DRAFT

OSSIPEE LAKE NATURAL AREA SHORELINE AND NEARSHORE MANAGEMENT

FOR PUBLIC COMMENT

New Hampshire Department of Resources and Economic Development

In Conjunction With

New Hampshire Department of Safety Marine Patrol Bureau

New Hampshire Department of Environmental Services Lakes Management and Protection Program

New Hampshire Department of Cultural Resources Division of Historical Resources

18 June 2008

Executive Summary

Ossipee and Freedom New Hampshire place a high value on their natural environments, and 3,000-acre Lake Ossipee is the region's centerpiece. The lake is an important component of local economies, enabling both multi-season tourism and seasonal and permanent real estate sectors.

The Ossipee Lake Natural Area (OLNA) is located at the south end of Ossipee Lake, in Ossipee, New Hampshire. White and Sawyer conveyed the property to the State of New Hampshire in 1969 with the stipulation that "The Grantee agrees that the land will not be used for other than educational or recreational purposes". Since the mid 1900s, the public has recreated in the shallow waters adjacent to the OLNA, and along the sandy shore. Increased development of the Lake Ossipee shoreline has simultaneously increased recreation use and limited opportunities for recreation on public lands. The Town of Ossipee proposed development of a town beach, including parking and pedestrian access, on three occasions between 1988 and 2004.

The OLNA shoreline constitutes New Hampshire's best remaining sand plain pond shore system. Additionally, the Division of Historical Resources identified historical resources throughout the OLNA, including the shoreline and adjacent shallow waters. If not properly managed, public use of the shoreline and adjacent shallow waters has the potential to further damage natural and historical resources.

A public meeting held in Ossipee on 5 May 2007 provided information on the unique nature and challenges to management of the OLNA, and solicited public comment. The Department of Resources and Economic Development (DRED) closed a portion of the OLNA on 24 August 2007 to protect rare plants, exemplary natural communities, and historical resources. These restrictions remained in effect until this management plan was developed and implemented. The purpose of this plan was to use the OLNA shoreline and nearshore¹ for educational and recreational purposes, while protecting rare plants, exemplary natural communities, and historical resources.

There are three fundamental alternatives for managing the OLNA. Each is distinct in its provision of educational and recreational opportunities, and protection of natural and historical resources.

- 1. Closure of the entire OLNA shoreline
- 2. Public use of the entire OLNA shoreline
- 3. Designated shoreline area for public use

The state's preferred management alternative would be to designate part of the OLNA shoreline for public use, and to reserve the balance of the shoreline for the protection and

¹ For the purpose of this management plan, the OLNA nearshore is defined as water adjacent to the OLNA used by the public to anchor boats, swim, or engage in other water related activities.

conservation of natural and historic resources. The preferred management alternative would include a designated public use area, areas closed to public use, and a buffer between the public use area and adjacent homes. The plan would not provide for pedestrian access to the property or bathroom facilities. An OLNA Working Group would foster stakeholder partnership. Monitoring of OLNA natural and historic resources, including water quality, would form the basis for evaluation of management plan success.

The public would be required to comply with applicable existing state rules and regulations. DRED Administrative Rules applicable to the OLNA shoreline would include:

- No removal or damage to any structure (including signs), plant, or natural feature (Res 7301.05)
- No removal or damage of any historic or cultural resource without the permission of the Director of Forests and Lands and the concurrence of the Division of Historical resources (Res 7301.06)
- Public access sunrise to sunset (Res 7301.07)
- No fires or portable grills (Res 7301.14 and 7303.04)
- No disposal of garbage, trash, debris or any other refuse or waste material of any kind including human waste (7301.15)
- No camping (Res 7302.02)
- No glass bottles (Res 7303.03)
- No organized or special events which go beyond routine recreational activities without a special use permit from the Director of Parks and Recreation (Res 7306.01)

DRED would prohibit hauling or motoring boats on to shore to prevent damage to natural features (Res 7301.05). In addition, DRED would prohibit digging in the designated shoreline public use area to protect historic resources (Res 7301.06). DRED, in conjunction with an OLNA Working Group (to be created with the approval of this plan), would evaluate improved swimmer safety through restrictions on rafting or single boat anchoring, or establishment of a swim area.

DOS Statutes and Administrative Rules applicable to OLNA nearshore waters would include:

- Boats are to maintain headway speed within 150 feet of swimmers, designated swim areas, boats, and shore (RSA 270-D:2)
- No overnight anchoring (RSA 270:59-70)
- No boat operation under the influence of liquor or a controlled drug (RSA 265-A:2)
- No water events are allowed without a permit indicating written approval by the Commissioner of the DOS (Saf-C 413)

If DRED elected to restrict rafting or single boat anchoring, or establish a swim area, the following DOS Administrative Rules would also be applicable.

- No boat operation within any permitted swim line on a public body of water (Saf-C 404.08)
- No rafting of three or more boats (Saf-C 407(a)(1))
- No rafting less than 150 feet from shore, less than 50 feet from any other raft, or less than 50 feet from any occupied single, anchored boat (Saf-C 407(a)(2))
- No anchoring less than 150 feet from shore, less than 50 feet from any raft, or less than 25 feet from any other single, anchored boat (Saf-C 407(a)(3))

The OLNA is not a revenue-generating property. Consequently, the state lacks the resources to implement the preferred management plan without re-allocating other resources, generating new resources (e.g., use fees), or collaborating with stakeholders. The success of the plan would depend on substantial public support, including assistance from the local community and stakeholder organizations.

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Purpose and Need

Ossipee and Freedom New Hampshire place a high value on their natural environments, and 3,000-acre Lake Ossipee is the region's centerpiece. According to the Town of Ossipee Master Plan, "Surface water bodies are most important to Ossipee as a vacation and retirement community" and the town should "Promote multi-season tourism through development of trails, paths, and improved lake access". The Freedom Master Plan states that "Residents and visitors value access to the lakes and forests of Freedom", and envisions "... statutes that regulate new construction, seasonal conversions and campgrounds to protect water quality, shoreline ecosystems, natural habitats, and rural character".

The Ossipee Lake Natural Area (OLNA), located at the south end of Ossipee Lake, Ossipee, New Hampshire, was conveyed to the state in 1969 (Figure 1). The deed stipulates that, "By virtue of its acceptance of this deed, the grantee agrees that the land will not be used for other than educational or recreational purposes." Moreover, the deed contains a negative easement prohibiting park development or programs within a 100-foot buffer strip along the easterly and northerly boundary of the tract from Ossipee Lake to Route 25. The Department of Resources and Economic Development (DRED) manages the OLNA.

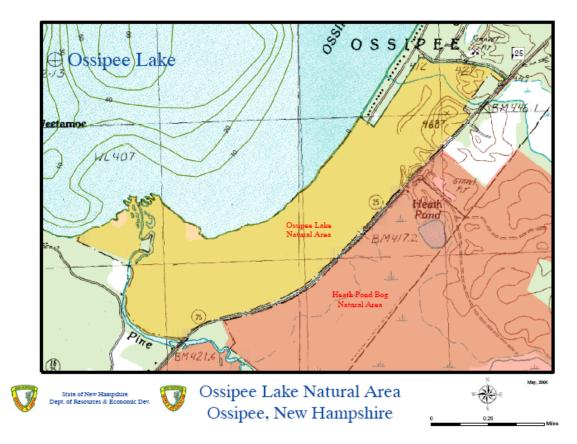


Figure 1. Ossipee Lake Natural Area, Ossipee, New Hampshire.

The public has used the OLNA shoreline and nearshore since the mid 1900s. The area is now one of the few remaining undeveloped public areas on Lake Ossipee. Shoals and a sandy shore are ideally suited to boating, swimming, and shore activities. DRED only permits access to the OLNA shoreline from the lake.

