emissions that can be expected from the Record Hill Wind Project." Dr. Nissenbaum Aff. at ¶4.[2] He adds that "credible evidence of negative health effects from Industrial Wind Projects [is available] from Canada (in the form of the health/symptom survey from Ontario, Canada) by Robert McMurtry, M.D., [his] own preliminary but significant findings from Mars Hill, Maine and a draft of a potential landmark book 'Wind Turbine Syndrome' by Nina Pierpont, M.D. [*Exhibit K-14*] Dr. Pierpont is an accomplished and well respected physician who is making significant contributions to the body of knowledge on the health impacts of wind turbines. Her basic premise about the existence of wind power syndrome has been well received by some of the foremost experts in the field of Otorhinolaryngology and Otology. [He] furthermore agree[s] with her minimum protective distances of up to 1 to 3.5 km (for mountainous terrains) set forth in pages 11-12 of an excerpt of her Draft Report attached to [his Affidavit] as *Exhibit C*. Dr. Nissenbaum Aff. at ¶9.

The Final Order justifies the absence of any weight given to potential health effects on two grounds. First, it relies on EnRad's assertion that "infrasound below 20Hz (the threshold of audible sounds for 90% of the population) has been widely accepted to be of no concern" Final Order at 10. This statement is not accurate. As explained by Dr. Nissenbaum, "[i]nfrasound has not been widely accepted to be of no concern other than by non-physicians doing work contracted by members of the Wind Industry, and at least one of the key non- physicians utilized by the Wind Industry has issued conflicting opinions on the issue. There has been no medical refutation of the potential negative health effects of infrasound emitted by Industrial Wind Turbines and the subject is at the least an open medical issue of concern warranting immediate

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[2] At Mars Hill the houses are closer to wind turbines than they will be at Record Hill. However, the turbines at Record Hill (2.3 MW) are much more powerful than at Mars Hill (1.5 MW).

investigation. There is additionally at this point a small body of unrefuted medical research indicating that there may be problems associated with infrasound. Regardless, there are clear issues relating to higher frequency, audible, low frequency noise of a persistent, pulsatile nature such as created by Industrial Wind Turbines." Dr. Nissenbaum Aff. at ¶5.

Second, the Final Order relies on Dr. Dora Mills, Director of Maine Center for Disease Control, for the proposition that she found "no evidence in peer-reviewed medical and public health literature of adverse health effects from noise generated from wind turbines other than occasional reports of annoyances." *Id.* This also is not a valid reason. As Dr. Nissenbaum explains, "[w]hile the word 'annoyance' has been used in European studies relating to this turbine noise, the term has been misinterpreted by the Wind Industry and the Maine DHHS to mean an inconsequential disturbance, whereas the authors, not being medical doctors and not being native English speakers, did not describe the health significance or severity of the 'annoyance' in medical terms. A review of the Mars Hill findings suggests that this 'annoyance' is one of the root causes of the sleep disturbances and secondary negative health effects suffered by the residents of Mars Hill, Maine." Dr. Nissenbaum Aff. at ¶6. Thus "annoyance" cannot be dismissed in terms of health effects, especially in the context of a site like Record Hill, where the country "dead silence" at night accentuates the sound from wind turbines and the potential for sleep disturbance.[3]

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[3] The record includes the opinion of E-Coustic Solutions in its Review at 5 that states that"[n]ew noise sources are properly assessed for annoyance and sleep disturbance potential by comparing the sound levels during the quietest times of the day or night when the new noise source may be operating and most clearly audible to people. E-Coustics estimates that nighttime levels of noise from the project will be substantially higher than existing sound levels at night. Thus the record supports that annoyance will be an issue, as even Dora Mills recognizes and as Warren Brown recognized in the March 6 conference call when he pointed out that there are "lots of studies done in Denmark and the Netherlands [that] show annoyance is an issue" with wind turbines.

Moreover, after the Final Draft was published, on September 12, 2009, the Maine Medical Association ("MMA") adopted a resolution recognizing that "assessing the potential health impact of wind turbines has been difficult to measure but if present would be of significant concern" and urging the DEP to adopt procedures that "reflect scientific evidence regarding potential health effects, and to further explore such potential health effects" and to "avoid [ ] unreasonable noise ... with development setbacks...." Dr. Nissenbaum Aff. at Exhibit D. This resolution passed, notwithstanding the previous objections of Dr. Dora Mills in a subcommittee considering a similar resolution. According to Dr. Nissenbaum, the "Maine CDC Director's refusal to recognize any potential negative health effects of wind power projects, and her public statements urging the rapid establishment of Industrial Wind Projects in Maine seem to be at odds with the caution expressed by the wider medical community, as indicated by the attached Maine Medical Association resolution. Nissenbaum Aff. at ¶11.[4]

The need to take a more cautious approach to wind turbine siting because of the potential health effects is also supported by the *Night Noise Guidelines* in 2007(*Exhibit K-1)* issued by World Health Organization ("WHO"), recommending sound levels during the nighttime at less than 30dBA during sleeping periods for children and below 32 dBA for adults. An earlier version of these Guidelines, published in 1999 (*Exhibit K-2*), concluded that even then WHO believed that "low frequency noise ... can disturb rest and sleep at low sound levels" and that the

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[4] The Maine CDC did not investigate the cluster of health complaints in Mars Hill for potential significance. Given that Mars Hill potentially represents a new negative health phenomenon resulting from the interaction of a ridge line source of Industrial Wind Turbines sited too close to human dwellings after faulty pre installation sound modeling, this represents a failure of the Maine CDC to comply with its mandate to investigate newly arising health issues to better understand them and propose solutions for mitigation and future prevention. As such, any statements emanating from the Maine CDC on this subject must be viewed as being based on incomplete information, at this point in time. Dr. Nissenbaum Aff. ¶3.

"evidence on low frequency noise is sufficiently strong to warrant immediate concern." See pg xii, xiii and 53. [Emphasis added.] *See also,* the discussion of the WHO Guidelines and other literature in George Kamperman & Richard James, "The 'How To' Guide to Siting Wind Turbines To Prevent Health Risks From Sound", *Exhibit K-10,* which recommends greater setbacks than DEP Chapter 375.10 based on the current state of scientific evidence on the health effects of low frequency sound. Nina Pierpont, M.D., PhD, in her draft publication, *Wind Turbine Syndrome* (March 7, 2009 pre-publication draft), *Exhibit K-14*, states at pg. 11 that "Kamperman and James have convinced me that single, one size fits all setback distances may not be protective and fair in all environments with all types of turbines. Even so, it is clear from this study and others that minimum protective distances need to be "greater than 1-1.5 km … at which there were severely affected subjects in this study b) greater than 1.6 km … at which there were affected subject in Dr. Harry's UK study and c) and, in mountainous terrain, greater than 2-3.5 km … at which there were symptomatic subjects in Professor Robyn Phipp's New Zealand Study." Dr. Pierpont's work was among those studies referenced at the MMA meeting resulting in the resolution described above.

Further record support for the need to take seriously the potential health effects from wind turbines can be found in Testimony of Charles Ebbing, George Kamperman, and Richard James, *Exhibit D*, at 1-5, the Report by Dr. Christopher Hanning, "Sleep Disturbance and Wind Turbine Noise" (June 2009) (*Exhibit K- 11*) ("There can be no doubt that groups of industrial wind turbines ('wind farms') generate sufficient noise to disturb sleep and impair health of those living nearby.") and the *Testimony of Steve Thurston* on May 6, 2009 (*Exhibit G*) at 3-5.

Based on this record, it would be irresponsible for the Board not to take the health effects of wind turbine noise seriously and not to at least hold a public hearing on the subject, as urged

by Dr. Nissenbaum. In his words:

> Pending the use of more appropriately designed modeling studies, and the establishment of more appropriate regulations, the DEP and LURC should exercise more caution and deliberation prior to permitting additional Industrial Wind Projects, recognizing that there are still currently unknowns. The physical scale of the Industrial Wind Turbines used today is relatively new and we are only beginning to learn, as physicians, about the presence or absence of negative health effects that may result from poor siting decisions. In so doing, they will be better discharging their responsibility to protect the health and safety of Maine citizens.

Nissenbaum, Aff. ¶13.

