

Chapter 3 - Natural Resources Policies and Strategies

Introduction

The Comprehensive Plan's Natural Resources Policies and Strategies describe goals, policies, standards, and implementation strategies related to the protection, conservation and development of Wells' natural resources. Natural resources for the purposes of this Plan include surface waters (including rivers, streams, ponds, estuaries, and coastal waters), wetlands, groundwater, wildlife and fisheries (and associated habitat), soils (including farmland soils), forestlands and timber, floodplains, and beaches (including sand dunes).

Natural resources contribute to defining a community's unique character. Wells' natural resources provide residents with a rich quality of life and many recreational opportunities. The continued presence of intact natural resources such as forests, farmlands, water bodies, and wetlands on the landscape is an integral component of Wells' distinct character, now and in the vision for the town's future. Protected natural resources mitigate the effects of visual and noise pollution from developed areas and transportation corridors. Natural resources are also an important consideration in estimating the Town's capacity for growth and development potential. Natural resources can provide both opportunities and constraints for growth. For example, steep slopes and wetlands are inappropriate for development while better drained, flatter areas are generally considered more suitable for development. The natural resource base of Wells is an important factor in determining local land use decisions.

See Appendix A for an analysis of Wells' natural resources, including critical resources. Critical natural resources are those defined as natural resources with unusual and/or significant geological, biological, or hydrological features (Comprehensive Planning Manual: A Manual for Maine Communities). Under federal and/or state law, critical natural resources warrant protection from the negative impacts of development. See Appendix A for an analysis of Wells' critical natural resources.

Goals

State Goal:

1. Protect the quality and manage the quantity of the State's water resources, including lakes, aquifers, great ponds, estuaries, rivers, and coastal areas. (Growth Management Act)
2. 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. (Growth Management Act)

Regional Goals:

- ~~1. Maintain and, where possible, improve the quality of our natural environment through actions that manage resources as a system rather than as local segments.~~
No goal is available at the regional level.

2.1. Work in collaboration with the Wells National Estuarine Research Reserve Management Plan to address pressing local and regional management issues, including climate change and its impacts on coastal ecosystems and communities, development pressures, land use change impacts on coastal habitats, and water quality degradation. At the time of this comprehensive plan update, the current management plan is for 2019-2024, and will be updated regularly.

Wells Goals:

1. Assure the Town's natural features, including the marshes and wetlands, beaches, aquifers, critical wildlife habitats, and floodplains, that are truly environmentally sensitive areas and create a truly outstanding, but fragile, environment are protected from damage and preserved for future generations.
2. Enhance the Town's programs for protecting sensitive, natural resources through regulatory and non-regulatory mechanisms.
- ~~2.3. Protect areas of Wells that are vulnerable to the increased flood risk accompanied by climate change impacts such as sea level rise and storm surge flooding, and enhance Wells' climate resilience by protecting and enhancing areas of the town that provide flood mitigation and floodwater storage and to collaborate with regional and state agencies to develop proactive plans in response to these projected climate impacts.~~
- ~~3.4. Support programs for acquiring key land areas of environmental concern to provide for the protection of these resources, while compensating the property owner.~~
- ~~4.5. Work cooperatively with federal and state environmental regulators to enforce regulations that protect the Town and region's natural resources.~~
- ~~5.6. Develop land use controls that encourage these areas to be protected and permanently set aside as land development occurs.~~
- ~~6. Protect the Branch Brook aquifer from potential sources of contamination by controlling land use in this area and maintaining the availability and quality of other existing and potential water supplies.~~
7. Allow the removal of mineral resources such as sand and gravel in a manner which minimizes the impact on these areas and surrounding neighborhoods, provides for the reclamation of these sites, and protects the groundwater from contamination.
8. Protect, manage, and support natural ~~resource-resource-~~based enterprises such as ~~agriculture, forestry, and mineral extraction.~~ sustainable forestry and agriculture.
9. Place high value on the protection and long-term management of and education about the Town's ecological systems including soils, surface and ground water, wetlands, beaches, natural vegetation, and wildlife. The natural environment should be used as a guide to manage future growth recognizing that Wells' natural systems provide opportunities and

constraints for both conservation and development.

