



Fairhaven Board of Selectmen

June 3, 2013 Meeting Minutes

Present: Chairman Charles Murphy, Vice Chairman Robert Espindola, Clerk Geoffrey Haworth, Executive Secretary Jeffrey Osuch, Administrative Assistant Anne Kakley.

Chairman Charles Murphy called the meeting to order in the Town Hall Banquet Room at 6:04 p.m. The meeting was televised by Cable Access.

MINUTES

- Mr. Espindola motioned to approve the minutes of the **May 20, 2013** meeting, **open** session. Mr. Haworth seconded. Motion passed. (3-0).
- Mr. Espindola motioned to approve the minutes of the **May 20, 2013** meeting, **executive** session. Mr. Haworth seconded. Motion passed. (3-0).
- Mr. Espindola motioned to approve the minutes of the **May 21, 2013** meeting, **open** session. Mr. Haworth seconded. Motion passed. (3-0).

EXECUTIVE SECRETARY'S REPORT

In his report, Mr. Osuch updated the Selectmen on the following meetings:

- **Tuesday, June 4** –
 - 7:00 a.m. – Wood School Building Committee at Town Hall
 - 10:00 a.m. – Wood School Job Meeting
 - 1:00 p.m. – As Built Meeting – Wood School
 - 6:00 p.m. – Selectmen meeting with Conservation Commission
- **Wednesday, June 5** –
 - 6:00 to 8:00 p.m. – Solar Challenge at the Senior Center
- **Thursday, June 6** –
 - 7:30 to 9:00 a.m. – Forum at City Hall, Room 314
 - 10:00 a.m. – FEMA/MEMA Blizzard Meeting
 - 6:00 p.m. – Assistant Assessor Interviews
- **Monday, June 10** –
 - 12:00 p.m. – Combined meeting – BOS and BOH
- **Tuesday, June 11** –
 - 10:00 a.m. – Wood School Job Meeting

- 3:30 p.m. – Mattapoisett River Valley Advisory
 - 4:30 p.m. – Mattapoisett River Valley Water District
- Wednesday, **June 12** –
 - 12:00 p.m. – Manager’s Meeting in Marion
- Thursday, **June 13** –
 - 11:00 a.m. – Boston State House
- Monday, **June 17** –
 - 6:30 p.m. – Board of Selectmen Hurricane meeting at West Island

CHANGE ORDER #9

The Board reviewed and approved Change Order #9 for the New Wood School project in the amount of \$4,020.72. Mr. Espindola motioned to authorize the Chairman to sign the contract. Mr. Haworth seconded. Vote was unanimous. (3-0).

REQUISITION #12

The Board reviewed and approved Requisition #12 for the New Wood School project in the amount of \$1,106,866.00. Mr. Espindola motioned to approve the requisition. Mr. Haworth seconded. Vote was unanimous. (3-0). As the Board signed the requisition, Mr. Osuch updated the public to the school’s progress. He said that construction of the parking lot was underway, with granite and concrete curbing in the process of installation. Loam is being screened. The retention pond will be seeded and plants and shrubbery will follow. Most of the classroom wing is complete and the project is on schedule. Substantial completion and a punch list is scheduled for August.

NSTAR RIGHT-OF-WAY CUTTING

Mr. Osuch told the Board that the Selectmen’s Office received a formal letter from the Harbormist Association about clear-cutting anticipated from NSTAR along their 100-ft wide right-of-way through Fairhaven. NSTAR confirms that they will be doing this clear-cutting throughout communities every three years to improve access to power lines in the event of an outage, and to prevent outages. The Board discussed the clear-cutting and Mr. Haworth noted that a lot of the land in question is wetlands.

EXECUTIVE SESSION PROTOCOL

Mr. Osuch said that the Board would have to enter Executive Session at the conclusion of Open Session to discuss a Building Commissioner issue with Scramblers restaurant and threatened litigation from resident Justin Downey, related to a vehicle purchased from a BPW auction.

Mr. Haworth and Mr. Espindola questioned entering Executive Session for the issue related to Scramblers. Mr. Osuch said that it would be the will of the Board to not enter Executive Session related to the issue of Scramblers and building inspections. Mr. Murphy said that the matter would be Open Session “at this point”.

STEPHENSON AND BROOK AUTHORIZATION

The Board reviewed a request from Stephenson and Brook for the approval of an authorization form and letter, giving Stephenson and Brook permission to manage the Town's worker's compensation claims for FY14. Mr. Espindola motioned to authorize the Chairman to sign the document. Mr. Haworth seconded. Vote was unanimous. (3-0).

SUMMER SCHEDULE

The Board reviewed their calendar for the upcoming summer months and concluded to meet on the following dates:

Monday, July 1
Monday, July 15
Thursday, July 25
Thursday, August 8
Monday, August 26
Monday, September 9
Monday, September 23
Monday, October 7
Monday, October 21
Monday, November 4
Monday, November 18
Monday, December 2
Monday, December 16
Monday, December 30

NSTAR GAS PERMITS

The Board approved an NSTAR gas permit application for Green Street between Huttleston Ave and Larch Ave. This application was previously approved by the BPW. Mr. Espindola motioned to approve the application. Mr. Haworth seconded. Vote was unanimous. (3-0).

ANIMAL SHELTER DONATIONS

The Chairman acknowledged the receipt of \$162.84 for the Animal Shelter Gift Account and thanked those who donated.

TOWN HALL AUDITORIUM APPLICATION

The Board reviewed an application from the Millicent Library Children's librarian, Jane Murphy, to use the Town Hall Auditorium on June 27 from 9:00 a.m. to noon for a children's show, and on August 7 from 9:00 a.m. to noon for a rain back-up option to the Teddy Bear Parade. The Board was supportive to the annual request. Mr. Espindola motioned to approve the use of the

Town Hall Auditorium for the aforementioned dates and times. Mr. Haworth seconded. Vote was unanimous. (3-0).

CDBG 2011 GRANT EXTENSION

The Board reviewed a request from Town Planner/CDBG Administrator Bill Roth to sign a grant extension for the CDBG 2011 grant. There was no discussion. Mr. Espindola motioned to authorize the Chairman to sign the extension. Mr. Haworth seconded. Vote was unanimous. (3-0).

NB WHALING MUSEUM CANNON AGREEMENT

The Board reviewed a biannual agreement with the New Bedford Whaling Museum to borrow two cannon for Fort Phoenix. As a part of the agreement, the Museum requested proof of insurance. The Board voted to approve renewing the two-year agreement. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

STEVE AMBROSE – WIND TURBINES AND SOUND

At 6:30 p.m., the Board met with Stephen Ambrose, an INCE Board Certified acoustical specialist. Mr. Ambrose gave a 20-minute presentation on his findings related to wind turbines and sound. See Attachment A for the presentation. Following the presentation, Mr. Ambrose entertained questions from the Board. Mr. Espindola asked Mr. Ambrose about DEP methods used in collecting sound samples as a part of its report. Mr. Ambrose answered that the human ear is the best measure of sound. Mr. Haworth argued that people's hearing differed, citing the difference between a young and older person. Mr. Ambrose answered that it did not differ that much.

Mr. Murphy thanked Mr. Ambrose for his presentation.

HURRICANE PREPAREDNESS

At 7:08 p.m., the Board met with department heads for a meeting to prepare for the annual hurricane preparedness meeting, scheduled for the West Island Community Center on June 17.

Present were: Marc Jodoin, members of the EMA, Michael Myers, Vincent Furtado, Ed Fortin, John Charbonneau, Linda Schick, John Rogers, Tim Cox, Dave Darmofal, Paul Kitchen, Bob Baldwin, Anne Sylvia, members of the BPW, and members of the Housing Authority.

The Chairman asked for a brief overview from each department regarding changes they thought would be necessary for the hurricane preparedness manual. The Board addressed departments in order as they appear in the manual.

Water Department: Mr. Fortin advised that the only changes he made to his manual would reflect better coordination with the Sewer department to improve preparations prior to the

storm's arrival. Mr. Fortin said that the BPW would issue a reverse 911 in the event of water shut-off.

Sewer Department: Ms. Schick said that her changes had basically been covered by Mr. Fortin. She cited safety concerns at the boat ramp pump station with sight-seers preventing access to the pump.

Highway Department: Mr. Charbonneau advised that he would like to see some of the highway emergency response team at the Fire station to improve communication in a storm event. BPW Superintendent Vincent Furtado said that he would like to have a member of his clerical staff present for the next event, to free up emergency response workers from having to answer phones.

BPW: Member Steve Riley said that it would help if residents tried to get their hurricane stickers earlier in the storm season to prevent long lines in the days leading up to a forecasted storm. Robert Hobson said that he thought they had an "outstanding team".

Fire Department: Chief Timothy Francis had a family emergency and was not present for the meeting, but he will present his section of the hurricane manual at the hurricane preparedness meeting on June 17.

Police Department: Chief Michael Myers advised the Selectmen to open an Emergency Operations Center (EOC) next time a serious storm is predicted to hit Fairhaven. He said that the absence of an EOC in the February 8, 2013 blizzard was problematic. He said it was important to have everyone in one room to maximize communication among departments. Additionally, Chief Myers suggested enacting a town-wide order to keep unnecessary vehicles off the roads. He thought sight-seers should be ordered away from the storm barrier and Fort Phoenix.

Mr. Murphy added that he thought the storm preparedness meeting should be held earlier than it usually is, in preparation of the storm. Chief Myers said that department designees could rotate their shifts, starting earlier.

Mr. Osuch said that all of the necessary procedures were already outlined in the manual. He said the storm tracking was the Fire Department's role. There are procedures to follow for each zone the hurricane enters. Mr. Osuch said that the Town was not following the plan it had drafted years ago. If the Town followed the manual, it would not run into problems, he said. The order of command is: Selectman Chairman, Vice Chairman, Clerk, Town Clerk, then Chief of Police. The Executive Secretary is the EOC coordinator.

Mr. Espindola said that there had been discussion to possibly enact the EOC at the last meeting. He said that the Town did not have to follow the protocol for every single storm.

Mr. Charbonneau said that NSTAR had been part of the problem in the last storm. NSTAR was supposed to send a designee for the command center. Mr. Osuch said that NSTAR was not going to send designees in the command center. For the first 48 hours of a storm, said Mr. Osuch, we are on our own.

Mr. Murphy asked Mr. Osuch to reach out to NSTAR to see if their hurricane plan has changed.

EMA: Director Marc Jodoin agreed that the Town should have established an EOC for the last storm. He said that the school janitor took it upon himself to close the shelter in the blizzard. He said that the plan is called the hurricane plan, but it can be used for any emergency situation or disaster.

