**Fayette’s Natural Resources**

**Community Overview:**

Fayette’s lakes and ponds, rolling hills, distant views, open fields and forested areas combine to create a visual character that is appealing in its diversity. The resources that make up the natural setting of the town provide much of that visual diversity. People’s actions on the land, development, and the use and transformation of the Town’s natural resources can enhance Fayette’s appeal -- and can also destroy it.

This chapter profiles natural resources that have a significant influence on development decisions in Fayette. It addresses the relationship between natural resources, environmental preservation, and development.

The general topography provides the physical framework within which people live, affecting development decisions in various ways. People tend to settle and build structures and roads most frequently on lowlands, moderate hillsides and level ridges, while steep hills often remain forested, or at least less densely developed, such is the case in Fayette.

Numerous hills and extensive ridgelines, scattered throughout town, characterize Fayette’s topography. Several offer spectacular views of both Maine and New Hampshire’s higher peaks. Many more provide expansive views of the town itself and of neighboring communities.

**Critical Natural Resources**

Critical natural areas are at the heart of natural resource protection. The state defines critical areas as those containing plant and animal life or geological and ecological features worthy of preservation in their natural condition or of significant scenic, scientific, or historical value. Maine’s Beginning with Habitat program, a part of the Natural Areas Program at the Department of Agriculture, Conservation, and Forestry (DACF), provides information, presentations, and resources to towns on local critical areas, such as unique natural areas, wildlife habitat, fisheries habitat, wetlands, and sand dunes Much of the BWH information is reflected in this report.

High on the list of critical natural areas are locations of endangered species. The Maine Endangered Species Act authorizes the IFW to designate and protect Essential Habitat for Rare and Endangered Species.

**Rare and Endangered Species and Habitats**

**Bald eagles** (Haliaeetus leucocephalus) nest along the shore of Parker Pond, near Fellows Cove Road. These symbolic fliers were nearly eradicated in Maine but, thanks to conservation policy, have now rebounded and nest in great numbers. In the 1970’s it is believed that there were less than 30 nesting pairs of bald eagles in Maine. In 2009 they were removed from the state Endangered Species list and Maine is now home to more than 700 nesting pairs. Bald eagles remain listed as Special Concern. Bald eagles generally nest along bodies of water. Breeding habitat includes large trees, primarily old white pines, in close proximity to water where their food source is abundant and human disturbance is minimal. Bald eagles and their nests are protected by the U.S. Fish and Wildlife Service under the Bald and Golden Eagle Protection Act.

**Scarlet bluet** (Enallagma pictum) are known to occupy less than 20 sites in Maine. In Fayette, they are found in, and around, Tilton Pond.

These small, fiery-red damselflies are typically found on ponds with lily pads and have a fairly scattered geographical reach in Maine. At least 90% of the scarlet bluet’s global geographic range is within the Canadian Maritime Provinces and extreme southeastern Quebec.

While the scarlet bluet is rare, it is potentially secure at its known Maine locations. Lack of knowledge is the greatest threat assigned to the scarlet bluet. Specifically, the lack of a comprehensive survey effort to identify additional occurrences in Maine has attributed to this knowledge gap.

**Inland Waterfowl and Wading Bird Habitat (IWWH)**

Five criteria are used to rate IWWHs as high, moderate, or low value: (1) wetland type composition, (2) number of different wetland types, (3) size, (4) interspersion, and (5) percent of open water. Wetlands with a rating of “High” or “Moderate” are the only ones required to be protected under Shoreland Zoning and other State Laws. These are depicted on the map and listed in the table overleaf.

