

Chapter 5 – Natural Resources

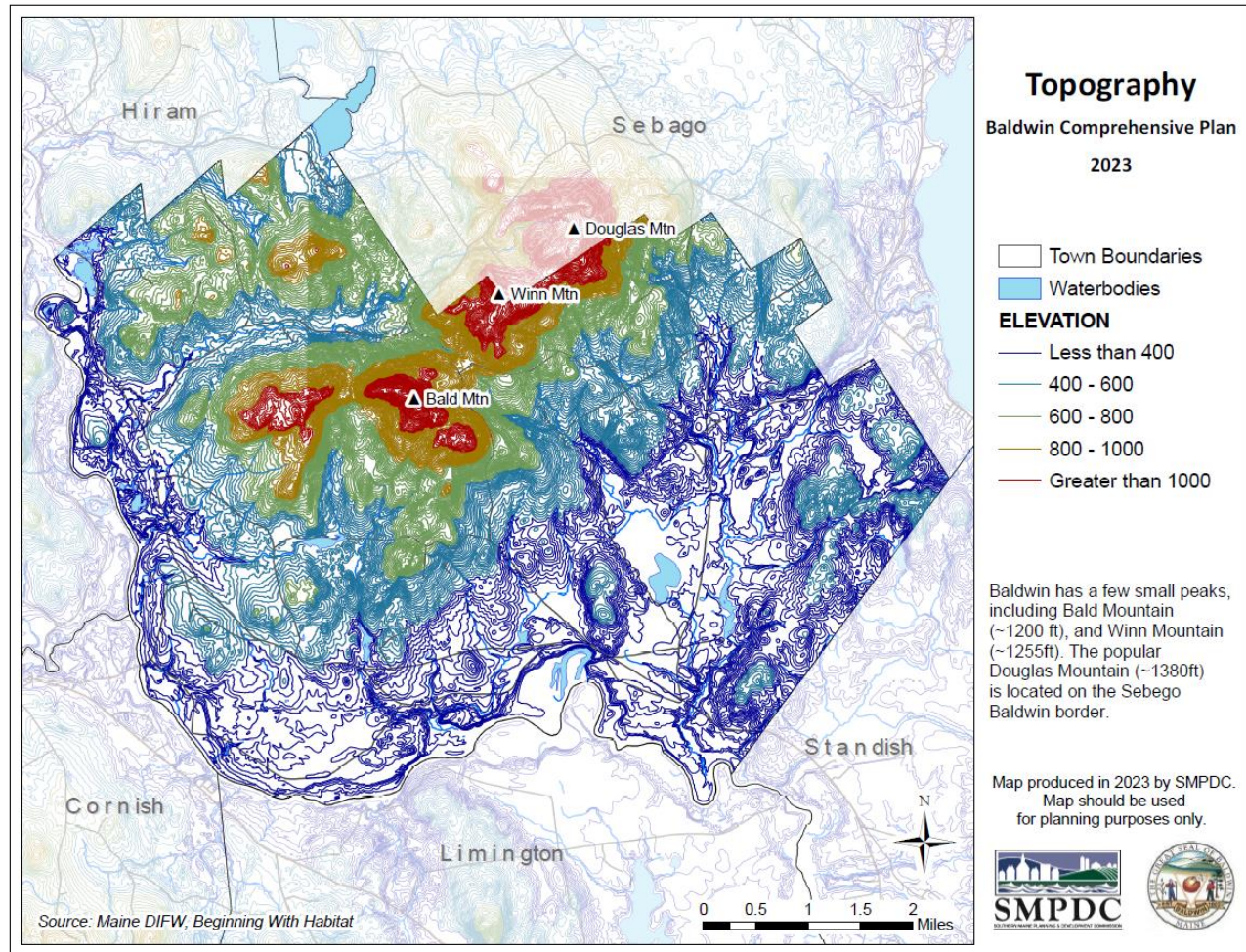
Introduction

The natural resources of Baldwin provide important environmental and social value. Wildlife and fisheries habitat, clean drinking water, and recreational opportunities are just some of the many benefits. The open spaces and wild areas of Baldwin are key to the rural character of the community. Proper land management and development regulations can mitigate the impacts of development on sensitive areas, and ensure that these resources are protected into the future. The following section summarizes an inventory of information about the natural and physical systems that determine the form of the Town's landscape.

The Maine Department of Environmental Protection runs the Beginning with Habitat program, which inventories several key natural resource indicators in publicly available data and maps. This program is the main source of natural resource information for most communities in the state, and this chapter features their data and resources prominently.