5. *The Failure to Provide for Adequate Compliance/ Mitigation Rules.*

The Final Order accepts the Compliance Assessment Plan proposed by the Applicant on June 2, 2009, as revised August 3, 2009. *See*, Final Order (*Exhibit A*) at 10, 11-12 and Approval 5 at 48. The Aggrieved Parties object to the Compliance Plan to the extent that the Final Order relies upon it as an alternative to findings that the Applicant has not properly included the 5 dBA penalty to account for SDR. *See* discussion at 23-24 *supra*. To substitute a post- construction and post-operation test for a setback requirement intended to be assessed as part of the application process limits the options of the Applicant and the DEP to remedy the problem after the fact, other than to adopt a variance as was done in Mars Hill, now recognized as a mistake. The compliance assessment plan does not address what will happen if there is non-compliance and this is essential to the validity of the plan. Nor does the compliance assessment provide for notice to interested parties so that they will have an opportunity to review and, if appropriate, challenge the adequacy of the compliance testing and mitigation requirements.

The Aggrieved Parties submit that an acceptable compliance program should require that (1) compliance testing occur for all conditions and operating modes for which complaints,

whether formal or informal, have been filed; (2) during such compliance testing, the Applicant should certify that the conditions being monitored represent the conditions during the complaint; (3) during compliance measurements, weather conditions (both at the location of a microphone and the top of the ridge as represented by weather data collected at the hub or other meteorological tower with a known height) should be documented for wind speed, direction, temperature, and relative humidity at a minimum in increments no longer than 5 minutes apart; (4) during compliance measurements, the operating parameters for the wind turbines nearest the measurement site should be documented in terms of power production, rpm of the rotor, blade settings, and power generated in increments no more than 5 minutes apart; and (5) the total power production and operating status of other turbines in the project within 3 km of the test site should be provided as totals. This information is needed to confirm the accuracy and legitimacy of the compliance testing. Without requiring such information and such procedures, there is no way third parties can properly assess the legitimacy of the compliance data submitted by the applicant.

B. Objections to the Decommissioning Plan.

The Final Report does not require the Applicant to have the Decommissioning Fund fully funded until near the end of the useful life of the turbines and it does not require any funding to begin until year 11 of operations. Final Order at 43. The Aggrieved Parties object to this funding scheme because it violates the letter of the law. Section B-13 of the Wind Power Development Law, Chapter 661, 123rd Legislature, Second Session, effective April 18, 2008 (the "Wind Power Act") requires DEP and LURC to jointly specify requirements for decommissioning. The law requires "Decommissioning plans [to] include[ ] demonstration of *current and future financial capacity that would be* ***unaffected by the applicant's future financial condition*** to fully fund

any necessary costs commensurate with the project's scale, location and other relevant considerations, including, but not limited to, those associated with site restoration and turbine removal." [Emphasis added.] This statutory requirement was recommended in a paper submitted to the Governor's Task Force on October 30, 2007 (See "Meeting Summaries" at the Governor's Task Force Website) titled "State Siting Process For Grid Scale Wind Energy Facilities: Issues and Options." Issue A-6,states: "Because a wind power project ... has real and potential effects on the natural environment, it is important to ensure that the project facility is properly decommissioned ...." The paper then proposed the following option:

> Develop a standardized state decommissioning policy,
> to be implemented regarding wind power, under which,
> as a condition of project approval, the applicant would establish
> a fully funded decommissioning account ... that would be
> unaffected by the applicant's future financial condition.
> [Emphasis added.]

The Wind Power Act, like the proposal that the Wind Power Act adopted, thus requires a *pre-funded* decommissioning fund, not one established in the future that might be "affected by the applicant's future financial condition." By definition, any funding requirement in the future would be affected by the applicant's future financial condition. Not only is the requirement for pre-funding obvious from the wording of the Wind Power Act, but it makes eminent sense, as evidenced by the Decision of April 16, 2009 by the Vermont Public Service Board *In the Matter of Amended Petition of Deerfield Wind ,LLC* at pgs 91-92 (part of the record and the *Testimony of Steve Thurston* on April 21, 2009, *Exhibit F*) requiring a Letter of Credit for the estimated decommissioning fund to be posted prior to construction.

The Final Decision is thus in violation of the law because it does not require the decommissioning fund to be pre-funded, but rather does not require that the fund even to be

addressed until 11 years of operation, at which time the Applicant's financial condition might well be incapable of meeting its obligations. So, in the Final Order, the Applicant's decommissioning obligations are entirely subject to the financial viability of the proposed project. As all the wind projects are new to Maine's energy market and given the large number of new projects proposed or coming on line, the risks that the Legislature required to be protected against with pre-funding, are left to the whim of the marketplace.

The Deerfield decision also disallowed a deduction for scrap metal salvaged as part of the decommissioning because "[s]crap value is vulnerable to market place volatility and thus should not be considered a viable funding source for decommissioning the Project." *Id.* at 91. The Aggrieved Parties object to the Final Order because it allows the Applicant to deduct scrap value in estimating decommissioning costs. In fact, according to the testimony of Ronald Dube (*Exhibit H*), the Applicant has already over estimated the scrap value of the Record Hill Project.

C. Objections to Financial Capacity

The Final Order (*Exhibit A*) states in Section 3 at pg. 6 that:

> The Department finds that the applicant has demonstrated adequate financial capacity to comply with Department standards provided that the applicant submits final evidence of financial capacity **prior to the start of construction** as referenced above. [Emphasis added.]

Yet in Approval No. 4 at pg. 48 of the Final Order, the Applicant is not required to submit evidence of financial capacity until ***"[p]rior to the start of operation."*** These two provisions are inconsistent. Of the two, the first (requiring demonstration of financial capacity prior to construction) is what DEP usually requires. The proposed revisions to DEP Chapter 373 explicitly state that "[e]vidence of financial capacity must be provided prior to beginning project construction ..." The current version of Chapter 373 implicitly mandates the same in Section

1.B.4, which states that in cases where there is no commitment of money until the applicant's project application is approved, a letter of "intent to fund" shall be required. The Applicant has started construction and has not yet demonstrated its financial capacity in accordance with Section 3 of the Final Order. The Aggrieved Parties urge the Board to stop construction of the Project until the proper financial capacity has been demonstrated.

D. Objections as to Scenic Character.

No visual impact assessment was done of the Record Hill Wind Project in relation to Roxbury Pond because Roxbury Pond was not considered a scenic resource of state significance. See 35-A M.R.S.A. §3452.3 and .4. Roxbury Pond was not considered a lake of state significance within the meaning of 35-A. M.R.S.A. §3451.9 because it was not listed in the "Maine's Finest Lakes Assessment" published by the State Planning Office in 1989.[5] Final Order at 15. The use of Maine's Finest Lake Assessment as a tool for the primary siting authority to determine whether a great pond (which Roxbury Pond is) is a pond of state or national significance, as applied to this Project, is improper because the Assessment is incomplete. The Assessment states at 17 that "[g]iven the lack of information, the resulting list of lakes may be incomplete *and some lakes with significant or outstanding shoreline characteristics may have gone unreported.*" [Emphasis added.] See also, Assessment at 16 ("No base of consistent published or unpublished information on visual quality within the organized portion of the state was available.") and Assessment at 29:

> It is important to note that both the LURC and the current project (organized lakes) relied heavily on existing information to rate lake resource features. Due to the large number of lakes in the state, as well as the lack of field surveys

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5 Maine's Finest Lake study can be found on the website of the Governor's Task Force on Wind Power.

> on these lakes, **it is quite possible that some important features have been overlooked. Because of this, these lake ratings should be considered minimal findings.** Some class 3, 2, or 1B lakes may be more significant than their rating indicates." [Emphasis added].

If the methods specified in the Assessment for designating lakes as significant were applied to Roxbury Pond, it would be considered a lake of state significance. *See* the Testimony of Steve Thurston on May 4, 2009. (*Exhibit N* attached to this document) and a Visual Impact Assessment would have been required. To deny the Aggrieved Parties the protections of visual impact protections of the environmental laws solely because the Wind Power Act limits lakes to those listed on an incomplete report is arbitrary and capricious and violates the Due Process and Equal Protection Clauses of the United States and Maine Constitutions

E. Objections to Title, Right & Interest.

Section 2 of the Final Order at 5 states that the Applicant has demonstrated title, right and interest for proceeding with the Project. The Aggrieved Parties object to this finding because the Applicant does not have the necessary transmission infrastructure to connect with the grid nor allow the grid to safely absorb the project's output. This objection was overruled based on the rationale that the upgrade of the grid is a "separate project" that may proceed separately, even though the project under consideration could not proceed without the upgrade. This is an arbitrary and unreasonable finding, clearly demonstrated by the fact that the project is currently under construction although no permits for transmission lines have been issued.. If the project cannot operate without an upgrade to the grid, then it should not be approved until that upgrade is assured, for the same reason that financial capacity must be approved prior to construction. Without assurances about the upgrade prior to construction, there is an unreasonable risk that all the environmental harms that accompany the construction of the project will be suffered without

any benefit intended by the project if the necessary approvals are not received and the project fails because of that.

