

Proposed Amendments to the Gardiner Comprehensive Plan

In its review of the City's adopted comprehensive plan for consistency with the Growth Management Act, the Municipal Planning Assistance Program in the Department of Agriculture, Conservation and Forestry has requested that the City add additional background information about important habitats in the City including information from the State's Beginning with Habitat Program. Adding this information to the plan will require an amendment to the adopted plan even though the requested information will only be informational in nature.

To address the State's request, the proposed amendments to the City's Comprehensive Plan add an Appendix V at the end of the plan. Appendix V provides additional information on high value plant, wildlife, and fisheries habits in the City. To integrate the new appendix into the document, three other amendments are proposed:

- Add Appendix V to the Table of Contents
- Reference Appendix V in Chapter 3 which is a summary of the inventories found in the appendices (page 49)
- Reference Appendix V in the Natural and Marine Resources Inventory in Appendix I (page 191)

Here are the specific amendments to the adopted Comprehensive Plan that are proposed. The additions are shown in underlined text on the attached pages.

1. Amend the Table of Contents to add Appendix V as shown on the attached Table of Contents
2. Amend Chapter 3: Overview of Updated Inventories to include a reference to Appendix V in the Natural Resources summary as shown on the attached revised page 49
3. Amend Appendix I Inventories to include a reference to Appendix V in the Natural and Marine Resources inventory as shown on the attached revised page 191
4. Adopt Appendix V: High Value Plant, Wildlife, and Fisheries Habitat as shown on the attached pages 247-250

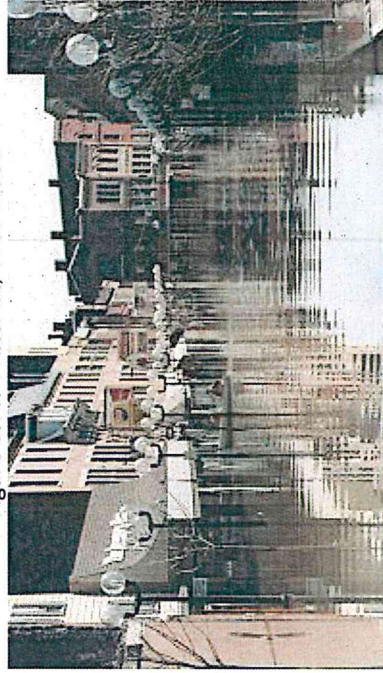
Table of Contents

Executive Summary	1
Part One Background Information	11
Chapter 1: Past Planning Activities	13
Chapter 2: Recent Development Profile	25
Chapter 3: Overview of Updated Inventories	33
Part Two Goals & Policies.....	55
Chapter 4: Community Vision	57
Chapter 5: Community Goals and Policies.....	61
Chapter 6: Land Use Goals and Policies.....	89
Part Three Implementation Strategies.....	105
Chapter 7: Regional Coordination	107
Chapter 8: Implementation Strategy	109
Chapter 9: Capital Investment Strategy	119
Appendix I Inventories.....	121
Appendix II Capital Improvements Program.....	211
Appendix III Community Action Program	213
Appendix IV Overview of Public Involvement.....	245
<u>Appendix V High Value Plant, Wildlife, and Fisheries Habitats in Gardiner</u>	<u>247</u>

Although the rail bed prevents development directly along the river, there are many critical existing structures in the 100-year flood plain, including:

- Downtown businesses along Water St, and the Arcade Parking Lot
- Hannaford and parking lot
- Waterfront Park
- Rail Trail

Figure 3.10: Water St, 1987 Flood



Source: Maine Emergency Management Agency

Two developing areas of Gardiner face limited restraints on future development. The outer Brunswick Avenue Corridor (primarily commercial use) has some areas with wetlands, while the South Gardiner area must continue to be aware of the aquifer along the Kennebec River, as well as its Shoreland Overlay Limited Residential District. Development in the Cobossee Corridor District (located along the Cobossee stream in downtown Gardiner) needs to consider natural and visual resources, and the use of green building technologies.

There are two (known) rare animals with habitats in Gardiner: the Bald Eagle along the Kennebec River, and the Tidewater Mucket (a freshwater mussel) along the Cobossee Corridor. The stretch of Route 24 (River Road) along the Kennebec River is a striking visual resource – and due to the presence of train tracks between River Road and the river, is unlikely to be developed.

