6 NATURAL RESOURCES

Natural resources within St. George include ground water aquifers, ponds, streams and freshwater marshes, wooded lands, wildlife populations, wildlife habitats, wild and scenic areas as well as natural ecosystem functions.

Preservation and wise use of the town's natural resources are important goals of the Comprehensive Plan. The information in this section will be important in the formulation of the future land use decisions by the Town.

Natural resources in St. George add to our quality of life and can be threatened by rapid residential growth and other factors. In the fifteen years prior to the economic recession of 2008, the rate of residential development increased significantly in St. George. The number and size of access roads are not being monitored at the present time and their impact on our natural resources is unknown.

Regular monitoring and updating of natural resource inventories can provide St. George residents and town government with important information about the impact of growth.

6.1 Topography and Geology

The geologic characteristics of an area determine its topography. Topography, in turn, influences land cover and suitability for many human activities such as construction of buildings, waste disposal, installation of utilities and vehicular access. The slope of the land is perhaps the topographic characteristic that has the greatest impact on land use activities. Slopes greater than 15% can limit development capabilities.

Depth to bedrock, especially in St. George, is another important characteristic than can limit development potential. Utilities, roads, cellars and septic systems can be difficult and expensive to build when depth to bedrock is less than 20 inches.

Finally, areas where the water table is within 18 inches or less of the surface are totally unsuitable for development.

The Town of St. George consists of approximately 11,026 acres, according to the "1892 Chronicles." It occupies a peninsula of land bordered on the west by St. George (also known as Georges) River, and on the east by Penobscot Bay. Approximately fifty islands and ten ledges are also within St. George's municipal boundaries. (See the Islands Section of the Inventory.)

The land is rolling with elevations ranging from sea levels to 120 feet. The steepest slopes are generally found along the shore and on the knobs that form headlands. There

are numerous wetlands, few streams, and only one large freshwater body, Howard Pond, which is about 12 acres in size. Many of the islands are rounded and dome-like.

The topography of St. George is largely the result of the last glacier, which reached its maximum extent on the Continental Shelf about 18,000 years ago. The glacial tills formed the dominant soil associated with St. George.

The bedrock underlying this surface geology is of two basic types. Under the northern two-thirds of the Town, near Tenants Harbor, is primarily granite with some mica. Four quarries, active between the 1800's and the 1960's are located in the areas of Flat Ledge Hill, Long Cove, Wildcat or Atwoods Quarry, Clark Island Quarry on Clark Island itself and Hocking's Quarry on Clark Island Road. The granite was quarried for paving and building stone. Numerous small quarries or "motions" can be found near these larger commercial quarries.

The bedrock in the southern one-third of the Town is sandstone. There are at least five gravel pits in St. George but these are not being mined commercially at this time.

6.2 Soils

The various characteristics of soil types present different limitations for development, some of which can be overcome through special planning, design and/or construction. Soils and building sites that were considered "unbuildable" several decades ago can now be developed with new sewage treatment technologies. Soil types influence timber rates of growth and the species of native plants present. They also affect agricultural practices.

The Soil Survey of Knox and Lincoln Counties, Maine, published by the U.S. Soil Conservation Service in 1987, describes the different soil types that exist in these counties and provides information on their limitations. These "low intensity" soil maps display the predominant soils for an area, though there may be pockets of other soils. A "high intensity" soils map is necessary to gather the precise information needed for individual site planning. The low intensity maps are good for general planning purpose and those have been used for the Comprehensive Plan for St. George.

The Knox County Soil and Water District has developed "Soil Potential Ratings," which are more comprehensive in their evaluation of soils for development than the Soils Limitation Ratings found in the SCS Knox County Soil Survey. The Soil Potential ratings include the feasibility of a soil for a particular use relative to other soils within a given area. The "Soil Potential Index," which is the basis for the ratings, is derived by assigning values to soil performance and costs of initial and continuing corrective measures to overcome limiting soil properties.

According to this method of rating soils, St. George has only one soil rated as high potential for development: Tunbridge-Lyman fine sandy loam, 3-8% slopes (TrB). This soil is found very infrequently, with the largest pockets at Drift Inn Beach, on either side of Seavey Cove along Route 131 and Long Cove Road, on Hupper Island, in small patches along Port Clyde Harbor/Deep Cove shoreline, and on Allen Island. Small pockets of this soil may be found on many properties in town and may be sought during development for the location of septic systems.