Mr. Murphy said that communication had to improve with media outlets. He said that he called WBSM in the last storm to report that Fairhaven had opened a shelter because no one had called it in.

Discussion ensued over establishing an EOC, and shelter operations. Dr. Baldwin said he had difficulties in opening a shelter during the February blizzard. He said a lot of his staff lived in other towns and cities and travel was difficult.

Mr. Murphy said that protocol needs to include finding shelter for seniors in the event of a blizzard with electricity loss. Mr. Espindola said that he wanted to see the Town Clerk removed from the chain of emergency response authorities. He said that the Executive Secretary would be a more appropriate choice for inclusion in the hierarchy. The Board agreed it would make more sense to have emergency information available prior to, and during, storm events, both on the Town website and on Government Cable Access to reduce the number of calls received by emergency workers. John Rogers suggested designating a Public Information Officer to disseminate information in the event of a storm to prevent misinformation. Chief Myers said that the hurricane plan names Mr. Osuch as the Public Information Officer.

Mr. Haworth said that it was important to enact the EOC in the event of major storms. He advised departments to take the upcoming year to update their hurricane plans. He added that, if the Town needed to open a shelter, then the Town should automatically open the EOC as well.

Harbormaster: Mr. Darmofal said it was important to get boats out of the water in advance of the storm. He added that many insurance companies will even reimburse boat removal. In the event of a predicted storm, Mr. Darmofal said that he would not allow anchoring south of the bridge. Harbormaster vessels will be removed from the water once winds become sustained at 30 mph. The Natural Resources department will use a “ticket” system for orderly removal of boats from the water. Deputies will be stationed at the boat ramps.

Mr. Haworth said that, as soon as the EOC is enacted, they should outline the coastal areas that are inaccessible to the public.

Council on Aging – Ms. Sylvia asked the Board to consider pulling the vans out of the town yard and leaving them in a location that is more accessible. She stated that she had spent a lot of time digging them out of the last blizzard. Mr. Osuch disagreed with a new arrangement for the vans, saying that anywhere they are placed, they will have to be shoveled out, and at the BPW, they are at least in a parking lot that will be plowed. Mr. Darmofal suggested housing the vans in the BPW ports while the trucks are out plowing. Mr. Haworth disagreed with Mr. Osuch, saying

that the vans would be useful in a storm for transporting vulnerable people. Mr. Murphy asked Ms. Sylvia to put her request in writing for the Board to consider.

Housing Authority – Ms. Sheedy thanked the Board for including the Housing Authority in the hurricane preparations this year. She reviewed the types of housing included under the Authority. She said in the 2013 blizzard, there were 92 residents without heat in the Town’s housing for 48 hours. She reminded the public that the Housing Authority was independent living, not assisted living. It does not have the staff or facilities to do what everyone wants it to do, she said.

Housing Authority Chairman Jay Simmons added that Ms. Sheedy had a draft copy of an emergency response plan that he would submit in draft format to the Board of Selectmen. A final draft will follow once approved, he said.

The Hurricane Preparedness meeting will follow on June 17, said Mr. Murphy.

2013 GRADUATION

The Superintendent took a moment to thank the Selectmen for a great graduation ceremony on June 2. This year, \$2.5 million in scholarships was issued to Fairhaven graduates, said Dr. Baldwin. The graduation ceremony also recognized the students who selected a future in the armed forces. He said that the School Department also found out on Friday that it had received accreditation renewal for ten more years.

RECESS

The Board recessed for five minutes from 8:23 p.m. to 8:28 p.m.

ESTUARIES STUDY

At 8:28 p.m., the Board received an overview of the UMass Dartmouth estuaries study. Ed Eichner, Senior Scientist at the School of Science and Technology, was present. Brian Howe and Roland Samimy were not present for the appointment.

Before presenting the PowerPoint presentation, Ms. Kakley asked Mr. Eichner to send the presentation to her electronically if he could, for inclusion in the minutes.

The presentation focused on restoration of estuary habitats and watershed health. Mr. Eichner discussed nitrogen loading, including “overall load” vs. “controllable load”. The study focused on the estuaries of the Nasketucket River, Knollmere Stream, and Shaw’s Cove.

Mr. Osuch asked if the last samples were taken in 2005. Mr. Eichner said that samples were taken as recently as last summer. Mr. Osuch said that there have been some Sconticut Neck Road sewer tie-ins since some of the data collecting that could have affected the report.

The topic of the meeting shifted to the Town assessment for the estuaries study. The Town was assessed \$114,000.00 in 2005 to contribute to the report. The Town has paid \$79,000.00. The June 3, 2013 presentation was the first “deliverable” the Town had seen in regards to the estuaries report. According to Mr. Osuch, the representatives of the estuaries study were looking for the Selectmen to extend its contract for 30 days (to June 30, 2013) and they were looking for payment on the remaining balance of \$35,000. Mr. Espindola asked if the Board could anticipate “significant milestones and deliverables” before June 30, 2013. Mr. Osuch said that he understood that the draft report of the estuaries study was in the hands of Mass DEP and the DEP would have to give comments. Final submission is planned for end of June 2013.

Mr. Haworth noted that the extension was only 30 days and he said he would be supportive of the short extension.

Mr. Espindola noted that this is an important report, significant to the future of planning. Mr. Eichner noted that the DEP was not commenting on the report and he said that he hoped comment from the Board of Selectmen would prompt comment from the DEP.

Mr. Osuch said that there would be another report coming out from the UMass Dartmouth estuaries study regarding the New Bedford Harbor side of Fairhaven and that news would not be as good as this first report. He said that the report was supposed to take two years, but it had taken almost seven years. The New Bedford harbor report essentially had to be re-done because some of the data was so old its accuracy was in question.

Mr. Murphy said he was comfortable with the requested contract extension. Mr. Murphy recognized Steve Riley. Mr. Riley said that he grew up on Sconticut Neck and that he saw wildlife along the coast diminish in the 1970s, but that he had seen the fauna return in abundance in recent years. Mr. Eichner did not have a definitive answer for Mr. Riley’s observation.

Mr. Murphy noted that the invoice provided by UMass Dartmouth for the estuaries study had two different requested sums on it – one for \$10,000.00 and one for \$20,000.00. He said that the Board could not approve an invoice with two different figures on it. Mr. Eichner said that he would return the invoice to his staff and have a revised invoice submitted.

Mr. Espindola motioned to extend the contract with UMass Dartmouth for 30 days, to June 30, 2013. Mr. Haworth seconded. Vote was unanimous. (3-0).

ANNUAL APPOINTMENTS

The Board made its annual reappointments to boards, committees, and positions.

Catherine Mindlin was appointed the Animal Control Officer and Rebekah Tomlinson was appointed the secondary Animal Control Officer, both with one-year terms. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Francis Cox was appointed to a five-year term as a full member of the Zoning Board of Appeals. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Albert Benac was appointed to a one-year term as the Art Curator. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Pamela Davis, Ellis Withington and Ronald Manzone were appointed Board of Assessors for one-year terms, each. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Mr. Espindola motioned to appoint the Beautification Committee, but the motion failed with no second. Mr. Haworth said that he wanted to see if the Beautification Committee was an active committee. It was thought that Wayne Oliveira is the chairman of the Committee, which has not met in over a year. Mr. Oliveira will be called and asked about the status of the Committee.

Mark Badwey, Matthew Coes, Kenneth Pottel, Robert Espindola, Rene Fleurent, Susan Sullivan, and Geoffrey Sullivan were appointed to the Bikeways Committee for one-year terms each. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Bethany Sykes, Lawrence Roy, Gerald Stabell, Nancy Parent, Wayne Oliveira, Linda Meredith, Sheila Tunstall McKenna, Ethel Frates, Myra Lopes, Diane Lopes, Ian Dobson, Martha Crowley, Ellsworth Sylvaria, John Rogers, John Medeiros, Beth Luey, Alex Kuechler, Victor Oliveira, Anne Mozzone, Natalie Hemingway, Angela Dawicki, Charles Cromwell, Rev. Dennis Barnett, and Nancy Perry were appointed to the Bicentennial Committee for one-year terms each. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0). This will be the final year for the Bicentennial Committee.

Frank Coelho, Timothy Cox, Martin Henriques, Ted Lorentzen, Ronald LaCasse, Peter Nopper, and David Hebert were appointed to the Boat Ramp and Waterfront Recreational Property Committee for one-year terms each. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

John Cottrill was appointed Chief Wire Inspector for a one-year term; Roger Poitras, Jr, was appointed Associate Wire Inspector for a one-year term; Kevin Vasconcellos was appointed Associate Wire Inspector for a one-year term; Norman Lussier was appointed Plumbing Inspector for a one-year term; Henry Daigle was appointed gas inspector for a one-year term; William Alphonse, Jr, was appointed Temporary Gas Inspector for a one-year term. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Herbert Eddleston, Barbara Acksen, Robert Espindola and Ronnie Medina were appointed to the Cable Advisory Committee for one-year terms each. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Milan Whitaker, Richard Ferreira, Timothy Garcia, Steven Borges, Robert Jones, Lawrence Machado, John Serpa, Eugene Thomas, Gary F. Souza, Harve W. Vandal, Jr., Pamela Bourgault, Matthew Botelho, Edward Riggs, Kevin Kobza, Michael Bouvier, Jr., Eileen Lowney, and David Miller were each appointed to constables for one-year terms. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Brian Rego, Maria DeOliveira, and Paul Schroeder were appointed to the Commission on Disability for three-year terms each. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Al Borges was appointed to a three-year term on the Council on Aging; Joseph Borelli, Jack Oliveira, Elaine O'Neill and Dorothy Reid were appointed to one-year terms each on the Council on Aging. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Donna Wunschel, Kathy Lopes, Stephanie Igo, Timothy Watterson, Sheila Dolan, Anne Jorgensen, John Jorgensen, Gail Evangelho, Melissa Tavares, Richard Ciccone, and Kevin Viveiros were each appointed to a one-year term on the Dog Park Committee. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Marc Jodoin was appointed Emergency Management Agency director. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Sharon M. Dorian, Don Wilkinson, Julianne Kelly, Sara Salem, Margaret McQuilkin, and Maureen Sylvia were each appointed to a three-year term on the Fairhaven Cultural Council. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

The Board discussed the Fire Apparatus Study Committee and Fire Department Building Committee and noted that the Town Clerk did not have record of these committees meeting regularly. As such, the Board decided to ask the Fire Chief more about the committees at the next Selectmen's meeting. The Board took no action on appointments for these two committees.

