

Land Use

Conditions & Trend

- (1) *An existing land use map, by land use classification (such as mixed-use, residential, commercial, institutional, industrial, agricultural, commercial forests, marine, park/recreational, conserved, and undeveloped land).*

Existing land uses are shown on these three maps titled Bowdoinham Aerial Image, Land Cover, and Public Facilities and Services. Current land use districts are shown on the Town of Bowdoinham Land Use Map and on the Official Shoreland Zoning Map.

According to the Census, the total area for Bowdoinham is 39.1 square miles (34.4 square miles of land and, 4.7 square miles of water). The next table shows the acreage and percent by land cover category. See the map titled Land Cover for the locations of these areas.

Land Cover in Bowdoinham		
Categories	Acres	Percent
Developed Land	418.6	1.7%
Cultivated Crops and Pasture/Hay	3,649.4	14.6%
Forest	13,968.3	55.7%
Grasslands/Herbaceous and Scrub/Shrub	346.9	1.4%
Wetlands and Wetland Forest	2,228.4	8.9%
Open Water	2,590.1	10.3%
Other	1,871.3	7.5%
Total Area (land and water)	25,073.0	100.0%

Source: Maine Land Cover Dataset

Note: The land cover data is based on 2004 SPOT imagery and 2001 Landsat data

The next table shows land owned by the Town or State, under conservation easements, enrolled in current use tax programs, or assessed as farmland or hayland. See the maps titled Public Facilities and Farmland/Hayland & Current Use Tax Programs for the locations of these parcels.

Bowdoinham: Town, State, Conservation, Tax Programs, Assessed for Farming/Haying		
Categories	Acres	Percent
Town-owned	94	0.4%
State-owned	1,537	6.1%
Conservation Easements	1,706	6.8%
Enrolled in Tree Growth Tax Program	2,621	10.5%
Enrolled in Open Space Tax Program	513	2.0%
Enrolled in Farmland Tax Program	2,548	10.2%
Assessed as Farmland	2,465	9.8%
Assessed as Hayland	2,110	8.4%
Total Land in Bowdoinham	22,016	87.8%
Total Area (land and water)	25,073	100.0%

Source: Town Assessor Data, 2011

Note: Individual parcels may be included in more than one category. Accordingly, acreage figures should not be added together.

(2) A summary of current lot dimensional standards.

There is one town-wide district outside of the shoreland zoning districts. Its dimensional standards are shown in the next table.

Town-wide Land Use District Outside of the Shoreland Zoning Districts						
District	Min. Lot Size	Front Setback	Side Setback	Rear Setback	Open Space Requirement	Min. Road Frontage
Residential/Agricultural	43,560sf	50ft	10ft	10ft	25% of Net Residential Area	150ft
Village District I	20,000sf	20ft	10ft	10ft	-	75ft
Village District II	30,000sf	30ft	10ft	10ft	-	100ft

Source: Land Use Ordinance

Note: 43,560 square feet = 1 acre

Within the Shoreland Zone, the following dimensional standards apply for minimum lot size and shore frontage:

Shoreland Zoning Districts	Minimum Lot Area	Minimum Shore Frontage
Residential per dwelling unit	40,000 sf	200 ft
Governmental, Institutional, Commercial, or Industrial per principal structure:		
- within the Shoreland Zone Adjacent to Tidal Areas, Exclusive of Those Areas Zoned for Commercial Fisheries and Maritime Activities	40,000 sf	200 ft
- within the Shoreland Zone Adjacent to Tidal Areas Zoned for Commercial Fisheries and Maritime Activities	None	None
- within the Shoreland Zone Adjacent to Non-tidal Areas	60,000 sf	300 ft
Public and Private Recreational Facilities Within the Shoreland Zone Adjacent to Tidal and Non-Tidal Areas	40,000 sf	200 ft

Source: Land Use Ordinance

Notes:

- Land below the normal high-water line of a water body or upland edge of a freshwater or coastal wetland and land beneath rights-of-way and/or easements serving more than two (2) lots shall not be included toward calculating minimum lot area.
- Lots located on opposite sides of a public or private road shall be considered each a separate tract or parcel of land unless such road was established by the owner of land on both sides thereof after September 22, 1971.
- The minimum width of any portion of any lot within one hundred (100) feet, horizontal distance, of the normal high-water line of a water body or upland edge of a freshwater or

coastal wetland shall be equal to or greater than the shore frontage requirement for a lot with the proposed use.