Additional information on high value plant, wildlife, and fisheries habits can be found in Appendix V.

Issues & Implications

1. While the location of the Hannaford store within the 100 Year Floodplain is problematic, the presence of the store is a significant benefit to the entire Downtown area.
2. The River Road scenic corridor from Downtown to the Richmond border and beyond is a significant resource that might be able to be better capitalized on as a community asset.

Rare Animal and Plant Habitats

Animal Locations & Habitats

There are two (known) rare animals with habitats in Gardiner (Figure I.6).

Species: Bald Eagle

Locations: Along the Kennebec River (just south of Downtown), and along the Kennebec River in South Gardiner

Species: Tidewater Mucket (freshwater mussel):

Locations: Cobbossee Corridor

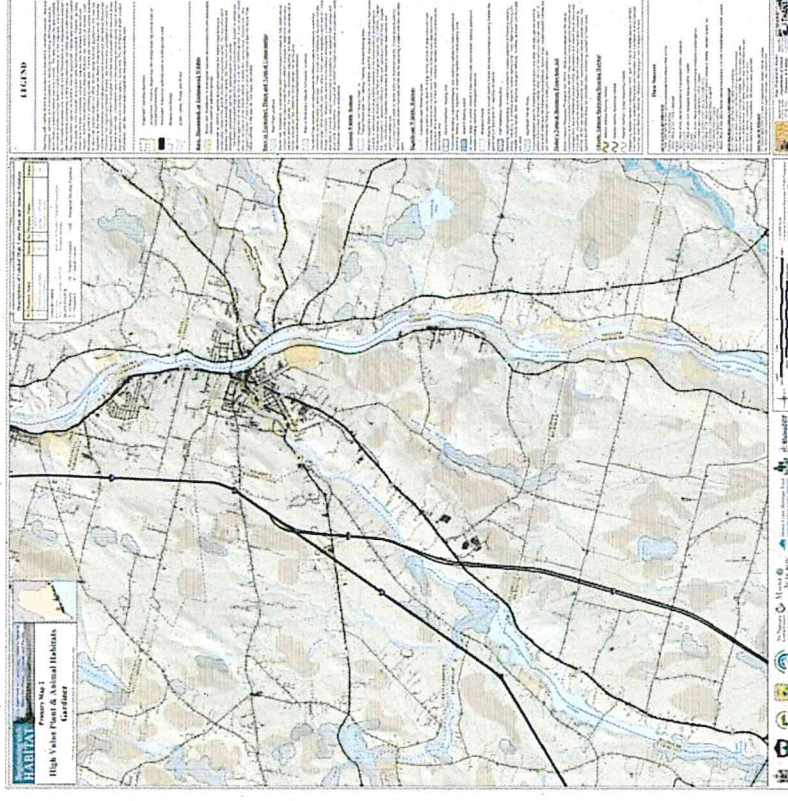
Plant Habitats

There are four known rare or exemplary natural plant communities in Gardiner. All are located along the Kennebec River in South Gardiner (Figure I.8).

- Estuary Bur-marigold
- Parker's Pipewort
- Pygmyweed
- Spongy Arrowhead

Additional information on high value plant, wildlife, and fisheries habitats can be found in Appendix V.

Figure I.8: High Value Plant & Animal Habitats



Kennebec Riverfront – Scenic Views

The stretch of Route 24 (River Road) along the Kennebec River is a striking visual resource – and due to the presence of train tracks between River Road and the river, is unlikely to be developed (Figure I.9).

APPENDIX V: HIGH VALUE PLANT, WILDLIFE, AND FISHERIES HABITATS IN GARDINER

Gardiner has a number of high value plant and wildlife habitats, and the surrounding area is rich in environmental resources. These assets must be considered and planned for in Gardiner's future land use plan. Beginning with Habitat (BwH) is a program working to maintain sufficient habitat to support native plant and animal species in Maine. BwH provides inventories of natural features and characteristics, generated by the Department of Inland Fisheries and Wildlife (MDIFW), as well as the Maine Natural Areas Program (MNAP) and the US Fish and Wildlife Service (USFWS).