Charles Cromwell, Cynthia McNaughten, Gail Isaksen, and John Medeiros were appointed full members of the Historical Commission with three-year terms each; Dorothy Gammans, Anne O'Brien-Kakley, and Vicki Paquette were appointed associate members of the Historical Commission with one-year terms each. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Louis Badwey was appointed to a four-year term on the Millicent Library Board of Trustees. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Antone Medeiros was appointed the Measurer of Wood and Bark. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Frank Rezendes was appointed to the Martha's Vineyard/Nantucket Steamship Authority. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Alfred Raphael was appointed to a three-year term on the Mattapoissett River Valley Water District Commission. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0). Mr. Osuch asked Ms. Kakley to send a memo to the MRVWDC regarding Mr. Raphael's re-appointment.

David Darmofal was appointed to a one-year term as Harbormaster; David Crowley was appointed to a three-year term as Deputy Shellfish Constable; Mark Monteiro, George Hubert, Don Gifford, James Hennessy, Paul Sylvia, Betsy LeBeau, Katelyn Daignault, and Daniel Lopes were all appointed to one-year terms as Deputy Shellfish Constables. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Timothy Francis was appointed to a one-year term as Oil Spill Coordinator. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Anne O'Brien-Kakley was appointed to a one-year term as Parking Clerk. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Lindsay Gordon was appointed to a two-year term on the Personnel Board. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Herbert Eddleston was appointed to a three-year term as a Registrar of Voters. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Barbara Acksen, Gail Isaksen, Pam Kuechler, Lisa Elliot, John Medeiros, Jeffrey Lucas, Nils Isaksen, Jimmie Oliver, Stephen Desroches, Rona Trachtenberg, Thomas Alden Sr., Al Benac, Paul Kitchen, Gayla Reilly, Bevely Rasmussen, and Karen Vilandry were each appointed to a one-year term on the Rogers-Oxford Study Committee. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

No appointments were made to the Shellfish Advisory Committee. The Town Clerk's records indicated that they had not met in over a decade. The Board decided it would talk to Tim Cox about the Committee.

The Chairman noted that appointments to the JTPG Representative (Bill Roth), the JTPG Alternate (Vincent Furtado), the SRPEDD Commissioner (Bill Roth), the SRTA Commissioner (Robert Espindola), and the Veterans' Benefits and Service and Burial Agent (James Cochran) were all made in April 2013.

Bill Elliot, Lisa Elliot, Robert Espindola, Deirdre Healy, Ann Richard, Susan Spooner, Laurie Hellstrom, Vincent Marron, Kathy Audette, and Marianne Murray were each appointed to one-year terms on the Sustainability Committee. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

Carol Brandolini was appointed Tax Collector for a one-year term. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0).

The Board did not make appointments to the Tourism Committee. The Board will contact Tourism Director Chris Richard about the Tourism Committee and ask for written comment.

No appointments were made to the Conservation Commission. The only member who was up for renewal was Andrew Jones, and he submitted a letter of resignation from the Conservation Commission. Mr. Jones also submitted a letter of interest to be appointed to a Local Emergency Planning Committee. As there is no active LEPC, the Board took the request under advisement and will discuss the formation of such a committee at a future meeting. In the meantime, the Board requested that all those interested in applying for the Conservation Commission to submit their letters of interest to the Selectmen's Office.

SCRAMBLERS

The Chairman read a memo from the Building Commissioner, saying that the owners of Scramblers restaurant were being uncooperative in allowing the Commissioner to perform a routine inspection of the restaurant. The owner of the restaurant has not replied to certified mail requesting an appointment. Mr. Haworth asked why the Building Commissioner did not just show up to the restaurant in person and request an appointment.

Mr. Espindola motioned to send a letter to Scramblers requesting compliance with Mr. Fostin to make an appointment for an inspection. Mr. Haworth seconded. Vote was unanimous. (3-0). The Board also decided to ask Mr. Fostin to visit the premises to make an appointment.

TAX TITLE

The Board reviewed three tax title properties and their assessments: one on Diamond Street, one on Grandview, and the old Staffon's nursery on Alden Road. (See Attachment B). Mr. Murphy asked if it was the will of the Board to auction these parcels. Mr. Espindola remembered that last year, when the parcels were discussed in a meeting, Bill Roth had mentioned the possibility of using a Town property for Habitat for Humanity. It was agreed that any action taken on the parcels should come after conferring with Mr. Roth and the Finance Director. An appointment will be made with Mr. Roth and Ms. Graves for an upcoming meeting to discuss this matter.

ADAMS STREET NO PARKING REQUEST

Chief Myers was present at 10:16 p.m. to update the Board on a request from a Town resident for a stretch of "No Parking" on Adams Street, from Route 6 to Bridge Street. Chief Myers said that he was working with a neighbor to find an alternative parking solution for him. In the meantime, he said that he thought it would be a good idea to form a committee of Police Department and BPW employees, charged with reviewing all safety requests. Such a committee would then bring recommendations to the Board of Selectmen for a vote. The Board was supportive of the request. It will be discussed again at a later date.

PARK MOTORS PROPERTY

The Board read a letter of complaint from Lianne Girard regarding the Park Motors property on Main Street, currently being used as a staging area for CDBG equipment. Mr. Murphy acknowledged that the area did not look good during the Memorial Day parade. Mr. Haworth agreed and asked if there was a chance that they could arrange to have temporary fencing placed

on the site. Mr. Murphy said that he would like to see written comment or meet with Mr. Roth to discuss the matter. In the meantime, Chief Myers commented on the related issue of illegal overnight parking at the Park Motors site. He said that neighbors complaining of the illegal parking should report it to the Police Department for towing.

HARBOR MIST LETTER

The Board reviewed a letter from the Harbor Mist Condominium Trust regarding the proposed clear-cutting of an NSTAR 100-ft wide right-of-way, scheduled to begin in mid-June, to be repeated every three years. The letter from Harbor Mist was courtesy-copied to the Board of Selectmen, with the primary recipients being Representative Bill Straus and State Senator Mark Montigny. See Attachment C.

Mr. Haworth asked if there was a Town ordinance that prohibited clear-cutting of this magnitude. The answer was not known at the time of the meeting. The Board indicated it would like to speak with an NSTAR representative, if Mr. Osuch could arrange it. Mr. Osuch said that he would try to get in touch with someone at NSTAR regarding the matter.

CUSHMAN PARK EASEMENT

The Board read a letter from resident Brad Souza asking the Board to waive the legal fees associated with the easement that Town Meeting had granted him at May 5, 2012 Annual Town Meeting. Mr. Souza said in the letter that he would be willing to pay the Registry filing fees, but that he does not think he should have to pay the legal costs incurred by the Town. Mr. Murphy said that he was not sure what the status was on the easement. He said that Mr. Souza had requested Executive Session for discussion on the easement, but that he could not grant the request for Executive Session. Mr. Osuch said that there were no new updates on the easement. Mr. Murphy said that he would like to invite Mr. Souza to come to a meeting to discuss the matter.

DOGS IN TOWN BUILDINGS

The Board read a memo from Anne Kakley regarding recent issues with dogs in the Town Hall. Recently, a resident tried to pet a dog in the Collector's Office and was told by the owner to stay away because the dog bites. Ms. Kakley expressed concern about the lack of policy regarding dogs in Town buildings, and the Town's potential liability.

Mr. Murphy said that dogs, except for service animals, should be banned from Town Hall. Mr. Espindola and Mr. Haworth agreed, with Mr. Haworth saying that the ban should extend to all Town buildings (except the Animal Shelter). The Board indicated that it would start with a sign at the Town Hall banning dogs and then would extend it to the other Town buildings at a later date. Mr. Espindola motioned. Mr. Haworth seconded. Vote was unanimous. (3-0). At 10:36 p.m., Mr. Osuch left the room to turn the Town Hall alarm off.

OTHER BUSINESS

In other business:

- The Board again commended the School Department and community for another nice graduation ceremony.

At 10:38 p.m., Mr. Espindola motioned to enter Executive Session pursuant to MGL Ch 30 § 21:

- To discuss strategy with respect to collective bargaining – Clerical, Fire, Police, Dispatchers Union negotiations
- To discuss strategy with respect to collective bargaining or litigation – Seaport Inn
- To discuss strategy with respect to collective bargaining or litigation – Justin Downey

Mr. Haworth seconded the motion to enter Executive Session for the aforementioned reasons. Vote was unanimous. (3-0). Roll call vote: Mr. Espindola in favor. Mr. Murphy in favor. Mr. Haworth in favor.

Respectfully,

Anne Kakley

Selectmen's Secretary
Minutes approved 6/17/2013

Falmouth, MA
Wind 1
Vestas - V82
1.65 MW

Presentation

June 3, 2013

Board of Selectmen Fairhaven, MA

Stephen E. Ambrose
INCE Board Certified

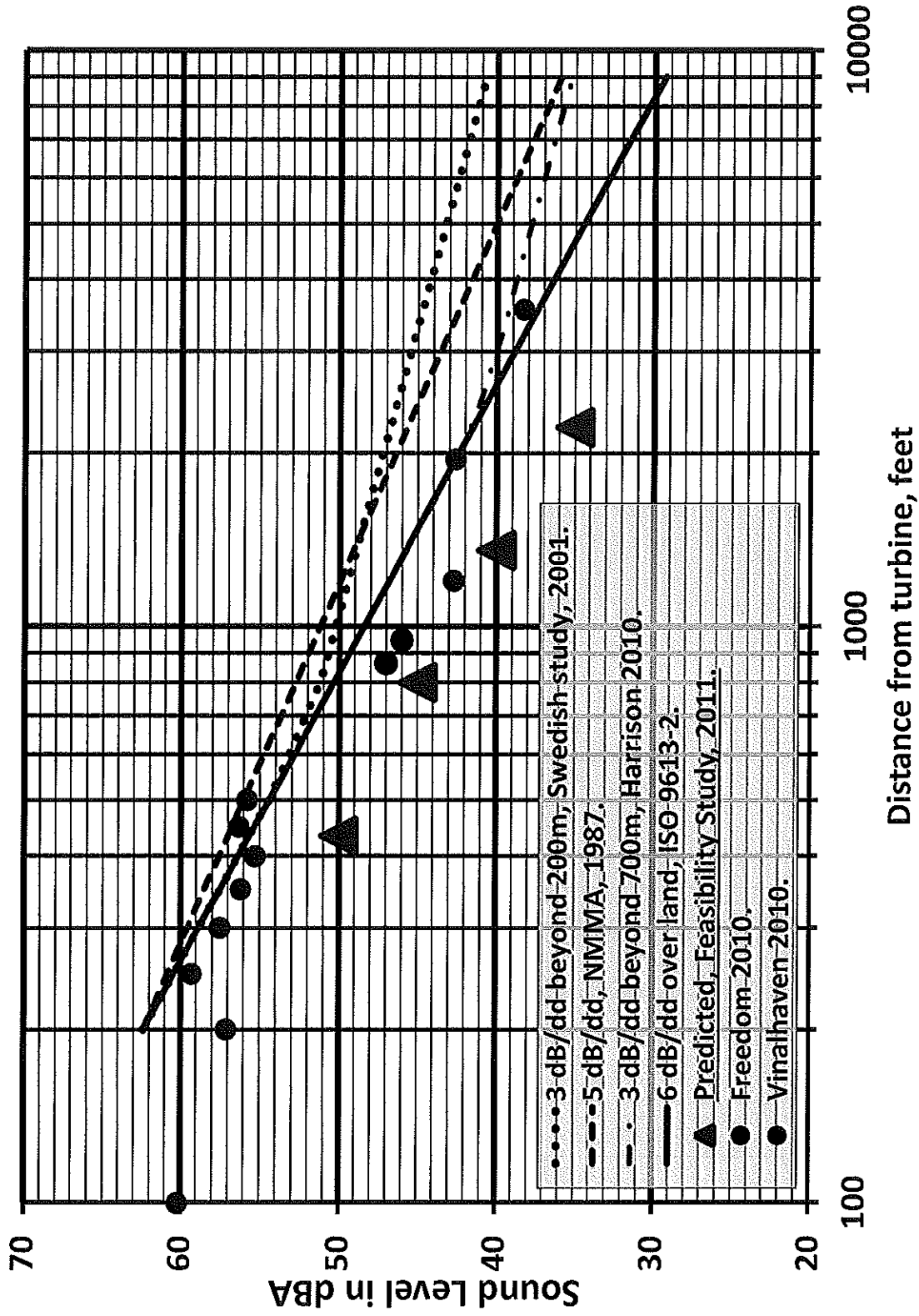
Acoustics, Environmental Sound
& Industrial Noise Control