10. Assure ocean beaches continue to be a community resource.

Note: The following suggestions of Natural Resource Goals are based on public comments during outreach and engagement and should be considered by the Committee.

~~10~~.11. Protect Wells against future climate threats to critical natural resources, marine resources, and freshwater resources.

12. Assure that natural resource conservation is not mutually exclusive of recreational usage and opportunity. The two should be collaborative.

~~11~~.13. Protect Well's skies against light pollution with the goal of creating dark skies.

Note: We recommend considering this goal or similar to project the critical natural resource of the coastal marsh system east of Route 1. This marsh system is largely bound by built infrastructure which will prevent the marsh from migrating inward with sea level rise (with the exception of the marsh adjacent to the Rachel Carson National Wildlife Refuge – Upper Wells Division).

14. Protect the Wells coastal marsh system's continued existence in the face of future inundation from coastal flooding and sea level rise by conserving adjacent upland for the purpose of future marsh migration.

Policies

To achieve these goals, it is the policy of the Town of Wells to:

General

1. Encourage the use of environmentally sensitive areas and critical habitats in a manner that does not jeopardize the environmental value of their resource.

~~1~~.2. Ensure consistency of the Town's land use ordinances with the protection of Wells' natural resources and critical resources.

3. Allow the removal of mineral resources such as sand and gravel in a manner that minimizes the impact on these areas and surrounding neighborhoods, provides for the reclamation of these sites, and protects the groundwater from contamination.

Note: The following suggestions of policies are based on public comments during outreach and engagement and the Conservation Committee's suggestions and should be considered by the Committee.

4. Strictly enforce development regulations and setbacks aimed to protect natural resources, such as wetland and water course setbacks.

~~2~~.5. Consider population growth and increased development when planning for natural resource protection. Over-development can affect fragmentation of open space, threaten water resources, threaten wildlife habitat, cause tree removal, and impact wetlands, and as such, development and natural resource protection and linked.

6.

7. Consider holding developers responsible for negative environmental impacts associated with building.
8. Promote and protect natural resource-dependent recreation opportunities (including walking, hiking, bicycling, kayaking, wildlife viewing, shellfish harvesting, and water-based activities), businesses, and industries with land use ordinances, open space rules, and natural resource protection planning. The balance between protecting and promoting natural resource access may also benefit from efforts to limit public and recreational access in some environmentally sensitive areas.

Beaches

1. ~~Assure~~ Ensure public access to the beaches for both residents and tourists while protecting the livability of the beach neighborhoods.
2. Manage the beaches in cooperation with property owners to control overuse, ~~providene-~~ ~~essary~~ providency facilities, and promote a wholesome family environment.
3. Maintain and protect the physical quality of the beach systems through activities such as cleaning, stabilization, and sand replenishment.
4. Improve pedestrian, bicycle, and local transit access to the beaches.
5. Create appropriate transportation links (~~e.g. ferry~~ ferries, bridges, etc.) between the Harbor, Wells Beach, and Drakes Island, such as ferries and water taxis.

Groundwater

1. Protect the quality of the groundwater in the Branch Brook Aquifer and in the Town's other sand and gravel aquifer areas that can be used for high volumes of domestic use by implementing and enforcing regulations that control the use, handling, and storage of hazardous materials.
2. Protect the quality of the groundwater in areas not served by public water and sewer by ensuring existing chemical limit standards set by the Maine Department of Environmental Protection are enforced and ensuring proper inspections of all septic system installations. Examples of such chemicals include nitrates and PFAS compounds.

Surface Waters

1. Protect surface water quality by aggressively managing point and non-point source pollution including stormwater discharge.
2. Cooperate with surrounding communities and environmental non-profit groups to minimize the potential for surface water pollution by inappropriate uses or activities.
- 2.3. Establish a long-term water quality monitoring program of surface waters in the Town to better understand threats to surface waters and identify action items needed to protect and/or restore water quality. Establish monitoring sites along Branch Brook, Depot Brook, Green Brook, Merriland River, Stevens Brook, and Webhannet River.

