THE RHODE ISLAND COMPREHENSIVE PLANNING STANDARDS
GUIDANCE HANDBOOK SERIES

GUIDANCE HANDBOOK #15:

MAPPING FOR COMPREHENSIVE PLANS

Approved by the Rhode Island State Planning Council on
January 14, 2016

Municipal government is responsible for land use, and requires accurate technical information and financial resources to plan for orderly growth and development, and the protection and management of our land and natural resources.

The Rhode Island Comprehensive Planning and Land Use Regulation Act, RIGL subsection 45-22.2-3(a)(2)

ACKNOWLEDGEMENTS

The Rhode Island Comprehensive Planning Guidance Handbook Series is the result of over twenty-four months of cooperation and coordination among state agencies, local planners and other professionals interested in helping cities and towns craft better comprehensive plans. The guidance development process was overseen by the Comprehensive Planning Advisory Committee, a dedicated group of planning, land use, legal and community professionals who worked diligently to develop content on the comprehensive planning process and to review topical content as it was developed. Without this group the manual would not have become reality.

Additionally, the topical content for the guidance handbook series was developed in conversation with numerous experts, including staff from the Rhode Island Statewide Planning Program. These knowledgeable individuals are the reason that the manual is helpful, user-friendly and thorough.

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INTRODUCTION

This handbook is meant to be an accompaniment to the Rhode Island Comprehensive Planning Standards Manual ("the Standards Manual"), providing additional information on the mapping standards contained within the manual, as well as general guidance on mapping for comprehensive plans. The Rhode Island Comprehensive Planning Standards Manual and the other guidance handbooks in the series can be found online at www.planning.ri.gov/statewideplanning/compplanning/.

This manual is split into two sections. Section 1 - General Information on Mapping for Comprehensive Plans discusses the purposes of maps, general mapping requirements for comprehensive plans and provides some general guidelines for creating maps that are user-friendly. Section 2 - Required Data to be Mapped provides information on all of the data that must be mapped as listed in the Standards Manual.

NOTES

In some cases, this guidebook presents "notes" that are relative to the content being discussed. Each note that occurs within the text will be tagged with a symbol to alert the reader to the note's purpose, as shown below.

This symbol is used to identify references to the Rhode Island General Laws (RIGL). Blue text within this note provides a link to the actual RIGL citation.

This symbol alerts the reader to something that is required for State approval.

This symbol alerts the reader to potential data sources.

The text following this symbol provides additional suggestions to enhance comprehensive plans.

This symbol alerts the reader to sample goals, policies and actions that would fulfill the requirements.

This symbol indicates general information that is secondary to the main point of the text, but could be helpful to the municipality.

This symbol alerts the reader to a cross-reference within the guidebook series. If a concept is mentioned in the text area and more information on the concept is available elsewhere in the guidebook series, this note will point the reader to where to find it.

SECTION 1. GENERAL INFORMATION ON MAPPING FOR COMPREHENSIVE PLANS

THE TWO PURPOSES OF MAPS

Within a comprehensive plan, mapped data serves two purposes. First, and perhaps most obviously, mapped data illustrates conditions in a user-friendly way. Maps show data visually, allowing readers to see the data applied to the place where they live. Including maps in a comprehensive plan brings the plan to life, makes the plan interesting and illustrates data in an understandable way.

The second, perhaps lesser known, reason for mapping data is to enable the municipality to analyze the data spatially. Mapping can be a form of assessment; compiling datasets into a single map can assist in drawing conclusions about the data. For example, showing the locations of playgrounds on the same map as a dataset showing the number of school-aged children and children under 5-years-old may help to determine where a need exists for more playgrounds.

When creating a comprehensive plan, communities should carefully consider which maps to include. In some cases, maps used for analysis may not be necessary for inclusion in the comprehensive plan, or may need better formatting before being added to the plan. Not all maps are easy to understand, for example those that show too much data, and all of the maps that end up in a plan should be user-friendly.

MAPPING STANDARDS

To receive State approval, all maps must meet the following requirements:

15.1 All maps must have a title that is reflective of the data shown on the map.

15.2 All maps must have a legend that provides information about all of the data presented within the map.

15.3 Information about the source(s) of all of the data being shown on the map must be clearly identified.

15.4 All map symbology, including colors and/or shading of features, must be clearly distinguishable.

15.5 On all maps, specific areas within the municipality should not be left without relevant information and features intended to cover the entire municipality (e.g. existing zoning districts and Future Land Use categories) must cover the entire municipality.

GENERAL MAP FORMATTING GUIDELINES

To make maps as user-friendly as possible, all maps should:

- Be set on a base map showing at a minimum, and where appropriate, municipal boundaries, rights-of-way, and water bodies;
- Include a north arrow;
- Include a scale bar;
- Only show items within the legend that appear on the map;
- Provide labels to identify significant pieces of data; and
- Symbolize information appearing on more than one map in a consistent manner.

When finalizing maps for inclusion in the comprehensive plan, it is always best to print them at the intended size and consider the graphic qualities of the map, such as the width of line weights, the size of

labels, and the appropriateness of colors chosen.

RIGIS DATA DISCLAIMER

All maps using RIGIS data should contain a disclaimer. The RIGIS Executive Committee developed a MOU with the Board of Registration for Professional Land Surveyors that recommends the following:

This map is not the product of a Professional Land Survey. It was created by <<insert creating entity>> for general reference, informational, planning, or guidance use, and is not a legally authoritative source as to location of natural or manmade features. Proper interpretation of this map may require the assistance of appropriate professional services. <<insert creating entity>> makes no warranty, express or implied, related to the spatial accuracy, reliability, completeness, or currentness of this map.

SECTION 2. REQUIRED DATA TO BE MAPPED

STANDARD 2.1

IDENTIFY THE FOLLOWING NATURAL RESOURCES AND NATURAL RESOURCE AREAS ON ONE OR MORE MAPS:

a. Surface water, including ponds, rivers, and streams, and their watersheds;

b. Aquifers;

c. Wetlands and saltwater marshes;

d. Floodplains;

e. Forested areas; and

f. Any known critical, uncommon or fragile wildlife habitat areas.

Comprehensive plans must include a map of the natural resources and natural resource areas that exist within the municipality. Municipalities may map the natural resources and natural resource areas to best suit their needs, but the map must clearly identify the various types of natural resources that exist within the community. It may be beneficial to show these items on more than one map, depending on how the community intends to use the information in the planning process.

Surface water and aquifers are also required to be mapped as part of the requirements for planning for water supply, as outlined under Standard 10.1. Although required for both natural resource and water supply planning, this data only needs to be mapped once.

Valuable agricultural soils are also required to be mapped as part of the requirements for planning for agriculture, as outlined under Standard 7.1. Although required for both natural resource and agricultural planning, this data only needs to be mapped once.