Sound Decisions Have Quiet Results

Acknowledgement: Robert W. Rand, INCE Member

Stephen E. Ambrose, INCE Bd. Cert.

Predicted vs Measured



NOISE COMPLAINTS?

Neighbors complain when there is ...

- *a noticeable increase in noise level*
- *noise varies in loudness,*
- *objectionable sound character,*
- *tonal frequency,*
- *interferes with normal human activity;*

listening, relaxing and sleep.

WHY NOISE COMPLAINTS?

Common errors ...

- *present existing noise levels too loud,*
- *use defective predictions & standards,*
- *always minimize the noise level increase,*
- *no community noise impact assessment,*
- *confuse with too much information.*

Noise Complaint Response

International Standards Organization

ISO 1996-1:2003

dB(A) above noise level criterion	Estimated Community Response	
	Category	Description
0	None	No Observed Reaction
5	Little	Sporadic Complaints
10	Medium	Widespread Complaints
15	Strong	Threats of Community Action
20	Very Strong	Vigorous Community Action

MASSACHUSETTS NOISE LIMITS

MassDEP MaDEP 310 CMR 7.10

Increase in Sound Pressure Level (dB)	Human Reaction
<u>Maximum of 10 dB increase</u> (when levels vary in loudness, Industrial wind turbines)	Generate significant complaints with 10+ dB increase
<u>Maximum of 6 dB increase</u> (levels do not vary) power generation (case law)	Unnoticed to tolerable; sporadic complaints

Mass Law: Noise is an Air Contaminant

310 CMR 7.00 defines these terms as follows:

NOISE means sound of sufficient intensity an/or duration as to cause or contribute to a condition of air pollution.

AIR POLLUTION means the presence in the ambient air space of one or more air contaminants or combinations thereof in such concentrations and of such duration as to:

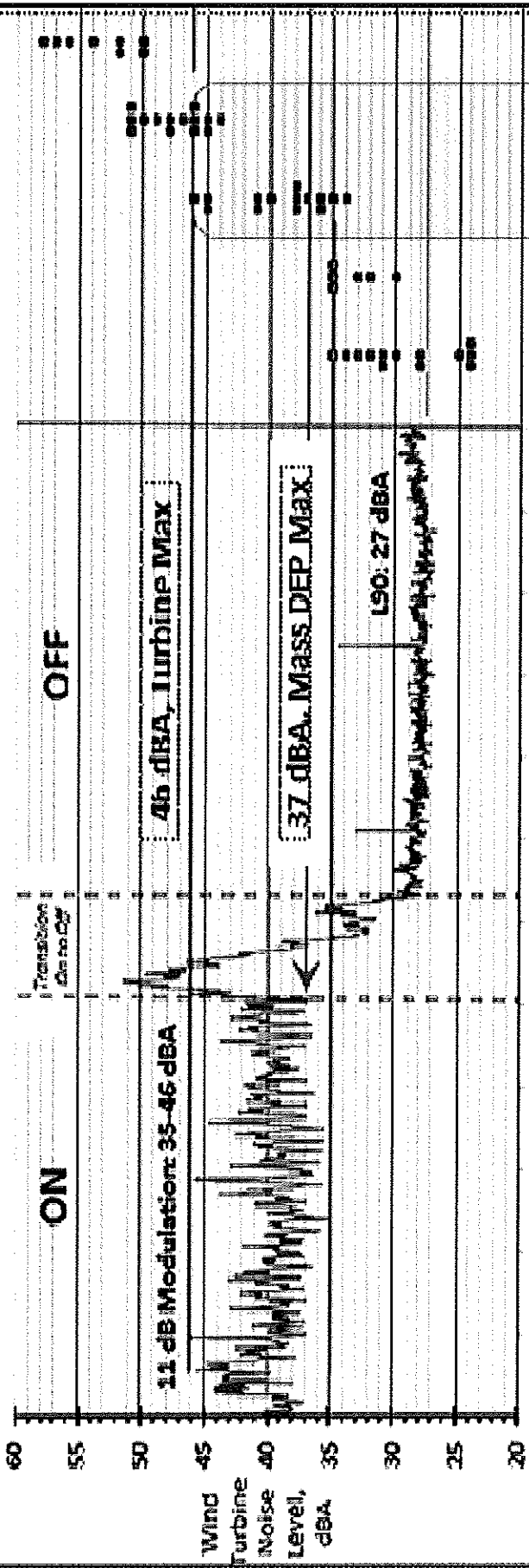
- (a) cause a nuisance;
- (b) be injurious, or be on the basis of current information, potentially injurious to human or animal life, to vegetation, or to property; or
- (c) unreasonably interfere with the comfortable enjoyment of life and property or the conduct of business.

The definition of "air contaminant" in the Regulations, includes sound:

AIR CONTAMINANT means any substance or man-made physical phenomenon in the ambient air space and includes, but is not limited to, dust, flyash, gas, fume, mist, odor, smoke, vapor, pollen, microorganism, radioactive material, radiation, heat, sound, any combination thereof, or any decay or reaction product thereof.

Falmouth MA DEP Wind 1 Test

COMMUNITY REACTION TO WIND TURBINE NOISE IN QUIET RURAL AREAS EPA CNR NORMALIZED TO FALMOUTH, MA QUIET COUNTRYSIDE



ON-OFF TEST, FALMOUTH WIND 1 MARCH 7, 2012
 Wind 6-8 m/s at hub, 2-minute test period shown (10-second tick marks).
 221 Blacksmith Shop Road about 1200 Feet From Wind 1

- EPA, Case studies, 550/9-74-004, 1974.
- Ldn normalized to:
 - L2q (-6)
 - Year-round operation (0)
 - Quiet rural community (-10)
 - NO prior exposure to intruding noise (-5)
 - Pure tone or impulsive noise character (-5)

USEPA Community Noise Reactions

Normalized For Rural Areas (Quiet)