Soils that have low and very low potential for development are mapped on the Developmental Constraints Map (located in the Appendix to this Comprehensive Plan). Over half of St. George is constrained by these soils. The distribution of low/very lows potential soils and medium/high potential soils fairly even around Town. New technologies for septic system construction have allowed development of properties in town once considered “unbuildable”.

Prime farmland is defined by the U.S. Conservation Service as having a generally adequate supply of moisture, favorable temperature and growing season length, acceptable levels of acidity or alkalinity, few or no rocks, and permeability to air and water. It is not excessively erodible, not saturated with water for long periods of time and is not flooded during the growing season and slopes ranging from 0-8%. In Knox County only 11% of the land is classified as prime farmland. According to the Soils Map, three of these soils are found in St. George; Boothbay silt loam (BoB), Peru fine sandy loam (PaB) and Marlow fine sandy loam (MrB), all at 3-8% slopes. They are generally scattered and not in large areas. Limited farming activity still occurs in St. George and is characterized by small commercial market gardens, landscape plant production, horse farms, hay production and small beef and dairy farms with a dozen animals or less. Horses, cows and goats are the predominant livestock while some residents keep hens for home use of eggs and meat.

The Maine Department of Agriculture and the Knox-Lincoln Soil and Water Conservation District provides some technical assistance and environmental oversight for farming operations in town although problems associated with farming activity are often resolved in the most timely manner by the town’s Code Enforcement Officer.

6.3 Slopes

Slopes of 8-15% are commonly found in St. George on the headlands and along the shorelines. There are parts of Town that have steeper slopes such as the southern part of the peninsula below the line drawn between Turkey Cove and Drift Inn Beach, the Otis Cove area, a section between Long Cove and Watts Cove and scattered pockets north of Route 73.

6.4 Land Cover

Based on a review of the Town's aerial photos, the St. George peninsula is approximately 85% forested, primarily in the interior in which there are small amounts of cleared agricultural land. The headlands are also an important natural resource. Timber is harvested as one of our cash crops;. The forests on the peninsula and the islands are attractive features of the Town.

6.5 Wetlands

The U.S. Fish and Wildlife Services define a wetland as an area that has the following characteristics:

1. The water table is usually at or near the surface of the land.
2. Time during the growing season.
3. At some time of the year, the land supports predominantly wetland vegetation.
4. The land is characterized by predominantly undrained, waterlogged soils.

Two sources of wetland mapping in Maine are the Maine Geological Survey (MGS), which maps wetlands of 10 acres of greater, and the National Wetlands Inventory (NWI) done by the U.S. Fish and Wildlife Service (USFWS) which includes all wetlands. Both are done from aerial photographs. The MGS maps have not yet been updated to include forested wetlands, while the NWI maps do not only include forested wetlands, but also marine and estuarine wetlands.

The Water Resources and Riparian Habitats Map (located in the Appendix to this Comprehensive Plan) shows NWI wetland boundaries and types, with the MGS wetland number attached to NWI wetland that roughly corresponds with it. There are numerous NWI wetlands throughout the Town, including many of the Town islands. The Developmental Constraints Map shows the 24 MGS wetlands. While these boundaries are useful for planning purposes, the actual work being planned should have a field survey to determine the actual boundaries.

For many years, wetlands were considered breeding habitats for mosquitoes and areas that needed to be drained or filled for agricultural purposes or to create developable land. More recently there has been a growing awareness of the value of wetlands. In a recent study of the impacts of development in Southern Maine, the State Planning Office examined the function of wetlands and the implications of the loss of these areas. The State study identified the following features.

Ground Water Recharge. Wetlands may serve to replenish and cleanse aquifers that the Town uses for water supply.

Ground Water Discharge. Groundwater may discharge into wetlands. Providing public water supply, wildlife habitat and a means of maintaining lake and river quality.

Flood Flow Alteration. Wetlands serve as temporary storage areas during high water flows, thus reducing peak flows and potentially damaging floods.

Sediment and Toxicant Retention. In agricultural areas, wetlands can retain and stabilize sediments and toxic materials.

Nutrient Retention and Removal. Wetlands can retain or transform inorganic phosphorus and/or nitrogen into their organic form and may save downstream lakes and ponds from becoming choked with vegetation to the point where fish cannot survive.

Productivity Export. Wetlands flush out dead plant and animal life, thereby providing nutrients for a new generation of plant and animal life.

Aquatic Diversity. Certain wetlands provide habitat, including breeding grounds and nurseries for fish.

Wildlife Diversity and Abundance. Wetlands serve as habitat and a food source for birds, deer, moose and other animals.