Wetlands

1. Protect and maintain the valuable functions of tidal and freshwater wetlands by minimizing the impact of development and allowing appropriate uses such as low impact recreation, wildlife habitat, and limited, controlled timber harvest.
2. Ensure protection of high value wetlands including vernal pools, through regulatory and non-regulatory implementation programs and place high value on these resources when designating growth and rural areas in Wells.
3. Protect land adjacent to wetlands, especially coastal wetlands, to allow marsh migration due to increased coastal flooding and sea level rise.

Soils

1. Base the density of development in areas outside public water and sewer service on the assimilative capacity of soils to accommodate onsite ~~waste water~~wastewater systems. No lot size shall be less than 20,000 square feet if not on sewer and water if the Maine State Code changes. **Note: The energy committee suggests increasing 20,000 to 40,000 to factor in the town's rural character and to reduce development density.**

Wildlife and Fisheries

1. ~~1.~~ Ensure the long-term protection and enhancement of Wells' valuable wildlife habitat and fisheries through the use of regulatory strategies and ~~out reach~~outreach to governmental and non-profit organizations involved with natural resource protection and management.
2. Protect large habitat blocks to provide core habitat blocks that provide undisturbed habitat conditions required by many of Maine's species.

Floodplains

1. Collaborate with regional and state agencies, neighboring municipalities and states, and other key partners to develop proactive actions to address projected climate change-induced flood vulnerabilities and areas of resilience.
2. Guide future development away from flood-prone areas.
- ~~1.3.~~ Manage floodplain areas to ensure the safety and welfare of those individuals with properties in such areas.
- ~~2.4.~~ Maintain and update comprehensive community flood hazard management policies and strategies. (See Chapter 15 and the Appendix).
3. Ensure the long-term protection and enhancement of Wells through the use of regulatory strategies and ~~out reach~~outreach to governmental and non-profit organizations involved with natural resource protection and management.

Education

1. ~~1.~~ Work with schools and the community to promote education of environmental sciences and ecology.
2. Use the Fenderson Wildlife Commons and other locations for environmental education opportunities for students and the public in conjunction with the Wells Conservation Commission.

Standards

To achieve these policies, the following are Town of Wells' standards to guide development:

1. Existing Land Use, ~~and~~ Subdivision, Floodplain Management, Hazardous Waste, Septage Effluent Disposal, and Solid Waste Ordinances.

Implementation Strategies

General

Note: The implementation strategies identified here for Natural Resources are sourced from the Maine Comprehensive Plan Review Criteria Rule (07 105 Chapter 208).

1. 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.
2. Through local land use ordinances, require the planning board (or other designated review authority) to include the consideration of information regarding critical natural resources as part of the review process.
3. Initiate and/or participate in interlocal and/or regional planning, management, and/or regulatory efforts around shared critical and important natural resources and incorporate planning for increasing severity of climate impacts.
4. Pursue public/private partnerships to protect critical and important natural resources such as through purchase of land or easements from willing sellers.
5. 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.

Note: The following suggestions of strategies are based on public comments during outreach and engagement and the Conservation Committee's suggestions and should be considered by the Committee.

6. Develop a long-range climate action plan for the Town of Wells that addresses natural resources (freshwater, marine, wildlife habitat, access to recreation, etc.), and plans for mitigating the effects of climate change. The plan should include reducing Well's carbon footprint, improving seawalls where appropriate, controlling erosion, addressing limits to coastal development, reducing pollution, encouraging smart designs of infrastructure,

- 3.7. Conduct regular investigations into the threats of climate change within the Town, especially along river/stream courses, marsh side, and frontal beach landscapes. Utilize the Town Engineer, professional expertise, and collaboration with neighboring towns. The results of said investigations will inform avoidance and mitigation planning efforts.
- 4.8. Enhance public stewardship and public education on importance of Town natural resources.

Beaches

1. Appoint a Committee to recommend specific implementation programs to ~~assure~~ ensure public access to beaches, manage beach use, protect the physical quality and create transportation links.
2. Establish a graphic inventory of all sand dunes ~~on the Town's Geographic Information System (GIS) to accompany the state sand dune boundaries file~~ and update as new data becomes available. Ensure that any landowner with property on a sand dune obtain any necessary State permits prior to obtaining any local permits.