The state evaluated the property's potential for a developed park, but concluded in 1961 that the area was too swampy to facilitate access to the shoreline. In circa 1983, DRED allocated the OLNA into zones for Department of Revenue Allocation taxation purposes. The state zones properties according to their highest and best use, with other uses permitted if they do not impair the dominant use. The vast majority of the 400-acre property was zoned Natural Area, with a small area in the northeast allocated to forestry, and approximately 1,750-foot area of shoreline zoned for recreation (Figure 2). The Town of Ossipee proposed development of a beach along the OLNA shoreline, replete with parking and pedestrian access, on three occasions between 1988 and 2004.

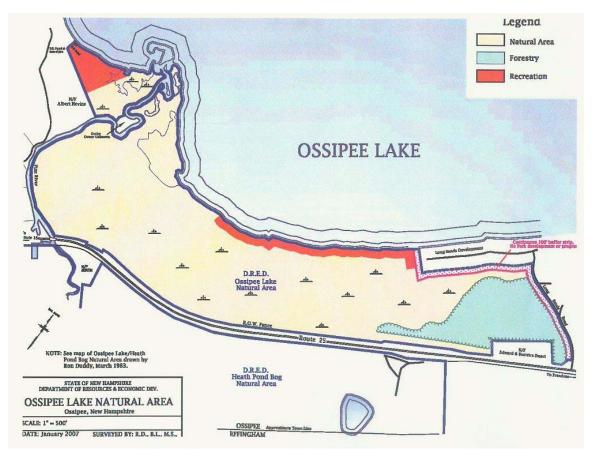


Figure 2. Department of Resources and Economic Development zoning for the Ossipee Lake Natural Area circ 1983.

The OLNA shoreline constitutes New Hampshire's best remaining sand plain pond shore system. Historically, the shore supported four exemplary natural communities and four rare plant species protected by the state. Public use of the shore has contributed to extirpation of two protected plant species, and significant reduction of the remaining plants and communities.

The Division of Historical Resources identified items throughout the OLNA, including the shoreline and adjacent shallow waters. The resources are 500 to 11,000 years old, nonrenewable, fragile, and rare. Recreational use of the shoreline and adjacent shallow waters has the potential to damage historical resources. Conversely, the presence of historical resources potentially limits public use.

DRED held a meeting in Ossipee 5 May 2007 to provide information to the public on the unique nature and challenges to management of the OLNA, and to solicit public comment. DRED posted Administrative Rules signs along the OLNA shoreline in June 2007. On 24 August 2007, DRED closed a portion of the OLNA shoreline for the protection and restoration of rare and endangered plants and natural communities (Figure 3). Restricted use of the OLNA remained in effect until this management plan was developed and implemented.

The purpose of this document is to:

- 1. Describe the OLNA affected environment
- 2. Examine legal, statutory, and administrative directives
- 3. Define OLNA management issues
- 4. Evaluate alternative management strategies
- 5. Identify a preferred management plan
- 6. Discuss implementation of the preferred management plan

The goal of the plan is to manage the OLNA shoreline and nearshore for education and recreation, while protecting rare plants, exemplary natural communities, and historical resources. The focus of the management plan is the sandy shoreline and the adjacent nearshore area. The fen/bog immediately behind the sandy shore remains closed to public use.

Management Plan Development Process

DRED convened a public meeting in Ossipee on 5 May 2007 in response to the significant degradation of resources at the OLNA. One purpose of the meeting was to provide information to stakeholders on the unique nature of the OLNA, and the challenges to managing the property. The second purpose of the meeting was to solicit feedback from stakeholders that would inform management of the property².

² Senator Kenney, Representatives Merrow and Cunnigham, Mike Brault, Wade and Sandy Larivierre, Noreen Downs (Green Mountain Conservation Organization), Ann Pilkovsky, Anne Christman, Kim and Frank Altomare, Shelia Jones, David George, George Eisener, Cindy Spencer, Tom Kondrat, Warren Walker (Ossipee Conservation Commission), Jim McCoole, and Richard Cogswell (former State Representative) commented at the public meeting.

Stakeholders were encouraged to submit additional comments to DRED at Ossipee@dred.state.nh.us³.

DRED posted signs along the OLNA shoreline 25 May 2007 communicating Administrative Rules to the public. On 24 August 2007, DRED closed a portion of the OLNA shoreline to public access to protect and restore threatened and endangered species and natural communities. Approximately 1,500 feet of the shoreline remained open, starting 200 feet southwest of the northeast property boundary adjacent to Long Sands Development (Figure 3). DRED allowed recreation along the shoreline in the open area in accordance with DRED Administrative Rules (Res 7301). The partial closure was in effect until this management plan was developed and implemented.

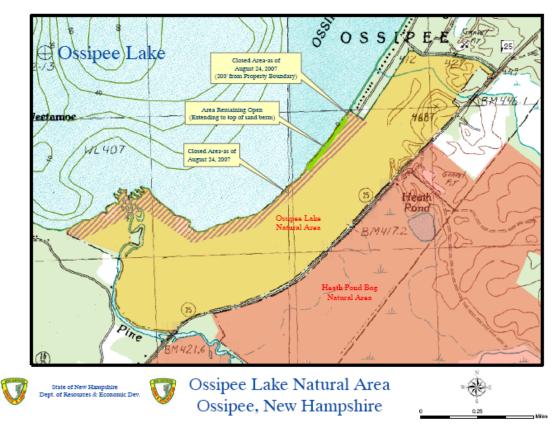


Figure 3. Existing area remaining open at the Ossipee Lake Natural Area.

DRED Forest Rangers patrolled the OLNA shoreline on weekends after the partial closure to inform the public of DRED Administrative Rules and to answer any questions. The Fish and Game Department graciously provided DRED boat access to the OLNA shoreline. DRED does not own a boat, but can access the OLNA shoreline through Long Sands Development for enforcement. DOS patrolled the nearshore waters and helped DRED monitor shoreline use.

³ Michael and Kim DeCristofaro, Debby Regan, Richard Lover, Lee Dearborn, Frank Hines, Theresa Swanick, Noreen Downs, Ned Hatfield, Roger ter Kuile, Karl and Marion Kerns, Paul Scott, and the Ossipee Lake Alliance provided additional comment.

DRED Natural Heritage Bureau ecologists visited the area on 21 September and 2 October 2007. The ecologists collected detailed information on the location and condition of rare plants and natural communities, and compared their observations to data from surveys conducted in 1993 and 2003. Natural Heritage Bureau and Division of Historical Resources personnel further evaluated the area during a site visit 14 May 2008.

In March 2008, DRED established a State Agency Working Group for the following purposes.

- Develop a list of management alternatives for the OLNA.
- Define the advantages and disadvantages of the management alternatives.
- Identify needs (e.g., enforcement, sanitary facilities) for each of the management alternatives.
- Match alternatives to available management resources.

Members of the Working Group included the following agencies.

- Department of Cultural Resources (DCR) Division of Historical Resources
- Department of Environmental Services (DES) Lakes Management and Protection Program
- Department of Safety (DOS) Marine Patrol Bureau DRED Division of Forest and Lands
- DRED Division of Forests and Lands
- DRED Division of Parks and Recreation
- DRED Forest Management Bureau
- DRED Forest Protection Bureau
- DRED Natural Heritage Bureau

The Working Group met on three occasions over a span of two months and produced this document for managing the OLNA shoreline and nearshore. DRED made the draft plan available for public review 18 June 2008 on the Division of Forests and Lands website⁴ and on telephone and written request. Select Working Group members convened a public session in Ossipee on 27 June 2008 to discuss the draft plan with stakeholders. DRED implemented the OLNA Shoreline and Nearshore Management Plan after consideration of public comment and plan revision.

Affected Environment

Ossipee Lake is located in Ossipee and Freedom, New Hampshire, and 3,000 acres is the sixth largest lake located entirely in the state. The West Branch, Bearcamp, Lovell, and Pine Rivers feed the lake, and the Ossipee River drains lake. Ossipee and Freedom New Hampshire place a high value on their natural environments, and 3,000-acre Lake Ossipee is the region's centerpiece. The lake is an important component of local

⁴ www.nhdfl.org

economies, enabling both multi-season tourism and seasonal and permanent real estate sectors. Year round, vacation, and seasonal housing, camps, conservation land, and marinas occupy the shore of the lake.