- If more than one residential dwelling unit, principal governmental, institutional, commercial or industrial structure or use, or combination thereof, is constructed or established on a single parcel, all dimensional requirements shall be met for each additional dwelling unit, principal structure, or use.
- A cluster subdivision may be allowed as permitted in the underlying district provided that the overall dimensional requirements, including frontage and lot area per dwelling unit, are met. When determining whether dimensional requirements are met, only land area within the shoreland zone shall be considered.

Dimensional minimum setbacks standards for principal and accessory structures, as measured horizontal distance, from the normal high-water line of water bodies, streams, or the upland edge of a coastal or freshwater wetland, are shown in the next table.

Shoreland Zoning Districts	Shoreland minimum setbacks for principal and accessory structures
General Development II, Limited Commercial, Limited Residential, Stream Protection	100ft
General Development I	25ft
Marine (Commercial Fisheries/Maritime Activities)	None
Resource Protection	250ft

Source: Land Use Ordinance

Note: *Except for structures, roads, parking spaces or other regulated objects specifically allowed in that district in which case the setback requirements specified above shall apply.

Dimensional lot area coverage standards are shown in the next table.

Shoreland Zoning Districts	Maximum Lot Area Coverage within Shoreland Zone (Impervious Surface)
Limited Commercial, Limited Residential, Stream Protection, Resource Protection	20%
General Development (Both I and II) adjacent to tidal waters and rivers	70%
Marine Commercial Fisheries/Maritime Activities	70%

Source: Land Use Ordinance

Height limits for principal or accessory structures and expansions of existing structures in these shoreland zone districts: Resource Protection, Limited Residential, Limited Commercial, and Stream Protection Districts, shall not exceed 35 feet. This limitation does not apply to structures such as transmission towers, windmills, antennas, and similar structures having no floor area.

(3) A description or map identifying the location of lots and primary structures created within the last ten years. Include residential, institutional, commercial, and industrial development.

Most development within Bowdoinham from 2012 to 2022 has consisted of single-family detached residential dwellings.

The next table shows the number of units and structures built from 2012 to 2022 by category.

Development in Bowdoinham 2012-2022	
Categories	# of Structures Built
Residential Structures (Housing Units)	
Institutional Structures (Education Government Related)	0
Commercial Structures	12
Industrial Structures	0

Source: Planning Department, Assessor Records

Note: Residential development during this period was --- single-family detached residential.

From 2012 to 2022, there have not been any multi-unit developments in Bowdoinham. Only five (5) residential subdivisions totaling --- new house lots have been approved since 2001, of which four (4) included land set aside for conservation. Commercial development agriculture, trails, parking lots, parks, shoreland management projects. There has been one office park developed in Town since 2012.

(4) Provide a brief description of existing land use regulations and other tools utilized to manage land use, including shoreland zoning, floodplain management, subdivision, site plan review, and zoning ordinances.

Bowdoinham’s existing land use regulations consist of the Land Use Ordinance most recently amended in 2022. This ordinance includes overall performance standards, land use (zoning), shoreland zoning, floodplain management, subdivision, site plan review provisions, administration, enforcement, penalties, and appeals.

See the response to question #2 above for information on zoning districts and see the Land Use Ordinance itself for a description of permitted uses within each district. With the exception of the Marine (Commercial Fisheries/Maritime Activities) District and the Resource Protection District, districts within Bowdoinham allow for mixed-use development, with the lowest or no impact uses allowed without a permit. Those uses with low to moderate potential impacts require a permit from the Road Commissioner or Code Enforcement Officer/Local Plumbing Inspector, as dictated by State law and/or as defined in the Land Use Ordinance. Uses with potentially moderate or greater impacts require planning board permits and/or site plan review permits. For purposes of site plan review, based upon scale and use, proposed projects are classified as Tier I, II, III, or as an Amendment.

Overall Land Use Ordinance performance standards (requirements) regulate the following in Bowdoinham:

Land Use Ordinance Performance Standards (Article 4)	
Access management (driveways/entrances)	Subsurface wastewater disposal
Back lots	Signs
Erosion and sedimentation control	Solar energy systems
Farm stand	Temporary buildings & non-permanent structures
Home based-business	Timber harvesting
Lighting	Vernal pools
Pool	Water quality protection
Road standards	Wind mills

Source: Land Use Ordinance

Performance standards for development and activities in shoreland zoning districts are listed in the next table.