Topography

Topographical features have a strong influence on the way a town develops. Steep slopes affect the feasibility of development, water drainage, and scenic views. The southern and eastern sections of Baldwin are relatively flat with some rolling hills, reaching a maximum of 600 ft in elevation. Baldwin has a few small peaks that reflect the ridge line of the Saddleback Hills, including Bald Mountain (approx. 1200 ft) and Winn Mountain (approx. 1255 ft). Douglas Mountain (approx. 1380 ft) is located on the Sebago-Baldwin border. Each of these peaks are located in the northern section of town, with some steeper slopes in the western section of Baldwin as well. These taller features stand out in the landscape and create several scenic views. These topology patterns can be seen in **Map 1: Topography**.

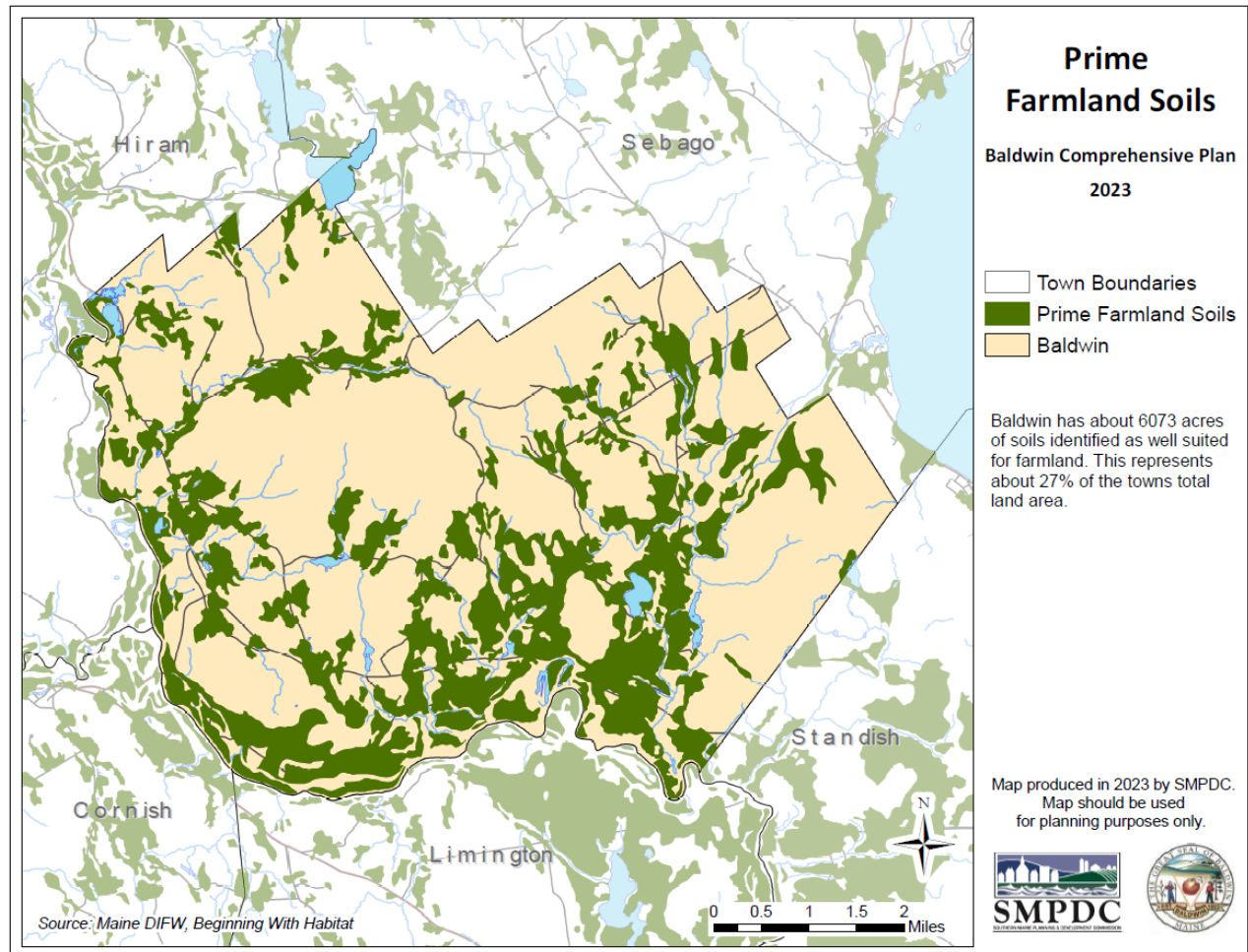


Map 1: Topography

Soils

Proper management of growth and development should take into consideration the suitability of soils present throughout the town. Construction of homes, septic systems and roads on unsuitable soils can create defective structures, increased construction and maintenance costs, public health and safety problems, and environmental disturbances.