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Additionally, though not required, communities may wish to map any significant coastal features that exist within the municipality.

DATA SOURCES

The RI Statewide Planning Program is in the process of creating GIS layer files that can assist municipalities in fulfilling the Standards Manual's mapping standards. Please visit http://www.planning.ri.gov/statewideplanning/compplanning/ to see which layer files are available.

The following RIGIS data sets are recommended for this standard:

DATA SET NAME	DOWNLOAD LINK	ADDITIONAL NOTES
Lakes and Ponds (1:5000)	http://www.rigis.org/geodata/hydro/lakes5k10.zip	For mapping surface water.
Streams (1:5000)	http://www.rigis.org/geodata/hydro/streams5k.zip	For mapping surface water.

DATA SET NAME	DOWNLOAD LINK	ADDITIONAL NOTES
Coastal Waters (2014)	http://www.rigis.org/geodata/hydro/cstlWaters14.zip	For coastal communites only.
Watershed Boundary Dataset	http://www.rigis.org/geodata/hydro/HUC12_RI_09.zip	For watersheds. Municipalities have the option to use either the Hydrologic Unit Code Level 10 (HUC 10) or Hydrologic Unit Code Level 12 (HUC 12) data set.
Sole Source Aquifers	http://www.rigis.org/geodata/hydro/solesrc11.zip	For aquifers.
Groundwater Recharge Areas	http://www.rigis.org/geodata/hydro/gwrchrg10.zip	For aquifers.
Groundwater Reservoirs	http://www.rigis.org/geodata/hydro/gwresv10.zip	For aquifers
Wellhead Protection Areas: Community	http://www.rigis.org/geodata/hydro/cwhpa14.zip	For aquifers
Wellhead Protection Areas: Non-Community	http://www.rigis.org/geodata/hydro/ncwhpa14.zip	For aquifers
Flood Hazard Areas	http://www.rigis.org/geodata/plan/floodhaz13.zip	For floodplains.
Ecological Communities Classification	http://www.rigis.org/geodata/env/RIECC11.zip	For wetlands and forested areas. Although 'Wetlands' and 'Forested Areas' are available in several RIGIS data sets, RI SPP recommends that only this data set be used for comprehensive plans.
Conservation Opportunity Areas	http://ridemgis.maps.arcgis.com/home/item.html?id=cc578468dd4a42ae8f81baab3a4c2b1c	For habitats with high conservation value to Species of Greatest Conservation Need (SGCN), such as the largest intact and connected blocks of common habitats and uniquely rare, resilient, or productive natural systems.
Natural Heritage Areas	http://www.rigis.org/geodata/bio/natHeritage14.zip	For critical, uncommon or fragile wildlife habitats.

STANDARD 2.2

IDENTIFY EXISTING PERMANENTLY PROTECTED CONSERVATION AREAS (PUBLIC AND PRIVATE) ON A MAP.

The comprehensive plan must include a map of existing conservation areas. Municipalities may choose to show the mapping of conservation areas as a single map or multiple maps, depending on the community's needs.

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To aid in determining the best ways to protect significant natural resources in perpetuity, municipalities may wish to identify which conservations areas are owned by private organizations or land trusts. Municipalities may also wish to map conservation land that does not have permanent, legal protection but where the owners have expressed a "conservation intent" to preserve the land from development. Additionally, municipalities may wish to map the lands enrolled in the Farm, Forest, and Open Space Program that are only temporarily protected. If land that is not permanently protected is mapped, it sould be clearly identified as such.

DATA SOURCES

The following RIGIS data sets are recommended for this standard:

DATA SET NAME	DOWNLOAD LINK
Conservation Lands: Municipal and NGO*	http://www.rigis.org/geodata/env/locCons14.zip
Conservation Lands: State of Rhode Island*	http://www.rigis.org/geodata/env/staCons14.zip

*Please note: For complete coverage, the SCORP and both Conservation Lands data sets must be used in conjunction.

Additionally, communities may want to use the following data sources:

- Data from the local Tax Assessor.
- Data from local land trusts.

STANDARD 2.3

ILLUSTRATE THE EFFECTS OF SEA LEVEL RISE ON SALTWATER MARSHES, INCLUDING POTENTIAL LOSSES AND MIGRATION AREAS, BY INCLUDING ONE OR MORE MAPS SHOWING:

a. The marsh areas within the community that are likely to be lost in the event of 1', 3' and 5' of sea level rise; and

b. The areas within the community to which marsh is likely to migrate in the event of 1', 3'and 5' of sea level rise.

When planning for natural resources within a comprehensive plan, the effects of sea level rise on marsh migration should be considered Rhode Island's coastal wetlands provide critical nursery habitat for fisheries, play a key role in absorbing nutrients that would otherwise pollute waters, and provide important economic benefits for fisheries and tourism. In addition, coastal wetlands support recreational activities and help protect nearby areas from the damaging impacts of storm-driven waves and coastal flooding. Over the past 200 years, Rhode Island has lost over 50 percent of its saltwater marshes to man-made alterations, resulting in a loss of approximately 4,000 acres statewide. Today, many of the remaining coastal wetlands are being impacted by more frequent flooding due to sea level rise. These wetlands, especially tidal marshes, are very susceptible to impacts from climate change and accelerated sea level rise. As sea levels rise, existing marshes become continuously submerged and eventually convert to tidal flats or open water, while new marshes may begin to form farther upland where tidal ranges are more suitable. This process is often referred to as "marsh migration" or "marsh transgression."

To preserve wetlands against threats from accelerating sea level rise and increasing development, it is important to identify critical areas to target for protection, policies, and restoration efforts. The RI Coastal Resources Management Agency (CRMC) has adopted, for planning purposes, maps showing the most likely effects that sea level rise will have on Rhode Island's marshes. The Sea Level Affecting Marshes Model (SLAMM) maps are intended to assist communities in planning how to protect and restore marshes as more frequent flooding results in significant changes to existing marshes and the surrounding upland areas.

Identifying the areas within the community where marsh is likely to be lost and the areas where marsh is likely to exist in the future can assist in determining land conservation priorities and opportunities for marsh restoration. To the extent possible, communities should summarize the total acreage of marsh lost and upland marsh transition areas based on these maps for the three sea level rise scenarios.

For additional information including how to incorporate marsh migration considerations into land conservation priorities, see Standard 2.5. For information on including implementation actions within the comprehensive plan that address the effects of sea level rise on saltwater marshes, see Standard 2.8.

DATA SOURCES

The RI Statewide Planning Program is in the process of creating GIS layer files that can assist municipalities in fulfilling the Standards Manual's mapping standards. Please visit http://www.planning.ri.gov/statewideplanning/compplanning/ to see which layer files are available.