**Table - Significant Waterfowl and Wading Bird Habitat**

|  |  |  |
| --- | --- | --- |
| **Location** | **MDIF&W#** | **Rating** |
| Mosher Pond, around the Fayette and Chesterville border (51.7 acres) | 201057 | Low |
| Northern fringe of David Pond (12 acres) | 032200 | Low |
| Wetlands on unnamed stream east of Mosher Pond (8.7 acres). | 032198 | Medium |
| Wetlands extending south from Mosher Pond to 12 Corners (54.9 acres). | 032196 | Medium |
| Tract between North and East Roads, just north of Tilton Pond (2.6 acres) | 201019 | Low |
| Wetlands between Davis Pond and Tilton Pond (7.0 acres). | 032204 | Low |
| Tilton Pond and surrounding areas (121.0 acres). | 032205 | Medium |
| Southeast of 17 and Campground Road (15.5 acres).  | 032194 | Medium |
| Cranberry Pond and surrounding areas (21.9 acres). | 032210 | Medium |
| Burgess Pond and surrounding areas (24.8 acres). | 201020 | Low |
| Meadow due south of Cranberry Pond (14.3 acres). | 032209 | Low |
| Large area encompassing Schoolhouse Pond (78.0 acres). | 031106 | Medium |
| Small area due west of Camp Vega (7.5 acres). | 201021 | Medium |
| Small area due west of Camp Vega (6.9 acres). | 201033 | Low |
| West of Town Office (20.6 acres). | 032207 | Medium |
| South of Town Office, along Hales Brook (18.8 acres). | 032208 | Low |
| Middle section of Hales Brook (38.3 acres). | 032214 | Medium |
| Northeast of Fayette Corner (2.9 acres). | 201036 | Low |
| Significant portion of Meadow Brook (66.0 acres). | 201034 | Low |
| Area south of Meadow Brook (123.8 acres). | 201035 | Low |
| Hales Pond and section of Hales Brook to the north (104.5 acres). | 032217 | Medium |
| Mill Pond and surrounding areas (39.1 acres). | 032222 | Medium |
| Northern end of Lovejoy Pond (68.7 acres). | 032212 | Low |
| Area south of Oak Hill Road and Route 17 (14.3 acres). | 032213 | Low |
| Area encompassing Scott Brook (25.0 acres). | 032220 | Medium |
| Beginning of Scott Brook (unlisted acreage).  | 206922 | Low |
| Hales Brook close to Wayne border (11.8 acres). | 031411 | Low |
| Small stream on Wayne border (8.7 acres). | 032218 | Low |
| Source: Maine’s Beginning with Habitat, 2008 & 2017. |

**Wetlands**

Ground water at or near the surface creates a wetland. Wetlands are sufficiently saturated to support the growth of aquatic and moist soil vegetation and limit the construction of foundations and septic systems. Wetlands are often viewed as a waste of land and filled in order to accommodate development. However, wetlands perform significant natural functions. They provide habitat for a diversity of wildlife, temporarily store floodwaters to moderate floods, create clean water by filtering sediments and pollutants, and recharge aquifers. Since these functions are not readily apparent, wetlands are too often misused.

Fayette, due to its lowland nature, has several large wetland areas and many smaller wetlands, both forested and non-forested. Development activity in any wetland area is strictly regulated by state and federal governments. Non-forested wetlands of ten acres in extent or greater are protected from development by the Natural Resources Protection Act. The Town’s Land Use Ordinance also limits development in areas adjacent to wetland areas. Development and timber harvesting are restricted in these areas, providing maximum protection to the wetland and wildlife dependent thereon.

**Deer Wintering Areas**

Deer are relatively common in Fayette but their existence and survival relies on sufficient habitat. The discussion of sufficient habitat centers on deer wintering areas, or DWA’s.

A deer wintering area is defined by the Maine IF&W as a critical forested area used by white-tailed deer living at their range’s northern fringe. A DWA is an area where deer can seek refuge and protection from the harsh winter weather. In Maine, deer will require DWA’s for as little as 20 days a year to as many as 125 days a year. Non-forested wetlands, non-stocked clear-cuts, hardwood types, and stands are included within the DWA only if less than 10 acres in size.  Agricultural and development areas within DWAs are excluded, regardless of size.

Fayette has 21 identified DWA’s that can be seen on the critical resources map. The DWA’s vary in size and location. Some are rather large while others are rather small. They have a fairly even distribution throughout town.

**Undeveloped Forest Blocks**

There is a direct relationship between the number and variety of wildlife and the size of their habitat. Fayette residents are used to common wildlife, such as squirrels and chickadees, which do not need much open land to thrive. Other types of animals are less often seen because they thrive in unbroken patches of forest. As roads, farms, and houses intrude on the landscape, the large habitat blocks are broken up and the wildlife that relies on them disappear.

The critical natural resources map illustrates the distribution of undeveloped blocks within Fayette. Of particular interest are the undeveloped blocks on the west side of Town. This area, south of Route 17 and west of both Baldwin Hill Road and South Road, contains over 6,000 acres of undeveloped land. It is no coincidence that this area provides both a sizable deer wintering area and prime inland waterfowl and wading bird habitat.