F. Objections to Findings on Wildlife.

In the Final Order the DEP addresses concerns by the Aggrieved Parties about the effect of the Project on migratory birds, bats and raptors. Final Order (*Exhibit A*) at pgs 21-24. The way the DEP resolved these concerns was to require a post- construction monitoring plan to guide MDIFW and the Applicant in the implementation of appropriate and practical measures for assuring the avoidance or minimization of any unreasonable adverse impacts to wildlife. The problem comes from what is said next. In the Draft Order (*Exhibit B*) , if monitoring indicated the need to do so, the Applicant would be *required to implement* (1) modified operations, (2) on-site habitat management and (3) habitat protection, whereas in the Final Order the Applicant is only required to "consider" these actions. These changes are pernicious and allow the Applicant to consider but reject mandatory measures to protect wildlife.

IV. RELIEF REQUESTED.

The relief requested by the Aggrieved Parties is for the Board to void the Final Order and send it back to the DEP for the following purposes:

1. Require the Applicant to demonstrate that it meets the Noise Restriction of Chapter 375, Sec. 10 after correcting the Noise Assessment as explained above for line source and for SDR and to provide for greater buffers to account for lack of precision in the noise modeling and because of the adverse health concerns and for a new monitoring compliance plan that specifies how mitigation will take place for non-compliance and providing for notification to interested parties of the results of monitoring and compliance testing, with an opportunity to comment and participate in decision-making with regard to the test results, for all the reasons

explained in Part III.A above. In the alternative, the Aggrieved Parties ask for a public hearing on the noise issue, with the opportunity to present further expert testimony and to cross examine experts of the Applicant and the consultant to the DEP.

2. Require the decommissioning fund to be pre-funded, for the reasons stated in Part III.B above.

3. Prohibiting the Applicant from proceeding with construction until it has demonstrated financial capacity, for the reason set forth in Part C above.

4. Treat Roxbury Pond as a scenic resource of state significance and require a visual impact analysis of the Project in relation to Roxbury Pond, as discussed in Part III. D above.

5. Prohibit further construction on the Project until the Applicant has provided assurances as to upgrading the grid, as explained in Part III.E above.

6. Amend the Final Order to restore the terminology of the Draft Order on the issue of wildlife protection as explained in Part III.F above..

V. REQUEST FOR A PUBLIC HEARIING.

The Aggrieved Parties request a public hearing on the noise issue. It has demonstrated that there is at least "credible conflicting technical information regarding a licensing criteria," namely noise, as required by Rule 2, Section 7.B. The DEP states throughout the discussion on noise in the Final Order that it disagrees with the evidence of the Aggrieved Parties and it finds its consultant and others to be more credible. Be that as it may, these findings do not mean there is no credible, technical and medical evidence that disagrees. What it means is that this is the occasion when a hearing must be held. Just to take one example, the DEP dismisses the Aggrieved Parties' concerns about health effects based on the views of Dora Mills of MCDC that there are no adverse health effects. But the Maine Medical Association does not agree with her

objections to the resolution urging the DEP to take the health effects of wind power noise seriously. How can the Board not grant a hearing on that issue? If the Board can assume jurisdiction and hold a public hearing on an application for *a dock*, see *Hannum v. Board of Environmental Protection*, 2006 ME 51, 898 A.2d 392, how can it refuse a public hearing on a serious matter of public health for a major wind power generating facility? It would be irresponsible not to. A Summary of the Proposed Testimony of the Aggrieved Parties is attached as *Exhibit I* (for Dr. Nissenbaum) and *Exhibit M* to this document (for Richard James).

Respectfully submitted.

Dated: August 21, 2009

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Attorney for The Concerned Citizens to
Save Roxbury and Other Aggrieved Parties

STATE OF MAINE
BOARD OF ENVIRONMENTAL PROTECTION

In Re:

RECORD HILL WIND, LLC	)	
Roxbury, Oxford County	)	**SUMMARY OF THE PROPOSED**
RECORD HILL WIND PROJECT	)	**TESTIMONY OF RICHARD JAMES**
L-24441-24-A-N (approval	)	**AT THE REQUESTED PUBLIC HEARING**
L-24441-TF-B-N (approval)	)	

SUMMARY OF THE PROPOSED TESTIMONY OF RICHARD JAMES

1. The Limitations of the Models used in the Record Hill Application to Estimate Operational Noise a Failure to Use Line Source Calculations.

He will testify to his understanding of the uses and limitations of computer models including but not limited to the question of whether the model should use "line-source" or "point-source" calculation methods for the Record Hill Wind Project. This will advance the arguments raised in his earlier testimony. His testimony will be based on ISO 9613-2 and his own modeling experience since the 1970's in using these methods for predicting sound propagation into communities from industrial noise sources. He will support this discussion by reference to recent research and papers written by other experienced users of commercial implementations of the ISO 9613-2 methods such as Cadna/A which was used for the Record Hill Noise Study. He will also testify to the limitations of these methods and how they impact the results of the sound propagation model used by Record Hill Wind, LLC to predict the sound levels in the community of the wind turbine project. He will use the ISO 9613-2 standard to identify limitations to the model's accuracy when used to predict wind turbine sound propagation and discuss the tolerances that must be included in the predicted sound levels to account for these limitations or the conditions that lead to higher sound emissions not addressed and in the Record Hill study. He will also testify to his understanding of the uses and limitations of the IEC 6400-11 standard and the sound power data derived from it for the wind turbine manufacturer and how that also adds to the uncertainty of the predicated sound levels from Record Hill Wind, LLC's model.

2. The Failure to Apply the SDR 5% Penalty.

He will testify to the proper application of the rules and guidelines of the MDEP regulating noise as interpreted by an acoustical engineer with over 35 years of experience addressing community noise for his clients, both industrial and governments, in the US and other countries. This will address MDEP's failure to apply the SDR 5% penalty in the Record Hill

Application and include testimony on the documents and other information used by the MDEP in reaching its decision not to apply this penalty. It will include his experience in measuring SDR's exceeding the thresholds set by the MDEP at other wind turbine utility where complaints about this type of noise has led to formal complaints and threats of litigation.

3. Failure to Consider the Health Effects of Night Time Noise.

He will testify to research he applies to questions of whether nighttime sounds are sufficient to cause adverse health effects. This will include widely accepted guidelines such as those published in 2007 by the World Health Organization's Nighttime Noise Guidelines to which he will testify that the sound levels of the amplitude projected for the residential properties at Roxbury pond are classified by WHO as health risks. He will also testify on his understanding of adverse health effects identified in more recent studies specific to wind turbine noise showing a link between wind turbine sound emissions and adverse health effects on people's organs of balance and other sensitive receptors based on his work with the researchers conducting those studies and his own experience in working with people experiencing those symptoms.

4. The Failure to Provide for Adequate Compliance/ Mitigation Rules.

He will testify as to inherent flaws in the Compliance/Mitigation rules. He will address the technical and procedural flaws in the current wording that will lead to ambiguous results that will not document Compliance, but lead to more confusion. He will also address the failure of the mitigation rules to address Best-Available-Technology and mitigation methods that need to be considered and included in the original design and construction phases of the wind utility.

QUALIFICATIONS OF RICHARD JAMES

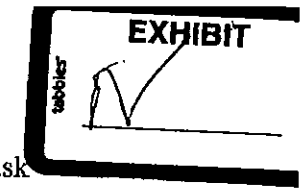
Mr. Richard James is the Principal Consultant for E-Coustic Solutions, of Okemos, Michigan. Mr. James is an acoustical engineer with over 35 years of experience addressing community noise for new and existing industrial and commercial facilities. He is a Full Member of the Institute of Noise Control Engineers. He first joined the Institute in 1973.