The following RIGIS data set is recommended for this standard:

DATA SET NAME	DOWNLOAD LINK
Sea Level Affecting Marsh Model (SLAMM)	http://www.rigis.org/geodata/hydro/SLAMM15.zip

STANDARD 3.1

IDENTIFY EXISTING RECREATIONAL AREAS AND SITES BY:

a. Including one or more maps showing:

   i. Publicly-owned outdoor recreational areas;

   ii. Privately-owned outdoor recreational areas that have been deemed significant in meeting the community's recreational needs; and

   iii. Publicly operated indoor recreational sites, such as schools and community centers.

b. Identifying which of the mapped properties are municipally-owned and/or managed; and

c. Including on the map, or in an associated table, clear identification of the name and/or type of each area or site.

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Though not required, municipalities may wish to map designated public access points to natural and conservation areas intended for recreation, such as off-street parking areas, trail heads, access easements, and community boat ramps. Municipalities may map the recreational areas and sites to best suit their needs, but the map must clearly identify the various types of recreational areas that exist within the community. It may be beneficial to show these items on more than one map, depending on how the community intends to use the information in the planning process.

DATA SOURCES

The RI Statewide Planning Program is in the process of creating GIS layer files that can assist municipalities in fulfilling the Standards Manual's mapping standards. Please visit http://www.planning.ri.gov/statewideplanning/compplanning/ to see which layer files are available.

The following RIGIS data sets are recommended for this standard:

DATA SET NAME	DOWNLOAD LINK	ADDITIONAL NOTES
State Comprehensive Outdoor Recreation Plan Inventory of Facilities (SCORP)*	http://www.rigis.org/geodata/facility/SCORP14.zip	n/a
Conservation Lands: Municipal and NGO*	http://www.rigis.org/geodata/env/locCons14.zip	This data set must be queried as follows: Purpose = 'Recreation'
Conservation Lands: State of Rhode Island*	http://www.rigis.org/geodata/env/staCons14.zip	This data set must be queried as follows: State Acquisition Type = 'Recreation Easement'
Fishing and Boating Access	http://www.rigis.org/geodata/hydro/fishBoatAcc12.zip	Mapping this data is optional.

DATA SET NAME	DOWNLOAD LINK	ADDITIONAL NOTES
Public Shoreline Access	http://www.rigis.org/geodata/plan/shorepts.zip	Mapping this data is optional.

*Please note: For complete coverage, the SCORP and both Conservation Lands data sets must be used in conjunction.

Communities may also want to use the following additional data sources:

- Data from the local Parks and Recreation Department.
- Data from the local land trust or other conservation organization.

STANDARD 4.1

IDENTIFY HISTORIC AND CULTURAL RESOURCE AREAS AND SITES BY:

a. Including one or more maps showing:
   i. Properties or districts listed on the State or National Register of Historic Places; and
   ii. Locally designated historic districts established through the zoning ordinance.

b. Including clear identification of the name of each mapped resource area and/or site.

To properly plan for the protection of historic and cultural resources, municipalities must have an understanding of what currently exists in their community. The best way to understand the historic and cultural context, is to identify the resources areas and sites on a map.

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Additionally, while not required, communities may wish to map valuable or significant historic and cultural resources that have not been officially designated, including:

- Any known properties that meet the eligibility criteria for listing on the State Register of Historic Places but have not yet been listed as such;
- The community's cultural assets, such as theaters, museums and galleries; and
- Other resources that the community has identified as significant.

For guidance on determining which resources are significant, see Standard 4.2.

The purpose of identifying these resources on a map is to assist the community in allocating future land uses and developing policies and implementation actions for the preservation of such resources.

DATA SOURCES

To fulfill this standard, communities may want to use the following data sources:

- State Survey Overviews for each city and town in Rhode Island available at http://www.preservation.ri.gov/survey/publications.php.
- Discussions with local historic preservation groups or stakeholders.
- Data from the RI Historical Preservation and Heritage Commission, available at www.rihphc.ri.gov.

STANDARD 7.1
IDENTIFY VALUABLE AGRICULTURAL SOILS ON A MAP.

Valuable agricultural soils must be identified on a map. It is not necessary to map all soil types, only those that have been classified as "prime" or "soils of statewide importance" by the United States Department of Agriculture, Natural Resources Conservation Service, and the soils may be grouped by these categories on the map. Furthermore, you need not consider soils located in areas that are already developed. This standard may be fulfilled in a number of ways:

- You may include "prime" and "soils of statewide importance" as a layer on a natural resources map;
- You may include a specific soils map;
- You may create an "agriculture" map that shows all of the agricultural resources in the community, including soils, active farmlands, protected farmland, and other pieces of the agricultural system. We recommend this option for municipalities that have significant agricultural operations. This option could also serve to meet the next standard discussed below.

The purpose of identifying these soil types on a map is to assist the community in allocating future land uses and developing policies and strategies for the preservation of such areas.

Also see Guidance Handbook #2 - Planning for Natural Resources, Standard 2.1. Communities have the option of combining the mapping of valuable agricultural soils with the mapping of other natural resources.

DATA SOURCES

The RI Statewide Planning Program is in the process of creating GIS layer files that can assist municipalities in fulfilling the Standards Manual's mapping standards. Please visit http://www.planning.ri.gov/statewideplanning/compplanning/ to see which layer files are available.

The following RIGIS data set is recommended for this standard:

DATA SET NAME	DOWNLOAD LINK	ADDITIONAL NOTES
Soils	http://www.rigis.org/geodata/soil/soils14.zip	This data set must be queried as follows: Query 'FARM_CLS'. Please note that this will display all agricultural soils, including those in developed areas. To display only the agriculturally valuable *undeveloped* soils, mask the developed soils by overlaying the developed areas as found in the Land Use - 2011 data set.

STANDARD 8.1

IDENTIFY EXISTING AND PROPOSED SEWER SERVICE AREAS ON A MAP BY SHOWING, AS SEPARATE AREAS IF APPLICABLE:

a. Areas that currently have access to a sewer line, regardless of whether the buildings within the area are in fact connected to the sewer system; and

b. Areas to which sewer access is planned within the 20-year planning horizon of the comprehensive plan.

For communities that have sewer systems or propose to install a sewer system within the 20-year planning horizon of the comprehensive plan, it is important to map the existing and proposed sewer service areas in order to aid in aligning future land uses with infrastructure investments.

If applicable, the map should also show the relative location of the State's Urban Services Boundary as set forth in Land Use 2025. If the entire community is within the Urban Services Boundary, it is not necessary to depict the boundary visually on the map (for example with hatching), but simply to make a statement to that effect in the plan. Communities without sewer systems need not include a sewer service area map; unless a sewer system is proposed within the 20-year planning horizon of the comprehensive plan.

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Though not required, it may be helpful to color code proposed sewer service areas by expected time frame for completion.