The northwest corner of Fayette is also notable because it is part of the largest undeveloped block in the area. Covering over 9,000 acres of land, this undeveloped block includes portions Fayette, Chesterville, Livermore Falls, and Jay.

Other significant undeveloped forest blocks in town are a 1539 acre tract to the west of Echo Lake, north of Route 17. This tract includes both Basin and Cranberry Ponds. On the southern edge of Town, west of Lovejoy Pond and south of Route 17, and shared with Fayette, is a 1,637 acre tract of undeveloped land. Both of these major tracts provide critical deer wintering areas and inland waterfowl and wading bird habitat.

In reality, outside of the major road corridors, most land in Fayette remains undeveloped, and is not pressured at this time.

**Conserved Lands**

Fayette, all told, has 717 acres set aside as conservation lands. The bulk majority of conserved lands in Town are held by the Kennebec Land Trust. Their largest holding in Town are the combined Meadow Brook and Sturtevant Farm Conservation Areas. This 327 acre easement permanently protects active farms, wetlands, a cedar seepage forest, a homestead dating back to 1784, and provides fantastic views of mountains to the west. The area also contains a hiking trail for recreational enjoyment.

Also held by Kennebec Land Trust is the Parker Pond Headland Preserve. Located off of Sandy River Road and Fellows Cove Road, the Parker Pond Headland Preserve has a combined 142 acres of forested land on a peninsula jutting out into Parker Pond. Blueberries, huckleberries, and giant hemlocks abound in this protected area that provides an extensive hiking trail network and allows for swimming, hunting, fishing, and snowshoeing in the winter. The Headland is owned by the Kennebec Land Trust and is further protected through a conservation easement held by the Parker Pond Association.

Located in both Fayette and Readfield, the Echo Lake Watershed Preserve, whose Fayette property lies off of Echo Lodge Road, is a combined 304 acre conservation area that is currently managed with low-impact recreation activities in mind. A network of trails is planned by not yet developed. This preserve is also owned and managed by the Kennebec Land Trust.

Surry Hill: Update when official.

**Wild Brook Trout**

Basin Pond has been identified by Maine IF&W as a wild brook trout habitat.

Maine supports the most extensive distribution and abundance of wild brook trout *(Salvelinus fontinalis)* in their native range within the United States; more than 1,200 lakes and ponds are managed for brook trout, of which approximately 60% are sustained by natural reproduction. In addition, brook trout occur in an estimated 22,248 miles of stream habitat, the vast majority of which are wild. Although brook trout populations are declining across their historic range within the United States (Maine to Georgia), a 2006 range-wide assessment by the Eastern Brook Trout Joint Venture (EBTJV) concluded that Maine is the last remaining state with an extensive population of wild and self-reproducing brook trout.

"Maine is the only state with extensive intact populations of wild, self-reproducing brook trout in lakes and ponds, including some lakes over 5,000 acres in size. Maine's lake and pond brook trout resources are the jewel of the eastern range: lake populations are intact in 185 sub watersheds (18% of the historical range), in comparison to only six intact sub watersheds among the 16 other states." Furthermore, Maine is the last true stronghold for stream dwelling populations of wild brook trout, supporting more than twice the number of intact sub watersheds as the other 16 states in the eastern range combined.

Maine's native and wild brook trout lakes, ponds, and flowing waters represent a unique and abundant resource not available elsewhere in the United States. Not surprisingly the MDIFW places a high priority on the management of this important resource, with a focus on protection, conservation, enhancement, and restoration of self-sustaining populations and the Town of Fayette should work to protect this resource also.

**Water Resources**

Since clean water is one of our greatest needs, good water quality is a priority in Fayette. In addition to drinking water, good water quality supports property values, recreation, the local economy, and fish and wildlife populations. Fayette’s most visible water resource is the lakes and ponds that dot the landscape. At this time,

**Lakes**

Fayette is part of the greater Winthrop Lakes Region. Most of Fayette’s land falls within the watersheds of its many lakes and ponds, such as Parker Pond, Echo Lake, Lovejoy Pond, David Pond, Hales Pond, and Mosher Pond.