Soils in the Baldwin area are dominated by loam and sand. These soils are generally well-draining and are favorable for development. Baldwin has about 6073 acres of soils identified as well suited for farmland. This represents about 27% of the town's total land area. These areas are commonly present along waterways. These patterns can be seen in **Map 2: Prime Farmland Soils**.



Map 2: Prime Farmland Soils

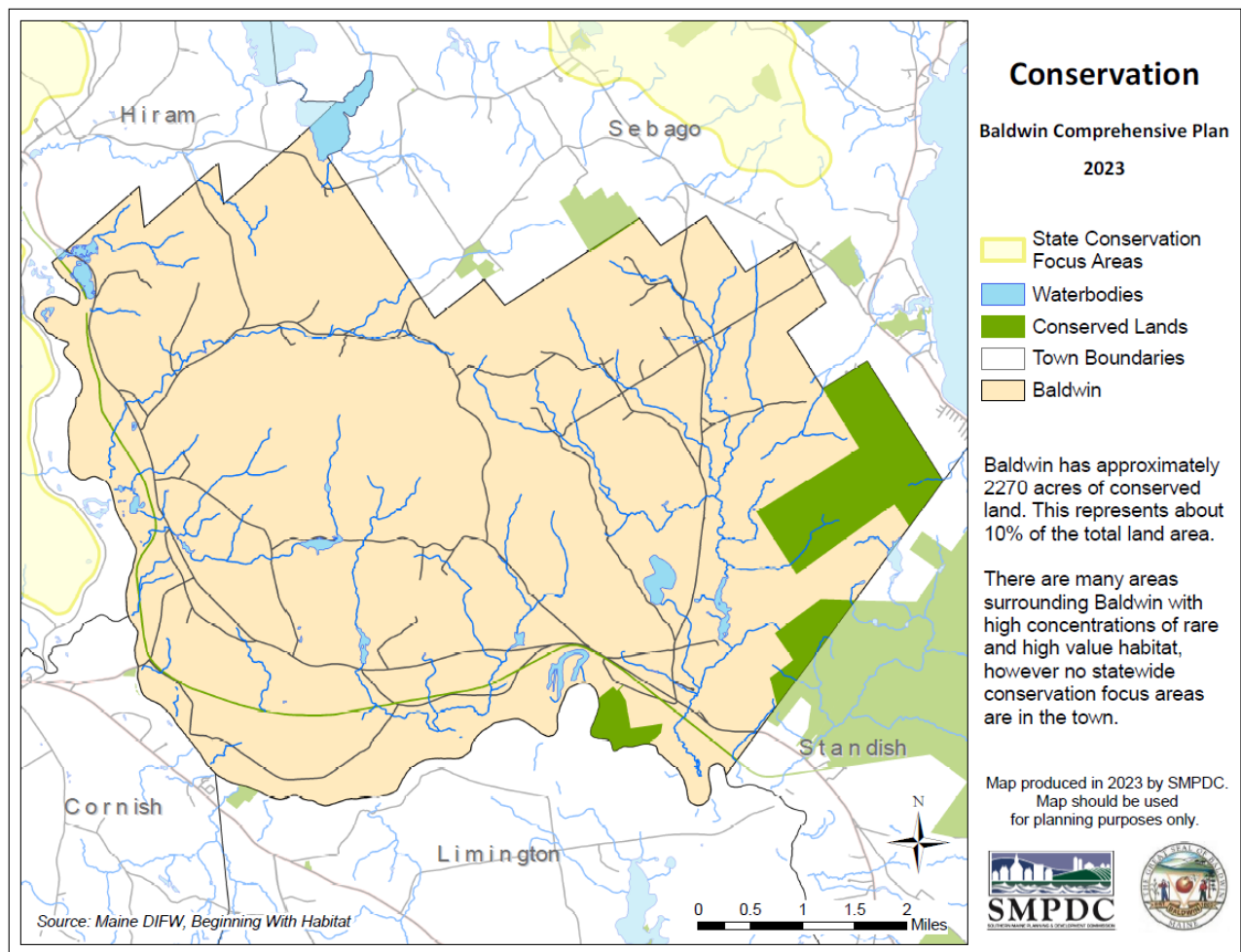
Undeveloped Habitat Blocks

Beginning with Habitat produces maps showing the undeveloped blocks of land which serve as connected wildlife habitat areas and connectors. Despite the widespread development throughout the community, Baldwin has multiple areas of 1000+ contiguous undeveloped acres. The Steep Falls Wildlife Management Area, managed by the Maine Department of Inland Fisheries and Wildlife, is located partially in Baldwin, and protects about 4,900 acres of undeveloped land. These blocks of undeveloped land can be seen in **Map 3: Undeveloped Habitat Blocks & Connectors and Conserved Lands**.