DATA SOURCES

The RI Statewide Planning Program is in the process of creating GIS layer files that can assist municipalities in fulfilling the Standards Manual's mapping standards. Please visit http://www.planning.ri.gov/statewideplanning/compplanning/ to see which layer files are available.

The following RIGIS data sets are recommended for this standard:

DATA SET NAME	DOWNLOAD LINK
Sewered Areas	http://www.rigis.org/geodata/utility/sewerAreas12.zip
Sewer Lines	http://www.rigis.org/geodata/utility/sewerlns12.zip
Urban Services Boundary	http://www.rigis.org/geodata/plan/RI_USB06.zip

Additionally, communities may want to use data from the local sewer authority.

STANDARD 8.2

IDENTIFY EXISTING SIGNIFICANT PUBLIC INFRASTRUCTURE AND FACILITIES ON A MAP, BY SHOWING AND CLEARLY LABELING THE FOLLOWING, IF PRESENT WITHIN THE MUNICIPALITY:

a. All municipally-owned and/or operated buildings, including but not limited to city/town hall, administration buildings, schools, community and/or senior centers, libraries, fire stations, police stations, etc.;

b. Solid waste transfer stations and municipal compost or refuse disposal sites; and

c. Wastewater pump stations and wastewater treatment plants.

The comprehensive plan must include a map of the municipality's significant public infrastructure and facilities.

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Additionally, though not required, communities may wish to map other types of infrastructure, such as:

- State- and federally-owned infrastructure and facilities;
- Electrical transmission lines;
- Natural gas transmission lines;
- Correctional institutions;
- Dams; and
- Hospitals.

DATA SOURCES

The RI Statewide Planning Program is in the process of creating GIS layer files that can assist municipalities in fulfilling the Standards Manual's mapping standards. Please visit http://www.planning.ri.gov/statewideplanning/compplanning/ to see which layer files are available.

The following RIGIS data sets are recommended for this standard:

DATA SET NAME	DOWNLOAD LINK	ADDITIONAL NOTES
Correctional Institutions	http://www.rigis.org/geodata/facility/corrections09.zip	This data set is optional.
Dams	http://www.rigis.org/geodata/facility/dams12.zip	This data set is optional.
Electrical Transmission Lines	http://www.rigis.org/geodata/utility/electran.zip	This data set is optional.
Emergency Medical Service Stations	http://www.rigis.org/geodata/facility/EMS08.zip	n/a

DATA SET NAME	DOWNLOAD LINK	ADDITIONAL NOTES
Fire Stations	http://www.rigis.org/geodata/facility/fireStns14b.zip	n/a
Hospitals	http://www.rigis.org/geodata/facility/hospitals13.zip	This data set is optional.
Law Enforcement	http://www.rigis.org/geodata/facility/lawEnf14.zip	It is necessary only to map municipal law enforcement sites identified in this data set. All other law enforcement sites are optional.
Libraries	http://www.rigis.org/geodata/facility/libraries14.zip	It is necessary only to map municipally-owned libraries identified in this data set. All other libraries are optional.
Natural Gas Transmission Lines	http://www.rigis.org/geodata/utility/gaslines.zip	This data set is optional.
Active Solid Waste Sites	http://www.rigis.org/geodata/facility/solidWaste15.zip	n/a
Schools	http://www.rigis.org/geodata/facility/schools08.zip	n/a
Sewer Pumping Points		This data set is from 1995 and contains a significant margin of error (+/- 100 meters) in identifying specific sites.
Town and City Halls	http://www.edc.uri.edu/rigis/spfdata/structure/townhalls13.zip	n/a

Additionally, communities may want to use data from municipal departments.

STANDARD 10.1

IDENTIFY WATER-SUPPLY RELATED NATURAL FEATURES AND SENSITIVE WATER SUPPLY AREAS ON ONE OR MORE MAPS, INCLUDING:

a. Surface and sub-surface reservoirs used for potable water;

b. Aquifers;

c. Groundwater recharge areas; and

d. Community and non-community well-head areas.

The comprehensive plan must include a map of water-supply related natural features and sensitive water supply areas (where applicable) that exist within the municipality. Municipalities may map the water-supply related natural features and sensitive areas in a way that best suits their needs. It may be beneficial to show these items on a single water-resource map, or combined with other natural resources, depending on what resources they have and how the community intends to use the information in the planning process.

Some of these may also be included in the list of natural resources that are required to be mapped, as described in Guidance Handbook #2 - Planning for Natural Resources, and are revisited here for consistency.

DATA SOURCES

The RI Statewide Planning Program is in the process of creating GIS layer files that can assist municipalities in fulfilling the Standards Manual's mapping standards. Please visit http://www.planning.ri.gov/statewideplanning/compplanning/ to see which layer files are available.

The following RIGIS data sets are recommended for this standard:

DATA SET NAME	DOWNLOAD LINK	ADDITIONAL NOTES
Groundwater Recharge Areas	http://www.rigis.org/geodata/hydro/gwrchrg10.zip	n/a
Groundwater Reservoirs	http://www.rigis.org/geodata/hydro/gwresv10.zip	n/a
Sole Source Aquifers	http://www.rigis.org/geodata/hydro/solesrc11.zip	For aquifers.
Wellhead Protection Areas: Community	http://www.rigis.org/geodata/hydro/cwhpa14.zip	For aquifers
Wellhead Protection Areas: Non-Community	http://www.rigis.org/geodata/hydro/ncwhpa14.zip	For aquifers
Lakes and Ponds (1:5000)	http://www.rigis.org/geodata/hydro/lakes5k10.zip	n/a

DATA SET NAME	DOWNLOAD LINK	ADDITIONAL NOTES
Sole Source Aquifers	http://www.rigis.org/geodata/hydro/solesrc11.zip	n/a
Streams (1:5000)	http://www.rigis.org/geodata/hydro/streams5k.zip	n/a
Watershed Boundary Dataset	http://www.rigis.org/geodata/hydro/HUC12_RI_09.zip	Municipalities have the option to use either the Hydrologic Unit Code Level 10 (HUC 10) or Hydrologic Unit Code Level 12 (HUC 12) data set

STANDARD 10.2

IDENTIFY EXISTING AND PROPOSED WATER SERVICE AREAS ON A MAP, IF APPLICABLE.

If the municipality is currently served by one or more public water supply systems, the existing water service areas must be shown on a map. Existing water service areas include both those areas that are actually served by a water supplier and those areas in which there exists a legal right for the supplier to serve. Additionally, if there are plans to expand any of the water supply systems to new areas of the community, the proposed service areas must also be shown on a map. To receive State approval, the areas of existing and proposed water service must be clearly delineated. If applicable, the map should also show the relative location of the State's Urban Services Boundary as set forth in Land Use 2025.