Both Tilton Pond and David Pond flow into Parker Pond which is primarily in the Town of Chesterville. From there the water drains into Taylor Pond, Echo Lake, Lovejoy Pond, Pocasset Lake and Androscoggin Lake in the Town of Wayne, finally emptying into the Androscoggin River.

The Echo Lake Watershed is the most highly developed area in the Town of Fayette with Taylor Pond, Echo Lake, Lovejoy Pond and several unnamed tributaries draining into it. The total drainage area for Echo Lake is 42 square miles.

David Pond runs into the Parker Pond Watershed along with Tilton Pond, Basin Pond, Cranberry Pond, Parker Pond and several unnamed streams. The Parker Pond watershed has a total drainage area of approximately 12 square miles.

Burgess Pond, Mosher Pond and some unnamed streams drain into the Mosher Pond Watershed with Meadow Brook, School House Pond and Scott Brook draining into the Meadow Brook Watershed.

Most water in Fayette eventually finds its way to the Androscoggin River. However, the northwestern area of Town, specifically the Mosher Pond watershed, eventually finds its way to the Kennebec River.

In recognition of the fact that activities within a watershed may affect to quality of surface water great distances away, the development of both local and regional policies are necessary to ensure the continued quality of these resources.

The State enacted a new Water Classification Program in 1987 that required, among other things, that lakes must exhibit a stable or decreasing (improving) trophic state. No change of land use in the watershed, by itself or in combination with other activities, may cause water quality degradation. Trophic state is a measure of biological productivity. DEP defines changes in trophic state in part by phosphorus concentrations in the water, with a one part per billion increase indicating a decrease in water quality.

Phosphorus is a nutrient present in most Maine lakes in small amounts, essential for aquatic plant growth. Certain land uses, specifically agriculture and development, can increase phosphorus levels. Practices such as exposing soils, covering land with pavement and removing vegetation along waterways increases the amount of phosphorus reaching lakes. This is not an issue limited to lakeshores; any of these practices which result in surface runoff reaching ditches and streams will increase the flow of phosphorous into lakes.

Green algae begin to multiply in profusion when phosphorus concentrations reach a certain level, usually around 15 parts per billion (ppb). Such algal blooms color lakes green and rob the water of vital oxygen. The excessive growth of algae can cause odor, taste, and treatment problems in water supplies, deplete cold water fisheries, lessen people’s interest in using lakes for recreation, tend to depress property values, and overall, diminish a valuable community asset.

**Echo Lake** lies in the eastern side of town. It is the second largest water body in Fayette, and has a watershed area of more than 4,000 acres – draining most of the center of Fayette (including the village area) before it’s water eventually drains into Pocasset Lake. The shoreline is somewhat developed, particularly with popular summer camps, but remains undeveloped in many areas. Echo Lake has a surface area of 1,037 acres with a maximum depth of 111 feet. Its total drainage area is 8.4 square miles consisting of the towns of Fayette, Mount Vernon, and Readfield. The lake supports populations of lake trout and salmon, and receives stockings of brook trout and salmon.

Transparency readings in 1980 averaged 20.3 feet. Average transparency readings in 2017 had climbed to 27.9 feet. The deeper areas of the lake remain well oxygenated throughout the summer, and the lake experiences 1.91 two flushes per year. Echo Lake is listed as having good water quality.

**Parker Pond** is the other major lake located in Fayette, covering the most acreage and lying along the northern boundary of town. Parker Pond has a drainage area of 6.3 square miles and has a maximum depth of 76 feet. The watershed of the pond is in the towns of Chesterville, Fayette, Mount Vernon and Vienna. Parker Pond has just a 0.3 flush per year rate, but still maintains a high water quality. In fact, Parker Pond had an average transparency reading in 1980 of 23.0 feet. In 2017, its average transparency reading is 27.6 feet. Parker Pond receives annual stockings of both landlocked salmon and brook trout.

**David Pond** has a total surface area of 282 acres and a total drainage area of 2 square miles. David Pond is managed for warm water fish. Largemouth and smallmouth bass, perch, pickerel and hornpout are the established species. By late summer, David Pond experiences an oxygen deficiency in even its deepest reaches. The average depth is 10 feet with a maximum depth of 37 feet. Average transparency readings have climbed from 13.5 feet in 1981 to 19.0 feet in 2017. Even though David Pond has 1.86 flushes per year, it still has moderate water quality.