The OLNA occupies 400 acres east and west of the Pine River at the south end of Ossipee Lake. Approximately 80 percent of the property is poor level fen/bog, which is rare throughout its range. Scientists identified endangered swamp birch (*Betula pumila*) in the fen/bog in 1985. The OLNA is the only known location for this critically imperiled (i.e., S1) species in New Hampshire.

The public is attracted to the undeveloped OLNA shoreline, shallow water (less than 6 feet for a distance of several hundred feet from shore), sandy bottom, and white sand beach. The area is ideal for anchoring, swimming, snorkeling, and sunbathing. On summer weekends, dozens of boats anchor in nearshore waters and cover the shore. A boat is required to access the OLNA shoreline; the adjacent Long Sands Development has a private road closed to public access.

Ecologically, the shoreline is a sand pond shore system, one of only 13 in the state. Ecologically significant and rare places in the state are as much a part of our state's heritage as its culture and history. Sand pond shores occur primarily in central and southern New Hampshire in association with sand plain regions, and occasionally along lakes. Infertile mineral soil, widely fluctuating water levels, and regular wave action and ice scouring render these systems stressful to many plants. Within the system, characteristic narrow vegetation zones parallel the shoreline in response to both elevations above the lake and the degree of wave and ice disturbance.

The OLNA sand pond shore system historically had four exemplary natural communities⁵ and four rare plant species (Table 1, see Appendices A and B for explanations of Rank and Listing Codes). The water lobelia (S1S2) and bulblet umbrella-sedge (S2) communities are imperiled and very vulnerable to extinction in the state. Public use has contributed to the elimination of both communities in some areas of the OLNA. The rare plant species, mermaidweed (*Proserpinaca pectinata*; SH) and slender bog clubmoss (*Lycopodiella appressa*; SH), characteristic of the water lobelia and bulblet umbrella-sedge communities, were extirpated from the OLNA sometime between 1971 and 2002.

The twig-rush community (S1) is critically imperiled and particularly vulnerable to extinction in New Hampshire. The community at the OLNA is one of only two known for the state. The population of critically imperiled grassleaf goldenrod (*Euthamia caroliniana*; S1) characteristic of the OLNA twig-rush community is one of only five in New Hampshire. Public use has contributed to the reduction in the number of grassleaf goldenrod stems at the OLNA, although it persists throughout its historical range (Figure 4).

⁵ Natural communities are recurring assemblages of plants and animals found in particular physical environments. Exemplary natural communities are nearly all examples of rare types and high quality examples of common types.

Public use contributed to the significant reduction in the hudsonia inland beach strand community (S1) at the OLNA. The community's characteristic plant species, hairy hudsonia (*Hudsonia tomentosa* var. *intermedia*; S2), is very vulnerable to extinction; the population at the OLNA is one of only two occurring along inland waters of the state. Public use contributed to the extirpation of five of the six hudsonia OLNA subpopulations between 1993 and 2007 (Figure 5). The remaining subpopulation of hairy hudsonia in the public use area is in poor condition. Subpopulations in better, but not ideal, condition occur west of the Pine River.

The New Hampshire Fish and Game Department does not list any threatened or endangered fish or wildlife species at the OLNA. Several DRED employees observed a bald eagle (*Haliaeetus leucocephalus*) on several separate occasions in 2007. One late summer observation included an adult bald eagle perched on a nest.

Historical artifacts occur throughout the OLNA, including the shoreline and nearshore waters, according to the New Hampshire Division of Historical Resources. The artifacts include flakes, bifaces, and other miscellaneous artifacts ranging from 500 to 11,000 years old, and are nonrenewable, fragile, and rare. Historical Resources has not conducted a comprehensive investigation of the OLNA, but has determined that the potential for damage to historical resources from public use is significant.

| Landscape Position | Exemplary Natural Community | Rare Plant Species |
|-----------------------|---|--|
| Shallow water | Water lobelia aquatic sandy pond shore | mermaidweed (Proserpinaca pectinata) |
| Lower beach | Bulblet umbrella- sedge open sandy pond shore | slender bog clubmoss (<i>Lycopodiella appressa</i>), grassleaf goldenrod (<i>Euthamia caroliniana</i>) |
| Mid-beach | Twig-rush sandy turf pond shore | slender bog clubmoss (Lycopodiella appressa), grassleaf goldenrod (Euthamia caroliniana), hairy hudsonia (Hudsonia tommentosa var. intermedia) |
| Upper beach | Hudsonia inland beach strand | hairy hudsonia (Hudsonia tommentosa var. intermedia) |

 Table 1. Exemplary natural communities and rare plant species observed between 1971 and 2007 along the shoreline of the Ossipee Lake Natural Area.

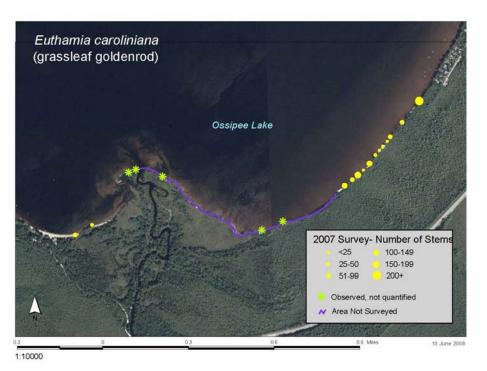


Figure 4. Distribution of grassleaf goldenrod (*Euthamia caroliniana*) along the Ossipee Lake Natural Area shoreline in 2007.

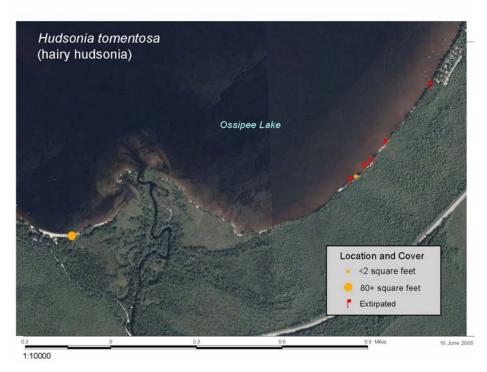


Figure 5. Distribution of hairy hudsonia (*Hudsonia tommentosa* var. *intermedia*) along the Ossipee Lake Natural Area shoreline in 1993 and 2007. Subpopulations observed in 2003, but not 2007, are identified as extirpated.

Legal, Statutory, and Administrative Directives

Deed

White and Sawyer conveyed the property to the State of New Hampshire in 1969. The deed stipulates that, "By virtue of its acceptance of this deed, the grantee agrees that the land will not be used for other than educational or recreational purposes." (CCRD Book 439, Page 139). The state agreed to establish a negative easement prohibiting park development or programs within a 100-foot wide buffer along the northeasterly boundary of the property and to use the property for education and recreation.

Management of Public Lands

The Department mission, through the Division of Forests and Lands, is the "maintenance, protection, conservation, multiple use, and rehabilitation of forests for the social, economic, and environmental benefits that result from a diverse forest cover" (RSA 227-G:1). The Director of the Division is charged with managing all "reservations⁶ and state-owned forestlands", and "executing all matters pertaining to the use of state reservations, except matters pertaining to recreational development, administration, and maintenance, which are executed in cooperation with the Director of Parks and Recreation" (RSA 227-G:3).

The state recognizes (RSA 227-H:1) that "state-owned reservations contribute to the conservation of natural resources and the distinctive quality of life in the state". The public welfare of this state is served by ... "protecting habitat for plants, animals, and other organisms, conserving forested watersheds, preserving areas of rare and exemplary natural beauty and ecological value, and providing for perpetual public access and use". The Director of Forest and Lands ensures that management "Gives due consideration to the conservation of all resources and benefits"... "Considers the context of these reservations in the surrounding landscape" ... "Coordinates forest management with other interested state and federal agencies", and ... "Allows for public involvement in forest management planning" (RSA 227-H:2). DRED can use any land it acquires or under its jurisdiction for public recreation (RSA 227-H:3).