Fisheries Habitats

Most of the waters in Gardiner are comprised of brooks and rivers. There is very little lentic habitat. The Kennebec River is the largest waterway in Gardiner and hosts a variety of warmwater, coldwater, and diadromous fish species. The Gardiner portion of the Kennebec River is not currently managed by the Maine Department of Inland Fisheries and Wildlife (MDIFW); however, it is very important habitat for both resident and migrating fish, and serves as the chief corridor for many freshwater and marine fish species in central Maine. Cobosseecontee Stream, a large tributary to the Kennebec River, also flows through Gardiner and is currently managed by MDIFW. Although the vast majority of the Cobosseecontee watershed is inhospitable for year-round salmonid (i.e. trout and salmon species) growth and survival, Cobosseecontee Stream is managed as a put-and-take fishery; stocked annually with both brook and brown trout. The section of stream that runs through Gardiner is a very popular seasonal fishery for local anglers.

There are also numerous small tributaries in Gardiner that host wild brook trout, and these area an extremely valuable inland fisheries resource. Therefore, any construction or road crossing projects that impact these small tributaries must be completed during the construction window of July 15 to September 30 to minimize impacts on these fish species. Additionally, pre- and post-construction projects should enforce Best Management Practices (BMPs) with concern for erosion and sedimentation control. Reducing on-site sedimentation and erosion will benefit resident fish species downstream, ultimately reducing the impact on their health and habitat.

Focus Area of Ecological Significance

Centered more on resources around Merrymeeting Bay and southward to the Kennebec Estuary, a portion of Gardiner has been included within a Statewide Focus Area of Ecological Significance. Focus Areas are identified where there are unique assemblages of at-risk species and habitats within Maine. They are non-regulatory areas that are intended to build awareness of, and encourage the conservation of, unique ecological sites.

The Kennebec Estuary Focus Area contains more than 20 percent of Maine's tidal marshes, a significant percentage of Maine's sandy beach and associated dune habitats, and globally rare pitch pine woodland communities. More than two dozen rare plant species inhabit the area's diverse natural communities. Numerous imperiled species of animals have been documented in the Focus Area, and it contains some of the state's best habitat for bald eagles.



Figure V.1: Kennebec Estuary Statewide Focus Area of Ecological Significance. Source: Beginning With Habitat

High Value Wildlife Habitats

Figure V.3 illustrates key plant and wildlife habitats in the Gardiner area. Among the local significant species are Atlantic Salmon, found in the Togus and Cobbosseecontee Stream tributaries to the Kennebec River. Deer wintering areas are concentrated in the southern and eastern portions of the city. South and central Gardiner are also home to large areas of contiguous forest. This area also includes significant inland waterfowl and wading bird habitat, roughly tracking Rolling Dam Brook and stretching into neighboring Richmond. A second inland waterfowl and wading bird habitat exists around Pleasant Pond and Cobbosseecontee Stream. Small tidal wading bird and waterfowl habitats have been documented along the Kennebec River. Likewise, the banks of the Kennebec River near the Richmond town line serve as habitats for rare plant and exemplary natural communities. Endangered, threatened, or species otherwise under concern - notably Bald Eagles and the Tidewater Mucket - have been identified on three sites along the Kennebec River as well as one location on the Cobbosseecontee Stream.

Figure V.2 Bald Eagle and a Tidewater Mucket Shell – Rare animal species found in Gardiner. Image sources: Birdsofmaine.com, Allen Barlow