Mr. James was the former President of James, Anderson & Associates, Inc., an acoustical consulting firm whose clients included Fortune 100 companies for 23 years. The company grew from the original two partners to a staff of over 40 acoustical engineers, industrial hygienists and technicians. As President, and Principal Consultant, he and his staff developed partnerships with companies such as: General Motors, Ford, Chrysler, Goodyear Rubber Company, Anheuser Busch and Deer and Company, as well as many smaller firms. Services included consulting on community noise issues for existing plants where neighbor's complaints have led to governmental actions against the firms or site selection and planning for new facilities to determine compatibility of the proposed facility and the existing neighborhood.

Mr. James has personally conducted studies throughout the U.S. and Europe for his firm's clients. One of these jobs involved working on behalf of GM over a ten year period to change the Illinois EPA Noise Standard to require a one (1) hour Leq measurement to assess a possible violation of the IEPA Noise Section 901 standards (see Section 900.103(b)). In 2006, Mr. James and his partner, Robert Anderson, closed James, Anderson and Associates, Inc. Mr. James now provides his consulting services through his new firm: E-Coustic Solutions.

In addition to his consulting interests, Mr. James has served as Adjunct to Michigan State University's Department of Communicative and Disorders for 20 years. Until 2006, Mr. James was a voting member of the American National Standards Institute's S12 Committee with oversight responsibilities for acoustical test methods and procedures used to standardize the work of acousticians and noise control engineers for measuring sound and assessing Land-Use-Compatibility.

Since 2006, when the first major wind turbine projects were announced in Michigan, Mr. James has become more involved with this relatively new industrial noise source. His work includes developing siting criteria for county and township governments, conducting acoustical tests of operating wind turbines and pre-construction background sound studies, providing testimony at zoning hearings and public presentations concentrating mainly on Michigan, Ohio, Wisconsin, Illinois , West Virginia, Maine, and Pennsylvania. He also has clients in Oregon, Washington, the U.K. and New Zealand.



Act 661, LD 2283, An Act to Implement the Recommendations of the Governors Task Force on Wind Power, contains the following language:

4. Visual impact assessment; rebuttable presumption. An applicant for an expedited wind energy development shall provide the primary siting authority with a visual impact assessment of the development that addresses the evaluation criteria in subsection 3 if the primary siting authority determines such an assessment is necessary in accordance with subsection 3. **There is a rebuttable presumption that a visual impact assessment is not required for those portions of the development's generating facilities that are located more than 3 miles, measured horizontally, from a scenic resource of state or national significance.** The primary siting authority may require a visual impact assessment for portions of the development's generating facilities located more than 3 miles and up to 8 miles from a scenic resource of state or national significance if it finds there is substantial evidence that a visual impact assessment is needed to determine if there is the potential for significant adverse effects on the scenic resource of state or national significance.

The legislation defines a scenic resource of state or national significance as:

9. Scenic resource of state or national significance. "Scenic resource of state or national significance" means an area or place owned by the public or to which the public has a legal right of access that is:

D. A great pond that is:

(1) One of the 66 great ponds located in the State's organized area identified as having outstanding or significant scenic quality in the "Maine's Finest Lakes" study published by the Executive Department, State Planning Office in October 1989;

The Study titled Maine's Finest Lakes, published October 1989 **does not contain 66 lakes.** The lakes are listed beginning with Abbott's Pond on page 33 and ending with Warren Pond on page 70. One pond is listed per page, so **there are actually 38 ponds or lakes on the list, not 66.** Therefore one may ask what happened to the other 28 lakes on the list of 66 lakes referred to in the legislation. One of the missing lakes is without question Roxbury Pond in Bryon and Roxbury. A discussion of the criteria by which lakes were evaluated for inclusion on the Finest Lakes list, the assessments performed and a comparison of Roxbury Pond with some of the lakes on this list makes it clear that one of the 24 missing lakes on a list of 66 of Maine's Finest Lakes must be Roxbury Pond.

Following is the ranking for Roxbury Pond. Notice that Roxbury Pond received a ranking of "statewide significance" for wildlife and a ranking of "significant" for fisheries. The other criteria are not filled in, meaning that Roxbury Pond was not evaluated in these areas –Botanic, Physical, Cultural, Scenic, or Shoreline

Lake Name	Lake #	IFW Region	Size (Acres)	Botanic	Physical	Cultural	Scenic	Shoreline	Fisheries	Wildlife	Overall Rating
** TOWNSHIP NAME: BYRON											
ELLIS (ROXBURY) P	3503	D	920					5	D		10
ELLIS P -LITTLE-	3502	D	297					5			2

There is no argument that Roxbury Pond is an outstanding resource for its abundant wildlife, including two bald eagle rookeries, a man made nesting site used annually by a pair of loons, frequent use of the pond by moose, and the presence of many other big game animals. Deer wintering areas near the pond make deer sightings a frequent occurrence during the winter months. Beavers, mink, fishers, bobcats, fox, otters and many other animals are found there. Likewise there is no disagreement about the fishing opportunities afforded anglers on the pond. Roxbury Pond has always been famous for its abundant fishery.

The construction of many primitive fishing camps in the first half of the 20th century when automobiles allowed residents of Andover and Rumford more convenient access to the pond was recognition of the ponds abundant fishery, a fact that previously was known only to the farmers nearby in Byron who made frequent trips to the pond by foot or horseback where they kept rowboats along the shoreline.

Black bass in the 5 pound range are occasionally caught, and large schools of white perch provide table fare for those who enjoy the traditional corn meal and salt pork fish fry. Pickerel as large as 26" are found in the shallows. Fishermen occasionally catch brown trout which migrate into the pond from Gardland Brook and Beaver Brook and are also stocked. Hornpout fishing at night is a favored activity of some fishermen who enjoy catching one of the few fish that are skinned rather than scaled, filleted, or cooked whole. Suckers and sunfish are frequently caught as well. Bushels of smelt can be harvested in Garland Brook during April or May as the spawning fish make their way upstream. Numerous shanties testify to the pond's excellent ice fishing. If anything, one could quarrel that the fishery on Roxbury Pond is equal to any other pond the state and is fully deserving of an outstanding rating.

The reason for the failure of the study to properly evaluate Roxbury Pond on the criteria that are left blank on the evaluation form is unknown, but the report makes clear that many ponds may not have been properly evaluated as is discussed in the description of the standards used to evaluate shoreline character:

"Given the lack of information, the resulting list of lakes may be incomplete and some lakes with significant or outstanding shoreline characteristics may have gone unreported."

Following are individual sections of the Maine's Finest Lakes survey explaining the overview and standards used by the evaluation teams in their assessment, and comments about Roxbury Pond's qualifications.

SHORELINE CHARACTER

Overview

Shoreline character refers to physical features at the lake's edge and their relationship to recreational use of the lake. Shore features such as beaches, ledges, and open areas are included to the extent that they enhance opportunities for swimming, diving, wading, camping, picnicking, fishing, or boating.

Standards

Lacking an established base of information for Maine lake shorelines, lakes included in the shoreline character evaluation were limited to the 115 lakes flown for scenic assessment. In addition to aerial evaluation, resource experts were consulted about shoreline information. Given the lack of information, the resulting list of lakes may be incomplete and some lakes with significant or outstanding shoreline characteristics may have gone unreported.

Roxbury Pond has a shoreline which includes no less than 4 fine sand beaches distributed around the pond, numerous rock outcroppings, both along the perimeter of the pond and also forming the shoreline of both islands, a gently undulating shoreline which forms many discrete coves and points, and an inlet which is navigable by small boat or canoe for a great distance. The pond is bordered on the west by a wide flat basin with numerous wetlands and bogs. There is a particularly unique feature in the northwest corner of the pond called The Logan, which is a relatively slow moving body of water several hundred yards long culminating in a wide pool. The Logan is home to numerous chain pickerel, many turtles, many species of birds and often moose can be seen or heard in the woods nearby. Just outside the Logan is a weed filled cove that is the nesting site for one of several pairs of loons which raise a family yearly on Roxbury Pond.

More than 60% of the shoreline of Roxbury Pond is undeveloped due to the wetlands that border the wide area between the inlet and the outlet. On the west shore ancient ice formed berms 4-5 feet high are remnants of a different period in the pond's evolution. The annual ice-over of the pond has over thousands of years acted as a giant bulldozer blade, each year pushing a tiny amount material at the waters edge into a long pile

A boulder field fills the shallows on the west shore to the west of the outlet. The rounded rocks were tumbled a long distance before coming to rest here, where they provide perfect spawning habitat for the black bass population that is the mainstay of sport fishing on the pond.

