIAL REGIONAL STRATEGIES TO ADVANCE PLAN

The most important action to begin implementing the Plan is to set up the CMR Committee which should be an initial action to move the Plan forward. For each of the Plan categories, there are many strategies identified. These strategies will need to be prioritized by the CMR Committee and/or specific Subcommittees as the Plan implementation process moves forward. Certain strategies are considered as good priority candidates for short term action. These are listed below by category.

Regional Cooperation

As noted, the most important action is to set up the CMR Committee. This Committee will serve as the coordinator and clearinghouse for the Plan. The CMR Committee should include representatives from all 30 municipalities. As discussed, the Housing, Economy, Transportation and the Environment subcommittees will be important groups to organize. A number of study participants have already expressed a commitment and desire to participate. Once the CMR Committee is established, the Plan can be implemented. (See Implementation Strategy #1a, #30a, #32a).

Housing

An affordable housing education outreach program should be developed with the affordable housing advocacy groups. These groups have expressed a strong commitment to affordable housing and the Plan. (See Implementation Strategy #7a.)

Economy

The CMR Marketing Plan is an important component of the Plan that should be prioritized as an initial strategy. This may be organized through a Marketing Subcommittee. It includes a variety of components including developing a year-round business model, coordinating regional marketing efforts and marketing the ACE nodes, ECA and Scenic Byways. Funding should be sought to develop a comprehensive marketing plan for the CMR. (See Implementation Strategy #12, #13, #14.)

The local chambers of commerce should work together as a regional chamber of commerce. This strategy would allow local businesses the ability to provide, promote, and support regional marketing efforts and work together to apply for funding to develop a CMR Marketing Plan. This group can act as the CMR marketing subcommittee. (See Implementation Strategy #12b.)

Monmouth County Planning Board should work with the CMR municipalities to initiate the process of Scenic Byways designation for the Coastal Monmouth and Twin Rivers Scenic Byways. (See Implementation Strategy #15a.)

Transportation

A number of municipalities have provided traffic problem statements (which are included in Volume III Appendix). The Monmouth County Department of Engineering should work with the municipalities and the State Agencies to prioritize projects for advancement. (See Implementation Strategy #18, #19, #20, #21, #22.)

Municipalities should work together with the County to arrive at potential shuttle routes. A variety of funding sources should be explored. (See Implementation Strategy #23c, #23d.)

Transit system improvements should continue to go forward with NJ Transit. For Asbury Park, Long Branch and Red Bank, a concerted effort should be made to coordinate improvements with redevelopment and revitalization efforts already underway. (See Implementation Strategy #25a.)

A Problem Statement for the Bus Rapid Transit Study should be developed and sent to the North Jersey Transportation Planning Authority to gain funding for a pilot study. (See Implementation Strategy #25e.)

The updated County Bicycle Map with links to existing and proposed greenways and trails should be available countywide in both printed and electronic form in the near future. Future versions of transit and trail maps should be integrated with the County Bicycle Map in order to create a comprehensive picture of the County's alternative transportation network. (See Implementation Strategy #26a.)

The County should continue to coordinate evacuation events planning with Emergency Management Organizations. (See Implementation Strategy #27a.)

Environment

As the initial step, a CMR Environmental Subcommittee should be formed to coordinate and prioritize environmental implementation strategies. Many environmental stakeholders have already expressed interest in this effort during participation in the preparation of the *CMP*. (See Section 9.0.)

A "*Regional Comprehensive Management Plan for Coastal Ponds and Lakes*", which includes an assessment of existing and important natural resources such as special status plant and animal species, should be developed and spearheaded through the ongoing Monmouth University Coastal Pond and Lake Initiative. (See Implementation Strategy #34b.)

An Inter-Agency Dredging Subcommittee should be established to coordinate efforts within the various watersheds regarding dredging methods, disposal needs, shared use of equipment, and other inter-watershed and inter-municipal needs. (See Implementation strategy #43b.)

10.1.2 MUNICIPAL STRATEGIES

For many of the PIA strategies, the municipalities will take the lead and the strategies would be implemented on the local level. Although they are not regional or intermunicipal in coverage, these strategies reflect needs that were identified as being important to the vision of the region. The following are selected municipal strategies that can be advanced now.

Regional Cooperation

Municipalities should participate in the proposed CMR Committee to help with the implementation of recommendations in the Plan. (See Implementation Strategy # 1a.)

Shared services are currently on-going in many municipalities and can be expanded through working with Monmouth County Shared Services. State funding is also available for Interlocal services studies. (See Implementation Strategy # 2a, #2b.)

Housing

Artist housing should be considered in the ACE nodes within redevelopment/revitalization plans with zoning changes for live/work units. (See Implementation Strategy #5a.)

Green affordable housing could be promoted through implementation mechanisms in local Housing Element and Fair Share Plans. (See Implementation Strategy #6a.)

Preserving neighborhood character through preparation of design guidelines and land use regulations should take place. (See Implementation Strategy #8a.)

Economy

Municipalities should continue to pursue transit village designation or consider transit oriented development around the rail stations to continue revitalization/redevelopment efforts. (See Implementation Strategy #11a, #11b.)

Municipalities should coordinate marketing efforts with the local chambers of commerce and other arts and cultural groups to engage in regional marketing activities. (See Implementation Strategy #12.)

Municipalities should be working with the County to obtain scenic byways designation. (See Implementation Strategy #15a.)

Municipalities should consider preparation of Sustainable Development Plans and ordinances to particularly support the unique ecosystem of the Region and to locally address global warming and climate change. (See Implementation Strategy #16a.)

Municipalities should consider participation in Sustainable Jersey. (See Implementation Strategy #16b.)

Transportation

Local municipalities could work with NJ Transit to implement Train Quiet Zones. (See Implementation Strategy #25a.)

Municipalities should consider updating their Circulation Element of their master plans to include pedestrian, bicycle and other transportation modes, in coordination with the County Bicycle Map now being advanced. (See Implementation Strategy #26c.)