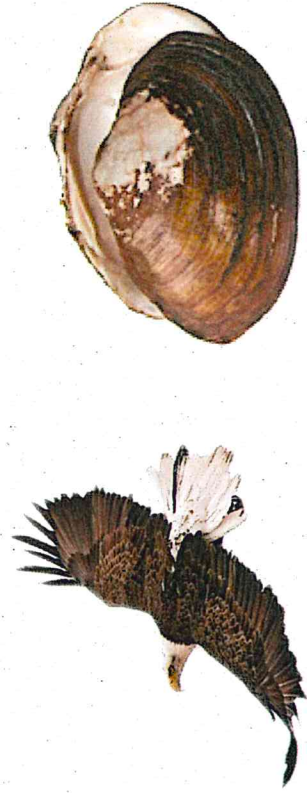
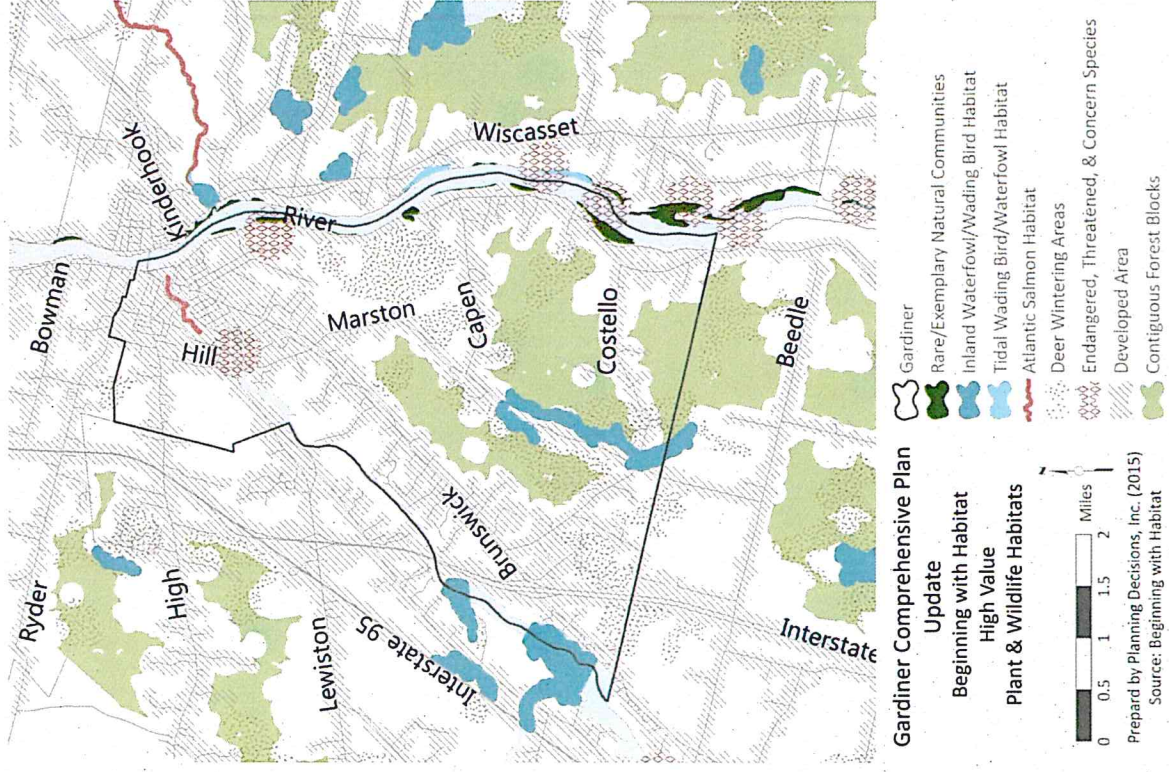


Figure V.3: Gardiner Area High Value Habitats: Wildlife Resources



Environmental Resources

Gardiner contains significant aquifers, large wetlands, and vernal pools that support significant plant and animal life. There are also several public drinking water source wells in the area. Preservation of these resources is critical to ensuring the health and vitality of the natural and human environment. Preserving contiguous habitat blocks where possible, and sheltering sensitive areas will help ensure the integrity of natural habitats and protect sensitive areas.

Wetlands surround Rolling Dam Brook and exist throughout the forested portions of Gardiner. Significant aquifers are located along the Kennebec River. All drinking water supply wells are located within 1,500 feet of the Kennebec River; three are in Gardiner, two in Pittston, and one lies in Randolph (Figure V.4).

Table V.1 summarizes rare plants and wildlife found in Gardiner.

Table V.1: Important plant and wildlife habitats in the Gardiner area. Source: Maine Department of Agriculture, Conservation, & Forestry