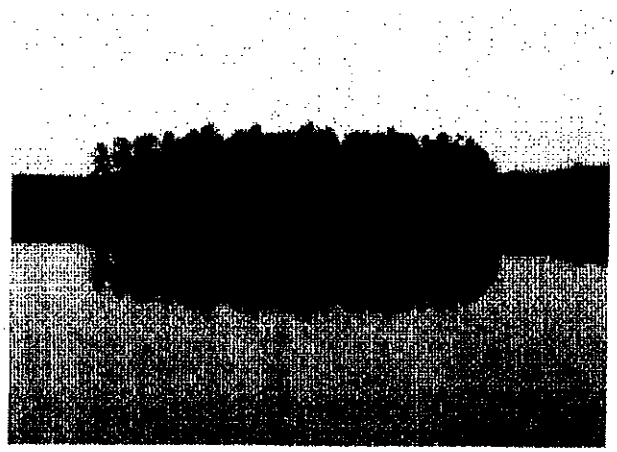
The larger of the two islands on Roxbury Pond has been the home of a bald eagle rookery for at least 25 years. A stand of old growth pines on French Island provide the perfect nesting sites for these majestic creatures. Each year the eagles

raise 2 or 3 young and the juveniles usually return with their parents for a year two before moving on to find mates and their own nesting sites. Eagles can often be seen perched near the tops of the tallest pine trees along the lake, scanning for their next meal. Fish hawks and ospreys are frequently seen taking fish from the lake as well as the eagles. A natural balance of nature has allowed the pond to support such a diverse population of animals over the centuries. There is no question that Roxbury Pond is well deserving of its 1A ranking of "state or national significance" for wildlife.

Roxbury Pond varies in depth from 3-4 feet a hundred feet or so from most shorelines to an average depth of 9-12 feet in the middle with a deep hole south of French Island that is 42 feet deep. Several enormous rock formations, which are visible during low or rough water, sit near the edge of this deep hole, their massive shapes disappearing into the depths.

The largest of Roxbury's beaches is town property, donated by the Merrill family, early settlers of Andover and later of Merrill Lynch fame. The beach is approximately 50' wide and nearly 1/3 mile long and forms a buffer between the pond and the numerous small camps that date from the early 20th century.

The attributes described above are all familiar features to anyone who has lived at the pond. Nowadays, many of the camps which were originally built by people from nearby towns are owned by people from MA, CT, RI, VT, and many other states. Many formerly seasonal camps have been improved for year round use. In addition to fishing and boating in the summer, the winter recreational activities of snowmobiling, snow shoeing, cross country skiing, ice fishing and eagle watching afford full and part time residents and visitors an unparalleled 4 season experience.



French Island

SCENIC QUALITY

Overview

Scenic quality was evaluated from the perspective of views available from a lake, based on two main assumptions: 1) Landscapes of mountains, hills, and unaltered forested terrain adjacent to a lake are visually pleasing; and 2) As the variety of landscape features increases, so does the overall scenic beauty of a lake. Based on these premises, the level of scenic quality for a lake is generally proportional to lake size and local topographical relief.

This assessment considered the overall scenery of a lake, rather than scenery from a single view at specific locations.

Standards

The assessment process largely followed that described in Scenic Lakes Evaluation in Maine's Unorganized Towns, prepared in 1987 as part of the Maine Wildlands Lake Assessment.

An initial list of potentially scenic lakes was developed by visually inspecting topographic maps for areas of high relief. The edge index (ratio of shoreline length to surface area) was then calculated for each lake on the list.

To remain on this list, the lakes had to meet the following criteria:

- Exhibit a 300 foot change in relief within 0.5 miles of the lake, or
- Exhibit a 700 foot change in relief within 7.0 miles, or
- Have an edge index of at least 1.5.

The master list was further refined as follows:

- Large lakes, greater than 1,000 acres, were removed from consideration if they had less than 4 areas of significant relief.
- Medium sized lakes, 500 to 999 acres, were removed if they had less than 3 areas of significant relief.
- Small lakes, 10 to 499 acres, were removed if they had less than 2 areas of significant relief.

Lakes were added to the list if they:

- Appeared to be remote. (Remote lakes included lakes that did not contain vehicular access within a quarter mile of the shoreline. These

were identified by reviewing maps contained in the Maine Atlas and Gazetteer, published by the DeLorme Mapping Company, Freeport, Maine.)

- o Were located above 1,800 feet in elevation, or
- o Had an area of significant relief (1,000 feet or more) within 1 mile.

Lakes that met all of the minimum standards were evaluated from the air. During the flight the following factors were evaluated:

- foreground and background relief
- number and distribution of physical features
- shoreline vegetational diversity
- special features (e.g. extreme water clarity)
- inharmonious development

A numerical rating was given to each factor that reflected the extent to which a lake displayed the characteristic. After the flight points were totaled for each lake. Numerical ratings from the flight data forms varied from 20 to 75 out of a total of 100 possible points. Lakes with ratings greater than 60 were designated outstanding. Lakes with ratings of 40 - 55 were designated significant. These point cut-offs were determined by arraying the data and identifying logical significance breaks.

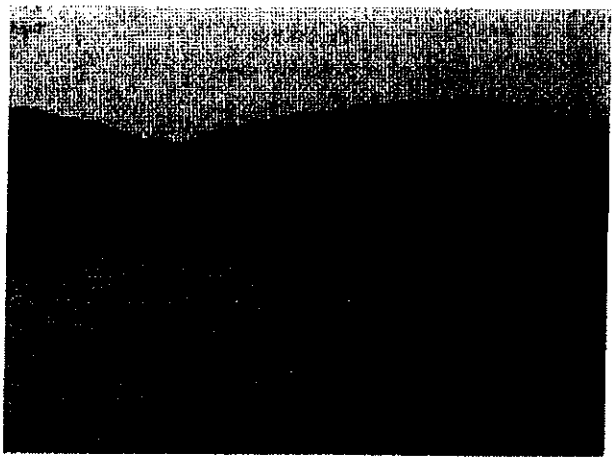
Participants

Hank Tyler, Critical Areas Program
Drew Parkin, Scenic evaluation
John Lortie, Scenic evaluation

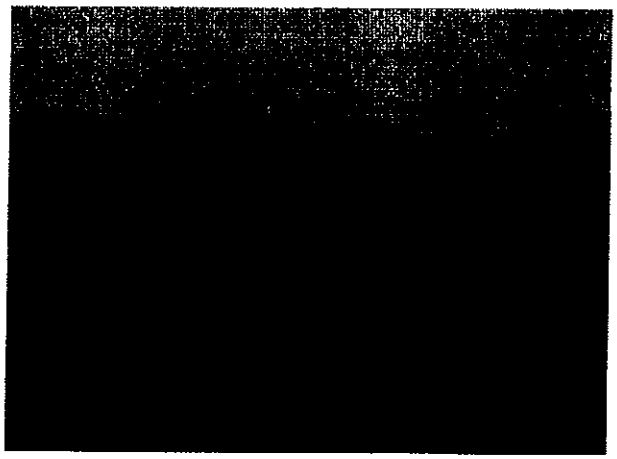
Information Sources

No base of consistent published or unpublished information on visual quality of lakes within the organized portion of the state was available.

Roxbury Pond's majestic scenic mountain vistas are perhaps its most impressive feature. Within 7 miles there are **no less than 13 peaks** on the horizon which rise 1000 feet or more above Roxbury Pond's 812' elevation above seal level. Further in the distance Bald Pate and Old Speck rise more than 3000 feet above sea level. The pond is completely encircled by mountains, with Old Turk , Record Hill, and Flathead Mountain rising quickly from the east and north edges of the pond, forming impressive near ground relief. These ridges, in close proximity to the pond, are the favorite soaring places of young eagles and other raptors due to the thermal updrafts that form during the summer when young eagles are first testing their wings. Roxbury Pond's rounded shape is enhanced by the navigable waters of the inlet, which flows down from Garland Pond until it reaches the lowlands to the west of the pond, where it begins to meander its way to Roxbury Pond. The reaches of the Logan combined with the shoreline of French Island and The Little Island, and gently undulating shoreline achieve an edge index of 1.5. These unique features of the pond combined with the magnificent mountain vistas and wide open sky make Roxbury Pond one of the most spectacular mountain scenery ponds in the entire state and easily qualify the pond as significant in the numerical rankings.



Roxbury Pond town beach, Black Mt. in the background.



Bald Pate, Old Speck in background. Old growth pine forested shoreline.