Environment

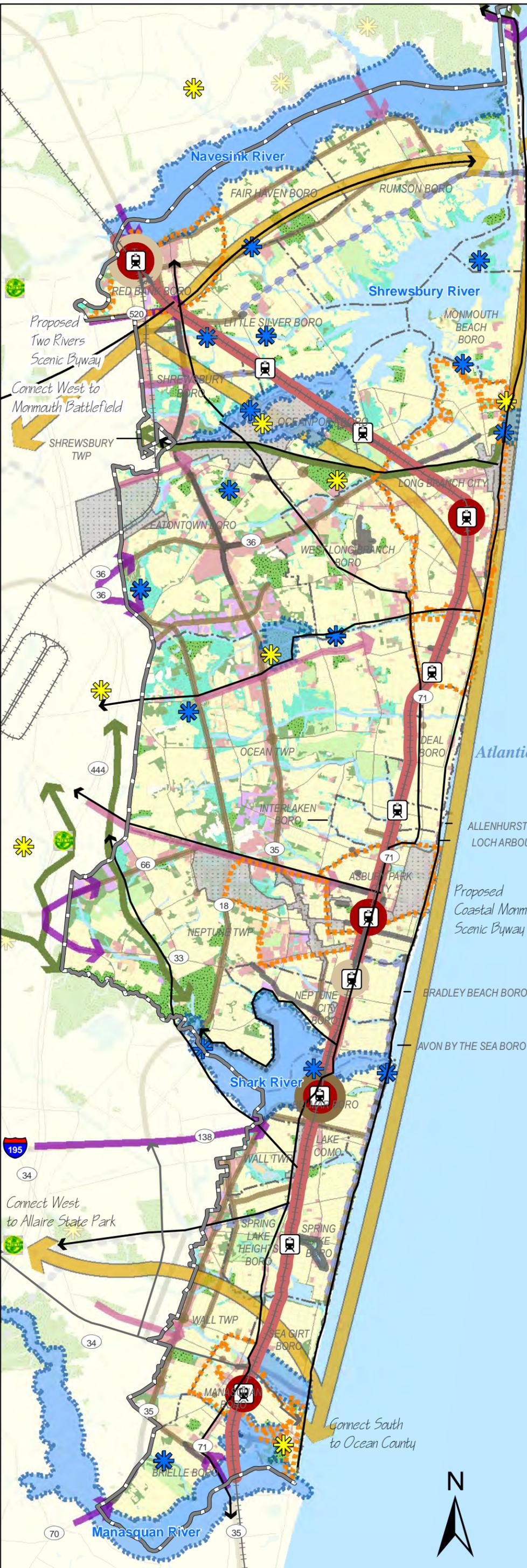
Create or update local Natural Resource Inventories in a consistent format and work to identify gaps in inventories to be addressed. These NRI will form the basis for future work in resource recovery plans and other studies. Municipalities should apply to the Monmouth County Park System for municipal open space grants. (See Implementation Strategy #31a.)

Municipalities and County should continue to work with local land trusts such as Monmouth Conservation Foundation to facilitate open space acquisition efforts. (See Implementation Strategy #31b.)

Municipalities should pass riparian protection ordinances; these are found on the NJDEP website. (See Implementation Strategy #35b.)

Coastal municipalities should prepare and implement municipal beach and dune ordinances and management plans; the NJDEP may provide assistance in this area. (See Implementation Strategy #36a, #36b.)

Coastal municipalities should work with the proposed Inter-Agency Dredging Committee. (See Implementation Strategy #43b.)



Connect North to Sandy Hook & Highlands



T O U R I S M

STRATEGIES & RECOMMENDATIONS

COASTAL MONMOUTH REGION MONMOUTH COUNTY NEW JERSEY

Housing

- Provide for a wide range of housing choices for lifestyle and affordability in redevelopment areas, centers and transit villages
- Plan for sustainable, affordable housing near public transit
- Amend zoning to allow for live/work space for artists in ACE (Arts, Cultural, Entertainment) centers

Economy

- Use ACEs as economic hubs for regional marketing purposes
- Develop scenic byways to showcase tourist destinations and create a stronger regional/subregional identity
- Provide low impact eco-tourism opportunities at Environmental Centers of Activity (ECA)
- Consider mixed use transit villages to focus future growth where feasible at current and future rail stations

Transportation

- Improve the existing transportation network
- Expand the current transit system to provide better access between transit hubs, tourist destinations, entertainment venues and employment centers
- Emphasize regional marketing through coordinated wayfinding and defined gateways entrances
- Promote transit (bus, train, jitney) and non-motorized alternatives (bicycle, pedestrian facilities) to reinforce regional connectivity
- Foster better mobility between centers, ACEs and ECAs.

Environment

- Identify, conserve and restore critical natural habitats including beaches, dunes, estuaries, rivers, and coastal ponds
- Improve public access, foster eco-tourism, and provide environmental education programs at ECAs
- Prepare and implement stream (riparian) protection ordinances
- Identify and prioritize open space and recreation areas for acquisition to address open space deficiencies

Legend			
	ROADWAYS		PRIMARY GATEWAY
	RAILROADS		SECONDARY GATEWAY
	TRAIN STATION		PROPOSED GREENWAY
	EXISTING TRANSIT VILLAGE		EXISTING BIKEWAY
	PROPOSED TRANSIT VILLAGE		PROPOSED BIKEWAY
	ACE - ARTS, CULTURAL & ENTERTAINMENT CENTER		OPEN SPACE
	ACE - ARTS, CULTURAL & ENTERTAINMENT CORRIDOR		REDEVELOPMENT AREAS
	DESIGNATED CENTER	LAND USE / LAND COVER	
	ENVIRONMENTAL CENTERS OF ACTIVITY		RESIDENTIAL
	PROPOSED SCENIC BYWAY		COMMERCIAL/SERVICES
	COUNTY DESIGNATED SCENIC ROAD		INDUSTRIAL
	PROPOSED COUNTY PARK ADDITION		RECREATIONAL LANDS
	AREAS OF SIGNIFICANT ENVIRONMENTAL QUALITY		OTHER URBAN LANDS
	PLANNED ROADWAY & PEDESTRIAN IMPROVEMENTS		AGRICULTURAL
	IDENTIFIED ROADWAY & PEDESTRIAN ISSUES		BARREN LANDS
			FOREST
			WETLANDS
			WATER BODIES

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STRATEGIES & RECOMMENDATIONS

NORTHERN REGION
 MONMOUTH COUNTY NEW JERSEY

Legend

- ROADWAYS
- +++ RAILROADS
- TRAIN STATION
- EXISTING TRANSIT VILLAGE
- PROPOSED TRANSIT VILLAGE
- ACE - ARTS, CULTURAL & ENTERTAINMENT CENTER
- ACE - ARTS, CULTURAL & ENTERTAINMENT CORRIDOR
- DESIGNATED CENTER
- ENVIRONMENTAL CENTERS OF ACTIVITY
- PROPOSED SCENIC BYWAY
- COUNTY DESIGNATED SCENIC ROAD
- PROPOSED COUNTY PARK ADDITION
- AREAS OF SIGNIFICANT ENVIRONMENTAL QUALITY
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- SECONDARY GATEWAY
- PLANNED ROADWAY & PEDESTRIAN IMPROVEMENTS
- IDENTIFIED ROADWAY & PEDESTRIAN ISSUES
- PROPOSED GREENWAY
- PUBLIC ACCESS WITH PARKING
- PUBLIC ACCESS WITHOUT PARKING
- EXISTING BIKEWAY
- PROPOSED BIKEWAY
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- RESIDENTIAL
- COMMERCIAL/SERVICES
- INDUSTRIAL
- RECREATIONAL LANDS
- OTHER URBAN LANDS
- AGRICULTURAL
- BARREN LANDS
- FOREST
- WETLANDS
- COASTAL LAKES & PONDS
- WATER BODIES



Connect North
to Sandy Hook
& Highlands

Red Bank Borough
Designated Regional Center
Proposed ACE Center
Proposed Transit Village

Navesink River
Estuary ECA

Fort Monmouth
Greenways &
Blueways ECA



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STRATEGIES & RECOMMENDATIONS