DATA SOURCES

To fulfill this standard, communities may want to use data from public water supply companies serving the municipality.

The following RIGIS data set is recommended for this standard:

DATA SET NAME	DOWNLOAD LINK
Urban Services Boundary	http://www.rigis.org/geodata/plan/RI_USB06.zip

STANDARD 11.1

ILLUSTRATE THE EXISTING TRANSPORTATION NETWORK ON A MAP, INCLUDING THE FOLLOWING COMPONENTS, WHERE THEY EXIST:

a. Major streets, highways and interstates, classified according to the Highway Functional Classification System;

b. Bus routes and major bus hubs;

c. Separated bicycle paths;

d. Rail stations and railway lines;

e. Ports and harbors;

f. Airports and airport overlay zones; and

g. Any other major transportation facilities that may exist within the municipality.

The first step in planning for transportation is to take an inventory of the existing transportation network. Communities must have an understanding of which components of the transportation network currently exist within the municipality in order to understand transportation needs. To this end, comprehensive plans must include a map that illustrates the transportation network that exists within the municipality. Communities may choose to develop one transportation network map or several, separate maps that focus on the various transportation modes.

CRAFT A BETTER PLAN

Additionally, while not required, it may also be helpful for the municipality to map:

- Intersections with a large number of crashes;
- Roadway bottleneck locations;
- On-street bike routes and lanes;
- Major pedestrian areas or corridors;
- Transit stops and/or park and ride lots;
- Areas designated for transit-oriented development;
- Freight facilities, such as distribution or transfer centers; and
- Major marine and/or land shipping routes.

DATA SOURCES

The RI Statewide Planning Program is in the process of creating GIS layer files that can assist municipalities in fulfilling the Standards Manual's mapping standards. Please visit http://www.planning.ri.gov/statewideplanning/compplanning/ to see which layer files are available.

The following RIGIS data sets are recommended for this standard:

DATA SET NAME	DOWNLOAD LINK	ADDITIONAL NOTES
Airports	http://www.rigis.org/geodata/trans/airports13.zip	n/a
Bike Paths	http://www.rigis.org/geodata/trans/bikepaths10.zip	To map only the completed bike paths, this data must be queried as follows: Use Status = 'Complete'
Ferry Routes	http://www.rigis.org/geodata/trans/Ferry15.zip	n/a
Railroad Rights of Way	http://www.rigis.org/geodata/trans/rail10.zip	To map only the active railroad rights-of-way, this data set must be queried as follows: Use Status = 'Active' and Map = 'Y'
RIPTA Bus Routes	http://www.edc.uri.edu/rigis/spfdata/transportation/RIPTAroutes0315.zip	n/a
RIPTA Bus Stops	http://www.rigis.org/geodata/trans/RIPTAstops0315.zip	n/a
RIPTA Park and Ride Bus Stops	http://www.rigis.org/geodata/trans/RIPTApkstops0315.zip	n/a
Ports and Commercial Harbors	http://www.rigis.org/geodata/facility/PortsHarbors.zip	n/a
Streets		

Additionally, communities may want to use the following data sources:

- The most recent version of Statewide Planning Technical Paper 155, Highway Functional Classification System for the State of Rhode Island, available at www.planning.ri.gov.
- Local data regarding the location of any airport overlay zones that may exist within the municipality.

STANDARD 12.2

IDENTIFY THE AREAS OF THE COMMUNITY THAT COULD BE EXPOSED TO FLOODING, INCLUDING RIVERINE AND COASTAL FLOODING, SEA LEVEL RISE, AND COASTAL STORM SURGE BY INCLUDING:

a. One or more maps that illustrate the areas that would currently be inundated in the event of a 1% and .2% storm as they appear on the most recent Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs);

b. One or more maps that illustrate the areas that would be inundated in the event of Category 1 through 4 hurricanes; and

c. One or more maps that illustrate the areas that are projected to be inundated due to 1', 3' and 5' of sea level rise.

It is important to remember that vulnerability and exposure are not the same. "Exposure" to a natural hazard happens simply by being in the location where the natural hazard is occurring, while "vulnerability" indicates that the exposure has caused some type of harm.

Exposure to natural hazards and climate change impacts is generally the result of geographic location. There are some trends for which exposure will be limited to a specific geographic area of the community, such as riverine and coastal flooding and sea level rise. For other trends, such as drought, high heat, extreme cold, etc., though still geographically-based, the extent of the trends is so far-reaching that it will likely cover the entire municipality.

Identifying exposed areas allows communities to focus on those trends that will impact a specific area of the community. Comprehensive plans must identify areas of the community that could be vulnerable to the effects of flooding over the 20-year planning horizon. All types of flooding should be considered, including riverine flooding, tidal flooding, sea level rise and flooding from storm surge.

Some options for mapping these requirements include:

- Show flood areas as layers on a "Natural Resources" or other map showing required data layers;
- Include flood areas as a separate map; or
- Develop a "Natural Hazards" map that includes a variety of information related to natural hazards, including floodplains and flood hazard areas, the other types of natural hazards listed below, evacuation routes, critical facilities, etc.

Flood Insurance Rate Maps are regulatory. All of the other required maps are intended for planning purposes only.

The 1% and .2% storms are named for the probability that such a storm will occur within a single year. These storms have also historically been known as 100-year and 500-year storms.

See the NOAA website at http://www.nhc.noaa.gov/surge/slosh.php for more information on the hurricane surge maps.

DATA SOURCES

The RI Statewide Planning Program is in the process of creating GIS layer files that can assist municipalities in fulfilling the Standards Manual's mapping standards. Please visit http://www.planning.ri.gov/statewideplanning/compplanning/ to see which layer files are available.

The following RIGIS data sets are recommended for this standard:

DATA SET NAME	DOWNLOAD LINK	ADDITIONAL NOTES
Flood Hazard Areas	http://www.rigis.org/geodata/plan/floodhaz13.zip	This data set must be queried as follows: Select flood zone 'FLD_ZONE' < > 'X' and 'FLD ZONE' < > 'X Protected by Levee'
Hurricane Surge (Worst Case) Inundation Areas	http://www.rigis.org/geodata/plan/inundation09.zip	
Sea Level Rise: RIDOP	http://www.rigis.org/geodata/plan/slrRIDOP14.zip	To get full coverage, this data set and the one listed below must both be used.
Sea Level Rise: RIDOP (Uncertain Areas)	http://www.rigis.org/geodata/plan/slr_RIDOP_unc.zip	To get full coverage, this data set and the one listed above must both be used

STANDARD 13.1
IDENTIFY EXISTING LAND USES ON A MAP.

The comprehensive plan must include a map that identifies the existing land uses within the municipality. The easiest way to present the existing land uses within the municipality is to use the land use dataset available on the Rhode Island Geographic Information System (RIGIS) website, linked below.