PHYSICAL FEATURES

Overview

When the glaciers retreated 10,000 years ago, the State of Maine was left with a cornucopia of lakes containing a rich assortment of noteworthy physical and geological features. Cliffs, sand beaches, and bedrock outcrops are noteworthy geologic features; subtler or less common features include fossil localities, relic shorelines, caves, waterfalls, reverse deltas, moraines, and kettleholes.

Certain Maine lakes also exhibit unique hydrological characteristics such as extremely low nutrient content, naturally high alkalinity, natural eutrophication, and chemical stratification. Often associated with these features are groups of species specifically adapted for living in such environments. For purposes of this report physical features are divided into geologic features and hydrologic features.

Standards

To be included in the lakes assessment, geologic or hydrologic features had to be:

- in the lake,
- within a 250 feet of a lake (the shoreland zone), or
- a dominant feature in the landscape as viewed from the lake.

For the geology component, a master list of those lakes located entirely within Maine's organized townships was distributed to geologists who have conducted field work for the Maine Geological Survey. Each geologist was asked to identify lakes that contained significant fossil localities, significant bedrock outcrops, sand beaches, cliffs, caves, waterfalls, relic shorelines, reverse deltas, significant glacial features, unusual hydrogeological features, or mineral resources.

The geologists were then asked to highlight any feature that was either 1) a type locality, 2) a rare occurrence, 3) an outstanding example, or 4) critical to geologic interpretation. Features that met any of these form criteria were given a final rating of outstanding. Others were given a rating of significant.

For the hydrology component, a master list of lakes located entirely within Maine's organized townships was sent to the Hydrology Coordinator of the Maine Department of Environmental Protection (DEP). DEP lake specialists identified lakes that contain exceptional depth, exceptional water clarity, unusual water chemistry, springs; or other significant hydrological features.

Hydrological features were ranked outstanding if they were 1) a rare occurrence, 2) critical to the interpretation and understanding of the hydrology of a region or 3) an outstanding example of a particular feature. Other noteworthy hydrologic features were given a rating of significant. The level of significance was qualitatively determined using professional judgement.

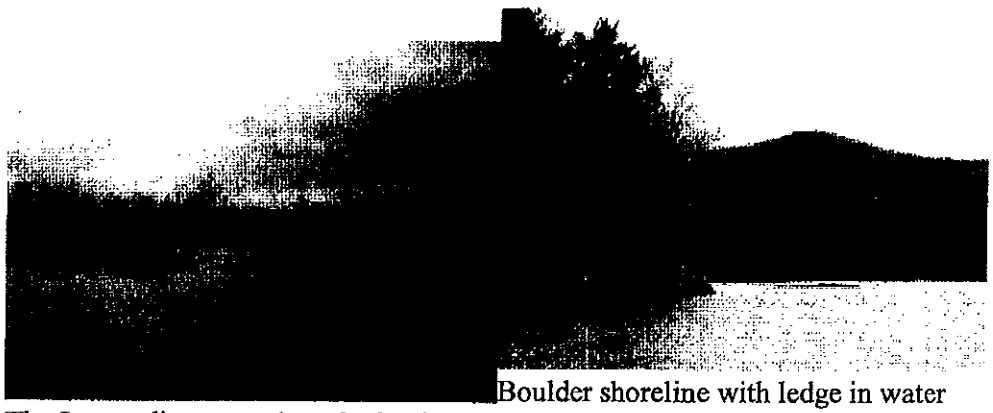
The most prominent feature of Roxbury Pond is French Island. Roughly 2 acres in size, and rimmed by huge boulders it occupies a spot roughly in the center of the pond. The deepest depth of the pond, at 42 feet, lies a hundred yards off the southwestern shore. The glacial action that deposited this mass of rocks is difficult to imagine, but the forces of ice or water that allowed moving rocks to pile up in this location must have been enormous. Equally fascinating is the

presence of "the deep hole", an anomaly in an otherwise fairly consistent depth of 9-12 feet in much of the pond. The much smaller "Little Island", near the outlet of the pond is likewise formed by an arrangement of huge rocks and the water on all sides is a treacherous portion of the pond due to the presence of numerous large boulders which, like the ancient sand dunes, were deposited thousands of years ago at a different time in the ponds evolution.

One of Roxbury Pond's less recognized relic features are the 4-5' high sand berms that rim the pond on the west shore. These long mounds of sand form a barrier to the wetlands beyond. When beavers decide to fill the breaches in these berms with their dams, large impoundments of water rise behind them 4' higher than the water level of the pond.

On the west shore can be found tall rock faces of enormous boulders pushed into place by glacial action and the few places where exposed bedrock ledges can be found.. The inlet to the pond from Garland Brook is unique for its length of navigable water. Further to the north the Logan forms a unique aquatic appendage, which extends, much like the inlet, several hundred yards into the low lands but ends in a large pool. The Logan is not part of an active flow of water into the pond like the inlet.

These various physical features are unique and important indicators of glacial activity which formed the pond and contribute to its outstanding ranking in its physical features.



Boulder shoreline with ledge in water

The Logan disappears into the lowlands

Relic sand berms on west shore

Loon nest between the Logan and Inlet

BOTANIC FEATURES

Overview

Maine lakes contain a variety of valuable botanic features, both rare and common, which are an integral part of lake ecosystems. Lakes containing sedges, smartweeds, and rushes provide important waterfowl breeding and staging areas. Deer use cedar forests along lake edges for wintering areas; and many other wildlife species depend on lake-related plants for food, cover, hunting perches, and nesting material.

Shoreline vegetation acts as a natural filtration mechanism, filtering upland runoff before it empties into a lake, while aquatic vegetation often acts as a water quality monitor. Because many aquatic species tolerate only narrow ranges of water conditions, species presence or absence may indicate high or low acidity, alkalinity, productivity, or water clarity.

Botanic features also have aesthetic value; for instance, the presence of a mature forest along a lakes edge greatly enhances local scenic beauty and shoreline character.

Standards

To be included in the botanic feature assessment a lake had to be:

- 10 or more acres in size,
- entirely within an organized township, and
- contain at least one significant botanic feature.

All botanic features had to be within a 250-foot shoreland zone. Priority was given to plants or plant communities that are water-dependent. Pertinent botanical information was compiled from existing information sources. In addition, a questionnaire was sent to botanists who have worked in Maine.

Natural old-growth forest stands

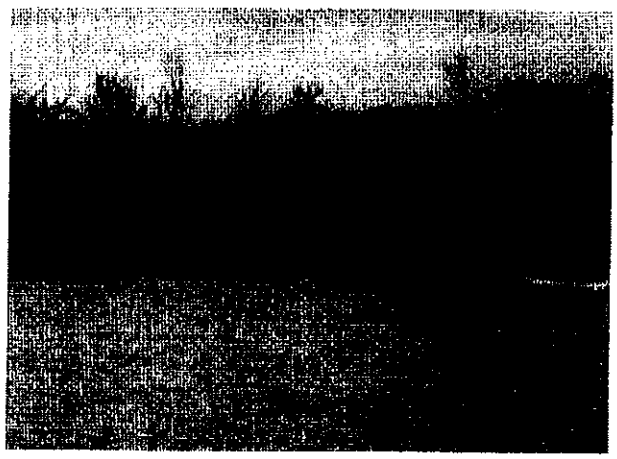
Natural old-growth forest stands were included if they met the minimum standards, and if:

1) the stand contained a significant number of trees that were 100 years of age or older;

2) the stand contained long-lived species characteristic of a sub-climax or climax forest;

3) the old growth component was a stand, part of a group of stands, or was growing in association with a stand; and

4) the stand appeared to be undisturbed by humans.



The inlet with Hedgehog Hill in the background

French Island is home to a stand of old growth pine and the west shore of the pond is also the location of old growth pine forests. These large trees are important as preferred nesting sites for the bald eagles which have called Roxbury Pond home for more than a quarter century, testament to the success of the bald eagle restoration effort and also the outstanding habitat presented by Roxbury Pond both as a nesting site and a plentiful source of fish which are the mainstay of the eagle's diet.

CULTURAL FEATURES

Overview

People have lived in Maine since the last ice sheets retreated over 10,000 years ago. Being such dominant features in the landscape, and providing essential elements for survival, lakes were extensively used by prehistoric peoples. After the arrival of European settlers, lakes retained their position as a focus for human activity. Given this long history of use, it is not uncommon to find significant historic structures, trails, and prehistoric settlements within close proximity to lakes. These sites provide a critical link to the past and add to the overall environmental significance of our lakes.