NORTH CENTRAL REGION
MONMOUTH COUNTY NEW JERSEY

- Legend
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TOWNSHIP

STRATEGIES & RECOMMENDATIONS

SOUTH CENTRAL REGION MONMOUTH COUNTY NEW JERSEY

- Legend
- ROADWAYS
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 - TRAIN STATION
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Weltz Park ECA



Allenhurst Boro

Loch Arbour Village

Asbury Park City
Designated Urban Center
Proposed ACE Center

Neptune Township
Proposed Transit Village

Atlantic Ocean

Shark River Estuary ECA

Shark River

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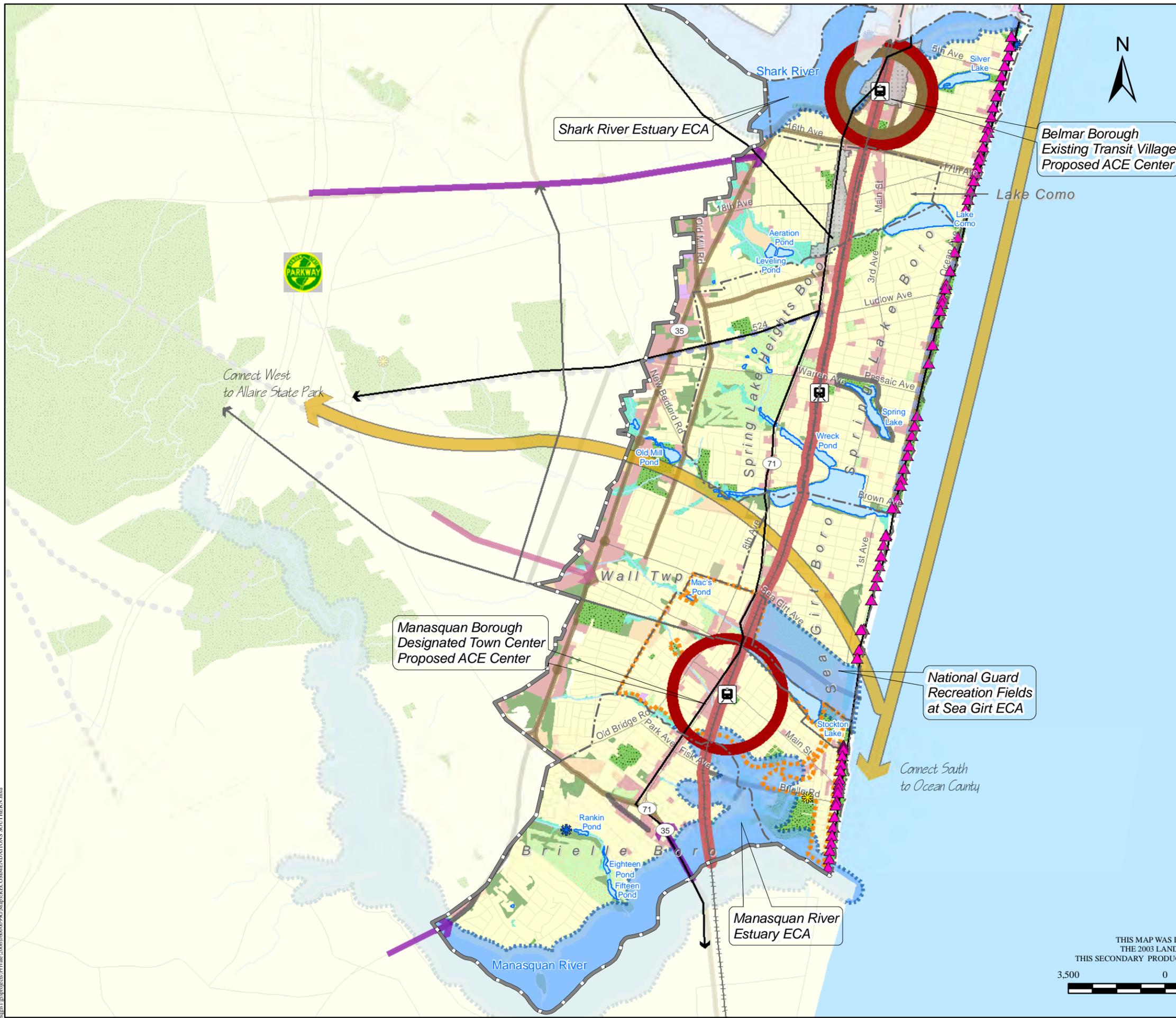
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TOWNSHIP
STRATEGIES & RECOMMENDATIONS

SOUTHERN REGION
MONMOUTH COUNTY NEW JERSEY

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Table II - 18 - PLANNING IMPLEMENTATION AGENDA

This Planning and Implementation Agenda ("PIA") addresses issues and needs identified by the municipal and regional stakeholders who have participated with the Coastal Monmouth Plan process. The PIA presents alternatives for each issue/need and discusses recommended implementation strategies to reach the final target. Agency involvement and time frame are also indicated in the PIA in order to prioritize actions that need to be taken by each jurisdiction. The Agencies are abbreviated as indicated in the Legend below. Level indicates the primary level that action needs to be taken (Municipal, County or State). Time frame is estimated in short term, medium term or long term.