Uniqueness. A number of rare plant and animal species can be found in wetlands. Approximately 43% of the 230 rare plants that occur in Maine are found exclusively in wetland areas.

Wetlands of ten acres or more that are not part of a river, stream or brook are protected by the State of Maine's Natural Resources Protection Act Title 38 M.R.S.A., Sections 490-a through 480-s. This included both mapped and unmapped 10-acre wetlands, including forested wetlands. This Act requires obtaining a permit from the Board of Environmental Protection for the following activities in a regulated wetland:

1. Dredging, bulldozing, removing or displacing soil, sand vegetation or other materials
2. Draining or otherwise denaturing
3. Filling
4. Any construction, repair or alteration of any permanent structure

The mandatory Shore Land Zoning Act, Title 38 M.R.S.A., requires that municipalities regulate the land immediately around wetlands. St. George's Shoreland Zoning Ordinance was updated in 2010.

Under the State's Shore Land Zoning Revision, freshwater wetlands are defined as:

1. being 10 or more acres, OR
2. less than 10 acres, but when combined with an adjacent waterbody (except streams or rivers) to total 10 or more acres AND
3. characterized by a prevalence of vegetation typically adapted for life in saturated soils.

The Shore Land Zoning Act refers to the MGS wetland boundaries and their Inland Fisheries and Wildlife (IWF) ratings.

6.6 Water Resources

Surface Water. Brooks and streams, including intermittent streams, need to be protected from pollution. St. George's surface freshwater resources are few. Howard pond (12 acres) is the only contained natural waterbody in Town, although "The Marsh" also has open water connected with a wetland system. Some of the abandoned quarries are also water-filled. There are four major year-round streams: one flowing from Howard Pond to Turkey Cove, one flowing south of Wallston Road into an arm of Otis Cove, one flowing into The Marsh and one flowing under Route 131 into Cutler Cove. In addition, there are numerous intermittent streams that only flow in the spring and after heavy rains.

The brooks and streams in St. George have been rated by the Department of Environmental Protection based on a water quality goal. Streams are classified as either AA, a, B or C, with AA being the highest quality. According to this Water Classification Program, (October 1990) "Those waters draining directly or indirectly into tidal waters of Knox County, with the exception of the St. George river basin – Class B." Class B waters are suitable for drinking water supplies after treatment, fishing, recreation, various industrial uses, navigation and as a habitat for fish and other aquatic life. The habitat must be "unimpaired;" by comparison Class A waters must remain "natural" and Class C waters do not allow some changes to aquatic life. Any portions of theses streams that are tidal are classified as "SB" which is the second highest classification for estuarine and marine waters. In Class SB waters, like Class B waters, "The habitat shall be characterized as unimpaired."

Howard Pond was included in the Maine Lakes Study (Maine State Planning Office, October 1989). It received a rating of Class 3, "no known outstanding or significant values.' In a 1989 DEP Non-point Source Pollution Management Plan, Howard Pond is listed as being "extremely vulnerable" to further degradation of its water quality and recommended "immediate action" to prevent this.

Ground Water. This is one of our most valuable resources. Without a source of pure water for drinking and other household uses, it is not possible to live in the area.

Commercial establishments also require varying amounts of water in order to operate. There is always the possibility of salt-water intrusion into wells drilled on the peninsula.

Aquifers are saturated geological formations containing usable quantities of water. There are two types: sand and gravel and bedrock. The Maine Geological Survey reports no sand and gravel aquifers in St. George. The drinking water source is mainly from drilled wells, which tap into local bedrock fractures. These “bedrock aquifers” are not mapped, although some information is available from data collected by well drillers and recorded by the MGS in a Well Inventory Database. There are also some dug wells that are fed by surface water and tend to go dry in periods with little rainfall.

The Well Inventory Database maintained by the MGS currently includes 205 wells that are located in St. George. This database is not comprehensive and represents only a sample of St. George’s wells; those collected before 1973 under an old collection procedure and those that have been collected since 1986. Reporting is done by well drillers and location information is not always accurate. The MGS has been and intends to continue double checking the reported locations with the Town’s tax map records, which raised confidence in that data.

The Well Inventory can be most useful to St. George in determining where there are pockets of low yields at deep depths and would be a clear signal that there may not be sufficient groundwater for additional development in that area. This method is not valid for determining areas of high yield because homeowners will not keep drilling after they have sufficient yield. The data would be greatly improved by augmenting it with local anecdotal information collected by a citizen survey and/or Town records. The Conservation Commission could be responsible for this.