Standards

Cultural features were classified into four general groups: 1) prehistoric archeological features, 2) historic archeological features, 3) historic structures, and 4) other lake-related cultural features. In general, cultural resources within the shoreland zone (up to 250 feet from the lake) were included in the assessment. Cultural features beyond the shoreland zone were included if they had a direct connection to a lake, such as Indian canoe routes.

Resources included in the assessment were identified using existing sources of information. Individual resource experts from the Maine Historic Preservation Commission outlined the significance of each cultural feature.

Cultural resources for each lake were entered into a computer data base under the four groups listed above. Each feature was rated significant, outstanding, or unknown, except for lakes with multiple features, which received an overall rating. Features on state or federal registers were automatically given a rating of outstanding. Other features were rated using professional judgement. Lakes with multiple significant features were given a rating of outstanding.

Participants

Arthur Spiess, Maine Historic Preservation Commission (MHPC)
Robert Bradley, MHPC
Kirk Mohney, MHPC

Information Sources

Maine Archeological Survey
National Register of Historic Places
Statewide Historic Archeological Inventory
Maine Historic Preservation Commission

A unique and outstanding cultural feature of Roxbury Pond is its location adjacent to the Andover Earth Station, one of the two places on earth that beamed the first satellite telecommunications from one continent to another in the late 1960's. The Roxbury Pond basin was chosen as the location for this historic achievement due to the ring of encircling mountains which not only provide the spectacular view shed but also create a physical barrier to terrestrial radio frequency interference. Located less than 3 miles from the pond the modern satellite dishes which are in use today provide the transmission network for important worldwide telecommunications. Millions of tourists visited the Andover Earth Station after it was built in the 1960's, and this area will forever be remembered for the seminal achievement that has allowed the satellite telecommunications industry to

become a critical component of everyday life. While there are no plans at present for a national or state park to commemorate this place, future generations may very well recognize the significance of this achievement to the advancement of civilization. The part played by the undeveloped mountains that circle this area will be an integral aspect of the telling of the story. Turbines on the ridges will adversely impact the view for future visitors and lessen the experience of how the geography of the area was critical to the success of the project.

COMPARING ROXBURY POND TO OTHER LAKES ON THE LIST

The recognition of Roxbury Pond's well deserved ranking as one of the 66 ponds of statewide significance in the Maine's Finest Lakes study is reinforced by comparing it to just a few of the ponds named on the list.

ANNABESSACOOK LAKE

MIDAS #: 9961
Size: 1420 acres

Township: Monmouth
County: Kennebec
USGS Quad: Augusta
Basin: Kennebec

SUMMARY OF SIGNIFICANCE Annabessacook Lake contains outstanding fisheries and wildlife resources.

GENERAL DESCRIPTION This developed lake is located near Augusta in a chain of lakes that include Maranacook and Cobbosseecontee Lakes. Seasonal camps and year-round homes rim most of the lake shore. The lake has experienced substantial algae blooms for many years, and has recently received alum treatments in an effort to improve the water quality. Agricultural runoff in the watershed is thought to be the major contributor of nutrient pollution. Maximum depth is 49 feet, and average depth is 21 feet.

DESCRIPTION OF SIGNIFICANT RESOURCES

Fisheries: This mesotrophic lake supports outstanding warmwater fisheries, with the principal species being largemouth and smallmouth bass, white perch, and chain pickerel. Natural reproduction is excellent due to the good quality of the aquatic habitat. Fishing quality is excellent, though the fishing pressure is low. Overall economic importance is low. There is a dam at the outlet, but it has no fishway.

Wildlife: Annabessacook Lake is considered an outstanding wildlife resource. It is a significant shorebird staging area, and supports at least two pairs of breeding common loons. Riparian and upland habitats are very valuable to wildlife, and trapping and wildlife opportunities in the area are good.

Scenic: No significant features reported.

Shore Character: No significant features reported.

Botanic: No significant features reported.

Cultural: No significant features reported.

Geologic: No significant features reported.

Hydrologic: No significant features reported.

Roxbury Pond compares favorably to Annabessacook Lake in fisheries and wildlife, but has the added components of significant scenic and shore character. Roxbury Pond has never had to be treated for algae blooms and at least one half of the shoreline is undeveloped.

AUNT BETTY'S POND

MIDAS #: 4588
SIZE: 34 acres

Township: Bar Harbor
County: Hancock
USGS Quad: Acadia National PArk
Basin: Coastal

SUMMARY OF SIGNIFICANCE Aunt Betty's Pond is located in Acadia National Park. It has outstanding scenic resources, a significant brook trout, golden shiner and common sucker fishery and 1 state threatened rare plant station.

GENERAL DESCRIPTION This is an eutrophic pond with an average depth of 3 feet and a maximum depth of 7 feet.

DESCRIPTION OF SIGNIFICANT RESOURCE FEATURES

Fisheries: This is a low quality shallow, marshy pond. The water is too warm to support many trout. Major species include brook trout, golden shiner, nine-spine stickleback and common sucker. The outlet, Richardson Brook, supports most of the brook trout population.

Wildlife: No known significant wildlife features.

Scenic: This pond has a number of outstanding scenic features; a high complexity of surrounding relief, an island, and an undeveloped forested shoreline.

Shore Character: No significant features reported.

Botanic: Small purple bladderwort, Utricularia resupinata, is a state significant specie.

Cultural: No significant features reported.

Geologic: No significant features reported.

Hydrologic: No significant features reported.

Roxbury Pond has a significant fishery, outstanding wildlife, significant scenic, botanic and shoreline features.

BURNT POND

MIDAS #: 4288
Size: 315 acres

Township: Dedham
County: Hancock
USGS Quad: Orland
Basin: Union

SUMMARY OF SIGNIFICANCE Burnt Pond has outstanding scenic and shoreline features. This highly scenic lake includes numerous islands, an irregular shoreline, no development, and large boulders along the shore.

GENERAL DESCRIPTION This is a mesotrophic coldwater lake with an average depth of 22 feet and a maximum depth of 27 feet. The lake is closed to the general public. Water from the pond supplements the adjacent Floods Pond water supply.

DESCRIPTION OF SIGNIFICANT RESOURCES

Fisheries: No significant features are reported. Native brook trout are the principal fishery and only gamefish in the pond.

Wildlife:

Scenic: Outstanding is the only way to describe this pond with high dramatic relief, 10 + islands !, a bouldered shore, and mixed vegetation communities of white pine, spruce/fir, oak, maple, and birch.

Shore Character: The outstanding character of this shore is derived from being 100% bouldered, including boulders in water, and few or small bedrock slabs.

Botanic: No significant features reported.

Cultural: No significant features reported.

Geologic: No significant features reported.

Hydrologic: No significant features reported.

Roxbury Pond has outstanding wildlife, a significant fishery, significant scenic and shoreland character including sand beaches, 2 islands, bouldered shores and bedrock slabs, and significant botanic features.

HATCASE POND

MIDAS #: 4290
Size: 145 acres

Township: Dedham
County: Hancock
USGS Quad: Orland
Basin: Union

SUMMARY OF SIGNIFICANCE Hatcase Pond has outstanding scenic and shoreline features, and significant fishery features. This pond is nestled in between 5 small ridges, which provide a scenery of highly complex relief. The irregular shoreline adds to the overall scenic diversity.

GENERAL DESCRIPTION Hatcase Pond is a coldwater oligotrophic pond with an average depth of 38 feet and a maximum depth of 77 feet. Part of the pond is closed to fishing around the Brewer water supply. Public access is by permission over a private road.

DESCRIPTION OF SIGNIFICANT RESOURCES

Fisheries: This pond has significant fishery resources. Native brook trout are the principal fishery. The pond also supports smallmouth bass and pickerel.

Wildlife: No specific rating, though the pond does possess moderate value upland habitat.

Scenic: High dramatic relief, and partially bouldered shore contribute to the outstanding scenery of this pond despite it being partially developed.

Shore Character: The shore is undeveloped except for 1 camp and a pumping station. Large or dominant protruding bedrock ledges, a rocky shore, and an island contribute to the outstanding shore character.

Botanic: No significant features reported.

Cultural: No significant features reported.

Geologic: No significant features reported.

Hydrologic: No significant features reported.

Roxbury Pond has a significant fishery, outstanding wildlife, high dramatic relief, a partially bouldered shore, 4 beaches, ancient sand dunes, bedrock ledges.