The Department, through the Division of Parks and Recreation, develops, operates, and maintains "a comprehensive state park system" (216-A:1). The park system will "protect and preserve unusual scenic, scientific, historical, recreational, and natural areas within the state" ... "continually provide such additional park areas and facilities as may be necessary to meet the recreational needs of the citizens of all regions of the state". In addition, the park system will ... "make these areas accessible to the public for recreational, education, scientific, and other uses consistent with their protection and

⁶ Reservation means public land under the jurisdiction of DRED, including but not limited to state forest, state park, natural area, historic site, geological site, recreation trail, memorial area, fire tower, wayside area, heritage park, resource center, agricultural area, state forest nursery, fish pier, administrative facility, information center, demonstration forest, certain islands, and lands under lease to the department (RSA 227-G:2, XVI).

preservation", and ... "encourage and support tourism and related economic activity within the state". The Director of the Division of Parks and Recreation will "cooperate with the Director of the Division of Forests and Lands on matters pertaining to the joint recreational and forestry use of state lands ..." (216-A:2).

DRED Administrative Rules applicable to OLNA shoreline management include:

- Res 7301.03 Persons shall obey all requests made by authorized DRED personnel in matters of public interest, public safety, or resources protection.
- Res 7301.05 No person shall remove or damage any structure, plant, marine life, or natural feature on DRED property.
- Res 7301.06 No person shall remove or damage any historic property or historic and cultural resource on DRED properties without the permission of the director and the concurrence by the Department of Cultural Resources, Division of Historical Resources.
- Res 7301.07 State parks and recreation areas shall be closed or restricted by authorized DRED personnel if ... there is a concern for public safety; or there is any other reason to protect the natural or other features and resources of the park. The OLNA is closed from sunset to sunrise.
- Res 7301.14 Fires shall be permitted in places provided or designated for that purpose, or as posted.
- Res 7301.15 No person shall dispose of garbage, sewage, trash, debris or any other refuse or waste material of any kind on DRED properties except ... where places and receptacles are provided for such purposes.
- Res 7301.17 No person shall leave a boat unattended.
- Res 7301.19 No person shall use a metal detector.
- Res 7301.20 Digging shall be permitted on sand beaches with all resulting holes completely filled in. Digging holes to a depth greater than 12 inches shall not be permitted.
- Res 7301.22 No person shall construct or erect any structure.
- Res 7301.24 No person shall use fireworks.
- Res 7302.02 No person shall camp on DRED properties except in designated campsites.
- Res 7301.02 No person shall swim at any DRED property except in areas designated by lifelines.
- Res 7303.03 No person shall have glass bottles on any beach.
- Res 7303.04 No person shall have fires or portable grills on any beach.
- Res 7306.01 A special use permit shall be required ... for holding any organized or special events that go beyond routine recreational activities.

According to law, violating DRED Administrative Rules can result in eviction from the property and conviction of a misdemeanor (Res 7301.05).

New Hampshire Native Plant Protection

The state of New Hampshire has determined that native plants should be protected and conserved "for human need and enjoyment, the interests of science, and the economy of the state" (New Hampshire Native Plant Protection Act, RSA 217-A:2). New Hampshire protects endangered and threatened plants to maintain and enhance their numbers. The state prohibits the "taking, possession, transportation, processing, sale or offer for sale, exportation, or shipment within the state of endangered, threatened, or special concern plant species without valid federal and state permits".

The Natural Heritage Bureau administers the Native Plant Protection Act (RSA 217-A:3). The Bureau's mission is to collect and analyze data "on the status, location, and distribution of rare or declining native plant species and exemplary natural communities in the state", and determine which species of plant should be protected. The Bureau also "develops and implements measures for the protection, conservation, enhancement, and management of native New Hampshire plants", and acts as "an information resource program to assist and advise state and local agencies, and private sector development" (RSA 217-A:9).

State agencies are required to assist and cooperate with the Natural Heritage Bureau to carry out the purposes of the Native Plant Protection Act (RSA 217-A:7). However, nothing in the Act limits the rights of private property owners to take protected plant species on their own lands (RSA-A:9).

Historic Preservation

New Hampshire has determined that its "historical, archeological, architectural, engineering, and cultural heritage is an important environmental asset" (RSA 227-C:1-a). The state Department of Cultural Resources (DCR), Division of Historical Resources is engaged in a "comprehensive program of historic preservation to promote the use and conservation of these assets for education, inspiration, pleasure, and the enrichment of the citizens of New Hampshire". Agency activities include undertaking a statewide survey to identify and document historic properties, preparing the state's historic preservation plan, providing information on historic properties to state agencies, and cooperating with state agencies in the planning and conduct of specific undertakings affecting historic properties (RSA 227-C:4).

The state owns all historic resources (except human remains) on lands it owns or controls, including the bottom of navigable waters, great ponds, and three miles seaward from the New Hampshire shore (RSA 227-C:6). State agencies, departments, commissions, and institutions are required to cooperate with Division of Historical Resources in the location, identification, evaluation, and management of historic resources (RSA 227-C:9). The DCR Commissioner conducts, or causes to be conducted, any necessary field investigations subject to personnel and budgetary limitations. Information that identifies the location of any archeological site on state land or under state waters is treated with confidentiality to protect the resources for unauthorized investigations and vandalism (RSA 227-C:11). State agencies ensure protection of

historic resources by consulting with the DCR Commissioner before disclosing any information.

Lakes Management and Protection

New Hampshire's lakes are an important natural resource, "vital to wildlife, fisheries, recreation, tourism, and quality of life of its citizens" (RSA 483-A:1). State policy is to ensure the continued vitality of New Hampshire lakes as key environmental, social, and economic assets. The state develops management plans to conserve and protect outstanding characteristics of waters and shorelands.

The Department of Environmental Services established the Lakes Management and Protection Program in 1990 (DES; RSA 483-A:3). The program's mission is to reinforce and complement existing state and federal water quality laws, maintain or enhance lake scenic and recreational potential, protect wildlife habitat, and ensure opportunities for public enjoyment and respect for littoral interests. The DES Lakes Coordinator, in consultation with the Lakes Management Advisory Committee and upon consideration of recommendations from other divisions and bureaus, prepared state level management criteria⁷ for lakes that form the basis for state agency decisions regarding lakes management and protection (RSA 483-A:5). The management criteria serve several purposes.

- Ensure no degradation of water quality from existing standards.
- Manage point and non-point sources of pollution.
- Maintain or improve the environment for wildlife.
- Recognize and protect the use of lakes and drainage areas for flood protection and water supply.
- Provide public access appropriate to suitable uses of the lakes.
- Ensure recreational use consistent with the carrying capacity and character of each lake.

The Lakes Coordinator and Lakes Management Advisory Committee will lead the development of detailed guidelines for coordinated lake management and shoreland protection (RSA 483-:7). Lake and shoreland management plans encompass the following issues.

- Permitted recreational uses and activities
- Permitted non-recreational uses and activities
- Existing and future land uses
- Protection of wetlands, wildlife, fish habitats, and other significant areas
- Dams, bridges, and other water structures
- Public access by foot and vehicle
- Setbacks and other location requirements

⁷ Lakes Management Criteria for New Hampshire State Agencies. Prepared by the New Hampshire Lakes Management Advisory Committee and the Lakes Coordinator. May 1996.

- Dredging, filling, mining, and earth moving
- Prohibited uses
- Factors controlling water levels and flowage rights
- Facilities appropriate to support approved lake uses
- Water safety
- Other factors affecting water quality

"Affected state agencies shall cooperate with and assist the lakes coordinator and the advisory committee in the development and implementation of lakes management plans established under RSA 483-A:7" (RSA 483-A:9).