When mapping existing land uses, it may be helpful to keep the categorizations as simple as possible. To assist in this, the Statewide Planning Program recommends starting with the following land use categories as a base and defining the appropriate mix of categories for the community:

- High Density Residential
- Medium High Density Residential
- Medium Density Residential
- Medium Low Density Residential
- Low Density Residential
- Commercial
- Industrial/Manufacturing
- Transportation & Utilities
- Mixed Use Commercial / Industrial
- Mixed Use Commercial / Residential
- Developed Recreation
- Institutional
- Agricultural
- Conservation / Open Space
- Undeveloped (unprotected)
- Wetland
- Water

DATA SOURCES

The following RIGIS data sets are recommended for this standard:

DATA SET NAME	DOWNLOAD LINK
Land Use - 2011	http://www.rigis.org/geodata/plan/rilclu11d.zip
Conservation Lands: Municipal and NGO*	http://www.rigis.org/geodata/env/locCons14.zip
Conservation Lands: State of Rhode Island*	http://www.rigis.org/geodata/env/staCons14.zip

STANDARD 13.2

DESCRIBE, AND IDENTIFY ON A MAP, EXISTING ZONING DISTRICTS.

Comprehensive plans must include a map of the zoning districts that currently exist within the municipality. All of the municipality's zoning districts and designated overlay zones must be shown on the map. Additionally, the narrative of the land use section must include a description of each zoning district that includes identification of the allowed uses. Providing descriptions of each zoning district is essential to determining whether there are any inconsistencies between the Future Land Use Map and existing zoning, as described under Standard 13.7.

DATA SOURCES

- Existing zoning data, available locally.

STANDARD 13.5

ILLUSTRATE FUTURE LAND USE AND RESIDENTIAL DENSITY CATEGORIES ON A FUTURE LAND USE MAP (FLUM), ALONG WITH THE STATE'S URBAN SERVICES BOUNDARY AND ANY LOCALLY-DESIGNATED GROWTH CENTERS, WHILE MEETING THE FOLLOWING REQUIREMENTS:

a. All land areas within the municipality's boundaries must be designated with a future land use category;

b. Each future land use category depicted on the FLUM must be labeled within the map's legend;

c. The State's Urban Services Boundary must be shown on the FLUM, where applicable;

d. Any locally-designated growth centers must be shown on the FLUM, if applicable;

e. The following items must be depicted on the FLUM:

i. Existing permanently protected conservation areas;

ii. Significant existing, permanently protected outdoor recreational areas; and

iii. Areas of the municipality in which residential, commercial, industrial and agricultural uses are desired as a future land use.

f. The FLUM must be consistent with Figure 21-02(1) of Land Use 2025, by applying the following minimum and/or maximum residential densities, or, in the limited instances where the municipality feels that consistency may not be appropriate, giving a narrative that describes why the minimum and/or maximum residential density is not warranted:

i. Areas shown as "Sewered Urban Development" on Figure 21-02(1), must have a minimum residential density of 5 dwelling units per acre.

ii. Areas shown as "Urban Development" on Figure 21-02(1) must have a minimum residential density of 1 dwelling unit per acre.

iii. Areas shown as "Conservation/Limited," "Reserve," "Non-urban Developed," "Prime Farmland," or "Major Parks and Open Space" on Figure 21-02(1) must have a maximum residential density of 1 dwelling unit per acre.

g. For coastal communities, the FLUM must be consistent with the policies and regulations of the RI Coastal Resources Management Council, including:

i. Aligning the future land use designations shown on the FLUM with CRMC's water type classifications (Types 1-6, as applicable);

ii. Aligning future land use designations shown on the FLUM with CRMC's rules for designated coastal barriers; and

iii. Aligning the residential densities shown on the FLUM with any requirements for residential density contained within Special Area Management Plans that are applicable to the municipality.

The Land Use section of a comprehensive plan must contain a Future Land Use Map (FLUM) that illustrates desired future use of all land within the municipality and shows the State's Urban Services Boundary and any locally-designated growth centers (see Guidance Handbook #13 - Planning for Land Use, Section 3. Craft a Better Plan, for more information about designating a growth center).

The FLUM is a policy statement in and of itself, directing municipal decision-makers as to what types of uses are desired in each area and setting a vision for the municipality's future growth over the next 20-years. The FLUM is the visual depiction of the community's desires for types, patterns, and intensities of development and for identifying those areas of the community that are to be dedicated to conservation. It is the underpinning for the regulations found within the zoning ordinance that legally regulate development in the community. A well-constructed FLUM should give the viewer instant recognition of the land uses to be allowed in the community, where they are to be allowed, and what areas of the community will be protected from development.

DATA SOURCES

All of the maps, inventories and assessments presented in the other topical chapters should help to inform the Future Land Use Map.

Additionally, to map the Urban Services Boundary, communities should use the following RIGIS data set:

DATA SET NAME	DOWNLOAD LINK
Urban Services Boundary	http://www.rigis.org/geodata/plan/RI_USB06.zip

SHOWING EXISTING CONSERVATION AREAS ON THE FLUM

(Standard 13.5e.i.)

Existing permanently protected conservation areas must be shown on the Future Land Use Map (FLUM) as not appropriate for development. The Future Land Use Map sets the policy direction for the future use of land within the municipality; therefore, in order to avoid confusion and potential conflicts, existing permanently protected conservation areas must be shown on the FLUM as intended for conservation. The municipality can determine the best way to categorize conservation areas (e.g. protected open space, conservation lands, etc.), but the categories must reflect the intention of permanent conservation.

The plan's Implementation Program must identify any inconsistencies that exist between the plan and the existing zoning ordinance and map. Any areas that are shown as "conservation" on the FLUM must also be designated as a conservation-based zoning district. For more information on the Implementation Program, see. Guidance Handbook #14 - The Implementation Program.

CRAFT A BETTER PLAN

Municipalities may wish to show anticipated or proposed conservation areas on the FLUM as well. The areas that are proposed for future conservation on the FLUM will depend heavily on the community context, including the existing level of development, the significant natural resources present and the municipal priorities for conservation. Based on the identification of significant natural resources and resource areas, and the assessment of the issues facing these areas, communities should determine where it is appropriate to propose future conservation on the FLUM.

DATA SOURCES

The natural resource RIGIS data described in Guidance Handbook #2 - Planning for Natural Resources should be used to determine existing conservation areas.

SHOWING SIGNIFICANT, EXISTING PERMANENTLY PROTECTED OUTDOOR RECREATIONAL AREAS ON THE FLUM

(Standard 13.5e.ii.)