**Lovejoy Pond** is a 379 acre surface area pond with a maximum depth of just 22 feet. Lovejoy Pond has a moderate water quality with the ability to withstand an increase in phosphorus. Transparency readings have remained fairly constant throughout the years, with an average reading of 18.7 feet in 1979 and a 19.0 feet reading in 2017. Lovejoy Pond receives 11.4 flushes per year. The pond is managed for bass, perch, and pickerel.

**Tilton Pond** has a surface area of 99 acres and a maximum depth of 44 feet. Its total drainage area is 2.2 square miles and receives 1.55 flushes per year. Transparency readings for Tilton Pond are relatively sporadic but had an average reading of 14.8 feet in 2017. Tilton Pond has an oxygen deficiency in deeper water, and as such, is not managed for cold water fish. Largemouth bass and chain pickerel are the primary fisheries.

**Hales Pond** has a surface area of 76 acres and a maximum depth of 50 feet. Hales Pond averages 4.99 flushes per year and has a total drainage area of 3.5 square miles. Transparency readings are only available for a four year period from 2001-2004, and average roughly 15 feet during that time. Hales Pond has excellent bass habitat and as such, has become a popular bass fishery.

**Mosher Pond** is a medium pond in Town with a surface area of 72 acres. It has a total drainage area of 4 square miles and has a flushing rate of 4.9 flushes per year. Its maximum depth is just 32 feet. Water quality monitoring has been sparse. Mosher Pond is managed for warm water fish species.

No lakes in Fayette are listed on the Maine DEP’s list of lakes at risk of having an algal bloom. However, Echo Lake, Parker Pond, David Pond, and Lovejoy Pond are all currently on the state’s Nonpoint Source (NPS) Priorty Watersheds List, which indicates that they have significant value from a regional or statewide perspective, and have water quality that is either impaired or threatened to some degree from nonpoint source water pollution. This list, which was adopted by the Land & Water Resources Council in October 1998, helps identify watersheds where state and federal agency resources for NPS water pollution prevention or restoration should be targeted. Furthermore, both David Pond and Parker Pond have recorded depleted oxygen levels in recent years. These findings are not currently a cause for concern, but worthy of continued monitoring.

Monitoring deficiencies: compile list where monitoring efforts need boost.

**Brooks and Streams**

Streams are an integral part of Fayette’s lake watersheds, impacting the health of Fayette’s lakes and ponds. They are also an important ecological resource, providing habitat for a variety of aquatic organisms as well as animals that use streamside areas. Many streams are also associated with wetlands or forested wetlands, another important component of Fayette’s watersheds and significant wildlife habitat.

All streams in Fayette are classified by the state as “Class B” waters, meaning they are general- purpose waters that must be managed to attain good water quality. Discharges to these streams shall not cause adverse impact to aquatic life, and water quality should be good enough to support indigenous aquatic species without change to the resident biological community.

No Fayette Stream is currently listed on the NPS Priority Watershed List, however, as with the town’s lakes and ponds, streams are at risk from the impacts of development. Riparian zones must be protected from development to preserve habitat and water quality, including maintaining the natural streamside vegetation.

**Groundwater and Public Water Supplies**

Development and groundwater quality have a significant relationship. In general, it is best to avoid many forms of commercial development and high density residential development over sand and gravel aquifers. More specifically, though, we need to be aware of public water supplies in the community, whether there is arsenic present, and protect the supplies from contamination.

A public water supply is not necessarily limited to the wells of the town’s water system, which Fayette doesn’t have. The Maine Department of Human Services, Bureau of Health, Drinking Water Program (DWP), which regulates public water supplies, defines it as one that serves 15 or more individual hookups or 25 or more persons from a single source. Public water supplies are further classified based on whether they serve the general community or individual populations.

There are multiple public water supplies in Fayette:

•The first is a pair of bedrock wells serving Camp Vega, source ID number’s 781104 and 781103. The DWP has no record of a Source Water Assessment for these wells.

•The second is a bedrock well serving Camp Winnebago, source ID number 782102. The well is rated as a low risk well for both present and future contamination due to the depth and landowner control around the well.

•The third is a well serving the Fayette Central School on Route 17, source ID number 242101. This is a relatively shallow well at 133 feet and because of the proximity to Route 17 and the lack of landowner control over the area surrounding the well, the DWP rates this as being high risk of future contamination. A new well was discussed in 2011 but has yet to be approved.