Watercraft Safety

The public waters of New Hampshire are "maintained and regulated to provide for the safe and mutual enjoyment of a variety of uses both from shore and from water-borne conveyances" (RSA 270:1). These uses include "residential, recreational, and scenic values provided to residents of the state and to the promotion of our tourist industry" ... Regulation prevents the diminishment of these values for the benefit of all users.

The DOS Bureau of Marine Patrol is responsible for enforcing New Hampshire's boating laws (RSA 270-D). The Marine Patrol operates on all bodies of water 10 acres or more in size, as well as large rivers and tidal waters. The Patrol operates 365 days a year, with the primary operational period encompassing early May through mid October.

Boats are to maintain headway speed, defined as 6 miles per hour or the slowest speed that a boat can be operated and maintain steerage, when within 150 feet from swimmers and shore (RSA 270-D:2). Motorboats give the right of way to canoes, rowboats, and sailboats. Boats can be anchored in front of a house on public bodies of water (i.e., over 10 acres in size). However, overnight mooring is illegal in New Hampshire, unless tied to a dock with landowner's permission (RSA 270:59-70).

The Marine Patrol has all the powers of a peace officer in all counties in the state (RSA 270:12-a). Marine Patrol enforces the New Hampshire Alcohol or Drug Impairment Act (RSA 265-A:2), which prohibits operation of a boat while under the influence of liquor or a controlled drug. Any person convicted of a violation of RSA 265-A:2 is prohibited form operating a boat on the state's waters for one year. Marine Patrol also has the power to enforce any crime or offense that occurs on an island or on the mainland contiguous to inland or coastal bodies of water in the absence of any law enforcement agency with jurisdiction (RSA 270:12-a I (e)).

The DOS Commissioner may designate specific locations where rafting or single boat anchoring is restricted (RSA 270:43 and 44, Saf-C 407; "prohibited location"). For example, rafting and single boat anchoring is restricted in parts of Lake Winnipesauke and Ossipee Lake (Saf-C 407.03). If found necessary to improve safety and protect natural and historical resources, DRED could petition the DOS Commissioner to restrict

rafting or single boat anchoring in OLNA nearshore waters. If so, the following DOS Administrative Rules would be applicable.

- Saf-C 407(a)(1) ... no person ... shall ... form or allow a boat which he or she is operating or in charge of to be a member of a raft consisting of 3 or more boats
- Saf-C 407(a)(2) ... no person ... shall ... form or allow a boat which he or she is operating or in charge of to be a member of a raft if any part of such raft is:
 - o Less than 150 feet from shore; or
 - Less than 50 feet from any other raft; or
 - Less than 50 feet from any occupied single boat that is stationary upon the waters of the same lake or pond.
- Saf-C 407(a)(3) ... no person ... shall ...anchor a single boat and cause it to remain stationary upon the waters of a lake or pond ... if any part of such boat is:
 - \circ Less than 150 feet from shore; or
 - \circ $\;$ Less than 50 feet away from any raft; or
 - Less than 25 feet away from any other single boat that is stationary upon the waters of such lake or pond

Violations of DOS rules result in a fine in accordance with the Uniform Fine Schedule (Saf-C 410 and Appendix II of DOS Administrative Rules).

Management Issues

Effectively managing the OLNA shoreline and nearshore requires addressing resource protection, health, and safety issues. Resolution of these issues will require dialogue between state agencies and other stakeholders, a commitment by all parties to make the solutions work, and the dedication of sufficient resources.

Damage to Plants and Natural Communities

Landing boats onshore, trampling of vegetation, digging in the sand, fires, and other beachgoer activities have significantly contributed to the degradation of natural communities and the extirpation of two plant species at the OLNA. Additionally, debris dumping is damaging communities and plants west of the Pine River. Damage to plants and natural features is a violation of DRED Administrative Rule Res 7301.05. Damage to rare plants and exemplary natural communities on another's property is a taking⁸, and a violation of the New Hampshire Native Plant Protection Act (RSA 217-A). DRED may close or restrict use of its properties if there is any reason to protect natural features and resources (Res 7301.07).

⁸ According to RSA 217-A:3, take is defined as pick, collect, cut, transplant, uproot, dig, remove, damage, destroy, trample, kill, or otherwise disturb, or to attempt to engage in any such conduct.

Damage to Historical Resources

Wave action and the freeze and thaw cycle bring buried historical resources to the surface. Seasonal lowering of the lake level exposes resources normally submerged. The New Hampshire Division of Historical Resources has yet to comprehensively survey, collect, and document these resources at the OLNA. Collection and removal of resources by others at the OLNA contravenes the New Hampshire Historic Preservation Act (RSA 227-C:1), and prevents preservation of resources and reconstruction of the historical record. Removal or damage of any historic resource, without the explicit permission of the Division of Historical Resources, is also a violation of DRED Administrative Rule Res 7301.06.

DRED permits digging on sandy shores. For safety reasons, holes cannot be more than 12 inches deep, and holes completely filled in at the end of the day. DRED Administrative Rules notwithstanding, digging disturbs historical resources and weakens the Division of Historical Resources' ability to preserve resources and reconstruct the historical record. DRED personnel observed digging and unfilled holes at the OLNA in 2007 in violation of DRED Administrative Rule Res 7301.20, and contravening the goals of the New Hampshire Historic Preservation Act.

Lack of Bathroom Facilities

No bathroom facilities are available at the OLNA. Observations by DRED personnel and public comment in 2007 indicate that recreationists use the water, shore, and fen/bog inland of the shore as bathrooms. The lack of bathroom facilities threatens water quality and personal health, and results in human waste, diapers, and toilet paper accumulating in the OLNA. Discharge of human waste to the aquatic or nearshore environment may degrade water quality in violation of State Water Quality Standards, but contravenes the New Hampshire Lakes Management and Protection Program Act. The disposal of diapers and toilet paper in the OLNA is a violation of DRED Administrative Rule Res 7301.15.

Safety

In 2007, DRED personnel observed swimmers of all ages commingled with boats underway and anchored in the shallow water. The movement of boats under power, to and from shore and anchorages, and partially submerged anchors, pose a significant risk of injury to swimmers. Nighttime use of the OLNA and alcohol consumption would exacerbate the risk to swimmers.

Grills and wood fires on the OLNA shore also threaten safety. Careless disposal of coals and improper dousing of bonfires, aided by wind, could spark a fire in the OLNA. Firefighting would be constrained by vehicle access and difficulty traversing the fen/bog on foot. Fires could spread to neighboring homes. DRED only permits fires in designated areas on DRED properties, and prohibits both fires and portable grills on shorelines. DRED personnel observed and documented fires and portable grills at the OLNA in 2007 in violation of DRED Administrative Rules Res 7301.14 and Res 7303.04.

Water Quality

The lack of bathroom facilities and subsequent use of the nearshore water and shoreline increase the health risk to people from anthropogenic bacteria and viruses. Violations of State Water Quality Standards, as described in RSA 485-A:8 and Env-Ws 1701, could occur. No systematic sampling of pathogens occurs in OLNA nearshore waters. The New Hampshire Lakes Management and Protection Program (RSA 483-A) requires the management of pollution to minimize adverse impact on water quality (RSA 483-A:5). Degrading water quality, unsuitable public access, and exceeding the carrying capacity of Ossipee Lake contravenes the New Hampshire Lake Management and Protection Program Act (RSA 483-A:1) and Surface Water Quality Regulations (Env-Ws 1701).

Trash, Garbage, and Debris

DRED personnel observed and documented trash, garbage, and debris along the OLNA shoreline, and in the shrubs at the back of the shore, in 2007. The problem is especially egregious on summer weekends. Trash, garbage, and debris also wash up on the shoreline. The disposal of trash, garbage, and debris in the OLNA is a violation of DRED Administrative Rule Res 7301.15 and DES RSA 485-A. A mechanism for periodic policing of the shoreline needs to be established.