As noted in Guidance Handbook #4 - Planning for Recreation, outdoor recreation can be considered "active," which would include sports fields, tennis and basketball courts, stadiums, etc., or "passive," which would include hiking and walking trails, fishing and camping areas, etc. In some instances, existing permanently protected passive outdoor recreational areas will conincide with existing permanently protected conservation land under Standard 13.5e.ii. Permanently protected outdoor recreation areas not otherwise identified as protected and unsuitable for development must be displayed on the Future Land Use Map using an appropriate land use category, such as Protected Open Space or Recreation (Protected), that reflects the intention of permanent protection.

CRAFT A BETTER PLAN

Additionally, though not required for State approval, communities may wish to map other significant recreational areas as open space land use categories, especially if the municipality wishes to preserve these areas and the parcels do not currently have sufficient levels of protection. For example, areas of regional or statewide importance, such as recreational beaches, regional bike paths, or large areas of undeveloped land that are open for recreational use; and areas that, if lost, would significantly reduce the level of service of the municipality's recreational system may be good candidates for limiting the future development potential through the Future Land Use Map. Mapping these areas shows the intent of the municipality to preserve them as open space into the future, limiting the development that can occur on these parcels and protecting them for future generations.

DATA SOURCES

The recreation RIGIS data described in Guidance Handbook #3 - Planning for Recreation should be used to determine existing conservation areas.

CONSISTENCY WITH LAND USE 2025

(Standard 13.5f.)

A comprehensive plan's Future Land Use Map (FLUM) displays the intended pattern of development and conservation at a point at least 20 years in the future. As with the entire comprehensive plan, the FLUM must embody the State's goals as set forth in the State Guide Plan and the laws of the State. One of the most important ways that a comprehensive plan helps in implementing the State's goals is through consistency with Land Use 2025 and the land uses depicted on Figure 121-02(1) Future Land Use 2025.

Land Use 2025 contains a map of future land use, Figure 121-02(1), "Future Land Use 2025" on page 2-15, that shows broad-scale patterns for committed and future uses of land. To be consistent with Land Use 2025, the comprehensive plan's FLUM must align with the residential densities allocated in Figure 121-

02(1) and described in Section 2-4, "Future Land Use Patterns, Categories and Intended Uses." Generally, for areas inside the Urban Services Boundary, a higher residential density is expected due to the presence of existing services, facilities and infrastructure. Outside of the Urban Services Boundary, however, the guidance of Land Use 2025 is a bit less clear. In areas outside of the Urban Services Boundary, communities must balance development and conservation, consider special resource concerns (such as wellhead and groundwater protection) and determine where growth is best suited, such as in a locally-designated growth center.

See Land Use 2025, pages 2-13 through 2-20 for additional information on the State's Future Land Use Map and the intentions for each land use category.

At a minimum, to receive State approval, the FLUM must be consistent with the minimum and/or maximum residential densities outlined in Table 13-1 Land Use 2025 Residential Density Requirements on page 32. In the limited instances where the municipality feels that consistency may not be appropriate, narrative must be given describing why the minimum and/or maximum residential density is not warranted. (For example, it may not be appropriate for areas depicted as "Urban Development" on Figure 121-02(1) but that have significant natural resource value to have a future residential density of greater than one (1) dwelling unit per acre. Similarly, areas shown as "Non-urban Developed" on Figure 121-02(1) where the existing residential density is greater than one (1) dwelling unit per acre may be best suited for existing residential densities.)

CRAFT A BETTER PLAN

To truly embody the State's goals for land use, communities are encouraged to align the comprehensive plan's FLUM with Land Use 2025 in a more thoughtful and comprehensive way. The following guidance is provided for those municipalities who wish to align the FLUM with the full breadth of Land Use 2025's future land use map.

Generally, Land Use 2025's Figure 121-02(1) splits the state into "Growth Areas," "Conservancy Areas," and "Committed Use Areas." According to Land Use 2025,

> *"Growth Areas are intended to accommodate the State's anticipated growth needs through 2025. They include both (currently) developed areas that are suited for maintenance, infill, and reuse, as well as (currently) undeveloped areas that are suited for new development."*

Land Use 2025's Figure 121-02(1) directs growth to two types of land: 1) areas within the Urban Services Boundary (USB); and 2) areas within locally-designated growth centers, which can be both within and outside of the USB. In addition to the locally-designated growth centers, two categories of growth have been allocated within the USB: "Urban Development" and "Sewered Urban Development."

As indicated by the name, the "Sewered Urban Development" category shows the areas within the USB where public sewer service is available. Land Use 2025 calls for these areas to be developed or redeveloped at higher intensities and densities so as to optimize the significant public infrastructure investment, unless there are significant constraints on the land. For both the "Urban Development" and "Sewered Urban Development" categories, the priority for developed lands is to maintain and enhance productive uses and to re-use underutilized areas to accommodate growth at intensities that efficiently utilize available services.

For undeveloped lands within these categories that have few resource constraints or are likely to be

TABLE 13-1 LAND USE 2025 RESIDENTIAL DENSITY REQUIREMENTS

LAND USE 2025 FUTURE LAND USE CATEGORY	MINIMUM/MAXIMUM RESIDENTIAL DENSITY
Sewered Urban Development	Minimum of 5 dwelling units per acre
Urban Development	Minimum of 1 dwelling unit per acre
Conservation/Limited	Maximum of 1 dwelling unit per acre
Reserve	
Non-urban Developed	
Prime Farmland	

provided with urban-level services, the priority is development with intensities and residential densities that mirror existing urban developed lands and enable efficient provision and utilization of public services, including transit. Undeveloped areas within these categories that have some resource constraints but are likely to be provided with some urban-level services, are generally targeted for medium-level urban development, including residential uses at average densities of 1 to 5 dwelling units per acre. Other undeveloped areas that are targeted for growth, which have site and/or resource constraints and limited services, are targeted for lower residential densities, with some areas reserved for open space and farmland.

Land Use 2025's FLUM also shows areas where Future Rail Stations may be established and directs municipalities that new rail stations should provide an impetus for new growth centers or other transit-oriented development.

All land outside of the USB that is not within a designated growth center has been categorized as "Committed Use Areas" – including "Non-urban Development" – or "Conservancy Areas" and are intended to remain as either conservancy or the existing committed use.

Land Use 2025 describes locally-designated growth centers as "compact, developed areas containing a defined central core that accommodate community and regional needs for residential and economic functions." Land Use 2025 also states that, "Centers are intended to provide optimum utilization of land and services, and offer a higher density diverse housing stock, commercial, industrial, office, cultural, and governmental uses." While some growth centers have been depicted on Land Use 2025's FLUM, the locations are intended to be illustrative only. Municipalities are expected to determine the appropriate locations of any new growth centers within their boundaries.

DATA SOURCES

Land Use 2025: Rhode Island Land Use Policies and Plan, available at http://www.planning.ri.gov/documents/guide_plan/landuse2025.pdf, should be reviewed to ensure consistency.