Shoreland Zoning Performance Standards* (Article 7)	
Piers, Docks, Wharves, Bridges and Other Structures and Uses Extending Over or Below the Normal High-Water Line of a Water Body or Within a Wetland	Essential Services
	Mineral Exploration and Extraction
	Agriculture
Campgrounds	Timber Harvesting
Farm Stand	Clearing or Removal of Vegetation for Activities Other Than Timber Harvesting
Individual Private Campsites	Hazard Trees, Storm-Damaged Trees, and Dead Tree Removal
Commercial and Industrial Use	Exemptions to Clearing and Vegetation Removal Requirements
Parking Areas	Revegetation Requirements
Roads and Driveways	Erosion and Sedimentation Control
Stream Crossings	Soils
Signs	Water Quality
Storm Water Runoff	Archaeological Site
Septic Waste Disposal	Marinas

Source: Land Use Ordinance

Note: *Minimum Lot Standards and Principal and Accessory Structures Standards are not shown in this summary table. They are referenced in the response to question #2.

Performance standards for development and activities within flood zones as delineated by FEMA are listed in the next table.

Floodplain Management Development Performance Standards (Article 8)	
Construction Standards	Recreational Vehicles

Water Supply	Accessory Structures
On Site Waste Disposal Systems	Floodways
Watercourse Carrying Capacity	Enclosed Areas Below the Lowest Floor
Residential	Bridges
Non Residential	Containment Walls
Manufactured Housing	Wharves, Piers and Docks

Source: Land Use Ordinance

Performance standards and design guidelines for subdivisions are listed in the next table.

Subdivision Performance Standards and Design Standards (Article 9)	
Vehicular Access	Historic and Archaeological
Traffic	Groundwater
Visual Impact	Wildlife Habitat
Utilities	Natural Areas
Water Supply	Open Space
Sewage Disposal	Solid Waste Management
Fire Protection	Air Quality
Financial Capacity	Stormwater
Technical Ability	Sedimentation and Erosion Control
Shoreland (cross-reference to Article 7)	Compliance with Ordinances
Floodplain (cross-reference to Article 8)	Spaghetti-lots
Wetlands and Waterbodies	Liquidation Harvesting
Water Quality	

Source: Land Use Ordinance

Performance standards for projects that are regulated by site plan review are listed in the next table.

Site Plan Review Performance Standards (Article 10)	
General Performance Standards	Use-Specific Performance Standards
Vehicular Access	Asphalt/Concrete Plant/Fabrication
Internal Vehicular Circulation	Automobile Graveyard & Junkyard
Pedestrian Circulation	Automobile Recycling Business
Municipal Services	Automobile Repair Garage
Visual Impact	Automobile Service Station
Lighting	Bank/Financial Institution
Signage	Bed & Breakfast
Buildings	Boarding/Lodging Facility
Landscaping	Campground
Buffering	Commercial Complex
Utilities	Daycare, Center
Water Supply	Daycare, Home
Sewage Disposal	Distribution Center
Fire Protection	Farm stand
Capacity of Applicant	Food Processing Facility
Shoreland	Gravel Pit

Floodplain	Kennels
Wetlands & Waterbodies	Hotel, Motel, & Inn
Historic & Archaeological	Manufactured Housing Park
Groundwater	Marijuana Establishments
Wildlife Habitat	Non-Roadside or Cross-Country Distribution Lines (greater than 34.5kV)
Natural Areas	Restaurant
Environmental Impact	Retail
Solid Waste Management	Self-Storage Facility
Hazardous, Special & Radioactive Materials	Solar Energy System
Air Quality	Telecommunication Tower
Water Quality	Warehouse
Stormwater	Wood Processing Facility
Sedimentation & Erosion Control	Noise

Source: Land Use Ordinance

For a description of Land Use Ordinance provisions covering natural resources, see the Natural Resources Chapter, Water Resources Chapter and Marine Resources Chapter. For a description of Land Use Ordinance provisions covering roads, driveways, entrances, sidewalks, parking lots and related facilities, see the Transportation Chapter.

- (5) *Estimate the minimum amount of land needed to accommodate projected residential, institutional, commercial, or industrial development at least ten (10) years into the future.*

For planning purposes, the 2035 housing unit count is forecast to total 1,399 units. At the current minimum lot size and maximum housing density, the projected new housing (149 units) would require up to 149 acres of buildable lots, if all were to be developed in the Rural/Agricultural District and did not include any ADUs. Since 2001, there has been little demand for commercial or industrial development. Similar trends are likely, with an anticipated demand of 50 acres for future commercial and industrial development in the next ten years.