Groundwater

1. Revise the Aquifer Protection District of the Land Use Ordinance to incorporate a two-tiered zone for the Branch Brook Aquifer based on maps prepared by the Kennebunk, Kennebunkport, and Wells Water District (KKWWD) and adopt use and quality standards as identified in the Aquifer Protection section of the Land Use Policies and Strategies.

Note: The following suggestion is from KKWWD.

- 1.2. Extend aquifer protection zone around Branch Brook using groundwater modeling rather than a surface water buffer. Use the 200-day and 2500-day travel zones to establish the buffer.
- 2.3. Continue to work with the KKWWD to acquire key parcels of land with high value for ground water protection and aquifer recharge through fee simple acquisition or conservation easement.
- 3.4. Review/Amend the Aquifer Protection provisions of the Town's Land Use Ordinance to ensure that determine whether or not there there is sufficient protection of the groundwater in the Town's sand and gravel aquifer areas. Where appropriate implement and enforce regulations that control the use, handling, and storage of hazardous materials in these areas.
- 4.5. Establish a program to ensure there is proper inspection of all septic system installations and monitor the performance of septic systems in/or adjacent to Resource Protection and Conservation Areas.
- 5.6. Maintain the current buffer around surface water bodies and wetlands in the Land Use Ordinance to prohibit septic systems and other uses with the potential to contaminate both the groundwater and the groundwater/surface water interface.

6.7. Enact public wellhead and aquifer recharge area protection mechanisms as necessary.

Surface Waters

1. Continually integrate the State of Maine Guidelines for Municipal Shoreland Protection, as may from time-to-time be revised, into the local land use regulations.
2. Ensure the Town shoreland zoning ordinance complies with Maine DEP guidelines.
3. As necessary, revisit and rRevisit local subdivision and site plan review regulations, ~~where necessary,~~ to require current low impact development standards, stormwater management, erosion and sediment control and landscaping, ~~including a reference to a suitable guidance document that requires currently accepted Best Management Practices such as the *Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices* by the Cumberland County Soil and Water Conservation District, 1991 or *Better Site Design: A Handbook for Changing Rules in Your Community* by the Center for Watershed Protection, 1998.~~ Standards consistent with: (1) Maine Stormwater Management Law and Maine Stormwater regulations (title 38 M.R.S.A §420-D and 06-096 CMR 500 and 502). (2) Maine Department of Environmental Protection's allocations for allowable levels of phosphorus in lake/pond watersheds. (3) Maine Pollution Discharge Elimination System Stormwater Program.
4. Continue local subdivision and site plan review regulations to provide for municipal inspection and enforcement of:
 - Erosion and sediment control plans.
 - Post-construction maintenance and operation plans, particularly for major developments or developments deemed by the Planning Board to have potential negative impacts to valuable natural resource or Resource Protection Areas.
5. When and where applicable, develop an urban impaired stream watershed management or mitigation plan to promote continued development or redevelopment without further stream degradation.
- 5.6. Continue the cooperative relationship with the Wells National Estuarine Research Reserve to expand the water quality monitoring program with annual monitoring results and analysis made available to the Town.
- 6.7. Establish a process with adjacent communities to ensure the maintenance of water quality standards for surface waters that occur in more than one community such as Branch Brook, ~~and~~ the Merriland River, and the Ogunquit River.
- 7.8. Ensure that the water quality of Ell Pond is not degraded by working with the Town of Sanford to implement a consistent set of standards for water quality protection.
9. Amend Town ordinances to require a timber-cutting plan and permit.

10. Work with the DPW to integrate water quality protection into their daily operations including the storage of sand and salt, culvert replacement, street sweeping, and garage operations.

8.11. Adopt or enhance water quality protection practices and standards for construction and maintenance of public and private roads and public properties that require their implementation by contractors, owners, and community officials and employees.

9.12. Obtain a description of each pond, river, and drinking water supply with the description of ecological value, threats to water quality or quantity with specific location(s) of threats, and documented water quality, a summary of present and past monitoring activities, and/or invasive species problems from the Department of Inland Fisheries and Wildlife and/or the Department of Environmental Protection.

10.13. Work with the Kennebunk, Kennebunkport, and Wells Sewer district to minimize pollution discharges through the upgrading existing public sewer systems and the wastewater treatment facility.