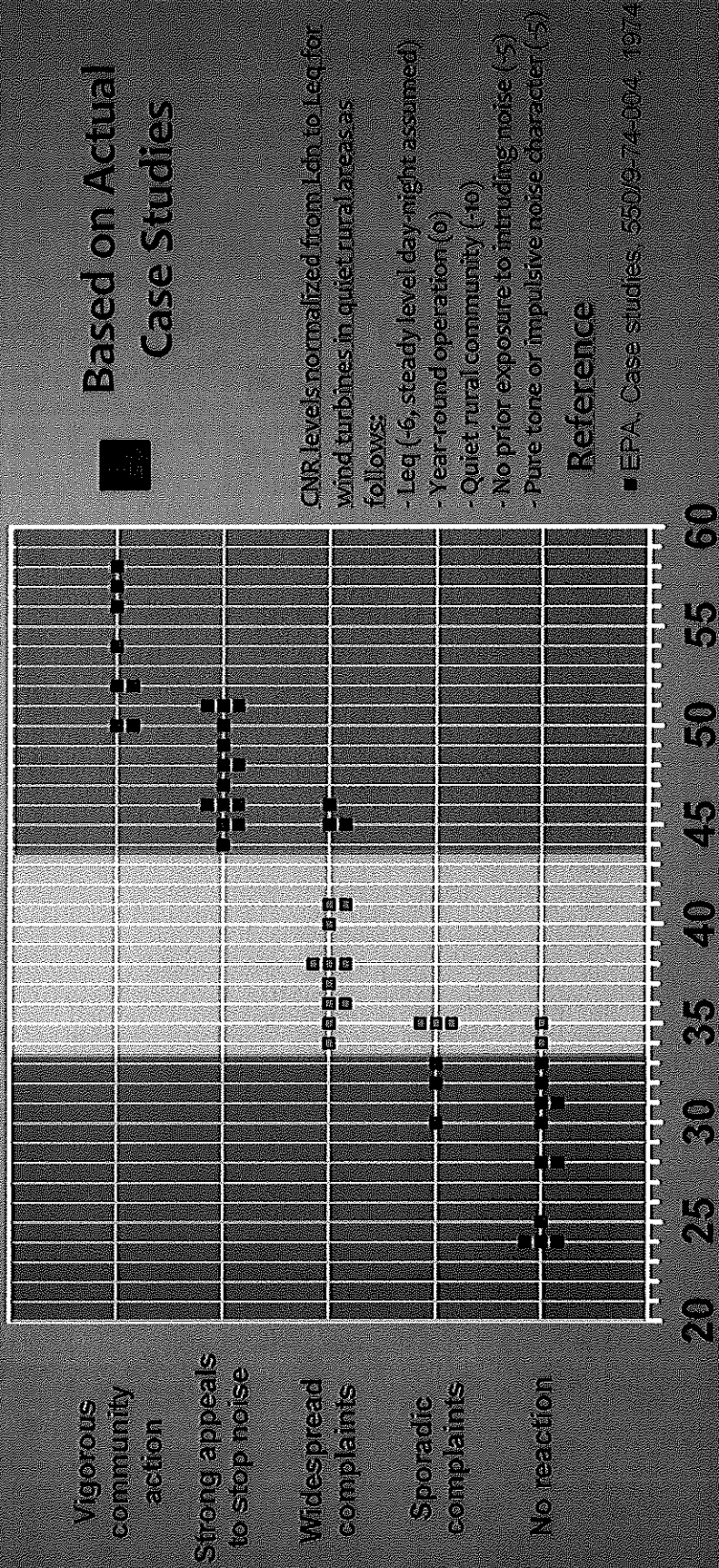
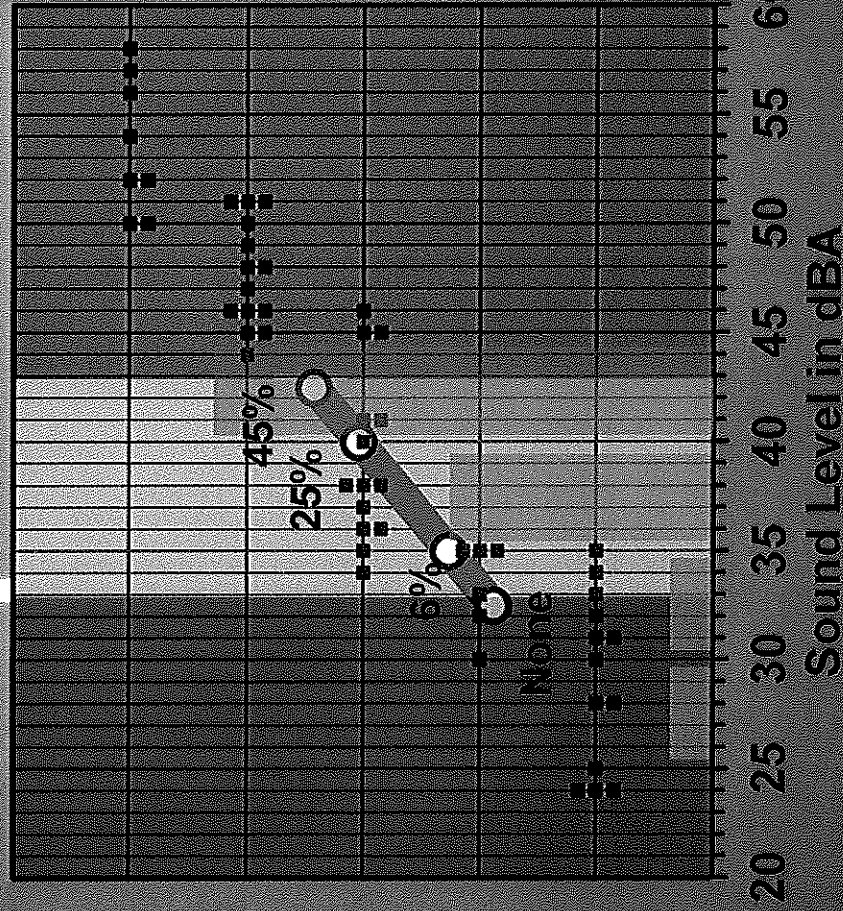


Chart ©2016 R. W. Reed & S.E. Ambrose, Members INCE. All Rights Reserved.

USEPA Community Noise Reaction Chart

w/ Pedersen 2004 & 2009 Studies



Vigorous community action

Strong appeals to stop noise

Widespread complaints

Sporadic complaints

No reaction

Pedersen, et al. 2009

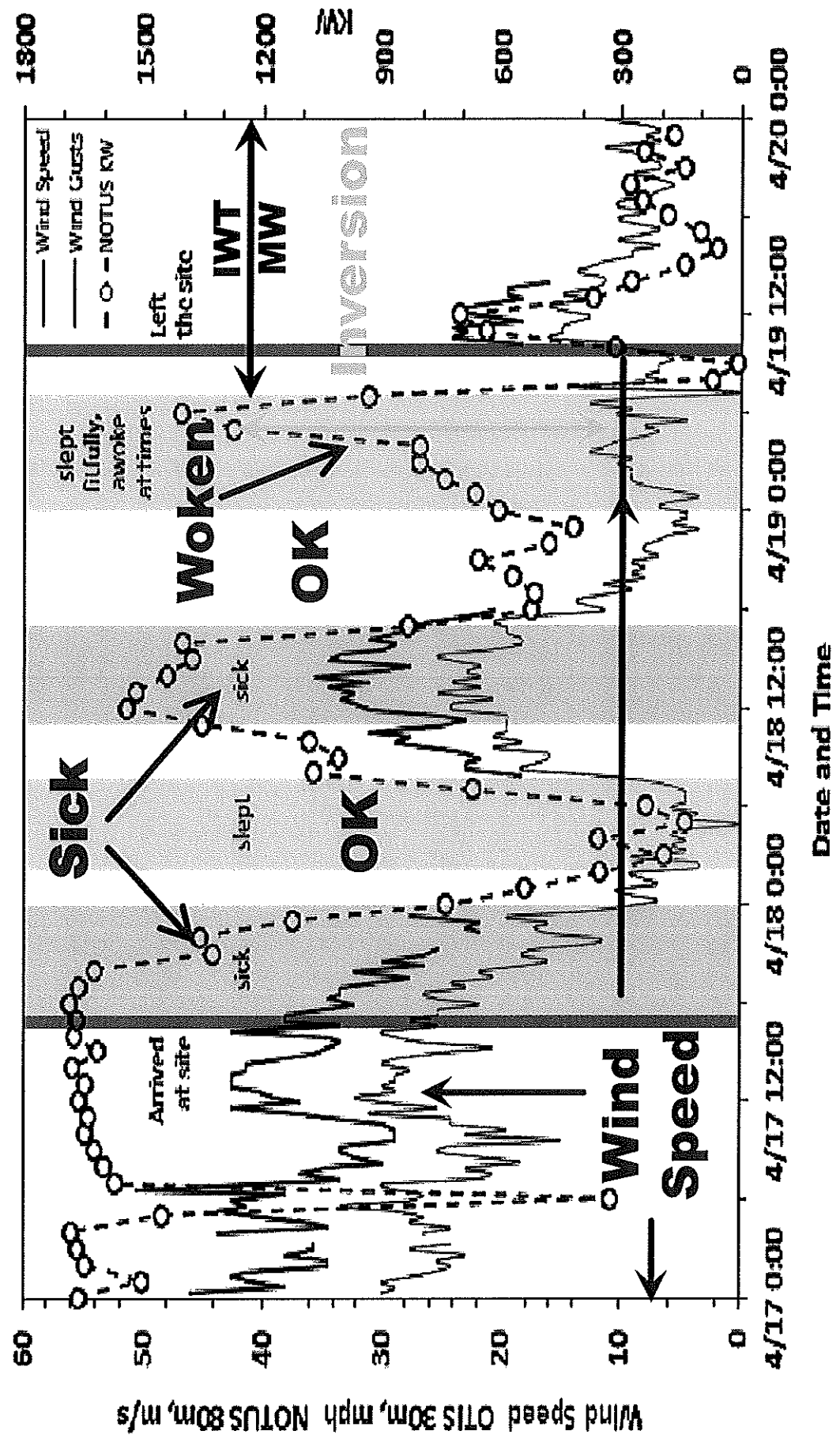
Very Annoyed

Pedersen's research shows that the public response to wind turbine noise occurs at levels 10 dB quieter than for planes, trains and traffic.

Noise induced annoyance is an adverse health effect.

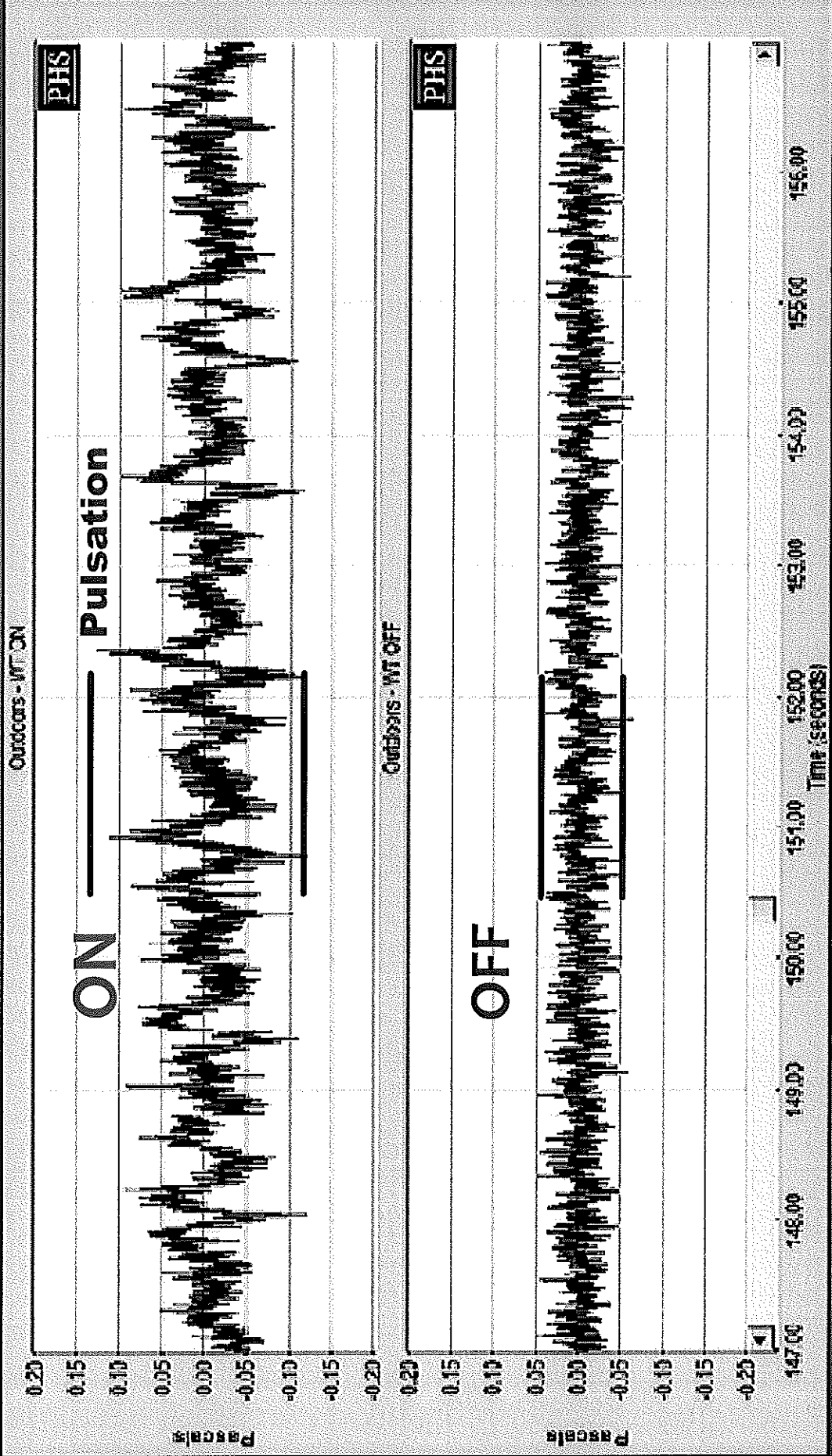
Michaud, DS, Keith, SE, McMurchy, D
Noise Annoyance in Canada
Noise Health, 7, 39-47