Pedestrian Access

Ossipee proposed the development of a town beach at the OLNA on three occasions between 1988 and 2004. The Town of Ossipee and DRED could not resolve access, maintenance, and natural resource protection issues. The fen/bog wetland separating the OLNA shoreline from SR 25 limits opportunities for construction of a parking lot, and is a major impediment to pedestrian access. Long Sands Development, northeast of the OLNA, is privately owned and prohibits parking and access to the shore by non-residents. The fen/bog also makes installation and maintenance of sanitary facilities and trash removal difficult. The OLNA natural resource inventory was incomplete at the time, precluding development of a management plan.

Disturbance

More than one hundred boats and hundreds of boaters congregate at the OLNA on sunny, summer days to socialize, swim, and picnic. Boaters can become a disturbance to area residents when they remain in the area after nightfall, build bonfires on the beach, play loud music, or camp overnight. Fires are a violation of DRED Administrative Rule Res 7301.14, and camping is a violation of Res 7302.02. Holding an organized or special event at the OLNA requires a permit from DRED (on shore; Res 7406) or the DOS Commissioner (on water; Saf-C 413).

Education

The OLNA serves as a wonderful example of the state's Natural Heritage. Responsible management and use of the OLNA shoreline serves the public's interest in ecological and cultural resources. Public access will facilitate the development of programs to raise awareness and study rare plants and exemplary natural communities, and the region's pre-historical and native cultures.

Responsible management and use of the OLNA shoreline and nearshore requires public education. The Natural Heritage Bureau and Division of Historical Resources, in conjunction with local stakeholders, must develop and implement education programs for the protection of natural and historical resources. Similarly, DRED, DOS, and DES must educate the public about Administrative Rules and the Lakes Management and Protection Program criteria, and the rationale for the rules and criteria. Conversely, the public must take responsibility for learning about protecting natural and historical resources, and complying with DRED, DOS, and DES rules and criteria.

Compliance

Compliance with DRED, DOS, and DES rules requires both education and enforcement. Education provides for stakeholder awareness, and enforcement ensures compliance of recalcitrant individuals. The DOS Marine Patrol will be responsible for enforcing Watercraft Safety Rules, and will report any water quality violations to DES. DOS can also enforce trespassing laws when properly posted. DRED will be primarily responsible for enforcing DRED Administrative Rules.

Alternative Management Plans

There are three fundamental alternatives for managing the OLNA, distinct in their protection of natural and historical resources, opportunities for recreation, and requirements for planning and implementation (Figure 6).

- 1. Closure of the entire OLNA shoreline
- 2. Public use of the entire OLNA shoreline
- 3. Designated shoreline area for public use

Alternative 1: Closure of the Entire OLNA Shoreline

Closing the entire shoreline is a detriment to recreation and education. The public could no longer access the OLNA shoreline. The public would be obliged to anchor their boats offshore rather than haul them ashore. On-site education programs would require permission from DRED.

| Alternative | Natural Resource Protection | Historical Resource Protection | Educational Opportunities | Recreational Opportunities | Planning and Resource Requirements | Public Responsibility |
|--|---|---|---|---|--|--|
| Closure of the entire OLNA shoreline | Unrestricted protection and restoration of plants and communities | Unrestricted protection and examination of historical resources | Restricted excursions and study of natural and historical resources | Boating; swimming | Signs; public education; resource monitoring; enforcement | Remain offshore; comply with DES and DOS rules |
| Use of the entire OLNA shoreline | Restricted protection and restoration of plants and communities | Restricted protection of historical resources | Unrestricted excursions and study of natural and historical resources | Boating; swimming; use of shoreline in compliance with DRED rules | Signs; public education; resource monitoring; enforcement | Learn to identify and protect plants and communities; comply with DRED, DES, and DOS rules |
| Designated shoreline public use area | Unrestricted protection and restoration of plants and communities on closed area; restricted protection and restoration on designated public use area | Unrestricted protection and examination of historical resources on closed area; restricted protection and examination on designated public use area | Unrestricted excursions and study of natural and historical resources in public use area, restricted excursions and study in closed area | Boating; swimming; use of designated public use area shoreline in compliance with DRED rules | Signs; public education; resource monitoring; enforcement | Restrict use to designated public use area; learn to identify and protect plants and communities; comply with DRED, DES, and DOS rules |

Figure 6. Ossipee Lake Natural Area alternative management plans benefits and detriments.

The public could swim in nearshore waters. However, the continued commingling of boats and swimmers would not improve swimmer safety. To improve swimmer safety, DRED would evaluate:

- Restricting rafting in OLNA nearshore waters
- Restricting single boat anchoring in OLNA nearshore waters
- Installing a designated swim area

Petitioning the DOS Commissioner for designation of a prohibited location (RSA 270:43, Saf-C 407) would achieve restrictions on rafting or single boat anchoring. A no rafting or single boat anchoring zone would extend 150-feet from shore. DRED would install lifelines and designate a swim area. DOS Marine Patrol prohibits boat operation within a swim line (Saf-C 404.08).

Closing the entire shoreline is the most effective and efficient method for protecting natural and historic resources at the OLNA. DRED could protect remaining exemplary natural communities and rare plant species, and develop and implement a restoration plan unfettered by public use. Similarly, DCR could protect historical resources from human disturbance. Without public use, there would be no discharge of human waste, and the threat to people and property from fires would diminish. Less trash, garbage, and debris would accumulate on the shore.

DRED would educate the public about the reason for OLNA shoreline closure, and post no trespassing signs⁹. DOS Marine Patrol would arrest individuals trespassing on the property¹⁰. The Natural Heritage Bureau would develop and implement a protection and restoration plan for exemplary natural communities and rare plant species. The Division of Historic Resources would develop a plan to conduct an archeological survey of the OLNA to evaluate further evaluate the site's significance.

Alternative 2: Use of the Entire OLNA Shoreline

Opening the entire OLNA shoreline would provide the greatest immediate benefit to the public. The public could access more OLNA shoreline than they can at this time with the restriction. This use would be in accordance with DRED, DOS, and DES Rules. Trash, garbage, and debris will decrease, resulting in a cleaner shoreline. The threat of fire will diminish. Water quality protection measures will minimize health risks to swimmers. The designated public use area buffer will minimize disturbance to neighboring property owners. Interested members of the public will have an opportunity to learn about the OLNA's natural resources, and to participate in protection and restoration efforts.

⁹ A person is guilty of criminal mischief who, having no right to do son nor any reasonable basis for belief of having such a right, purposely or recklessly damages property of another. Criminal mischief is a class A misdemeanor if the actor purposely causes or attempts to cause pecuniary loss in excess of \$100 and not more than \$1,000 (RSA 634:2).

¹⁰ Criminal trespass is a misdemeanor for the first offense and a class B felony for any subsequent offense if the person knowingly or recklessly causes damage in excess of \$1,000 to the value of the property of another (RSA 635:2).

The continued commingling of boats and swimmers would not improve swimmer safety. DRED would evaluate the efficacy of restricting rafting or single boat anchoring, or establishing a swim area.

Opening the entire OLNA shoreline is the least efficient method for protecting natural and historical resources. The onus would be on the public to demonstrate responsible use of the designated shoreline public use area, and a willingness to work with the state to protect and manage the OLNA. Protection and restoration of natural resources, and protection of historical resources, would be entirely dependent on cooperation between DRED, DCR, and the public, and public compliance with DRED Administrative Rules. Similarly, maintaining OLNA nearshore water quality would depend on public cooperation and compliance with DES Water Quality Standards.

A public education program would be paramount. The Natural Heritage Bureau and the Division of Historical Resources would need to develop education programs, and then persuade the public to contribute to protection, restoration, and monitoring efforts.