14. 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~~ Maine Woodland Owners. Provide educational materials at appropriate locations regarding aquatic invasive species if applicable.

Note: The following suggestions were made by the Conservation Committee.

15. Rezone watercourse setbacks to increase the capacity of said features to accommodate greater rain volume and more frequent storm events, as the threat of storm surges increases grows due to climate change.

16. Direct the selectboard to negotiate greater protections of watercourse in the Branch Brook, Merriland River, and Webhannet River watersheds by purchasing development rights and easements from willing landowners to extend protection beyond regulatory ordinances.

Note: The following suggestions were made by citizens through public outreach:

17. Consider regulating the use of chemicals, such as fertilizer and pesticides, that threaten the Town's water quality.

18. Improve access for fishing, kayaking, and canoeing in Wells.

Wetlands

1. Establish a committee to review and assess the quality of current wetland management within Wells and, if deemed appropriate, establish guidelines for a local wetland regulation. If appropriate, base the regulation upon a classification system that incorporates hydrology, vegetation and wildlife and a definition that is consistent with current state and federal wetland regulatory programs. Report findings to the Board of Selectmen within

six months of establishing such committee. Wetland guidelines should ensure that any definition be consistent with current state and federal wetland regulatory programs.

CPUC - retain this implementation strategy from 2005 plan?

2. Establish a program to identify, prioritize and protect high value freshwater wetlands and land containing vernal pools. Protection should occur through regulation, education and cooperation, purchase, or conservation.

Note: The following suggestion was made by the Conservation Committee.

3. Alter the Land Use Ordinance in order to cease counting wetlands in assessing land for minimum lot requirements, in order to prevent legal development of access roads through other wetlands.

Wildlife and Fisheries

1. Identify and protect through the timber harvesting plan and permit, site plan and subdivision approval process, those areas of land designated by the Maine Department of Environmental Protection (MDEP) as “significant wildlife habitat. These areas should be revised based on MDEP updates and revisions of these habitat areas and performance standards.
2. ~~Retain the~~Review the appropriateness of currently designated buffers along rivers and streams in the Town’s Land Use Ordinance to maintain the quality of these areas for wildlife and fishery habitat.
3. Within areas of Wells designated as Rural Use, seek to maintain large parcels of unfragmented lands and to ensure that wildlife habitats are connected by travel corridors through both regulatory and non-regulatory means.
4. Require all applications for subdivision, site plan review and timber harvesting to investigate and map the presence of any significant wildlife habitat and habitat for state rare or endangered species that may not have been previously mapped, such as vernal pool areas of the Tatic Hills that provide habitat for Blanding’s and spotted turtles and as established by the State of Maine on the site. Obtain necessary state approvals as a condition of subdivision plan and /or site plan approval.
5. Work cooperatively with Maine Inland Fisheries and Wildlife, Natural Resource Conservation Service, and Wells National Estuarine Research Reserve to manage and protect high value habitat and areas for significant habitat and rare and endangered species.
6. Work with landowners with high value habitats on their property to protect these areas through education and cooperation, conservation and easements or purchase through a land holding entity.

Note: The following suggestion was made by the Conservation Committee.

- ~~6.7.~~Form a committee to study the creation of a land bridge over the Interstate 95 to provide a corridor for wildlife crossings and to connect recreational trail systems between the western portion of Wells and the coastal corridor.

Forest and Farmland -Resources

1. ~~1.~~ Amend Town ordinances to ensure a timber-cutting permit is obtained prior to cutting.
CPUC - retain this strategy from 2005?
2. Work with forest and agricultural landowners to improve adaptive capacity and ability to respond to fluctuating water demands, especially as may result from predicted climate change impacts.
3. Amend Town land use ordinances to protect critical prime farmland soils.
4. Include agricultural and forestry operations into Town economic development planning efforts.

Floodplains --See Chapter 15-Flood Hazard Mitigation Polices and Strategies

1. Continue to manage the use and development of the Town's inland flood hazard areas in accordance with state and federal standards.
2. Update current flood hazard standards and maps to be consistent with federal guidelines and the recommendations of the Flood Hazard Mitigation Polices and Strategies.