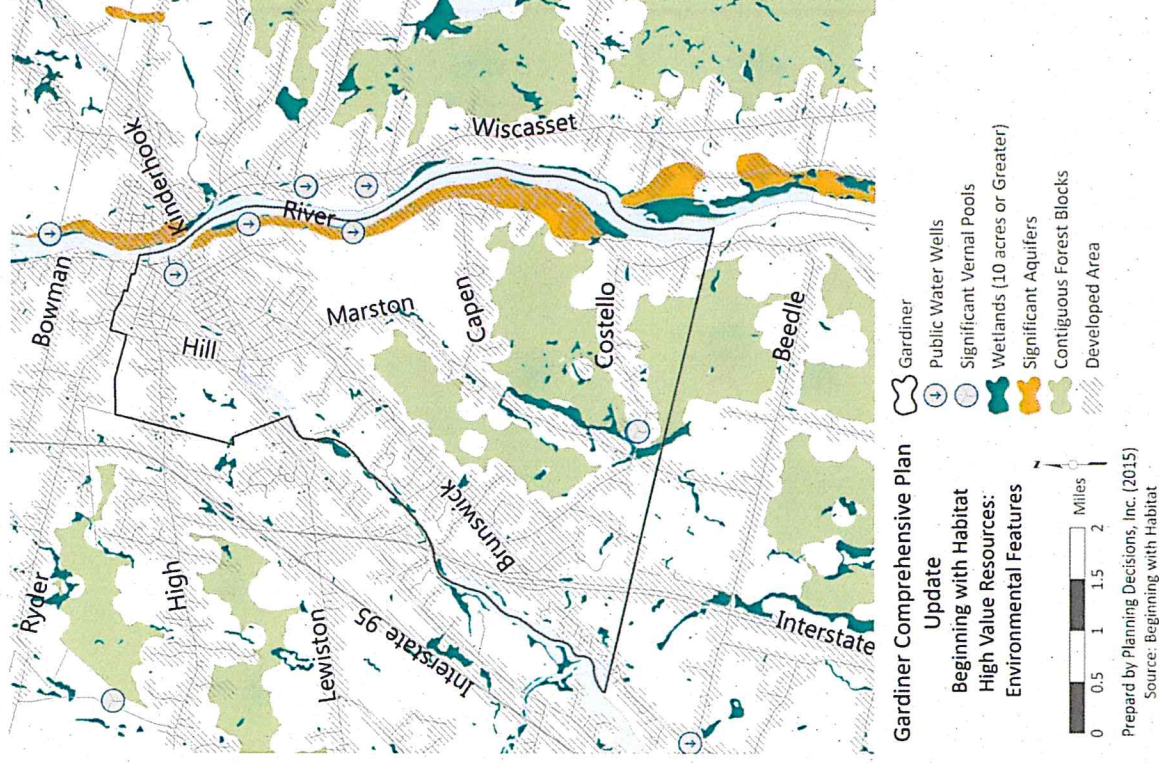
Rare Animal Name	Scientific Name	Status
Bald Eagle	<i>Haliaeetus leucocephalus</i>	SC
Tidewater Mucket	<i>Leptodea ochracea</i>	I

Rare Plant Name	Scientific Name	Status
Estuary Bur-marigold	<i>Bidens hyperborea</i>	SC
Eaton's Bur-marigold	<i>Bidens eatonii</i>	SC
Parker's Pipewort	<i>Eriocaulon Parkeri</i>	SC
Pygmyweed	<i>Crassula aquatica</i>	SC
Spongy Arrowhead	<i>Sagittaria calycina var. spongiosa</i>	SC

Rare or Exemplary Natural Communities
Freshwater Tidal Marsh

Significant Wildlife Habitat
Inland Wading Bird and Waterfowl Habitats
Deer Wintering Areas
Significant Vernal Pools

Figure V.4: Gardiner Area High Value Environmental Resources



Regulation of Natural Resources

Natural resources are regulated at the local, state, and federal level. At the local level, undeveloped areas with significant resource value are included in the Resource Protection District. In addition, areas adjacent to the Kennebec River, Cobbosseecontee Stream, and other designated water resources are subject to shoreland zoning standards.

At the state level, activities that impact on important natural resources in Gardiner are regulated. These state regulations include the Forest Practices Act that regulates timber harvesting activities including activities adjacent to various

waterbodies, the Endangered Species Act and related rules that provide for the protection of habitat of endangered or threatened species, the Natural Resources Protection Act which regulates activities that impact a variety of the City's significant natural resources including wetlands, vernal pools, significant wildlife habitats, and other waterbodies, and the Site Location of Development Act that regulates larger commercial and residential developments.

At the federal level, the Army Corps of Engineers regulates activities that involve navigable waters including activities that impact certain wetlands and vernal pools.