Alternative 3: Designated Shoreline Public Use Area

Partial use of the OLNA shoreline attempts to balance protection of natural and historical resources with provision of recreation and education. The onus would be on the public to demonstrate responsible use of the designated shoreline public use area, and not to trespass on the closed area. Moreover, the public would need to work with the state to protect and manage the OLNA.

The designated shoreline public use area offers the same types of public benefits afforded by opening the entire OLNA shoreline, and the same restrictions on protection of natural and historical resources. Similarly, the closed area offers the same detriments to the public as closing the entire OLNA shoreline, and the same benefits to protection of natural and historical resources. DRED would evaluate the efficacy of restricting rafting or single boat anchoring, or establishing a swim area to increase swimmer safety. DRED, DOS, and DES rules and criteria would be in effect.

Preferred Management

The preferred management alternative would be to designate part of the OLNA shoreline for public recreation and education, and reserve the balance of the shoreline for the protection and conservation of natural and historic resources. Use of the property for recreation and education was explicit in the deed. Moreover, providing for perpetual public access and use serves the public welfare. DRED can use any land it acquires or under its jurisdiction for public recreation.

The state's commitment to public access and use notwithstanding, management would give due consideration to the conservation of all resources and benefits. Protecting

habitat for plants, animals, and other organisms, conserving forested watersheds, and preserving areas of rare and exemplary natural beauty and ecological value serve the public welfare. So too, New Hampshire has determined that its historical, archeological, and cultural heritage is an important environmental asset.

The designated public access area of the OLNA would encompass 1,500 feet in the northeast part of the property (Figure 7). DRED would continue to prohibit access to the fen/bog beyond the shoreline. The public access area begins 200 feet southwest of the property boundary with Long Sands Development and extends southwest to the approximate location of a tall white pine tree at a point of land. The location of the public access area could change in response to new natural or historic resource information. The extent of the public access area could increase or decrease depending on the level of public cooperation and the management plan's success at protecting and restoring of natural resources.

The location and extent of the public access area was determined by considering:

- Historical recreation use
- Protection of rare plants and exemplary natural communities
- Disturbance to neighboring property owners

The designated public access area includes a portion of the shoreline historically used by the public, including much of the preferred area. The portion of the OLNA closed to public access offers the best opportunity for protection and restoration of rare plants and exemplary natural communities. However, the area open to public access also contains rare plants and DRED would expect the public to cooperate in protection and restoration efforts. Historical resources occur throughout the property. The 200-foot buffer between the public access area and Long Sands Development should partially mitigate disturbance to lakeside residents from OLNA recreation activities.

Implementation

The State Working Group will evaluate comments received at the 27 June 2008 Ossipee public meeting, and revise the plan accordingly. DRED anticipates implementing the OLNA Shoreline and Nearshore Management Plan in July 2008.

Signs

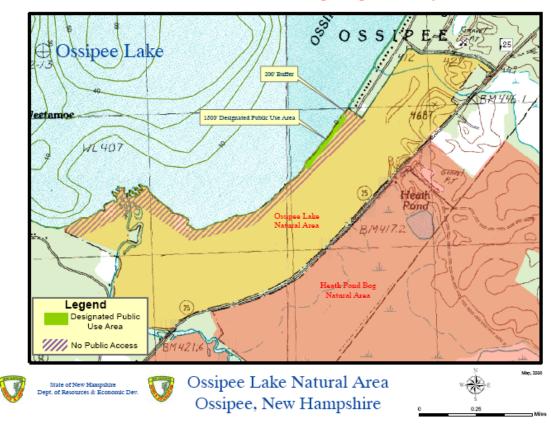
DRED would post signs indicating the boundaries of the public use area and permitted activities. Initially, the signs would prohibit public access in the closed area of the OLNA shoreline. DRED would replace the "No Access" signs after a suitable education period with "No Trespassing" signs, thereby allowing DOS Marine Patrol to take enforcement action and arrest trespassers.

OLNA Working Group

DRED would create an OLNA Working Group comprised of stakeholders. The group's representatives would include:

- Town of Ossipee
- Town of Freedom
- Boating Community
- Lakes Protection Organization
- Natural Resource Education Organization
- Natural Resource Conservation Organization
- Business Community
- Lakes Management Advisory Committee
- DCR Division of Historical Resources
- DES Lakes Management and Protection Program
- DOS Marine Patrol
- DRED Bureau of Forest Management
- DRED Division of Parks and Recreation
- DRED Natural Heritage Bureau

The purpose of the OLNA Working Group would be to make recommendations to the state about managing the OLNA and nearshore waters, to assist the state with implementation of the management plan (including communication, education, and resource monitoring), and to provide an ongoing connection with the local community. The scope of the OLNA Working Group would be the OLNA shoreline and nearshore. The OLNA Working Group would have no statutory decision-making authority of its own, but would play a critical role in assisting the state in the implementation and evaluation of the management plan. Members of the group would have the authority to make decisions for their organizations. The OLNA Working Group would serve an 18-month term, with extension determined by DRED and the Working Group.



For Discussion and Planning Purposes Only

Figure 7. Proposed areas open and closed to public access at the Ossipee Lake Natural Area.

Education

The state, in concert with the Ossipee Lake Working Group, would develop an education campaign about public use of the OLNA shoreline and nearshore. Communication methods would include postings on the Division of Forests and Lands website, OLNA signage, pamphlet distribution at Ossipee Lake boat ramps, and letters to local newspapers (e.g., The Carroll County Independent, The Conway Daily Sun). The Natural Heritage Bureau would lead the effort to communicate to the public the value, characteristics, location, and management of plants and natural communities at the OLNA. The DES Lakes Management and Protection Program would lead the effort to educate the public about the importance of clean water. Initially, the DES education program would lead efforts to educate the public about safe boating practices.

Plant Protection and Restoration

Rare plants and exemplary natural communities historically occupied the entire OLNA shore. The Natural Heritage Bureau, working with the Ossipee Lake Working Group, would develop a protection and restoration plan for the OLNA. The goal of the plan

would be to restore plants and communities to their historical abundance in the portion of the OLNA closed to public access, and to the extent possible protect and restore plants and communities in the area open to the public.

Historic Resource Documentation

The Division of Historic Resources would develop a plan for identifying and documenting historic resources along the OLNA shoreline and in nearshore waters. Findings would inform management of the property and educate the public.

Resource Monitoring

DRED and the Ossipee Lake Working Group would develop monitoring programs for plants and communities, historical resources, and water quality to ensure that the management plan achieves its goals. The Natural Heritage Bureau would lead development of a monitoring program for plants and communities, the Division of Historical Resources would lead program development for historical resources, and the Lakes Management and Protection Program would lead development of a nearshore water quality monitoring program. The respective state agencies would implement the programs in conjunction with the Ossipee Lake Working Group. Results of the monitoring programs would support an annual evaluation of the OLNA Shoreline and Nearshore Management Plan.

Conditions for Public Use of the OLNA

Successful use and management of the OLNA shoreline and nearshore would necessitate changes in public behavior and compliance with DRED, DOS, and DES Statutes and Rules. DRED would be primarily responsible for public use of the shoreline, whereas DOS Marine Patrol has primary responsibility for nearshore waters. Marine Patrol would notify DES of violations of State Water Quality Standards (i.e., discharge of a pollutant or other waste to Ossipee Lake¹¹).

DRED Administrative Rules applicable to the OLNA shoreline would include:

- No removal or damage to any structure (including signs), plant, or natural feature (Res 7301.05)
- No removal or damage of any historic or cultural resource without the permission of the Director of Forests and Lands and the concurrence of the Division of Historical resources (Res 7301.06)
- Public access sunrise to sunset (Res 7301.07)

¹¹ Pollutant means any dredged material, solid waste, incinerator residue, sewage, filter backwash, garbage, sewage sludge, septage, munitions, chemical wastes, biological materials, genetically engineered or altered materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, soil, or any other industrial, municipal, or agricultural waste or any other substance in concentrations or amounts that when in contact with surface waters of the state, could create a nuisance or render such waters harmful, detrimental, or injurious to public health, safety, or welfare; to plant, animal or aquatic life; or to other designated or existing uses. Other waste means "other waste" as defined in RSA 485-A:2, VIII, namely, garbage, municipal refuse, decayed wood, sawdust, shavings, bark, lime, ashes, offal, oil, tar, chemicals and other substances other than sewage or industrial wastes, and any other substance harmful to human, animal, fish or aquatic life.