Threats to Groundwater. The Town’s groundwater can be contaminated by many different types of land uses that discharge pollutants into or onto the ground. The primary sources of groundwater contamination in Maine are malfunctioning septic tanks, leaking underground fuel storage tanks along with older, abandoned tanks that may also have leaked, salt leachate from salt/sand stockpiles and leachate from landfill refuse. Certain land uses such as automobile graveyards/junkyards, agricultural use of pesticides and herbicides, as well as certain industrial activities have the potential for contaminating ground water. The gasoline additive MBTE has been found in many wells in St. George. The Town has been careful to avoid any dumping in old sand or gravel pits and quarries that could affect the ground water supply.

Many areas of town have high concentrations of iron that stain plumbing fixtures and color laundry and some wells are contaminated with coliform bacteria caused by the well being located too close to a septic field. or close to livestock areas. Contaminants may enter through the top of a buried well, or through the joints between the casing and the bedrock. The soil is so thin in many places that bacteria are not filtered out and get into the groundwater. Areas with high residential density have the highest potential

for contamination or salt intrusion. Saltwater intrusion may come from lowering the ground water recharge due to increased use or simply close proximity with the ocean.

Tenants Harbor Water District. Serious contamination of wells by petroleum product has occurred in the village of Tenants Harbor. This was first discovered in 1996 when an oil leak was found in a house on the corner of Watts Avenue and High Street. Testing of other wells in the village by the Department of Environmental Protection turned up over 200 contaminated wells. The Tenants Harbor Water District was chartered by the State Legislature and with assistance from the State DEP and the Superfund enables the Town to deal with the problem. Carbon filters were installed in 87 homes to remove hydrocarbons while waiting for the project completion. Three wells were drilled to supply a community water system for the village of Tenants Harbor.

Port Clyde Water District. The Port Clyde Water District started out as a private company, but is now considered a non-profit utility. There are 144 homes served. Water pipes in the village are underground, but over ground plastic pipes that serve summer residences must be drained in the fall. Peak water flow is 20 gallons per minute. A new well has been drilled and a new pump station has been built with borrowed money.

6.6 Floodplains

The National Flood Insurance Program has been designed to provide flood insurance for existing properties and to limit additional development within the 100-year flood plain delineation. The program stipulates that municipalities enact Floodplain Regulations limiting development within the floodplain area. A 100-year flood is a flood that has one chance in 100 of being equaled or exceeded in any one year. Floodplains are best suited for uses such as open space, recreational use not requiring structures and wildlife habitat. Floodplain maps were updated and went into effect in St. George in 2015. These maps are drawn electronically and should be checked for accuracy on the ground.

Floodplains exist in St. George around the islands and along the shores of the peninsula, the Marsh and along the several small creeks that flow into the St. George River or the Harbors. Sea level is rising at an increasing rate along the entire Maine coast and this is likely to impact shore properties in St. George within the next several decades. (see Marine Resources Section 6)

6.7 Wildlife

St. George has outstanding coastal wildlife resources largely due to the abundance of islands off shore; however, little is known about island wildlife. The Department of Inland Fisheries and Wildlife (IFW) has mapped a number of candidates for “Significant Wildlife Habitats” within St. George. The IFW is engaged in the rule making process that

includes the development standards of standards and criteria for only identifying "Significant Wildlife Habitat." The Department will then need to further evaluate the candidate areas, which include deer yards, waterfowl and wading bird habitat, shore bird nesting, feeding and staging areas and seabird nesting islands. A map of these areas is available at the Town Office.

Three Deer Wintering Areas, Teel Cove, Port Clyde, and north of Long Cove, have been identified as significant wildlife habitats. Eastern Egg Rock, a Roseate Tern and Atlantic Puffin Nesting Island is designated as a significant habitat, but according to the IFW, should be considered a potential candidate as an "Essential Habitat" for protection under the Maine Endangered Species Act.

As for fur-bearing animals, IFW reports no bear harvested over the past five years while the deer harvest was 50 in 2008, 57 in 2009, 53 in 2010, 62 in 2011, and 38 in 2012. There is no information available from the state regarding other fur-bearing animals, although coyotes, beaver, muskrats and other small animals are trapped in town. There are also moose, deer, fishers, raccoons, porcupines, skunks, otter and mink.

6.8 Birds

St. George is blessed with a great variety of birds. Because of our location on the coast, St. George is under the Eastern (Atlantic) Flyway for birds migrating in both spring and fall. There are birds that live on the seashore and birds that live on fresh water as well as birds that prefer the forest and those that prefer open land. The offshore islands provide a safe haven for birds at night.