LEGEND

Agency Involvement	Municipalities	Level										
<p>ACE = Arts, Cultural & Entertainment (Nodes & Corridors) AHG = Affordable Housing Groups ANJEC = Associates of New Jersey Environmental Commissions ARTS = Local / Regional Arts Organizations COAH = New Jersey COAH COC = Chamber of Commerce ESG = Environmental Stakeholder Groups FMRPA = Fort Monmouth Redevelopment Plan Authority MCA = Monmouth County Administrator MCDED&T = Monmouth County Department of Economic Development & Tourism MCDHS = Monmouth County Department of Human Services MCDOE = Monmouth County Division of Engineering MCDOH = Monmouth County Division of Highways MCEC = Monmouth County Environmental Council MCF = Monmouth Conservation Foundation MCOEM = Monmouth County Office of Emergency Management MCPS = Monmouth County Park System MCPB = Monmouth County Planning Board MCPB-CDP = Monmouth County Planning Board - Community Development Program MCTC = Monmouth County Transportation Council MUN = Municipality NJDCA = New Jersey Department of Community Affairs NJDEP = New Jersey Department of Environmental Protection NJDOT = New Jersey Department of Transportation NJHMFA = New Jersey Housing Mortgage and Finance Agency NJNG = New Jersey National Guard NJTPA = North Jersey Transportation Planning Authority NJTransit = New Jersey Transit USACE = U.S. Army Corps of Engineers USDOD = U.S. Department of Defense USFWS = U.S. Fish and Wildlife Service</p>	<table border="1"> <tr> <td data-bbox="1115 435 1234 695">Northern Region</td> <td data-bbox="1234 435 1560 695"> FH = Fair Haven LS = Little Silver MB = Monmouth Beach RB = Red Bank RUM = Rumson SB = Sea Bright SWB = Shrewsbury Boro SWT = Shrewsbury Twp </td> </tr> <tr> <td data-bbox="1115 695 1234 824">Northern Central Region</td> <td data-bbox="1234 695 1560 824"> EA = Eatontown LB = Long Branch OP = Oceanport WLB = West Long Branch </td> </tr> <tr> <td data-bbox="1115 824 1234 1149">Southern Central Region</td> <td data-bbox="1234 824 1560 1149"> AH = Allenhurst AP = Asbury Park AV = Avon-by-the-Sea BB = Bradley Beach DL = Deal IL = Interlaken LA = Loch Arbor NC = Neptune City NT = Neptune Twp OT = Ocean Twp </td> </tr> <tr> <td data-bbox="1115 1149 1234 1440">Southern Region</td> <td data-bbox="1234 1149 1560 1440"> BR = Belmar BL = Brielle LC = Lake Como MQ = Manasquan SG = Sea Girt SL = Spring Lake Boro SLH = Spring Lake Heights WT = Wall Twp </td> </tr> </table>	Northern Region	FH = Fair Haven LS = Little Silver MB = Monmouth Beach RB = Red Bank RUM = Rumson SB = Sea Bright SWB = Shrewsbury Boro SWT = Shrewsbury Twp	Northern Central Region	EA = Eatontown LB = Long Branch OP = Oceanport WLB = West Long Branch	Southern Central Region	AH = Allenhurst AP = Asbury Park AV = Avon-by-the-Sea BB = Bradley Beach DL = Deal IL = Interlaken LA = Loch Arbor NC = Neptune City NT = Neptune Twp OT = Ocean Twp	Southern Region	BR = Belmar BL = Brielle LC = Lake Como MQ = Manasquan SG = Sea Girt SL = Spring Lake Boro SLH = Spring Lake Heights WT = Wall Twp	<table border="1"> <tr> <td data-bbox="1696 435 2043 630"> M = Municipality C = County S = State </td> </tr> <tr> <td data-bbox="1696 630 2043 760"> Time Frame S = Short Term (1-2 years) M = Medium Term (3-5 years) L = Long Term (>5 years) </td> </tr> </table>	M = Municipality C = County S = State	Time Frame S = Short Term (1-2 years) M = Medium Term (3-5 years) L = Long Term (>5 years)
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M = Municipality C = County S = State												
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Areas (Refer to CMP Sections)	Needs	Palette of Alternatives	Implementation Strategies	Targets / Goals	Planning Indicators	Time Frame
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5.0	REGIONAL COOPERATION					
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Regional Vision Statement: The CMR communities are engaged in an ongoing cooperative approach to comprehensively address regional issues.

5.2 CMR COORDINATION	There is a need to develop a mechanism and an organization to comprehensively address regional and subregional issues associated with the CMR Plan.	1	Create a mechanism to address regional and subregional issues of concern and to implement the CMR Plan.	a	Establish a CMR Committee ("CMRIC") and associated subcommittees (marketing, transportation, environment, dredging, sea level rise, etc.) to implement the CMP.	CMR Committee(s)	Number of CMRIC meetings held on annual basis.	S
				b	Pursue funding sources such as State grants for shared services feasibility studies.	Expansion of shared services between municipalities.	Number of additional services shared and resulting reduction in costs.	S
5.3 EXPANDED SHARED SERVICES	Some CMR municipalities currently have inter-local agreements for shared services; studies are also underway with some to evaluate options; this can be further expanded to assist in reducing costs.	2	Identify opportunities to consolidate facilities and services to reduce costs.	a	Promote County shared services program to facilitate shared service and purchasing options in the CMR.	Increased participation in Monmouth County Shared Services Program.	Percent of CMR municipalities participating in County Shared Services Program, number of services being shared and resulting cost savings.	S
				b	Pursue funding sources such as State grants for shared services feasibility studies.	Expansion of shared services between municipalities.	Number of additional services shared and resulting reduction in costs.	S

6.0	HOUSING					
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Regional Vision Statement: The Monmouth Coastal Region provides a wide range of housing choices serving all income levels including affordable housing and promotes sustainable housing development through green building.

6.2 AFFORDABLE HOUSING	Housing costs have limited affordable housing options; need to address affordable family, seniors, and worker housing.	3	Provide a wide range of housing choices to serve local and regional needs.	a	Address affordable housing needs that are integrated within the community.	Certified Housing Elements and Fair Share Plans (HEFSP).	Percent of CMR municipalities adopting HEFSP and percent of municipalities receiving certification.	M
				b	Use redevelopment and revitalization tools to address a wide range of housing options.	Affordable housing.	Number of affordable units planned and constructed within redevelopment areas.	L
				c	Identify and utilize innovative planning and funding tools to both upgrade neighborhoods and to provide affordable in-place housing.	Affordable housing	Number of affordable units constructed within municipalities.	M
6.3 SENIOR HOUSING	The elderly need affordable housing and support services to remain in the region.	4	Address needs of seniors on fixed incomes.	a	Consider housing options to assist seniors who wish to age in place.	Certified HEFSP	Number of age-restricted affordable units constructed within CMR.	M
				b	Educate seniors about County and other senior support programs for housing maintenance, rehabilitation loans and handy person services.	Senior housing support programs.	Number of activities and services and level of eligible seniors receiving supportive housing services.	M

Level	Agency Involvement	Northern Region										North Central Region				South Central Region										Southern Region							
		FH	LS	MB	RB	RUM	SB	SWB	SWT	EA	LB	OP	WLB	AH	AP	AV	BB	DL	IL	LA	NC	NT	OT	BR	BL	LC	MO	SG	SL	SLH	WT		
M/C	MUN MCPB	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
M/C	MUN MCDED&T	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
M/C	MUN MCDED&T NJDCA	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
M	MUN AHG MCPB-CDP COAH	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
M	MUN MCPB-CDP COAH	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
M	MUN AHG MCPB-CDP NJHMFA COAH	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
M	MUN AHG MCPB-CDP	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
M	MUN AHG MCPB-CDP MCDHS	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		