Conservation Lands

Baldwin has approximately 2270 acres of conserved land, which represents about 10% of the total land area. While there are many areas surrounding Baldwin with high concentrations of rare and high value habitat, there are no statewide conservation focus areas. **Map 4:**

Conservation shows the blocks of conserved lands within Baldwin. Please note, this map does not include areas conserved by the Francis Small Heritage Trust, such as the Ingalls Pond Conservation Area, or town-owned land such as Sand Pond.



Map 4: Conservation

Natural Resource Co-occurrence

Baldwin's natural resources include natural habitats, larger undeveloped habitat blocks, forested areas, various types of wetlands and scenic views. **Map 5: Natural Resource Co-occurrence** depicts natural resources on a weighted scale, known as a co-occurrence map. The map scores an area 0-12+ based on the concentration of resources where the darker the green, the higher the score and the more resources are in the area. These attributes include rare exemplary natural communities, plants, animals, habitats, water resources and undeveloped blocks. The northwestern corner of Baldwin surrounding Ingalls Pond has a high co-occurrence value, indicating that there is a high concentration of important natural resources in this area. The southeastern corner of Baldwin also has a relatively high co-occurrence value, which is reflected in the State's protection of the Steep Falls Wildlife Management Area. Co-occurrence maps provide a starting point for an open space plan, including identifying priority areas to preserve through permanent easements and protect through policies.

High Value Habitats

Baldwin is home to some areas of high value plant or animal habitat that are of statewide significance. There are known areas of Rare, Threatened, or Endangered Wildlife in the northwestern corner of Baldwin near Ingalls Pond. Some of the protected animal species present in these areas may include the Great Blue Heron, Northern Black Racer snake, and the Common Sanddragon, Cobra Clubtail or Pygmy Snaketail dragonflies.

The southeastern portion of Baldwin, largely covered by the Steep Falls Wildlife Management Area, is classified as a Candidate Deer Wintering Area. These are approximate areas considered to be favorable by deer seeking shelter in the winter due to their substantial forest cover. Smaller pockets of potential wintering areas are present in other parts of Baldwin as well.

Please see **Map 6: High Value Plant & Animal Habitats** for more details.

Aquifers

Aquifers are underground geologic formations which contain usable amounts of water. Typically, aquifers are located in areas of saturated sand and gravel, or cracks in bed rock. Groundwater

aquifers are generally the source of potable drinking water for individual private wells, which are the primary water supply type in Baldwin.

Baldwin has several aquifers, the largest following the Saco River. All aquifers maintain a 10-50 gallons per minute rate, which is typical statewide. The aquifers located in town are displayed in **Map 7: Water Resources & Riparian Habitats.**

Wetland and Watersheds

Wetlands are an important natural resource, often identified by non-permeable soils, water table at or near the surface, and the presence of certain vegetation. Wetlands are very difficult areas to develop, given the need for expensive infill and engineering. At the same time, it is important to keep these areas undisturbed due to their many important environmental functions.