Waterfowl and Wading Bird Habitat Including Nesting and Feeding Areas	
Adjacent to Howard Pond	East of Cutler Cove
Northeast of St. George	West Branch Long Cove
East of Tenpound Island	The Marsh
East of Fort St. George	Tributary to Otis Cove

Shorebird Nesting, Feeding, and Staging Areas	
Rackliff Island	Cutler Cove
Tenants Harbor (west)	Turkey Cove
Watt's Cove	Mosquito Harbor
Spruce Head (south)	

Seabird Nesting Islands	
Eastern Egg Rock	Gunning Rocks
Shark Island	The Brothers
Little Egg Rock	Yellow Ridge Island
Eagle Island	Hay Ledge
Seal Island	Old Hump Ledges
Bar Island	Ledge west of Whitehead Island
Shag Ledges	Little Burnt Island

There are 52 coastal wildlife concentration areas in St. George. Those rated Class A are considered nationally important, those in Class B are regionally important and those in Class C are locally important. While Coastal Wildlife Concentration Areas are not "significant" wildlife habitats per se, they may contain "essential" or "significant" wildlife habitats. The following is a list of Coastal Wildlife Concentration areas by class.

Class A	
Eastern Egg Rock	The Brothers
Old Woman Ledge	St. George River (north)
Old Cilley Ledge	

During the last twenty years, a significant breeding colony of Atlantic Puffins has been established on Eastern Egg Rock. From June through September these oceanic birds attract birders and tourists to St. George.

Class B	
Little Egg Rock	Watt's Cove
Shark Island	St. George River (south)
Little Egg Rock Shoals	Gunning Rocks
Old Man Ledge	Shag Ledges
Hart Island	Hay Ledge
Burnt Island	Long Cove
Mosquito Harbor	Seal Harbor

Class C	
Southern Island	Teel Island
Allen Island	Hupper Island
Midway Rocks	Marshall Point
Seal Ledges	Davis Island
Old Hump Ledges	Dry Ledges
Benner Island	Mosquito Island
Bar Island	Mosquito Head
Eagle Island	Hart Ledge
Yellow Ridge Island	Tenants Harbor
Seal Island	Northern Island
Thompson Island	Wheeler's Bay
McGee/Barter Islands	Clark Cove
Two Bush Island	Norton/Whitehead Island
Deep Cove	High Island
Caldwell Island	Seavey Ledges
Goose Rock	Norton Island Ledges
Stone/Seavey Islands	

The IFW has also identified other wildlife areas of special concern that may not be candidates for protection as "essential" or 'significant" wildlife habitats under state law. These areas include the following seal haul out areas.

Seal Haul out Areas	
Shark Island	Teel Island Ledges
Little Egg Rock	Hart Island Ledges
Old Woman Ledge	Gunning Rock Shoals
Seal Ledges	Shag Ledges
Hay Ledges	Ram Island Ledge
Mosquito Island Ledge	Clark Island Ledge
Thompson Island Ledge	Whitehead Island Ledge
Little Caldwell Island	Norton Island Ledges
Stone Island Ledge	Yellow Ridge Island

Over the past twenty years Bald Eagles have built nests and raised young at several locations in St. George including Long Cove and on several of the islands at the mouth of the St. George River. Additionally, there are frequent sightings of Bald Eagles along the St. George River in the spring, fall and particularly in the winter months, as well as ospreys, crows and ravens. Osprey nests and nesting pairs of these birds once were common in town and on the islands, but there is evidence that these birds are being displaced by the larger and more aggressive Bald Eagles.

6.9 Fisheries

Except for the St. George River, which is tidal (see Marine resources), the fresh-water fishery resources in St. George are minimal. The IFW's "Significant Fish and Wildlife Resources of Mid-Coast Maine" cites Howard's Pond as the only freshwater habitat. Its value is considered "unknown." Some of the quarry ponds have been stocked with trout and baitfish by private individuals. American eels are found in many of the ponds and quarries including the Marsh, Howard's Pond and Jones' Brook.

St. George Community Alewife Restoration Project. Alewives are an anadromous (sea run) member of the herring family that are important as lobster bait and a primary food fish for many marine mammals and fish in the Gulf of Maine. Citizens and school groups in town have been working since 2005 to restore a wild alewife population in the Marsh and Ripley Creek. In May, these fish return from the sea to spawn in the Marsh and the young alewives leave the Marsh in the fall to mature in salt water.