Wind Turbine Operation vs Human Observations

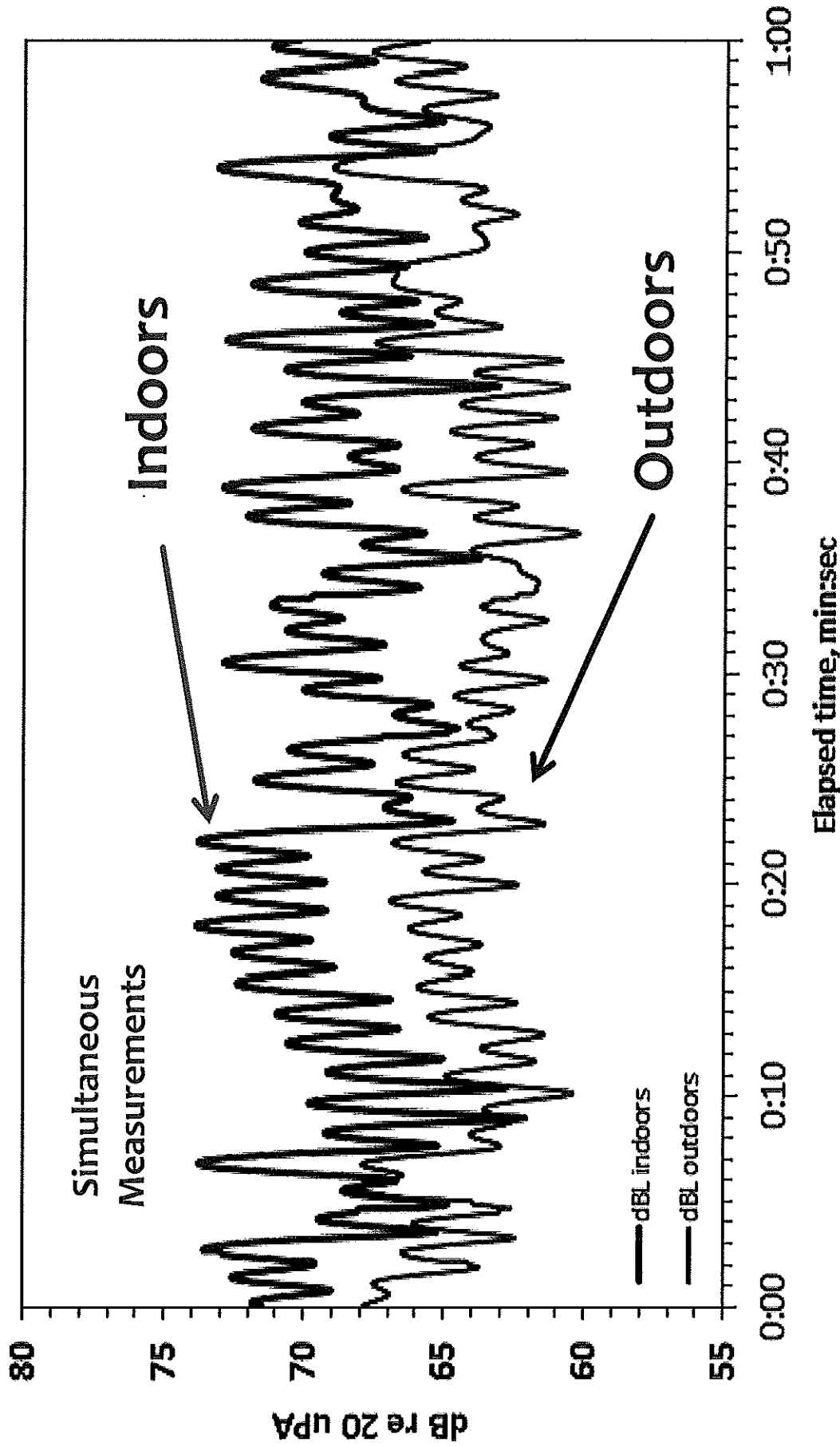


Study House Outdoors - IWT Operation ON & OFF

Pressure Pulsations Measured in Pascals



dBL Time-history - Indoors vs Outdoors



Falmouth - Adverse Health Complaints - 2011

Category	Number	Percent
Sleep Deprivation/ Fatigue	40	(85.1%)
Stress	25	(53.2%)
Cognitive difficulty	12	(25.5%)
Decreased memory, concentration		
Hearing problems	15	(31.9%)
Pressure, tinnitus, pain		
Headache	11	(23.4%)
Mental Health Problems	21	(44.7%)
Depression, mood disorders, anxiety		
Systemic symptoms	10	(21.3%)
Increased BP, P, palpitations		
Difficulty with spatial relationships	6	(12.8%)
Vertigo, loss of balance		
Eye problems	3	(6.4%)
Difficult interpersonal relationships	2	(4.3%)
Thoughts of or attempted suicide	2	(4.3%)
Have symptoms; requested interview	6	(12.8%)
Total number with health effects	47	
		6/11/2012

Summary

Wind Turbine Complaints;

Occur at Low Noise Levels, > 35 dBA
Adverse Public Health Symptoms.

Pedersen Research Shows;

Humans 10 dB more sensitive to IWT noise,
Noise Complaints start at 25-30 dBA, and
Rapid Increase Above 32-35 dBA.

Public Reaction

Neighbors' complain when there is

- *Excessive noise,*
- *Sleep interference,*
- *Adverse health impacts; and they*
- *Seek alternate experts, and*
- *Consider legal action.*

Regulatory Response

Agencies and Boards

- *Nothing, ... Doubt, ... Deny?*
- *Seek academic & expert “advice”,*
- *Remain befuddled,*
- *Do not understand,*
- *Dither in place.*

Public Health & Wellbeing Guidelines

Acoustic design goal must always
preserve and protect residential land-use,

Should not exceed, ...

... community noise reaction of, ...

sporadic complaints, ... or 5 dB

Fairhaven bylaw,

Section 198-24

Provides Very Good Public Protection

Noise is not allowed to be perceptible at residential property.

Perception definite at 3 dB increase.

Meets criteria for sporadic complaints.

MassDEP 310 CMR 7.10

Air Pollution Control

Provides Good Public Protection

Maximum noise level (**Lmax**) can not exceed **10 dB** above quietest background (**L90** or level exceeded 90% of the time).

If met, approximates **sporadic complaints** for sources that vary in loudness.

PEER-REVIEWED PUBLIC HEALTH STUDY

Effects of industrial wind turbine noise on sleep and health

by Dr. Michael Nissenbaum, et.al.,

Research conducted at two Maine communities

- 1.5 MW industrial wind turbines,
- Mars Hill (28) and Vinalhaven (3),

Study included IWT neighbors and control group.

PEER-REVIEWED PUBLIC HEALTH STUDY

Sleep quality focused on:

- Nighttime: Pittsburg Sleep Quality Index (PSQI),
- Daytime sleepiness: Epworth Sleepiness Score (ESS),
- General health, SF36 ver2;
Mental Component Score (MSC),
- Physical Component Score (PSC).

PEER-REVIEWED PUBLIC HEALTH STUDY

Residents received questionnaires;

- **Based on participant-inclusion criteria,**
- **Individuals living within 1.4-km or 4592-ft of the nearest turbine,**
- **Baseline random samples collected from residents living, 3 to 6-km away,**
or 9840 to 19680-ft