Areas (Refer to CMP Sections)	Needs	Palette of Alternatives	Implementation Strategies	Targets / Goals	Planning Indicators	Time Frame
6.4 ARTIST HOUSING	Vibrant ACE Nodes will require affordable artist housing.	5 Plan for artists housing in Arts, Cultural and Entertainment ("ACE") Nodes.	a Use redevelopment and revitalization plans to provide opportunities for affordable artist housing and live/work units.	Live/work units for artists.	Number of live/work units constructed.	L
6.5 SUSTAINABLE HOUSING	Housing maintenance and energy costs necessitate sustainable housing options.	6 Promote green affordable housing to reduce energy and long term maintenance costs.	a Seek funding from NJHMFA and other sources to implement sustainability measures.	Sustainable affordable housing.	Number of units with sustainable construction.	M
6.6 AFFORDABLE HOUSING EDUCATION	Affordable housing is ill-considered in many public arenas, which creates roadblocks for implementation.	7 Develop educational programs to promote understanding and gather community support for affordable housing.	a Create public education program through government and not-for-profit agencies.	Affordable housing education program.	Number of educational outreach sessions.	M
6.7 NEIGHBORHOOD PRESERVATION	Maintaining the existing character of the CMR has been identified as an important goal for many municipalities.	8 Preserve community character and a sense of place.	a Adopt design guidelines and land use regulations that identify and preserve scale and character of resources deemed important to the community vision.	Local design guidelines and ordinances.	Number of adopted design guidelines/ ordinances.	M
7.0 ECONOMY						
Regional Vision Statement: The Monmouth Coastal Region communities are being revitalized into vibrant, pedestrian friendly and sustainable centers with year round activity focused on tourism, arts, culture, entertainment, natural resources and the Monmouth Jersey Shore.						
7.2 REDEVELOPMENT AND REVITALIZATION EFFORTS	Redevelopment and revitalization efforts, which may have inter-municipal/ regional impacts are underway in many CMR municipalities.	9 Address on a regional basis on-going and future redevelopment and revitalization efforts.	a Develop a process to coordinate redevelopment and revitalization efforts through subregional partnerships or set up new organizations.	CMR Committee(s).	Establish a CMR Committee and subcommittees.	S
	There is a need to expand to a year-round business model to support a more vibrant full-season economy in the CMR.	10 Address economic development and redevelopment to expand markets and jobs.	a Promote an economic development program that expands beyond traditional year-round or 'seasonal' activities to include diverse commercial businesses and services.	CMR Marketing Plan.	Number of changes in employment and types of jobs within CMR.	M
7.3 TRANSIT ORIENTED PLANNING	The North Jersey Coast Line with the CMR rail stations provides a prime opportunity to concentrate and coordinate revitalization and planning efforts.	11 Promote transit oriented planning in the CMR for area revitalization and 'smart growth'.	a Consider transit village designation to focus future growth where feasible at current and future rail stations.	Transit Village designation.	Number of designated Transit Villages within CMR.	M
			b Focus higher density mixed use development linked to the rail stations as prime development opportunities.	Transit station revitalization.	Number of transit station area master plans.	M

Areas (Refer to CMP Sections)	Needs	Palette of Alternatives		Implementation Strategies	Targets / Goals	Planning Indicators	Time Frame	
7.4 MARKETING THE CMR	There is no unified comprehensive marketing effort to synergistically build on the CMR assets and this means lost revenue and jobs for the region. The CMR is known for the Jersey Shore, but marketing should focus on other attributes both cultural and environmental resources to broaden the marketing base for visitors and residents.	12	Coordinate regional marketing efforts.	a	Prepare a strategic marketing plan with branding for the CMR to promote the resources unique to the region.	CMR Marketing Plan.	Number of activities completed in Marketing Plan.	M
				b	Coordinate meetings of the existing local Chambers of Commerce for regional marketing discussions.	Regional Chamber programs	Number of regional activities held on an annual basis.	M
		13	Plan an Arts/Cultural/Entertainment ("ACE") corridor to establish focus for marketing and development efforts.	a	Market the ACE corridor tied to major activity nodes and linked by rail and other transportation connections.	Market Arts Corridor	Number of visitors to major ACE activities.	M
		14	Plan Environmental Centers of Activity ("ECA") as ecotourism and recreation amenities.	a	Market these ECA as places where there is a convergence of natural systems, people and activities; i.e. recreation, economic and conservation intersects.	Environmental Centers of Activity.	Number of visitors to ECA.	L
		15	Plan and develop scenic byways to promote natural and cultural resources.	a	Obtain scenic byways designation from NJDOT for additional byways through the region.	Scenic Byway Designation.	Designation as a scenic byway by NJDOT and adopted corridor management plans.	L
7.5 SUSTAINABLE DEVELOPMENT	Although sustainable development is beginning to gain interest in the CMR municipalities some of whom are identifying and implementing green policies which can particularly support the unique ecosystem of the CMR.	16	Sustainable development should be explored in all municipalities.	a	Prepare and adopt sustainable development practices, policies and regulations.	Adopted local sustainability plans and ordinances.	Percent of CMR municipalities with adopted sustainability guidelines and ordinances.	M
				b	Participate in Sustainable Jersey.	Certification in Sustainable Jersey.	Percent of CMR municipalities participating in Sustainable Jersey.	S

Areas (Refer to CMP Sections)	Needs	Palette of Alternatives	Implementation Strategies	Targets / Goals	Planning Indicators	Time Frame
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8.0 TRANSPORTATION

Regional Vision Statement: A multimodal transportation network provides alternative transportation options to serve the Coastal Monmouth Region while considering public safety, accessibility and quality of life.

8.2 COUNTY ROADWAYS	Certain conditions within the CMR require context sensitive design considerations in addition to addressing public safety.	17	Permit flexibility in roadway design to achieve community circulation and aesthetic goals while addressing circulation and safety needs.	a	Implement flexible context sensitive design solutions to help mitigate circulation and safety problems.	Context sensitive road improvements standards considered in design process.	Number of road improvements benefiting from context sensitive design approach.	M
	Congested County traffic conditions have been identified by municipalities in the northern section of the CMR.	18	Address congested County corridors.	a	Comprehensively assess, prepare and implement corridor studies on identified County roads as funding permits by Monmouth County.	Improved traffic operations in congested corridors.	Number of miles of County road corridors improved.	M
	Numerous congested intersections have been identified.	19	Address congested road intersections as funding permits.	a	Address congested intersections identified by the CMR municipalities.	Improved traffic operations and pedestrian safety at problem intersections.	Number of County road intersections improved.	L
	Speeding was identified as a major problem. Due to heavy traffic congestion, especially during the summer season, drivers cut through local streets to avoid congestion, raising safety concerns.	20	Address speeding and cut through traffic.	a	Plan and implement traffic calming measures to promote pedestrian friendly neighborhoods.	Traffic calming improvements.	Number of installed traffic calming measures.	L
8.3 STATE ROADWAYS	A number of congested segments along State Highways have been identified by affected municipalities. These are listed in the CMR Plan.	21	Address the traffic congestion problems along these corridors with sensitivity to the local issues	a	Municipalities together with the County shall work with NJDOT to address these congested corridors and identify safety problem areas.	Improvements to congested State road corridors.	Number of miles of State roadway in CMR where improvements are constructed.	L
	Numerous congested intersections have been identified by the CMR municipalities.	22	Address congested intersections as funding permits.	a	Municipalities together with the County shall work with NJDOT to address these congested areas.	Improvements to congested State road intersections.	Number of intersections improved.	L

Level	Agency Involvement	Northern Region										North Central Region				South Central Region										Southern Region							
		FH	LS	MB	RB	RUM	SB	SWB	SWT	EA	LB	OP	WLB	AH	AP	AV	BB	DL	IL	LA	NC	NT	OT	BR	BL	LC	MO	SG	SL	SLH	WT		
M/C/S	MUN MCDOE NJDOT MCPB	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
C	MUN MCDOE NJDOT MCPB	x		x	x		x	x																									
M/C	MCDOE NJTPA NJDOT MUN MCPB					x				x												x		x						x	x		
M	MUN CMRTC MCDOE NJDOT NJTPA MCPB	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
M/C/S	MCDOE MUN NJTPA NJDOT									x	x		x					x		x	x	x		x	x					x	x		
M/C/S	MUN MCDOE MCPB NJTPA NJDOT				x					x	x	x	x		x							x	x							x	x		