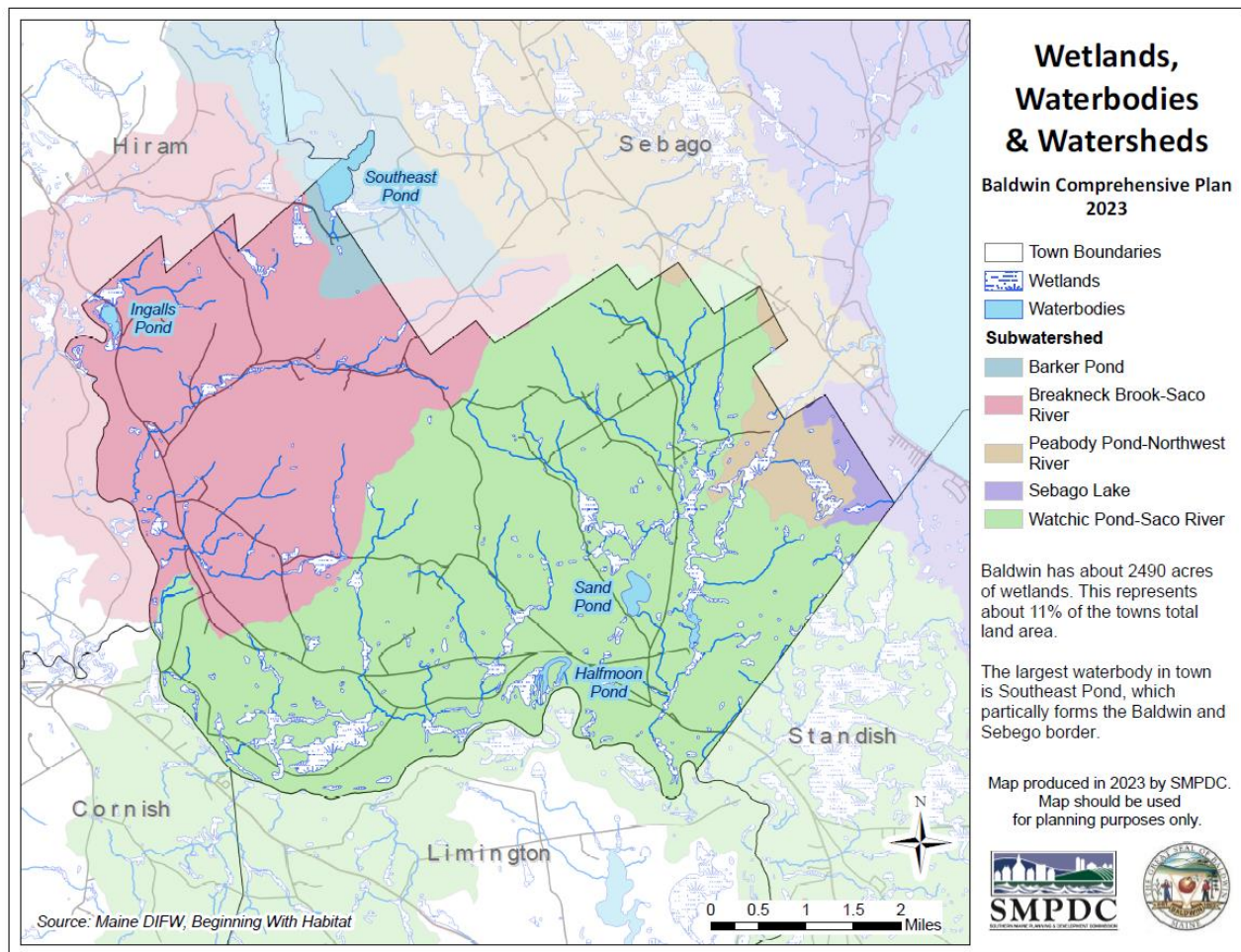
Key Environmental Functions of Wetlands:

- 1) Act as groundwater recharge and cleansing areas
- 2) Provide habitats for rare and endangered plants and animals
- 3) Maintain lake and river quality by controlling runoff of nutrients
- 4) Store and slowly discharge high water, thus reducing the potential for floods
- 5) Sediment retention areas controlling agricultural runoff
- 6) Provide visual and open-space value

Several laws regulate the activities that take place in or around wetlands. On the national level, the Clean Water Act gives authority to the Army Corps of Engineers to regulate the dredging and filling of wetlands. Maine has two laws that provide protection for wetlands. The first is regulated by The Maine Department of Environmental Protection, and monitors the dredging, filling, draining, and construction in or over, or within 100 feet of any wetland. There is also a

requirement under the Maine State Subdivision Law that states that all wetlands are to be shown on subdivision plans.

The location of wetlands is important to keep in mind when the town considers growth and future development. Zoning and appropriate uses should be considered in areas of high wetland density, or wetlands noted for significant importance. Baldwin has about 2,490 acres of wetlands. This represents about 11% of the town's total land area. The wetlands located within town can be seen on **Map 8: Wetlands, Waterbodies & Watersheds.**



Map 8: Wetlands, Waterbodies & Watersheds.

According to Beginning with Habitat (BWH), a watershed is a term used to describe land that drains to a common waterbody. The areas within the watershed are linked ecologically by the water, sediment, nutrients, and pollutants that flow through them. There are five watersheds

that encompass the Town of Baldwin. The largest, the Watchic Pond-Saco River watershed, covers the majority of central and eastern Baldwin, while the Breakneck Brook-Saco River watershed covers the northwestern portion of town. The Barker Pond, Sebago Lake, and Peabody Pond-Northwest River watersheds cover much smaller land areas in Baldwin, and extend largely into neighboring towns.