PEER-REVIEWED PUBLIC HEALTH STUDY

Conclusion: Strong recommendation

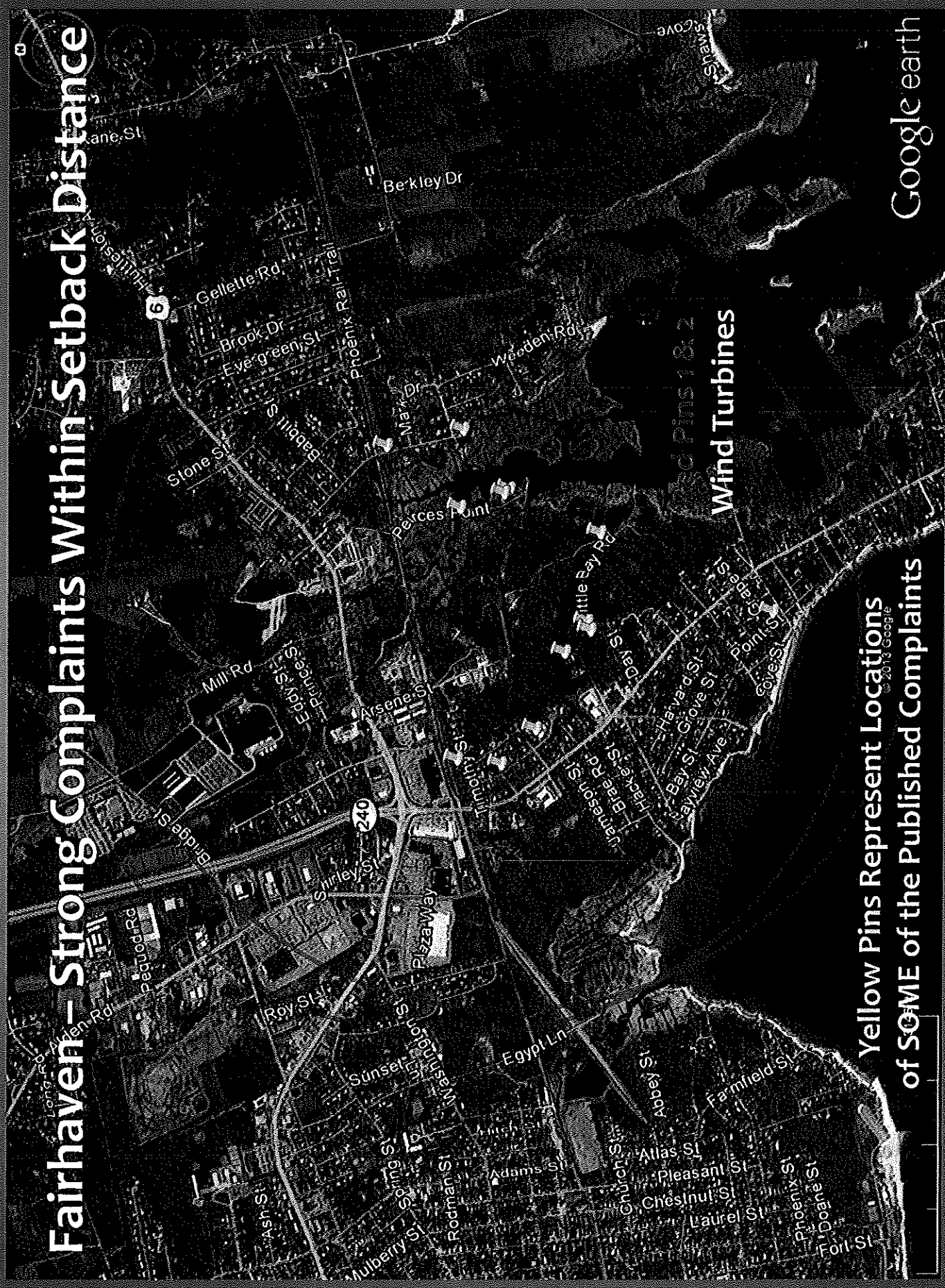
for 1.5 MW IWT separation distance,

1.4-km (4592-ft)

11.57 times total height

How does Fairhaven compare ?

Fairhaven - Strong Complaints Within Setback Distance

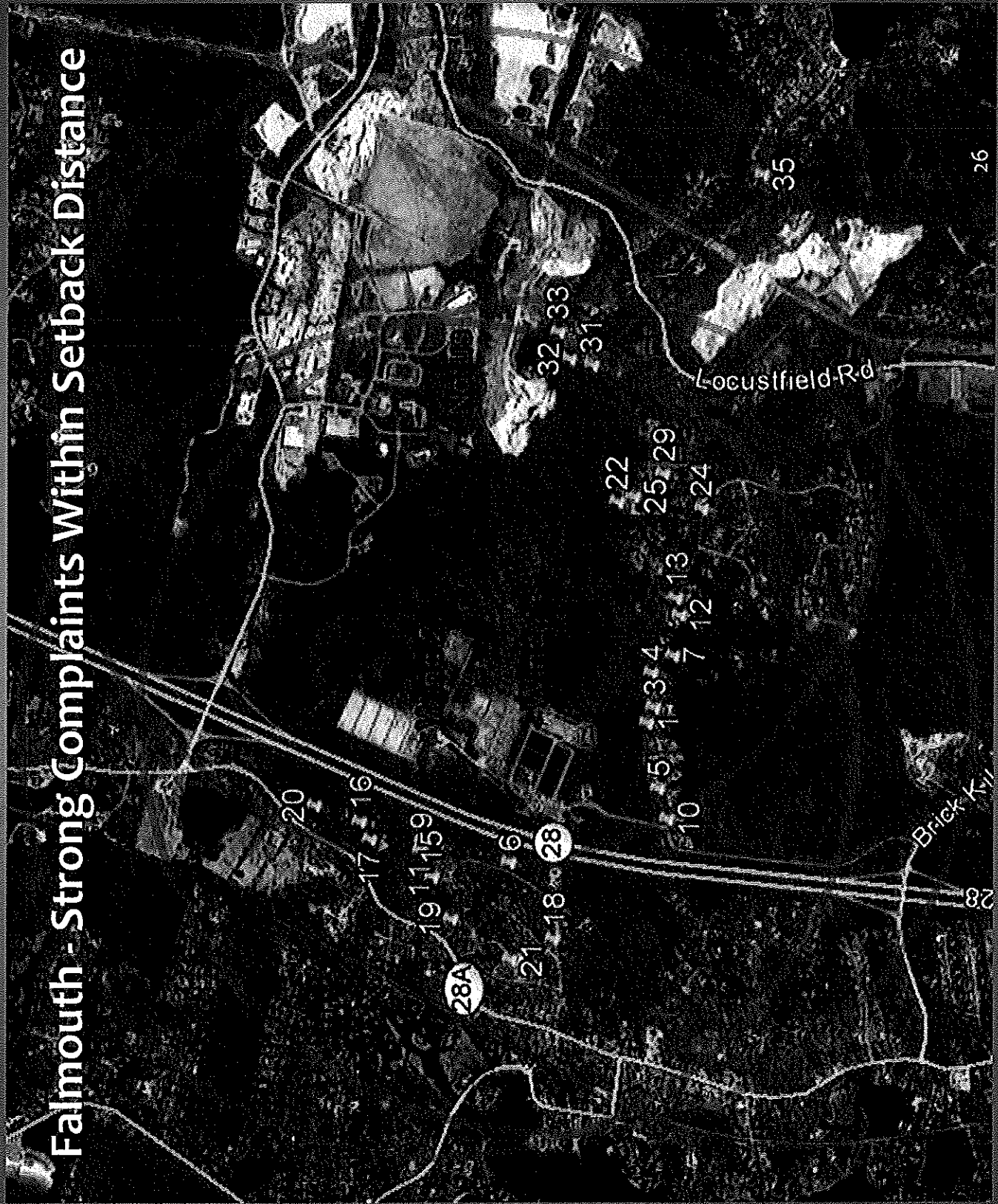


Yellow Pins Represent Locations
of SOME of the Published Complaints

Google earth

Stephen E. Ambrose, INCE Bd. Cert.

Falmouth - Strong Complaints Within Setback Distance



Stephen E. Ambrose, INCE Bd. Cert.

THANK YOU

Please feel free to ask questions.

Stephen E. Ambrose, INCE Board Certified

Owner and Principal Consultant

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Sound Decisions Have Quiet Results

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Health

Medknow

Effects of industrial wind turbine noise on sleep and health

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Northern Maine Medical Center, Fort Kent, Maine, USA, ¹Intelligent Health Solutions, Guelph, Ontario, Canada, ²University Hospitals of Leicester NHS Trust, Leicester, UK

Abstract

Industrial wind turbines (IWTs) are a new source of noise in previously quiet rural environments. Environmental noise is a public health concern, of which sleep disruption is a major factor. To compare sleep and general health outcomes between participants living close to IWTs and those living further away from them, participants living between 375 and 1400 m ($n = 38$) and 3.3 and 6.6 km ($n = 41$) from IWTs were enrolled in a stratified cross-sectional study involving two rural sites. Validated questionnaires were used to collect information on sleep quality (Pittsburgh Sleep Quality Index — PSQI), daytime sleepiness (Epworth Sleepiness Score — ESS), and general health (SF36v2), together with psychiatric disorders, attitude, and demographics. Descriptive and multivariate analyses were performed to investigate the effect of the main exposure variable of interest (distance to the nearest IWT) on various health outcome measures. Participants living within 1.4 km of an IWT had worse sleep, were sleepier during the day, and had worse SF36 Mental Component Scores compared to those living further than 1.4 km away. Significant dose-response relationships between PSQI, ESS, SF36 Mental Component Score, and log-distance to the nearest IWT were identified after controlling for gender, age, and household clustering. The adverse event reports of sleep disturbance and ill health by those living close to IWTs are supported.

Keywords: Health, industrial wind turbines, noise, sleep

Introduction

Environmental noise is emerging as one of the major public health concerns of the twenty-first century.^[1] The drive to 'renewable', low-carbon energy sources, has resulted in Industrial Wind Turbines (IWTs) being sited closer to homes in traditionally quiet rural areas to reduce transmission losses and costs. Increasing numbers of complaints about sleep disturbance and adverse health effects have been documented,^[2-4] while industry and government reviews have argued that the effects are trivial and that current guidance is adequate to protect the residents.^[5,6] We undertook an epidemiological study to investigate the relationship between the reported adverse health effects and IWTs among residents of two rural communities.

Methods

General study design

This investigation is a stratified cross-sectional study involving two sites: Mars Hill and Vinalhaven, Maine,


USA. A questionnaire was offered to all residents meeting the participant-inclusion criteria and living within 1.5 km of an industrial wind turbine (IWT) and to a random sample of residents, meeting participant inclusion criteria, living 3 to 7 km from an IWT between March and July of 2010. The protocol was reviewed and approved by Institutional Review Board Services, of Aurora, Ontario, Canada.

Questionnaire development

Adverse event reports were reviewed, together with the results of a smaller pilot survey of Mars Hill residents. A questionnaire was developed, which comprised of validated instruments relating to mental and physical health (SF-36v2)^[7] and sleep disturbance ((Pittsburgh Sleep Quality Index (PSQI)^[8] and the Epworth Sleepiness Scale (ESS)^[9]). In addition, participants were asked before-and-after IWT questions about sleep quality and insomnia, attitude toward IWTs, and psychiatric disorders. A PSQI score > 5 was taken to indicate poor sleep and an ESS score > 10 was taken to indicate clinically relevant daytime sleepiness.^[10-11] Responses to functional and attitudinal questions were graded on a five-point Likert scale with 1 representing the least effect and 5 the greatest. The questionnaire is available on request.

Study sites and participant selection

The Mars Hill site is a linear arrangement of 28 General Electric 1.5 megawatt turbines, sited on a ridgeline. The Vinalhaven site is a cluster of three similar turbines sited on

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	DOI: 10.4103/1463-1741.102961
	PubMed ID: ***

a low-lying, tree-covered island. All residents living within 1.5 km of an IWT, at each site, were identified via tax maps, and approached either door-to-door or via telephone and asked to participate in the study (near group). Homes were visited thrice or until contact was made. Those below the age of 18 or with a diagnosed cognitive disorder were excluded. A random sample of households in similar socioeconomic areas, 3 to 7 km away from IWTs at each site, were chosen to participate in the study to allow for comparison (far group). The households were approached sequentially until a similar number of participants were enrolled. A nurse practitioner supervised the distribution and ensured completion of the questionnaires.

Simultaneous collection of sound levels during data collection at the participants' residences was not possible, but measured IWT sound levels at various distances, at both sites, were obtained from publically available sources. At the Mars Hill site, a four quarter study was conducted and data from all four seasons were reported by power outputs at several key measurement points. The measurement points were located on or near residential parcels. The predicted and measured levels at full power were derived from figures in the Sound Level Study, Compilation of Ambient and Quarterly Operations Sound Testing, and the Maine Department of Environmental Protection Order No. L-21635-26-A-N. Measured noise levels versus distance at Vinalhaven were taken over a single day in February 2010, with the turbines operating at less than full power in moderate-to-variable northwest winds aloft (R and R, personal communication, 2011). Table 1 shows the estimated and measured noise levels at locations of varying distances and directions from the turbines at Mars Hill and Vinalhaven.