6.10 Critical Natural Resources

There are five Registered Critical Areas in St. George according to the Critical Areas Program at the State Planning Office. The Marshall Point Marine Invertebrate Area (tide pools) (CA#196) has a high diversity of marine invertebrates including two noteworthy species: Pagarus Acadianus (Hermit Crab) and Ophiopolus Aculeata (Brittle Star). There are three seabird critical areas: The Hart Island Eider Nesting Area (CA#83), the Brothers Island Eider Nesting Area (CA#261) and the Hay Ledge Eider Nesting Area (CA#287). All are nesting habitat for the Common Eider and have been nesting sites for other unusual or rare birds such as the Common Tern and the Laughing Gull. The fifth critical area is the Allen Island Old Growth Yellow Birch Stand. (CA#618). The 95-acre stand is located on the south and southeasterly sides of the island. These areas have been nominally protected under a voluntary agreement with the landowner.

The QFL/Atlantic Center for the Environment list three additional "Natural Areas" identified by the Critical Areas Program. The Tenants Harbor Roaring Spout (NA#556) is a wave-cut chasm in 40-foot sea cliffs. Mosquito Head (NA#1540) is a 10-acre stand of coastal coniferous forest. Eagle Island (NA#2282) has unusual metamorphic rock used historically for "Killick Stones," for primitive anchors. The Georges River Land Trust has a permanent conservation easement on Roaring Spout which provides for public access. Mosquito Head was recently enrolled in the State's Open Space Program.

The Natural Heritage Program's list of rare plants, animal and communities in St. George only contains seabirds: the Atlantic Puffin, Laughing Gull, Leach's Storm Petrel, Common Tern and Arctic Tern. All of the occurrences are coupled with a Critical Area number, including these nesting habitats have all received at least some minimal protection.

6.11 Vernal Pools in St. George

Vernal Pools are found throughout town. These are defined as small water bodies that have water in the spring, but dry up in the summer thus preventing fish populations from becoming established. Vernal pools provided critical breeding habitat for amphibians –salamanders, frogs, and toads including spotted salamander, eastern newt, wood frog, spring peeper, green frog, and American toad.

6.12 Birds of St. George

The following is a partial list of birds spotted on the 2000 Christmas Bird Count in the Thomaston and Rockland areas and birds from a list compiled by Herb Wilson at Colby College that can be seen at various times of the year. Since birds don't recognize town lines, most of these can probably been seen in St. George.

A partial list of birds spotted on the 2000 Christmas Bird Count in the Thomaston and Rockland areas		
Bald Eagle	Horned Grebe	Red-necked Grebe
Great Cormorant	Black Guillemot	Great Blue Heron
Canada Goose	American Widgeon	American Black Duck
Mallard	Northern Pintail	Common Eider
Long-Tailed Duck	Surf Scoter	Greater Scaup
Bufflehead	Common Goldeneye	Barrow's Goldeneye
American Bittern	Piping Plover	Common Nighthawk
Hooded Merganser	Common Merganser	Red-breasted Merganser
Ruddy Duck	Common Loon	Red-throated Loon
Northern Harrier	Cooper's Hawk	Northern Goshawk
Red-tailed Hawk	Ruffled Grouse	Wild Turkey
Virginia Rail	Purple Sandpiper	Black-headed Gull
Bonapart's Gull	Ring-Billed Gull	Herring Gull
Great Black-Backed Gull	Laughing Gull	Eastern Kingbird
Great Blue Heron	Green Heron	White Heron
Least Tern	Black Tern	Gray Catbird
Rock Dove	Mourning Dove	Eastern Phoebe
Belted Kingfisher	Downy Woodpecker	Hairy Woodpecker
Northern Flicker	Horned Lark	Pileated Woodpecker
Northern Shrike	Blue Jay	American Crow
Common Raven	Black-Capped Chickadee	Tufted Titmouse
Red-Breasted Nuthatch	White-Breasted Nuthatch	Brown Creeper
Golden-Crowned Kinglet	American Robin	Northern Mockingbird
European Starling	Bohemian Waxwing	Cedar Waxwing
Orange-Crowned Warbler	American Tree Sparrow	Savannah Sparrow
Song Sparrow	White-Throated Sparrow	House Sparrow
Tree Swallow	Cliff Swallow	Bank Swallow
Barn Swallow	N. Rough-Winged Swallow	Winter Wren
Marsh Wren	House Wren	Purple Martin
Willow Fly-Catcher	Least Fly-Catcher	Ruby-Crowned Kinglet
Black-Billed Cuckoo	Yellow-Billed Cuckoo	Eastern Bluebird
Veery	Brown Thrasher	Northern Parula
Swainson's Thrush	Hermit Thrush	Wood Thrush
Yellow-Throated Vireo	Solitary Vireo	Warbling Vireo
Snow Bunting	Northern Cardinal	Common Grackle
Purple Finch	House Finch	American Goldfinch
Dark-Eyed Junco	Swamp Sparrow	Lincoln's Sparrow
Salt Marsh Sharp-Tailed Sparrow	Nelson's Sharp-Tailed Sparrow	