To assess consistency, communities should use the following RIGIS data sets:

DATA SET NAME	DOWNLOAD LINK
Land Use -2025	http://www.rigis.org/geodata/plan/landuse2025.zip
Urban Services Boundary	http://www.rigis.org/geodata/plan/RI_USB06.zip

CONSISTENCY WITH THE POLICIES AND REGULATIONS OF THE COASTAL RESOURCES MANAGEMENT COUNCIL (CRMC)

WATER TYPE CLASSIFICATIONS
(Standard 13.5g.i.)

The CRMC has assigned the state's tidal waters, coastal ponds and adjacent upland areas to one of six use categories, commonly referred to as "water type classifications." Each of these six categories have findings, goals and policies pertaining to the category, which can be found in Section 200 of CRMC's regulations. The six categories are:

- Type 1 - Conservation Areas
- Type 2 - Low-Intensity Uses
- Type 3 - High Intensity Boaring
- Type 4 - Multipurpose Waters
- Type 5 - Commercial and Recreation Harbors
- Type 6 - Industrial Waterfronts and Commercial Navigation Channels

The CRMC's water type classifications are the State's designated priority use for all coastal waters and adjacent upland areas within the Council's jurisdiction. The land uses designated on the FLUM for lands abutting coastal waters must allow, and not detract from or interfere with, the priority uses. For example, if a coastal area has the water type classification of "Type 6 - Industrial Waterfronts and Commercial Navigation Channels," the comprehensive plan must allow industrial uses within the land use categories that are adjacent to these waters. Additionally, in this example, the comprehensive plan must not identify the local priority for the area as anything other than industrial.

If a municipality wishes to designate a future land use that is not compatible with the designated water type classification, it may request the CRMC to amend the water type classification for the subject area to allow for the preferred adjacent land use. While comprehensive plans may contain a discussion of, and implementation actions to pursue, a change in a water type classification, the FLUM must reflect the water type classification currently in effect.

The CRMC's Rules can be found at http://www.crmc.ri.gov/regulations/RICRMP.pdf. The CRMC's maps depicting water use classifications for each coastal municipality can be viewed at http://www.crmc.ri.gov/maps/maps_wateruse.html

RULES FOR DESIGNATED COASTAL BARRIERS
(Standard 13.5g.ii.)

According to CRMC Rules Section 210.2, barriers "are islands or spits comprised of sand and/or gravel, extending parallel to the coast and separated from the mainland by a coastal pond, tidal water body, or

coastal wetland." There are three primary types of barriers designated by CRMC:

- Undeveloped Barriers: essentially free of commercial/industrial buildings, (excluding public utility lines) houses, surfaced roads, and structural shoreline protection facilities;
- Moderately Developed Barriers: essentially free of houses, commercial/ industrial buildings and/ or facilities (excluding utility lines) that contain surfaced roads, recreational structures, and/or structural shoreline protection facilities; and
- Developed Barriers: contain houses and/or commercial/industrial structures; they may also contain surfaced roads and structural shoreline protection facilities.

The CRMC's Rules can be found at: http://www.crmc.ri.gov/regulations/RICRMP.pdf.

The FLUMs of coastal communities must demonstrate consistency with the policies and prohibitions for the designated barriers as outlined in CRMC's Section 210.2. Some of the policies and prohibitions found in CRMC's Section 210.2 that are of particular importance to comprehensive plans include:

- The prohibition of new development on moderately developed barriers, except where the primary purpose of the project is restoration, protection or improvement of the feature as a natural habitat for plants and wildlife; and
- The prohibition of new construction of infrastructure or utilities or expansion of existing infrastructure or utilities on all barriers, except for infrastructure that is intended to serve the needs of the State.

SPECIAL AREA MANAGEMENT PLANS

TABLE 13-2 SPECIAL AREA MANAGEMENT PLANS AND AFFECTED COMMUNITIES

AQUIDNECK ISLAND WEST SIDE	**NARROW RIVER**
Middletown	Narragansett
Newport	North Kingstown
Portsmouth	South Kingstown
GREENWICH BAY	**PAWCATUCK**
East Greenwich	Westerly
Warwick	**SALT PONDS REGION**
METRO BAY	Charlestown
Cranston	Narragansett
East Providence	South Kingstown
Pawtucket	Westerly
Providence	**SHORELINE CHANGE** *(pending as of 2015)*
	All coastal communities

(Standard 13.5g.iii.)

The CRMC has created six Special Area Management Plans (SAMPs) that affect coastal lands within the State and is in the process of developing a seventh. These plans address specific regional issues and present ecosystem-based management strategies that are consistent with the council's legislative mandate to preserve and restore ecological systems. See Table 13-2 for a complete list of the SAMPs and the municipalities that intersect with each SAMPs jurisdiction.

The goals, policies and implementation actions of comprehensive plans of communities within the jurisdiction of a SAMP must not be in conflict with the policies of the applicable SAMP. Two SAMPS, the Narrow River and Salt Ponds Region SAMPS described below, include specific residential density policies for new development within the watershed, which must be adhered to by the FLUM. If any future SAMPs are developed that include land use requirements, municipalities will need to review their comprehensive plans, and especially their FLUMs, to ensure consistency with the new requirements.

The Narrow River and the Salt Ponds Region SAMPs have specific policies for new development within the watershed. These SAMPs contain residential density requirements for new developments, as well as prohibitions of sewer and water line extensions in areas designated as "Lands of Critical Concern" and "Self-sustaining Lands" (as defined within the SAMP), except when certain criteria are met. For communities affected by the Narrow River and the Salt Ponds Region SAMPs to receive State approval, the residential densities depicted on the FLUM must be consistent with the density requirements outlined in the applicable SAMP. If any future Special Area Management Plans are developed that include land use requirements, FLUMs will be required to demonstrate consistency with the new requirements as well. See Table 13-2 Special Area Management Plans and Affected Communities to determine if your community is under the jurisdiction of one of these SAMPs.

DATA SOURCES

To fulfill this standard, communities may want to use the following data sources:

- Water Use Type Classification maps, available at http://www.crmc.ri.gov/maps/maps_wateruse.html.
- CRMC Rules Section 210.2, located at http://www.crmc.ri.gov/regulations/RICRMP.pdf.
- Special Area Management Plans, located at http://www.crmc.ri.gov/samps.html.
- Discussions with CRMC staff members.

Additionally, communities may wish to use the following RIGIS data sets for this standard:

DATA SET NAME	DOWNLOAD LINK
Barrier Beach Classification Zones	http://www.rigis.org/geodata/plan/barbeach.zip
Barrier Islands and Spits	http://www.rigis.org/geodata/geo/barrier_islands.zip
Water Use Categories	http://www.rigis.org/geodata/hydro/watUseCats11.zip

RHODE ISLAND STATEWIDE PLANNING PROGRAM