Areas (Refer to CMP Sections)	Needs	Palette of Alternatives	Implementation Strategies	Targets / Goals	Planning Indicators	Time Frame				
8.4 TRANSIT	The North Jersey Coast Line with CMR rail stations and bus transit service have been identified as prime opportunities for improved services to expand ridership and to link to other alternative modes more effectively.	23	Improve rail service in the CMR to increase ridership and reduce congestion.	a	NJ Transit should coordinate efforts to improve transit services in the CMR.	Improved rail service.	Number of rail ridership trips on an annual basis.	L		
				b	Assess options to reduce traffic congestion and to improve air quality at train crossings.	Improved air quality and reduced traffic congestion.	Measurement of traffic delays at identified train crossings.	L		
				c	Consider expanding Red Bank trolley and/or new shuttle service to serve the Northern subregion in the Two Rivers area.	Shuttle and trolley service	Measurement of transit ridership.	M		
				d	Expand bus transit and trolley services to link key destinations and commuter connections.	Expanded transit services.	Measurement of transit ridership.	M		
				e	Assess viability of Bus Rapid Transit ("BRT") or enhanced bus service in the CMR.	Expanded bus transit services.	Completion of BRT Study for CMR.	M		
		24	Coordinate and link all transportation modes to promote seamless connectivity.	a	Integrate parking, access and alternative transportation modes with transit stations, ACE, ECA and other activity generators.	Improved intermodal transportation services.	Measurement of transit ridership.	L		
				b	Municipalities should identify alternative transportation options in local master plan in coordination with CMR efforts.	Updated local Circulation Plans that include multimodal transportation options.	Number of updated local Circulation Plans.	S		
		25	Reduce train noise impacts.	a	Municipalities should identify locations for "Quiet Zones" to implement improvements to reduce train noise and improve quality of life.	Established Quiet Zones.	Number of Quiet Zones installed.	L		
		8.5 PEDESTRIAN AND BICYCLE FACILITIES	Designated bicycle routes and facilities are limited in the CMR.	26	Expand bicycling opportunities in the CMR.	a	Update County Bicycle Map with links to existing and proposed greenways and trails in the CMR.	Updated County Bicycle Map.	Distribution of County Bicycle Map	S
						b	Develop bicycle facilities along Ocean Avenue and Route 71.	Bike route improvements along Ocean Avenue and Route 71.	Percent completion of planned Ocean Avenue and Route 71 bicycle facilities.	M
c	Update local Master Plan Circulation Elements to include pedestrian, bicycle and other transportation modes.					Local Bicycle Facilities Plans.	Percent of CMR municipalities with adopted Bicycle Facilities Plan.	M		

Level	Agency Involvement	Northern Region									North Central Region				South Central Region										Southern Region							
		FH	LS	MB	RB	RUM	SB	SWB	SWT	EA	LB	OP	WLB	AH	AP	AV	BB	DL	IL	LA	NC	NT	OT	BR	BL	LC	MO	SG	SL	SLH	WT	
M/C/S	NJ Transit CMRTC MCDOE MUN		x		x									x	x		x							x			x		x			
M/C/S	NJ Transit CMRTC MCDOE MUN		x		x									x	x		x	x	x	x		x		x	x		x	x	x	x	x	
M/C/S	MUN MCDOE NJTransit NJTPA	x	x		x																											
M/C/S	CMRTC MCDOE NJTransit NJTPA	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
M/C/S	CMRTC MCDOE NJTransit NJTPA	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
M/S	CMRTC MCDOE MUN	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
M/C	MUN MCDOE	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
M/C/S	MUN MCDOE NJTransit NJDOT		x		x									x	x		x	x	x	x	x	x		x	x	x	x	x	x	x	x	
C	MCPB MCDOE MUN	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
M/C/S	MCDOE MCPB MUN NJDOT NJTPA													x		x	x							x	x	x	x	x	x	x	x	
M/C/S	MUN NJDOT	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	

Areas (Refer to CMP Sections)	Needs	Palette of Alternatives	Implementation Strategies	Targets / Goals	Planning Indicators	Time Frame
8.6 EMERGENCY MANAGEMENT	The CMR location and aptitude for flood and storm events requires careful planning for evacuation.	27 Develop plans to improve evacuation events conditions.	a County should coordinate planning studies with local EMOs.	Emergency Evacuation Routes Plan.	Completion of Emergency Evacuation Routes Plan.	S
8.7 GATEWAYS AND SIGNAGE	Gateways into the CMR are needed as an important transportation design element and require planning and coordination including a defined wayfinding signage program.	28 Address traffic and design issues on the gateways into the CMR.	a Identify and assess streetscape, signage and safety improvements needed for gateways into the CMR in coordination with CMR Marketing Plan.	Gateway improvements.	Number of CMR gateways improved in accordance with CMR Marketing Plan recommendations.	M
		29 Improve wayfinding signs.	a Develop wayfinding signage program.	Wayfinding signage program.	Number of wayfinding signs installed in accordance with CMR Marketing Program.	M
			b Develop an on-going maintenance and signage replacement program for County and State routes.	Sign maintenance program.	Number of signs replaced on an annual basis.	S
8.8 TRANSPORTATION PLANNING COORDINATION	Transportation issues in the CMR need to be comprehensively address through cooperative efforts between municipalities, County and State Agencies.	30 Develop mechanisms to comprehensively address regional traffic impacts and to facilitate future transportation improvements in the CMR.	a Establish a CMR Transportation Committee("CMRTC") to develop mechanisms to address regional traffic impacts.	CMR Transportation Committee.	Number of CMRTC meetings held on an annual basis.	S
			b Address transportation services as a key element in the CMR Marketing Plan.	CMR Marketing Plan.	Number of transportation recommendation of the CMR Marketing Plan completed.	L

Areas (Refer to CMP Sections)	Needs	Palette of Alternatives	Implementation Strategies	Targets / Goals	Planning Indicators	Time Frame
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9.0 ENVIRONMENT

Regional Vision Statement: The Monmouth Coastal environment has witnessed improved water quality, reduced flooding, preserved and restored natural resources, expanded public parks and open space, and implemented sustainable development measures.