•The fourth water supply is a bedrock well that serves the Echo Lake Lodge, source ID number 6924101. This well is also rated as a low risk well for future contamination.

The Drinking Water Program promotes the establishment of wellhead protection plans for public water supplies. The Rule of Thumb is that all wells should maintain a minimum 300’ radius of restricted land uses around their wellhead (more for larger systems). The location of these wellheads, particularly at the Fayette Central School, becomes a constraint on development in the immediate vicinities.

Private wells in Fayette are highly susceptible to high arsenic levels and residents experience great costs associated with proper well design and water filtration systems as a result.

**Floodplains**

Floodplains are defined as areas adjacent to a river, stream, lake, or pond which can reasonably be expected to be covered at some time by floodwater.

The primary function of floodplains is their ability in accommodate large volumes of water from nearby overflowing channels and dissipate the force of flow by reducing the rate of flow through a widening of the channel.

Since flooding only occurs periodically, flood prone areas have high value as open space and for outdoor recreation involving minimal development. Many flood prone areas have highly fertile soils and thus can be used for productive agriculture without interfering with their emergency overflow capacity.

Intensive urban development on floodplains and flood prone areas can increase the severity of floods and cause flooding of previously unaffected areas. The major consequence of intensive development in floodplains and flood prone areas is the widespread property damage and loss of life which results from severe flooding. Other significant consequences include the public costs associated with cleanup and rebuilding, increased insurance costs, water pollution and the contamination resulting from toxic and hazardous materials.

The enormous public costs involved in flood damage and flood control nationwide resulted in the establishment of the National Flood Insurance Program which helps the victims of floods to rebuild their homes and businesses and reduce the future risk of flood losses. The Town of Fayette at this time is not in the Flood Insurance Program, although a Flood Ordinance Plan was approved at the October 1993 Town Meeting.

Because of the potential for serious loss of life and property during floods, the enormous costs involved to cleanup and rebuilding after floods, the enormous costs involved with the construction of flood control projects and their ultimate ineffectiveness, further development in floodplains, flood prone areas, and "special flood hazard areas" should be avoided and only compatible, non-intensive uses permitted.

The land adjacent to lakes, rivers, and streams subject to inundation by floodwaters are floodplains. Floodplains carry and store floodwaters during peak runoff seasons. They attract development because of level ground, fertile soils and waterfront locale. Development in the floodplain, with filling and construction, constricts the flow of water, increasing floodwater velocities and increasing the likelihood of damage to both the property and downstream.

Floodplains are a definite constraint to development, though not one that is always visible. In fact, the risk of damage from development is so great that the federal government has taken on the responsibility for insuring flood prone property. The National Flood Insurance Program requires communities to regulate and restrict development in 100-year floodplains in order for their residents to participate. The Town of Fayette cooperates by having adopted the Flood Ordinance Plan at the 1993 October Town Meeting.

Flood hazard areas occur around the Town’s many lakes and ponds and along the various brooks. The most extensive floodplains incorporate the wetlands and lowlands along Hales Brook, an area south of Tilton Pond, and an area to the south of the Oak Hill Road and Route 17 intersection.

**Other:**

**Water Resources**

A. **State Goal**

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

B. **Analyses**

To generate minimum analyses to address state goals, use Conditions and Trends data in Section 3.2(C) to answer the following questions.

(1) Are there point sources (direct discharges) of pollution in the community? If so, is the community taking steps to eliminate them?

(2) Are there non-point sources of pollution? If so, is the community taking steps to eliminate them?

(3) How are groundwater and surface water supplies and their recharge areas protected?

(4) Do public works crews and contractors use best management practices to protect water resources in their daily operations (e.g. salt/sand pile maintenance, culvert replacement street sweeping, public works garage operations)?

(5) Are there opportunities to partner with local or regional advocacy groups that promote water resource protection?

C. **Conditions and Trends**

Minimum data required to address Analyses:

(1) The community’s Comprehensive Planning Water Resources Data Set prepared and provided to the community by the Department of Inland Fisheries and Wildlife, the Department of Environmental Protection and the Office, or their designees.

(2) A description of each great pond, river, surface drinking water supply, and other water bodies of local interest including:

a. ecological value;

b. threats to water quality or quantity;

c. documented water quality and/or invasive species problems.