Birds also seen in the summer months:		
American Bittern	Black Scoter	White-Winged Scoter
Rough-Legged Hawk	Iceland Gull	Glaucous Gull
Osprey	Lapland Longspur	Snow Bunting
Common Redpoll	Pine Siskin	Evening Grossbeak
Black-Crowned Night Heron	Wood Duck	Green-Winged Teal
Blue-Winged Teal	Ring-Necked Duck	Turkey Vulture
Bob-O-Link	Northern Harrier	Broad-Winged Hawk
American Kestrel	Killdeer	Willet
Upland Sandpiper	Spotted Sandpiper	Common Snipe
American Woodcock	Roseate Tern	Common Tern
Arctic Tern	Whip-Poor-Will	Chimney Swift
Ruby-Throated Hummingbird	Olive-Sided Flycatcher	Alder Flycatcher
Yellow-bellied Flycatcher	Yellow-Rumped Warbler	Pine Warbler
Black-Throated Gr. Warbler	Blackburnian Warbler	Prairie Warbler
Palm Warbler	Bay-Breasted Warbler	Blackpoll Warbler
Yellow Warbler	Tennessee Warbler	Magnolia Warbler
Black-Throated Blue Warbler	Chestnut-Sided Warbler	Cape May Warbler
Black & White Warbler	American Redstart	Ovenbird
Eastern Wood Peewee	Louisiana Waterthrush	Northern Waterthrush
Common Yellowthroat	Wilson's Warbler	Canada Warbler
Scarlet Tanager	Rose-Breasted Grosbeak	Indigo Bunting
Red-Winged Blackbird	Chipping Sparrow	Field Sparrow
Vesper Sparrow	Fox Sparrow	Eastern Meadowlark
Northern Waterthrush	Louisiana Waterthrush	Rusty Blackbird
Belted Kingfisher	Yellow-Bellied Sapsucker	Northern Flicker

6.13 Goals, Policies, and Strategies

A. State Goals

To protect the State's other critical natural resources including, without limitation, wetlands, wildlife and fisheries habitat, sand dunes, shorelands, scenic vistas, and unique natural areas.

To protect the quality and manage the quantity of the State's water resources, including lakes, aquifers, great ponds, estuaries, rivers, and coastal areas.

Safeguard the State's agriculture and forest resources from development which affect those resources.

B. Local Policies and Strategies

Pursuant to the State goal, the Town of St. George has the following policies:

Strategies proposed in this Comprehensive Plan are assigned responsible parties and a timeframe in which to be addressed. **Short Term** is assigned for strategies to be addressed within one to three years after the adoption of this Comprehensive Plan, **Midterm** for strategies to be addressed within five years, and **Long Term** for strategies to be addressed within ten years. In addition, **Ongoing** is used for regularly recurring activities.

Policy 1: Ensure that critical natural and scenic resources are protected.

Strategy	Responsibility	Date
Continue to support the mission of the Conservation Commission	Select Board	Ongoing
Maintain an inventory of unique natural areas that should be protected.	Conservation Commission	Ongoing
Conduct a study of the 52 coastal wildlife concentration areas and other important critical natural resources to determine if any additional protection is necessary.	Conservation Commission	Short Term
Undertake an inventory of the Town to identify significant scenic features including views and vistas from public property, roads open to public use and to identify approaches for maintaining those resources.	Conservation Commission	Short Term
Encourage landowners to protect and preserve critical natural and scenic resources and encourage them to take advantage of conservation programs to preserve undeveloped land.	Conservation Commission	Ongoing
Work with organizations to develop a program to help landowners protect and preserve wildlife habitat and encourage them to take advantage of conservation programs to preserve undeveloped land.	Conservation Commission	Ongoing
Take steps to provide long term protection for the Allen Island Old Growth Yellow Birch Stand (State Critical Area), the 1-acre coastal coniferous forest on Mosquito Island (State Natural Area), and the site of an unusual metamorphic rock used historically for "Killick Stones" on Eagle Island (State Natural Area), using resource protection zoning, deed restrictions, conservation easements to land trust, or other means	Conservation Commission	Short Term
Continue to have the Site Plan Review and Subdivision Ordinances encourage cluster development, when proposals include part of an	Planning Board	Ongoing

identified or mapped deer wintering area or wildlife concentration area, and/or require that development be altered, to the extent possible, to minimize negative impacts on these areas.		
Map Deeryard areas and review/revise land use regulations to preserve those areas.	Conservation Commission/Planning Board	Midterm