INDIAN POND (BIG)

MIDAS #: 5464
Size: 990 acres

Township: St. Albans
County: Somerset
USGS Quad: Pittsfield
Basin: Kennebec

SUMMARY OF SIGNIFICANCE Big Indian Pond contains outstanding wildlife and botanic resources, as well as significant fisheries resources.

GENERAL DESCRIPTION This small, developed lake is located in central Maine about 10 miles west of the town of Corinna. It is connected to Little Indian Pond by a short stream channel. Most of the shore is developed with seasonal camps and homes, and there are two public boat landings. The pond is relatively shallow, with an average depth of 15 feet and a maximum depth of 28 feet.

DESCRIPTION OF SIGNIFICANT RESOURCES

Fisheries: This mesotrophic waterbody supports significant coldwater and warmwater fisheries. The principal species are smallmouth bass, white perch, chain pickerel, and brown trout. The trout is the only stocked species. There is a dam controlling water levels, but there is no fishway. Fish abundance is good, as are the fishing quality and aesthetics. Despite poor water quality, natural reproduction is considered moderate. Economic importance is low.

Wildlife: Big Indian Pond is considered an outstanding wildlife resource. Adjacent riparian areas are highly valuable to wildlife, and the wetland and upland areas are also important. Species abundance and species diversity are moderate, as are the opportunities to hunt, trap, and view wildlife.

Scenic: No significant features reported.

Shore Character: No significant features reported.

Botanic: This pond is considered an outstanding botanic resource because it contains Vasey's pondweed (Potamogeton vaseyi), which is currently an endangered species.

Cultural: No significant features reported.

Geologic: No significant features reported.

Hydrologic: No significant features reported.

Roxbury Pond has a significant fishery, outstanding wildlife, significant scenic and shore character, and old growth forests on French Island and the West Shore.

The foregoing makes it clear that Roxbury Pond possesses the attributes that are necessary for inclusion on the Maine's Finest Lakes list of 66 lakes, ie. outstanding wildlife and significant resources in at least four other areas. Indeed, Roxbury Pond is number 35. There are 31 ponds still to be added to make 66 as required by law.

In closing, the following large link opens a Google map showing the amazing topography of the Roxbury Pond area. Notice the wide, flat, bowl shaped area the pond sits in, with the "Record Hill ridge" forming significant relief very close to the pond and the numerous other mountains encircling the bowl forming a spectacular panoramic viewshed. This area was chosen for the location of the Andover Earth Station, indicated on the map as a "radio facility", because of its unique geographic features, as the ring of mountains forms a perfect barrier to terrestrial radio frequency interference. Cut and paste the entire text below into your browser:

http://mapper.acme.com/?ll=44.65693,-70.66406&z=12&t=T&marker0=-43.37391%2C69.36691%2CN-44o37.566'%20W-70o37.985'&marker1=44.66130%2C-70.62776%2C4.2%20mi%20S%20of%20Byron%20ME&marker2=44.67918%2C-70.63278%2C3.0%20mi%20S%20of%20Byron%20ME&marker3=44.67363%2C-70.63128%2C3.3%20mi%20S%20of%20Byron%20ME&marker4=44.66337%2C-70.63037%2C4.1%20mi%20S%20of%20Byron%20ME&marker5=44.64063%2C-70.62964%2Cunnamed&marker6=44.65675%2C-70.63033%2C4.5%20mi%20S%20of%20Byron%20ME&marker7=44.65223%2C-70.63248%2C4.8%20mi%20S%20of%20Byron%20ME&marker8=44.66926%2C-70.63162%2Cunnamed&marker9=44.67793%2C-70.63376%2C3.0%20mi%20S%20of%20Byron%20ME&marker10=44.68165%2C-70.63351%2C2.8%20mi%20S%20of%20Byron%20ME&marker11=44.66182%2C-70.62850%2C4.2%20mi%20S%20of%20Byron%20ME&marker12=44.66514%2C-70.63162%2C3.9%20mi%20S%20of%20Byron%20ME&marker13=44.68315%2C-70.63342%2C2.7%20mi%20S%20of%20Byron%20ME&marker14=44.65876%2C-70.63025%2C4.4%20mi%20S%20of%20Byron%20ME&marker15=44.65015%2C-70.63145%2C5.0%20mi%20S%20of%20Byron%20ME&marker16=44.67586%2C-70.63196%2C3.2%20mi%20S%20of%20Byron%20ME&marker17=44.63357%2C-70.62741%2C6.1%20mi%20E%20of%20Andover%20ME&marker18=44.63617%2C-70.63033%2C5.9%20mi%20S%20of%20Byron%20ME&marker19=44.67207%2C-70.63162%2Cunnamed&marker20=44.64267%2C-70.62926%2C5.5%20mi%20S%20of%20Byron%20ME&marker21=44.63846%2C-70.63025%2C5.8%20mi%20S%20of%20Byron%20ME&marker22=44.65461%2C-70.63110%2C4.7%20mi%20S%20of%20Byron%20ME

In addition here is a link to a satellite photo of Roxbury Pond showing the long length of navigable water in the inlet, the unusual feature of the Logan, the absence of development on the entire western half of the pond, the significant beach on the eastern shore, one major island and two smaller islands.

http://mapper.acme.com/?ll=44.66243,-70.66149&z=14&t=S&marker0=44.67363%2C-70.63128%2C3.3%20mi%20S%20of%20Byron%20ME&marker1=44.65223%2C-70.63248%2C4.8%20mi%20S%20of%20Byron%20ME&marker2=44.66182%2C-70.62850%2C4.2%20mi%20S%20of%20Byron%20ME&marker3=44.65015%2C-70.63145%2C5.0%20mi%20S%20of%20Byron%20ME&marker4=44.67207%2C-70.63162%2Cunnamed&marker5=-43.37391%2C69.36691%2CN-44o37.566'%20W-70o37.985'&marker6=44.66926%2C-70.63162%2Cunnamed&marker7=44.67586%2C-70.63196%2C3.2%20mi%20S%20of%20Byron%20ME&marker8=44.67918%2C-70.63278%2C3.0%20mi%20S%20of%20Byron%20ME&marker9=44.63617%2C-70.63033%2C5.9%20mi%20S%20of%20Byron%20ME&marker10=44.65461%2C-70.63110%2C4.7%20mi%20S%20of%20Byron%20ME&marker11=44.66130%2C-70.62776%2C4.2%20mi%20S%20of%20Byron%20ME&marker12=44.67793%2C-70.63376%2C3.0%20mi%20S%20of%20Byron%20ME&marker13=44.63357%2C-70.62741%2C6.1%20mi%20E%20of%20Andover%20ME&marker14=44.66337%2C-70.63037%2C4.1%20mi%20S%20of%20Byron%20ME&marker15=44.64267%2C-70.62926%2C5.5%20mi%20S%20of%20Byron%20ME&marker16=44.65675%2C-70.63033%2C4.5%20mi%20S%20of%20Byron%20ME&marker17=44.64063%2C-70.62964%2Cunnamed&marker18=44.63846%2C-70.63025%2C5.8%20mi%20S%20of%20Byron%20ME&marker19=44.68165%2C-70.63351%2C2.8%20mi%20S%20of%20Byron%20ME&marker20=44.68315%2C-70.63342%2C2.7%20mi%20S%20of%20Byron%20ME&marker21=44.65876%2C-70.63025%2C4.4%20mi%20S%20of%20Byron%20ME&marker22=44.66514%2C-70.63162%2C3.9%20mi%20S%20of%20Byron%20ME

Please make findings of fact on the following issues with regard to the statute:

(1) The legislation specifies 66 lakes to be on the list of Maine's Finest Lakes.
(2) The Maine's Finest Lakes study is by its own admission incomplete.
(3) Roxbury Pond was overlooked in the study because it received no score in several categories.
(4) Using the criteria by which ponds were judged when the survey was initially undertaken, Roxbury Pond qualifies as a scenic resource of statewide significance due to its significant, if not outstanding, scenic quality as defined by the study criteria.
(5) Roxbury Pond should therefore be recognized as an additional lake in the list of 66 of Maine's Finest Lakes for the purposes of evaluating the impact of wind turbines on the scenic character of Roxbury Pond.
(6) 22 wind turbines in a linear arrangement facing Roxbury Pond will create an undue adverse impact on the character of the area due to the inharmonious nature of industrial wind generating facilities in such close proximity to a scenic resource of statewide significance.

Testimony submitted by
Steve Thurston
Camp Sylvan
Roxbury Pond