(3) A summary of past and present activities to monitor, assess, and/or improve water quality, mitigate sources of pollution, and control or prevent the spread of invasive species.

(4) A description of the location and nature of significant threats to aquifer drinking water supplies.

(5) A summary of existing lake, pond, river, stream, and drinking water protection and preservation measures, including local ordinances.

D. **Policies**

Minimum policies required to address state goals:

(1) To protect current and potential drinking water sources.

(2) To protect significant surface water resources from pollution and improve water quality where needed.

(3) To protect water resources in growth areas while promoting more intensive development in those areas.

(4) To minimize pollution discharges through the upgrade of existing public sewer systems and wastewater treatment facilities.

(5) To cooperate with neighboring communities and regional/local advocacy groups to protect water resources.

E. **Strategies**

Minimum strategies to meet state goals:

(1) Adopt or amend local land use ordinances as applicable to incorporate stormwater runoff performance standards consistent with:

a. Maine Stormwater Management Law and Maine Stormwater regulations (Title 38 M.R.S.A. §420-D and 06-096 CMR 500 and 502).

b. Maine Department of Environmental Protection's allocations for allowable levels of phosphorus in lake/pond watersheds.

c. Maine Pollution Discharge Elimination System Stormwater Program

(2) Consider amending local land use ordinances, as applicable, to incorporate low impact development standards.

(3) Where applicable, develop an urban impaired stream watershed management or mitigation plan that will promote continued development or redevelopment without further stream degradation.

(4) Maintain, enact or amend public wellhead and aquifer recharge area protection mechanisms, as necessary.

(5) Encourage landowners to protect water quality. Provide local contact information at the municipal office for water quality best management practices from resources such as the Natural Resource Conservation Service, University of Maine Cooperative Extension, Soil and Water Conservation District, Maine Forest Service, and/or Small Woodlot Association of Maine.

(6) Adopt water quality protection practices and standards for construction and maintenance of public and private roads and public properties and require their implementation by contractors, owners, and community officials and employees.

(7) Participate in local and regional efforts to monitor, protect and, where warranted, improve water quality.

(8) Provide educational materials at appropriate locations regarding aquatic invasive species.

**3. Natural Resources**

A. **State Goal**

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.

B. **Analyses**

To generate minimum analyses to address state goals, use Conditions and Trends data in Section 3.3(C) to answer the following questions.

(1) Are any of the community’s critical natural resources threatened by development, overuse, or other activities?

(2) Are local shoreland zone standards consistent with state guidelines and with the standards placed on adjacent shorelands in neighboring communities?

(3) What regulatory and non-regulatory measures has the community taken or can the community take to protect critical natural resources and important natural resources?

(4) Is there current regional cooperation or planning underway to protect shared critical natural resources? Are there opportunities to partner with local or regional groups?

C. **Conditions and Trends**

Minimum data required to address Analyses:

(1) The community’s Comprehensive Planning Natural Resources Data Set prepared and provided to the community by the Department of Inland Fisheries and Wildlife, Department of Environmental Protection and the Office, or their designees.

(2) A map or description of scenic areas and scenic views of local importance, and regional or statewide importance, if available.

D. **Policies**

Minimum policies required to address state goals:

(1) To conserve critical natural resources in the community.

(2) To coordinate with neighboring communities and regional and state resource agencies to protect shared critical natural resources.

E. **Strategies**

Minimum strategies required to address state goals:

(1) Ensure that land use ordinances are consistent with applicable state law regarding critical natural resources.

(2) Designate critical natural resources as Critical Resource Areas in the Future Land Use Plan.

(3) Through local land use ordinances, require subdivision or non-residential property developers to look for and identify critical natural resources that may be on site and to take appropriate measures to protect those resources, including but not limited to, modification of the proposed site design, construction timing, and/or extent of excavation.

(4) Through local land use ordinances, require the planning board (or other designated review authority) to include as part of the review process, consideration of pertinent BwH maps and information regarding critical natural resources.

(5) Initiate and/or participate in interlocal and/or regional planning, management, and/or regulatory efforts around shared critical and important natural resources.

(6) Pursue public/private partnerships to protect critical and important natural resources such as through purchase of land or easements from willing sellers.

(7) Distribute or make available information to those living in or near critical or important natural resources about current use tax programs and applicable local, state, or federal regulations.