9.2 NATURAL RESOURCES	<p>The conservation, protection and restoration of natural resources and systems has been identified as an important need in the CMR including:</p> <p>(1) Wetlands, Waters and Deepwater Habitats;</p> <p>(2) Upland Habitats;</p> <p>(3) NJDEP Natural Heritage Priority Sites;</p> <p>(4) Subwatershed Management Areas;</p> <p>(5) Wildlife Management Areas (See Plan for specific information on resource areas.)</p>	31	<p>Identify critical natural resources and sites to determine and prioritize necessary actions to ensure preservation and recovery of biodiversity and a healthy coastal ecosystem.</p>	a	<p>Create or update local Natural Resource Inventories ("NRI") to support natural resource protection. Identify gaps in Natural Resource Inventories preparation at municipal level.</p>	<p>Updated local NRI.</p>	<p>Number of NRI updated to consistent standards.</p>	M
				b	<p>Work with regional land trusts to help facilitate prioritizing acquisitions, funding, purchase and management of natural resource areas.</p>	<p>Preserved and managed natural resource areas.</p>	<p>Number of prioritized sites (acres) acquired for preservation.</p>	L
		32	<p>Maintain and restore a mosaic of habitat types consistent with landscape ecology principles to ensure native biodiversity is maintained.</p>	a	<p>Coordinate among federal, state, and municipal agencies to improve management of natural resources in the CMR.</p>	<p>CMR Committee - Environment Subcommittee.</p>	<p>Comparison of existing conditions against past conditions to demonstrate any changes in connectivity of preserved areas, establishment of mosaics and network reduction of isolated patches, and improvement in habitat edges.</p>	M
				b	<p>Prepare and implement regional recovery plans for threatened and endangered species based upon updated inventories.</p>	<p>Recovered sustainable populations of threatened and endangered species.</p>	<p>Number of increased populations of identified threatened and endangered spaces through monitoring.</p>	L
		33	<p>Identify threatened, endangered, and rare plant and animal species and their critical habitats to ensure their continued existence in the region.</p>	a	<p>Prepare and implement regional recovery plans for threatened and endangered species based upon updated inventories.</p>	<p>Recovered sustainable rare plants and animals.</p>	<p>Number of increased populations of identified rare plant and animal species through monitoring.</p>	L
				b	<p>Identify and manage populations of rare plants and animals based upon updated inventories.</p>	<p>High functioning coastal ponds and lakes.</p>	<p>Number of completed or revised Habitat Conservation Plans.</p>	M
		34	<p>Maintain healthy coastal ponds and lakes to support native plant and animal populations and provide habitat and hydrological function.</p>	a	<p>Prepare and implement site specific habitat conservation plans for coastal ponds and lakes.</p>	<p>High functioning coastal ponds and lakes.</p>	<p>Number of completed or revised Habitat Conservation Plans.</p>	M
				b	<p>Implement a regional comprehensive management plan for coastal ponds and lakes that coordinates local issues for relevant municipalities and links with ongoing coastal lakes initiatives.</p>	<p>Regionally managed coastal ponds and lakes.</p>	<p>Changes in water quality in coastal ponds and lakes measured on an annual basis.</p>	L

Level	Agency Involvement	Northern Region										North Central Region				South Central Region										Southern Region							
		FH	LS	MB	RB	RUM	SB	SWB	SWT	EA	LB	OP	WLB	AH	AP	AV	BB	DL	IL	LA	NC	NT	OT	BR	BL	LC	MO	SG	SL	SLH	WT		
M	MUN ANJEC ESG	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
M/C	MUN MCF MCPB NJDEP ESG	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
M/C/S	MCPB USFWS ESG MCF MUN NJDEP	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
M/C/S	MCEC ESG MCPB MUN USFWS	x	x	x		x	x	x		x	x	x			x							x		x	x		x	x	x		x		
M/C/S	MCEC MCPB ESG NJDEP MUN														x	x		x	x				x		x	x	x	x	x		x		
M/C/S	MUN MCPB MCEC ESG NJDEP	x			x					x	x		x	x	x	x	x	x	x			x	x	x	x	x	x	x	x	x	x	x	
M/C/S	USACE NJDEP MCPB MCDOH MCEC MUN ESG	x			x					x	x		x	x	x	x	x	x	x			x	x	x	x	x	x	x	x	x	x	x	

Areas (Refer to CMP Sections)	Needs	Palette of Alternatives		Implementation Strategies	Targets / Goals	Planning Indicators	Time Frame	
9.2 NATURAL RESOURCES	<p>The conservation, protection and restoration of natural resources and systems has been identified as an important need in the CMR including:</p> <p>(1) Wetlands, Waters and Deepwater Habitats;</p> <p>(2) Upland Habitats;</p> <p>(3) NJDEP Natural Heritage Priority Sites;</p> <p>(4) Subwatershed Management Areas;</p> <p>(5) Wildlife Management Areas (See Plan for specific information on resource areas.)</p>	35	<p>Maintain healthy rivers and estuaries to support important ecosystem functions including maintenance of native plant and animal biodiversity.</p>	a	Prepare and implement regional watershed management plans.	Improved water quality on a regional basis.	Reduced number of days with monitoring results that demonstrate excessive levels of contaminants.	L
				b	Prepare and implement stream corridor (riparian) protection ordinance .	High functioning riparian corridors with protected habitats and reduced downstream impacts.	Number of municipalities which have adopted riparian buffer ordinances.	L
				c	Develop a regional plan to identify and prioritize wetlands, rivers and estuaries for preservation and restoration.	Preserved and restored wetlands and waters.	Number of prioritized wetlands and water areas preserved.	M
		36	<p>Protect beaches and dunes to support critical resources (including threatened, endangered, and rare plants and animals) and serve a coastal protection function.</p>	a	Establish and implement beach and dune protection ordinances.	Protected coastal beaches and dunes.	Number of adopted municipal beach and dune management plans.	M
				b	Develop strategies for zoned beach grooming and seasonal beach grooming to balance access and coastal resource protection including endangered species habitat protection/restoration.	Municipal beach and dune management plans.	Number of adopted municipal beach grooming management plans.	M
		37	<p>Control invasive exotic species to reduce their impacts to native resources.</p>	a	Prepare and implement invasive exotic plant control plans.	Eradicated or controlled invasive species.	Number of species successfully eradicated or controlled.	M

Level	Agency Involvement	Northern Region									North Central Region				South Central Region										Southern Region											
		FH	LS	MB	RB	RUM	SB	SWB	SWT	EA	LB	OP	WLB	AH	AP	AV	BB	DL	IL	LA	NC	NT	OT	BR	BL	LC	MO	SG	SL	SLH	WT					
M/C	MCPB MCEC ESG MUN NJDEP	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
M/C/S	MCPB MCEC ESG MUN NJDEP	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
M/C/S	MCPB MUN MCEC ESG NJDEP	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
M/S	MUN ESG NJDEP USFWS			x			x			x				x	x	x	x	x		x				x				x	x	x						
M/S	MUN ESG NJDEP			x			x			x				x	x	x	x	x		x				x				x	x	x						
M/S	MUN ESG NJDEP	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