- No fires or portable grills (Res 7301.14 and 7303.04)
- No disposal of garbage, trash, debris or any other refuse or waste material of any kind including human waste (7301.15)
- No camping (Res 7302.02)
- No glass bottles (Res 7303.03)
- No organized or special events which go beyond routine recreational activities without a special use permit from the Director of Parks and Recreation (Res 7306.01)

DRED would prohibit hauling or motoring boats on to shore to prevent damage to natural features (Res 7301.05). In addition, DRED would prohibit digging in the designated shoreline public use area to protect historic resources (Res 7301.06). DRED, in conjunction with the OLNA Working Group, would evaluate improving swimmer safety through restrictions on rafting or single boat anchoring, or establishment of a swim area.

DOS Statutes and Administrative Rules applicable to OLNA nearshore waters would include:

- Boats are to maintain headway speed within 150 feet of swimmers, designated swim areas, boats, and shore (RSA 270-D:2)
- No overnight anchoring (RSA 270:59-70)
- No boat operation under the influence of liquor or a controlled drug (RSA 265-A:2)
- No water events are allowed without a permit indicating written approval by the Commissioner of the DOS (Saf-C 413)

If DRED elected to designate the OLNA nearshore a no rafting or no single boat anchoring zone, the following DOS Administrative Rules would also be applicable.

- No boat operation within any permitted swim line on a public body of water (Saf-C 404.08)
- No rafting of three or more boats (Saf-C 407(a)(1))
- No rafting less than 150 feet from shore, less than 50 feet from any other raft, or less than 50 feet from any occupied single, anchored boat (Saf-C 407(a)(2))
- No anchoring less than 150 feet from shore, less than 50 feet from any raft, or less than 25 feet from any other single, anchored boat (Saf-C 407(a)(3))

Resources

The OLNA is not a revenue-generating property. Consequently, the state lacks the resources to implement the preferred management plan without re-allocating other resources, generating new resources (e.g., use fees), or collaborating with stakeholders. The success of the plan would depend on substantial public support, including assistance from the local community and stakeholder organizations.

Conclusion

The preferred OLNA Shoreline and Nearshore Management Plan would balance provision of recreation and education with protection of natural and historic resources. The preferred plan would include a public access area, and a buffer between the public access area and neighboring properties. The plan would not provide for pedestrian access or onsite bathroom facilities. Public compliance with OLNA rules is an important component of the preferred management plan. A working group would assist the state with management of OLNA, including development and implementation of education and resource protection programs. Monitoring of OLNA resources and water quality would form the basis for evaluation of management plan success. DRED, in conjunction with the OLNA Working Group, would amend the plan as necessary to ensure protection of OLNA and nearshore resources, and continued recreation and education. The success of the plan would depend on substantial public support, including assistance from the local community and stakeholder organizations.

APPENDIX A

EXPLANATION OF GLOBAL AND STATE RANK CODES

Ranks describe rarity both throughout a species' range (globally, or "G" rank) and within New Hampshire (statewide, or "S" rank). A taxon ("T") rank indicates the rarity of subspecies and varieties. For example, a G5T1 rank shows that the species is globally secure (G5) but the sub-species is critically imperiled (T1).

Code Examples Description

- **1** G1 S1 Critically imperiled because extreme rarity (generally one to five occurrences) or some factor of its biology makes it particularly vulnerable to extinction.
- **2** G2 S2 Imperiled because rarity (generally six to 20 occurrences) or other factors demonstrably make it very vulnerable to extinction.
- **3** G3 S3 Either very rare and local throughout its range (generally 21 to 100 occurrences), or found locally (even abundantly at some of its locations) in a restricted range, or vulnerable to extinction because of other factors.
- **4** G4 S4 Widespread and apparently secure, although the species may be quite rare in parts of its range, especially at the periphery.
- **5** G5 S5 Demonstrably widespread and secure, although the species may be quite rare in parts of its range, particularly at the periphery.
- U GU SU Status uncertain, but possibly in peril. More information needed.
- **H** GH SH Known only from historical records, but may be rediscovered. A G5 SH species is widespread throughout its range (G5), but considered historical in New Hampshire (SH).
- X GX SX Believed to be extinct. May be rediscovered, but evidence indicates that this is less likely than for historical species. A G5 SX species is widespread throughout its range (G5), but extirpated from New Hampshire (SX).

Modifiers are used as follows:

Code Examples Description

- **Q** G5Q GHQ Questions or problems may exist with the species' or sub-species' taxonomy, so more information is needed.
- **?** G3? 3? The rank is uncertain due to insufficient information at the state or global level, so more inventories are needed. When no rank has been proposed the global rank may be "G?" or "G5T?"

Ranks are combined when ranks are somewhat uncertain or the species' status appears to fall between two ranks. For example:

| G4G5 | The species may be globally secure (G5), but appears to be at some risk (G4). |
|------------|---|
| G5T2T3 | The species is globally secure (G5), but the sub-species is somewhat imperiled (T2T3). |
| G4?Q | The species appears to be relatively secure $(G4)$, but more information is needed to confirm this (?). Further, there are questions or problems with the species' taxonomy (Q). |
| G3G4Q S1S2 | The species is globally uncommon $(G3G4)$, and there are questions about its taxonomy (Q). In New Hampshire, the species is very imperiled (S1S2). |

APPENDIX B

EXPLANATION OF STATE LISTING CODES

In 1987, the New Hampshire state legislature passed the Native Plant Protection Act (RSA 217-A) and formally recognized that "for human needs and enjoyment, the interests of science, and the economy of the state, native plants throughout this state should be protected and conserved; and . . . their numbers should be maintained and enhanced to insure their perpetuation as viable components of their ecosystems for the benefit of the people of New Hampshire." The NH Natural Heritage Bureau collaborated with knowledgeable botanists to compile a list of the species requiring protection. The most imperiled taxa are "endangered", and those likely to become endangered are "threatened." Two hundred eighty-eight taxa were originally listed, 144 as endangered and 144 as threatened. A recent revised list includes nearly 100 additional endangered or threatened species.

Two other categories of rarity exist in addition to endangered and threatened. State watch species are those species seemingly vulnerable to extirpation, although current information does not justify designating them endangered or threatened. Indeterminate species are under review for listing as endangered, threatened, or watch.

Endangered - Native plants documented as having five or fewer natural occurrences in the state observed within the last 20 years, or plants with more than five occurrences that are, in the judgment of experts, critically imperiled by extirpation due to other important rarity considerations (e.g., number of individuals, area of population occupancy, restrictiveness and distribution of species' geographic range, habitat rarity, population trends, population viability, and degree of protection).

Threatened - Native plants documented as having 6-20 natural occurrences in the state observed within the last 20 years, or plants with more than 20 occurrences that are, in the judgment of experts, imperiled by extirpation due to other important rarity considerations (e.g., number of individuals, area of population occupancy, restrictiveness and distribution of species' geographic range, habitat rarity, population trends, population viability, and degree of protection).

Watch - Native plants documented as having 21-100 natural occurrences in the state observed within the last 20 years, or plants that are, in the judgment of experts, vulnerable to extirpation due to other important rarity considerations (number of individuals, area of population occupancy, restrictiveness and distribution of species' geographic range, habitat rarity, population trends, population viability, and degree of protection). Native plants whose status is uncertain, but are possibly in peril, may be designated state watch as well.

Indeterminate – Poorly understood are the species rarity, nativity, taxonomy, and/or nomenclature. Indeterminate plants are under review for listing as endangered, threatened, or watch.