Analysis of Current Land Use

- (1) *Is most of the recent development occurring: lot by lot; in subdivisions; or in planned developments? Is recent development consistent with the community's vision?*

Most recent development in Bowdoinham has consisted of single-family, detached residential units constructed on a lot-by-lot basis town-wide. New house lots have principally been created along existing public roads as opposed to being served by newly constructed subdivision roads. For more information on development trends please refer to the 2020 report titled “*Mapping Development and Predicting the Future in Bowdoinham, Maine: A Temporal Analysis of Development and Subsequent Predictions for the Future*” in the Additional Studies Section.

Development trends have in general been consistent with the community's vision statement adopted in 2024, an excerpt of which states, “In 2034, Bowdoinham is a quiet rural Maine community defined visually by agricultural landscapes, abundant woods and wetlands, a commercial village center, and historic buildings.

- (2) *What regulatory and non-regulatory measures would help promote development of a character, and in locations that are consistent with the community's vision?*

The Town could standardize the residential requirements of Village District I and II and expand the districts to match availability of municipal water to increase housing density. Further, to increase housing while preserving open space, the town pursue a number of regulations including but not limited to increasing open space requirements in subdivisions, increase density, or adjust lot size requirements. See the Future Land Use Plan for more information.

Non-regulatory measures to promote the Town's vision statement would include the continued prioritizing of public improvements sought for the village area. These improvements could be funded through the already established tax increment financing district, and through grants and private donations. Likewise, Town support for community groups to promote businesses within the Town as a whole and within the village area specifically could help to rejuvenate the local economy and expand the employment opportunities of Bowdoinham residents. See the Economy Chapter for more information.

Private landowners can continue to be encouraged to consider placing portions of their properties in conservation easements for agriculture, forestry, recreational activities, and for natural resource protection outside of the village area. The Town can continue to facilitate the activities of land trusts in these pursuits as well. See the Agriculture and Forestry Chapter and the Natural Resources Chapter for more information.

- (3) *Is the community's administrative capacity adequate to manage its land use regulation program, including planning board and code enforcement officer?*

Administrative capacity is adequate currently; however as development increases staff levels may also have to increase. Ongoing training for the citizen-staffed volunteer Planning Board and Board of Appeals will be necessary, regardless of changes to municipal ordinances, to continue to ensure civil rights protections (due process) for applicants and citizens. This training is necessary because of the complexity of State statutory requirements, which are subject to change.

- (4) *Are floodplains adequately identified and protected? Does the community participate in the National Flood Insurance Program? If not, should it? If so, is the floodplain management ordinance up to date and consistently enforced? Is the floodplain management ordinance consistent with state and federal standards?*

Floodplains are identified on FEMA-issued Flood Insurance Rate Maps (FIRM) (ID 23023C0082F, effective date 7/16/2015 for Bowdoinham. It is believed these accurately show areas subject to flooding (100-year and 500-year flood events). See the map titled Hurricane Surge Inundation for areas prone to flooding from storms (Hurricane Categories 1-4), which includes areas beyond those shown on the FEMA FIRMs. The Town participates in the National Flood Insurance Program. Floodplain management provisions within the Land Use Ordinance were last amended in 2019. These provisions are consistent with State and federal standards and are consistently enforced.

Analysis of Future Land Use Plan

(1) Does the Future Land Use Plan align and/or conflict with the community's vision statement?

The Future Land Use Plan is aligned with the vision statement.

(2) Is the configuration of the growth area(s) shaped by natural opportunities and/or constraints (i.e. the physical suitability or unsuitability of land for development)? The location of public facilities? The Bowdoinham Traffic Volume Counts?

The configuration of the growth area was created based on location: of our historic village, the highway interchange, public facilities, and existing development. Shoreland Zoning and Floodplain Management will continue to impact new development in the growth area.

(3) How does the Future Land Use Plan relate to recent development trends?

Bowdoinham's development trend has consisted of single-family homes and home-based businesses throughout Town. One of the goals of the Future Land Use Plan is to encourage new development in the growth area.

(4) Given current regulations, development trends, and population projections, estimate how many new residential units and how much commercial, institutional, and/or industrial development will likely occur in the planning period? Where is this development likely to go?

In the next ten years we can expect another 51 to 149 new homes and 10-15 new businesses. Over the last ten years, less than 10% of our new development occurred in the growth area. To encourage new developments to locate in our growth area, new standards/regulations are needed.

(5) How can critical natural resources and important natural resources be effectively protected from future development impacts?

New developments will have to continue to meet the standards of the Town's Land Use Ordinance, which includes Shoreland Zoning, Floodplain Management, Site Plan Review and Subdivision, as well as any applicable State and Federal regulations.