Areas (Refer to CMP Sections)	Needs	Palette of Alternatives		Implementation Strategies	Targets / Goals	Planning Indicators	Time Frame
9.3 INFRASTRUCTURE RESOURCES	Provide for a natural and built infrastructure system that protects, improves, and sustains natural resources allowing for their beneficial use including: (1) Blue Infrastructure; (2) Green Infrastructure; (3) Gray Infrastructure.	38	Identify important green and blue infrastructure including degraded areas and important sites threatened to ensure their protection.	a Apply for NJDEP funds to develop regional green and blue infrastructure plan and coordinate with local efforts; identify mechanisms for acquisition of important natural areas and open spaces; create linkages.	High functioning green and blue infrastructure.	Number of restored infrastructure including riparian buffers, flood hazard areas and special aquatic resources areas.	L
				b Develop model ordinances to support efforts of regional green and blue infrastructure planning.	Model green ordinances.	Number of green ordinances adopted by municipalities.	M
		39	Document aging gray infrastructure and maintenance problems to prevent negative impacts on natural resources.	a Develop and implement plans for improvements to gray infrastructure.	High functioning gray infrastructure.	Number of infrastructure improvement projects completed by watershed for each major category of gray infrastructure.	L
		40	Address water sustainability measures limits to growth, conservation, and salt water intrusion.	a Assess potable water supplies to identify water conservation and supply needs.	Municipal water conservation plans.	Number of adopted municipal water conservation plans.	M
		41	Reduce impact of stormwater runoff to protect water quality and reduce beach closures.	a Prepare and implement stormwater management plans and wastewater management plans (including up-to-date best management practices to reduce beach closures due to degraded water quality.	Clean water and open beaches.	Number of days monitoring results in excessive levels of contaminants.	M
		42	Address regional air quality issues.	a Prepare and implement transportation plans to increase levels of service and reduce pollutions from automobiles. (See PIA Transportation Section 8.0)	Improved air quality.	Number of days ozone levels exceed State standards.	L
b As feasible, promote and support incentives to upgrade residential and commercial heating systems for fuel efficiency and reduction of emissions.							

Areas (Refer to CMP Sections)	Needs	Palette of Alternatives	Implementation Strategies	Targets / Goals	Planning Indicators	Time Frame
9.3 INFRASTRUCTURE RESOURCES	Provide for a natural and built infrastructure system that protects, improves, and sustains natural resources allowing for their beneficial use including: (1) Blue Infrastructure; (2) Green Infrastructure; (3) Gray Infrastructure.	43 Identify dredge spoils disposal and coastal resource protection alternatives to support reasonable public use in balance with natural resources.	a Identify upstream sources and address ownership of downstream impacts including water quality, flooding, overall maintenance, and dredging through subregional plan.	Reduced sedimentation in estuaries.	Measurement of sediment levels in each CMR estuary and number of dredge materials management plans for estuaries characterized by excessive sediment.	M
			b Establish an inter-agency committee to coordinate activities within the various watersheds regarding dredging methods, disposal needs, shared use of equipment, and other inter-watershed and inter-municipal needs.	Formation of an entity to address dredging concerns in the region.	Number of dredging plans implemented.	L
		44 Assess potential impacts to the CMR from effects of global climate change, in particular threats of sea level rise on natural resources and infrastructure.	a Plan for flexible response to sea level rise and potential impacts to natural resources.	Sea level rise response plan.	Number of sea level rise response program recommendations implemented.	M
			b County should facilitate development of CMR working group to assist in planning for climate change.	Sea Level Rise Response Sub-Committee established.	Number of sea level rise response measures implemented.	M
9.4 RESOURCE ACCESS	Expansion of public access to regional natural resources while protecting natural resource values is an important goal for the CMR.	45 Identify opportunities for public open space to improve recreation opportunities and public access and to create linkages as part of overall greenway system.	a Prepare and implement management plans for open spaces and parks that balance access with natural resource protection and restoration and identify funding for municipal open space mapping.	Balanced open space management.	Number of open space management plans prepared.	L
			b Identify and prioritize open space and recreation areas for acquisition to address open space deficiencies through updated Open Space and Recreation Plans.	Open Space and Park acquisition.	Number of parks and open space areas acquired.	M
			c Preserve regional use of recreational lands at Fort Monmouth and the National Guard Training Center ("NGTC") in Sea Girt; coordinate through County to facilitate retention of these facilities.	Public use of Fort Monmouth and NGTC.	Adoption of resource management plans for these lands.	S

Level	Agency Involvement	Northern Region									North Central Region				South Central Region										Southern Region								
		FH	LS	MB	RB	RUM	SB	SWB	SWT	EA	LB	OP	WLB	AH	AP	AV	BB	DL	IL	LA	NC	NT	OT	BR	BL	LC	MO	SG	SL	SLH	WT		
S/C/M	USACE NJDEP MCPB MCED MUN ESG	x		x	x	x	x	x		x											x	x		x	x								x
S/C/M	USACE NJDEP MCPB MCED MUN ESG	x		x	x	x	x	x		x						x					x	x		x	x								x
M/C	FEMA MCDOE MCPB MUN MCOEM ESG	x		x	x	x	x	x		x					x	x	x	x	x		x	x	x		x	x		x	x	x			x
C	MCPB MCEC MUN NJDEP	x		x	x	x	x	x		x					x	x	x	x	x		x	x	x		x	x		x	x	x			x
M/C	MCPS MUN NJDEP	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
M/C	MCPS MUN	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
S/M	MUN MCPB FMERPA NJNG									x																							x

Areas (Refer to CMP Sections)	Needs	Palette of Alternatives	Implementation Strategies	Targets / Goals	Planning Indicators	Time Frame		
9.4 RESOURCE ACCESS	Expansion of public access to regional natural resources while protecting natural resource values is an important goal for the CMR.	46	Identify areas where improved public access to ocean beaches, rivers, and parks is needed.	a	Work with the ecotourism industry to identify and promote opportunities in the CMR, utilizing Environmental Centers of Activity ("ECA"). (See PIA Economy Section 6.4).	CMR Marketing Plan.	Number of marketing materials distributed annually on ECA.	M
				b	Coordinate public access with transportation planning to promote multimodal linkages to waterfront resources. (See PIA Transportation Section 8.0.)	Improved access to waterfront and parks.	Number of new or improved access opportunities to waterfront resources and parks.	M
				c	Address beach closures due to water quality problems, especially related to stormwater runoff through updated on-going stormwater management plans.	Year-round open beaches	Number of days of closed beached due to water quality issues.	M
9.5 OUTREACH & EDUCATION	Expansion of public's knowledge and understanding of local, regional and global environmental issues that affect the CMR is needed.	47	Identify K-12 and adult environmental education opportunities that are feasible to implement in regional schools and continuing education programs.	a	Prepare and present adult and youth oriented workshops, seminars, lectures, and field trips regarding importance of regional natural resources through parks and recreation programs and local schools and colleges.	Responsible stewardship of CMR resources.	Measurement of workshop activity attendance.	S
				b	Work with regional school systems to develop and implement environmental education programs that emphasize natural resources of the CMR.		Number of schools from K-12 to incorporate CMR environment resources programming in their curricula.	M
		48	Identify outreach programs for regional parks and open spaces.	a	Design and implement additional interpretive programs at parks and open spaces.	Create awareness of CMR resources.	Number of participants in interpretive environmental programs.	L
				b	Organize additional docent and volunteer programs and docent lead tours for parks and open spaces.			L