Policy 2: Ensure that critical natural and scenic resources are considered in development proposals and that negative impacts are minimized.

Strategy	Responsibility	Date
Review and revise, if needed, the Town's Minimum Lot Size Ordinance, Subdivision Ordinance, Site Plan Review Ordinance and other land use related ordinance to assure that submission requirements include identification of state and locally important resources including wetlands, scenic vistas, vernal pools, floodplains, wildlife habitats (deer wintering areas, bird nesting sites, etc.) and other unique natural and scenic features or areas.	Planning Board	Ongoing
Review and revise, if needed, the Town's Minimum Lot Size Ordinance, Subdivision Ordinance, Site Plan Review Ordinance and other land use related ordinance to include objective criteria for protecting natural resources or mitigating any adverse impacts to them.	Planning Board	Ongoing

Policy 3: Ensure the quality of the Town's surface waters.

Strategy	Responsibility	Date
Ensure that development application include best practices for managing stormwater runoff consistent with Maine DEP standards.	Planning Board	Ongoing
Continue to require an erosion and sedimentation control plan for all developments on soils identified as having low or very low potential for development, subject to subdivision or site plan review.	Planning Board/Code Enforcement Officer	Ongoing
Meet with local groups and associations to encourage them to monitor the State's long-term water quality testing program for the Town's surface waters including tidal and marine waters.	Code Enforcement Officer	Ongoing

Policy 4: Protect the quality and quantity of the groundwater that is the supply for private wells and the water districts.

Strategy	Responsibility	Date
Review and revise as necessary the Wellhead Protection Ordinance that prohibits new activities that may threaten water supplies from locations within 300 feet of the Water Districts' wells and regulates new activities that may threaten water supplies located in the area between 300 and 1,000 feet. (Department of Human Services standards)	Planning Board	Ongoing
Promote the testing of individual wells. Make test kits available at the Town Office.	Town Office	Ongoing
Have the Code Enforcement Officer work with the DEP to continue to gather information on fuel storage tanks as well as other threats to ground water. Take remedial action where necessary and make information available to landowners regarding fuel storage tanks and their safe removal, and other threats to ground water.	Code Enforcement Officer	Ongoing
Continue to gather information on water quality and work with the Maine Geological Survey, so as to better understand the limits of the town's ground water.	Code Enforcement Office	Ongoing

Policy 5: Encourage wise use of the Town's forest resources by making information available to the public on good forestry practices and on the State's Tree Growth Tax Law.

Strategy	Responsibility	Date
Maintain as necessary a Management Plan for all the Town Forest lands.	Conservation Commission	Ongoing
Work with conservation organizations, such as land trusts, to identify valuable open spaces and natural areas and assist with conservation efforts through easements or outright purchase	Planning Board	Ongoing
Compile information on conducting good forest management practices and State and Federal programs that offer financial assistance for preparing forest management plans for distribution at the Town Office.	Conservation Commission	Ongoing
Modify land use ordinances to encourage open space and preservation of agricultural and forestry resources through the use of Cluster Development and other techniques.	Planning Board	Ongoing
Work with state agencies to review and revise as needed the Town's forestry and land use regulations to prevent clear cutting of large areas that would result in erosion of the thin soil cover.	Planning Board	Midterm

Policy 6: Minimize the impact of flooding and possible sea level rise on the community.

Strategy	Responsibility	Date
Periodically review and update the Town's floodplain management provisions including adopting the most up-to-date Flood Insurance Rate Map (FIRM) and state/federal floodplain management requirements.	Planning Board/CEO	Ongoing
Develop a mitigation plan for dealing with sea level rise that assesses the potential for increased flooding if sea level rise occurs and develops a program for minimizing the impact of any such flooding on Town facilities including public roads. An element of this plan should be consideration of the need and provisions for evacuation of areas subject to significant flooding or that may be cut-off by road flooding.	Town Manager/CEO	Short Term/Ongoing