Data handling and validation

The Principal Investigator (Michael Nissenbaum, MD) did not handle data at any point in the collection or analysis phase. Questionnaire results were coded and entered into a spreadsheet (Microsoft Excel 2007). Each questionnaire generated over 200 data elements. The distance from each participant's residence to the nearest IWT was measured using satellite maps. The SF36-V2 responses were processed using Quality Metric Health Outcomes™ Scoring Software 3.0 to generate Mental (MCS) and Physical (PCS) Component Scores.

Data quality of the SF36-V2 responses was determined using QualityMetric Health Outcomes™ Scoring Software 3.0. All SF36-V2 data quality indicators (completeness, response range, consistency, estimable scale scores, internal consistency, discriminant validity, and reliable scales) exceeded the parameter norms. SF 36-V2 missing values were automatically accommodated by the scoring systems (99.9% questions were completed). No missing values were present for other parameters (ESS, PSQI, psychiatric and attitudinal observations, and demographics).

Table 1: Measured and predicted noise levels at Mars Hill and Vinalhaven

Distance to nearest turbine (m) ¹	Mars hill		
	Predicted max. LAeq 1 hr ¹	Measured noise LAeq 1 hr ¹	
		Average	Range
244	51	52	50 – 57
320	48	50	48 – 53
366	47	49	47 – 52
640	42	44	40 – 47
762	41	43	41 – 46
1037	39	41	39 – 45
1799	35	37	32 – 43

Vinalhaven

Distance to nearest turbine (m) ²	Measured Noise LAeq ²	
	Trend Average	Range
152	53	51 – 61
366	46	38 – 49
595	41	39 – 49
869	38	32 – 41
1082	36	34 – 43

¹ Values read or derived from report figures; accuracy +/- 50 m and +/- 1 Db ² Values obtained with wind turbine noise dominating the acoustical environment, two-minute measurements during moderate-to-variable northwest winds aloft (less than full power)

Statistical analysis

All analyses were performed using SAS 9.22.^[10] Descriptive and multivariate analyses were performed to investigate the effect of the main exposure variable of interest (distance to the nearest IWT) on the various outcome measures. Independent variables assessed included the following: Site (Mars Hill, Vinalhaven); Distance to IWT (both as a categorical and continuous variable); Age (continuous variable); Gender (categorical variable). The dependent variables assessed included the following: Summary variables — Epworth Sleepiness Scale (ESS), Pittsburgh Sleep Quality Index (PSQI), SF36-V2 Mental Component Score (MCS), SF36-V2 Physical Component Score (PCS); Before and after parameters — sleep, psychiatric disorders (both self-assessed and diagnosed by a physician), attitude toward IWTs; and Medication use (both over-the-counter and prescription drugs). A *P* value of < 0.05 was regarded as being statistically significant.

Results

Study participants

Thirty-three and 32 adults were identified as living within 1500 m of the nearest IWT at the Mars Hill (mean 805 m, range 390 – 1400) and Vinalhaven sites (mean 771 m range 375 – 1000), respectively. Twenty-three and 15 adults at the Mars Hill and Vinalhaven sites respectively, completed the questionnaires. Recruitment of participants into the far group continued until there were similar numbers as in the near group, 25 and 16 for Mars Hill and Vinalhaven, respectively [Table 2].

Statistical results

The binomial outcomes were assessed using either the GENMOD procedure with binomial distribution and a logit link; or when cell frequencies were small (< 5), Fisher's Exact Test. When assessing the significance between variables with a simple score outcome (e.g., 1 – 5), the exact Wilcoxon Score (Rank Sums) test was employed using the NPAR1WAY procedure. Continuous outcome variables were assessed using the GENMOD procedure with normal distribution. When using the GENMOD procedure, age, gender, and site were forced into the model as fixed effects. The potential effect of household clustering on statistical significance was accommodated by using the REPEATED statement. Effect of site as an effect modifier was assessed by evaluating the interaction term (Site*Distance).

Participants living near IWTs had worse sleep, as

Table 2: Demographic data of Mars Hill and Vinalhaven study participants

Parameter	Distance (m) from residence to nearest IWT (mean)			
	375 – 750 (601)	751 – 1400 (964)	3300 – 5000 (4181)	5300 – 6600 (5800)
Sample size	18	20	14	27
Household clusters	11	12	10	23
Mean age	50	57	65	58
Male / Female	10 / 8	12 / 8	7 / 7	11 / 16
Mean time in home ¹	14	21	30	24

¹ Years that study participants lived in the home

evidenced by significantly greater mean PSQI and ESS scores [Table 3]. More participants in the near group had PSQI > 5 ($P = 0.0745$) and ESS scores > 10 ($P = 0.1313$), but the differences did not reach statistical significance. Participants living near IWTs were significantly more likely to report an improvement in sleep quality when sleeping away from home.

The near group had worse mental health as evidenced by significantly higher mean SF36 MCS ($P = 0.0021$) [Table 3]. There was no statistically significant difference in PCS ($P = 0.9881$). Nine participants in the near group reported that they had been diagnosed with either depression or anxiety since the start of turbine operations, compared to none in the far group. Nine of the 38 participants in the near group reported that they had been prescribed new psychotropic medications since the start of turbine operations compared with three of 41 in the far group ($P = 0.06$).

The ESS, PSQI, and SF36 scores were modeled against distance from the nearest IWT (Score = $\ln(\text{distance}) + \text{gender} + \text{age} + \text{site}$ [controlled for household clustering]), and the results are shown in Figures 1–3. In all cases, there were clear and significant dose-response relationships ($P < 0.05$), with the effect diminishing with increasing log-distance from IWTs. Log-distance fit the health outcomes better than distance. This was expected given that noise drops off as the log of distance. Measured sound levels were plotted against distance at the two sites on Figures 1-3.

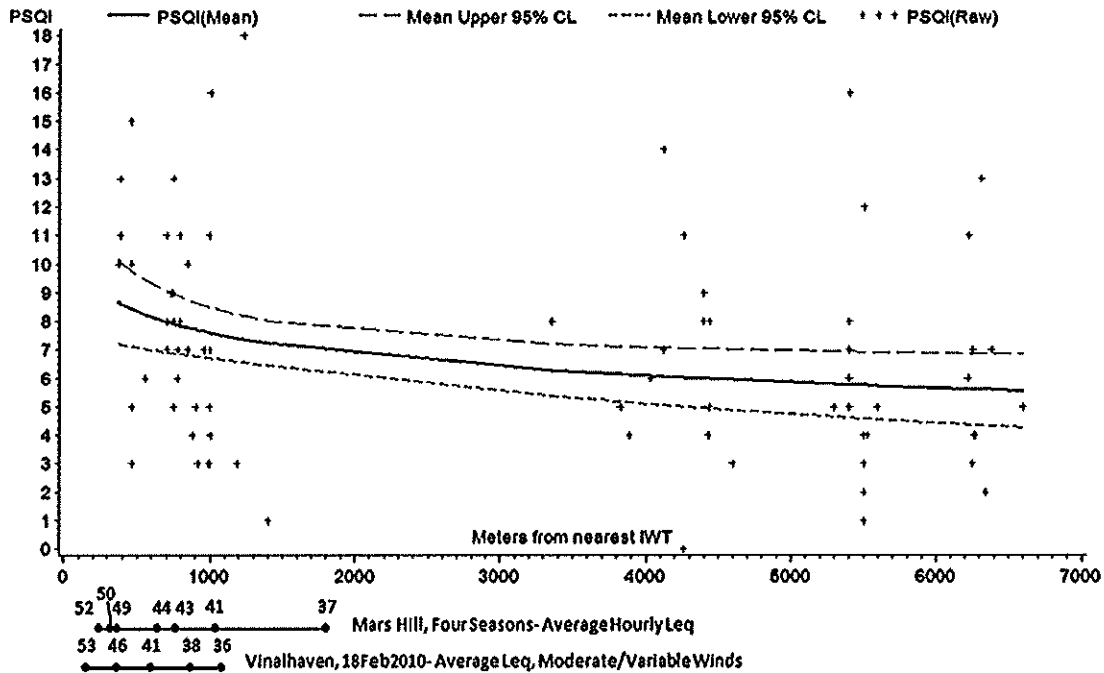


Figure 1: Modeled Pittsburgh Sleep Quality Index (PSQI) versus distance to nearest IWT (mean and 95% confidence limits) Regression equation: $PSQI = \ln(\text{distance}) + \text{sex} + \text{age} + \text{site}$ [controlled for household clustering]. $\ln(\text{distance})$ p -value = 0.0198

Table 3: Sleep and mental health outcomes of the study participants grouped by distance from the nearest IWT

Parameter	Distance (m) from residence to nearest IWT (mean)						P-Value ¹
	375-750 (601)	751-1400 (964)	375-1400 (792)	3300-5000 (4181)	5300-6600 (5800)	3000-6600 (5248)	
Mean PSQI ²	8.7	7.0	7.8	6.6	5.6	6.0	0.0461
% PSQI score > 5 ³	77.8	55.0	65.8	57.1	37.0	43.9	0.0745
Mean ESS ⁴	7.2	8.4	7.8	6.4	5.3	5.7	0.0322
% with ESS score > 10 ⁵	16.7	30.0	23.7	14.3	7.4	9.8	0.1313
Mean worsening sleep score post IWTs ⁶	3.2	3.1	3.1	1.2	1.4	1.3	< .0001
Improved sleep when away from IWTs	9 / 14	5 / 14	14 / 28	1 / 11	1 / 23	2 / 34	< .0001
% New sleep medications post IWTs	11.1	15.0	13.2	7.1	7.4	7.3	0.4711
New diagnoses of insomnia			2			0	
Mean SF36 MCS	40.7	43.1	42.0	50.7	54.1	52.9	0.0021
% Wishing to move away post IWTs	77.8	70.0	73.7	0.0	0.0	0.0	< .0001

¹ Testing difference of 375 – 1400 m group with 3000 – 6600 m group ² Pittsburgh Sleep Quality Index ³ PSQI > 5 is considered a 'poor sleeper' ⁴ Epworth Sleepiness Scale ⁵ About 10 – 20 percent of the general population has ESS scores > 10 ⁶ (New sleep problems + Worsening sleep problem)/2; Strongly Agree (5) - Strongly disagree (1)

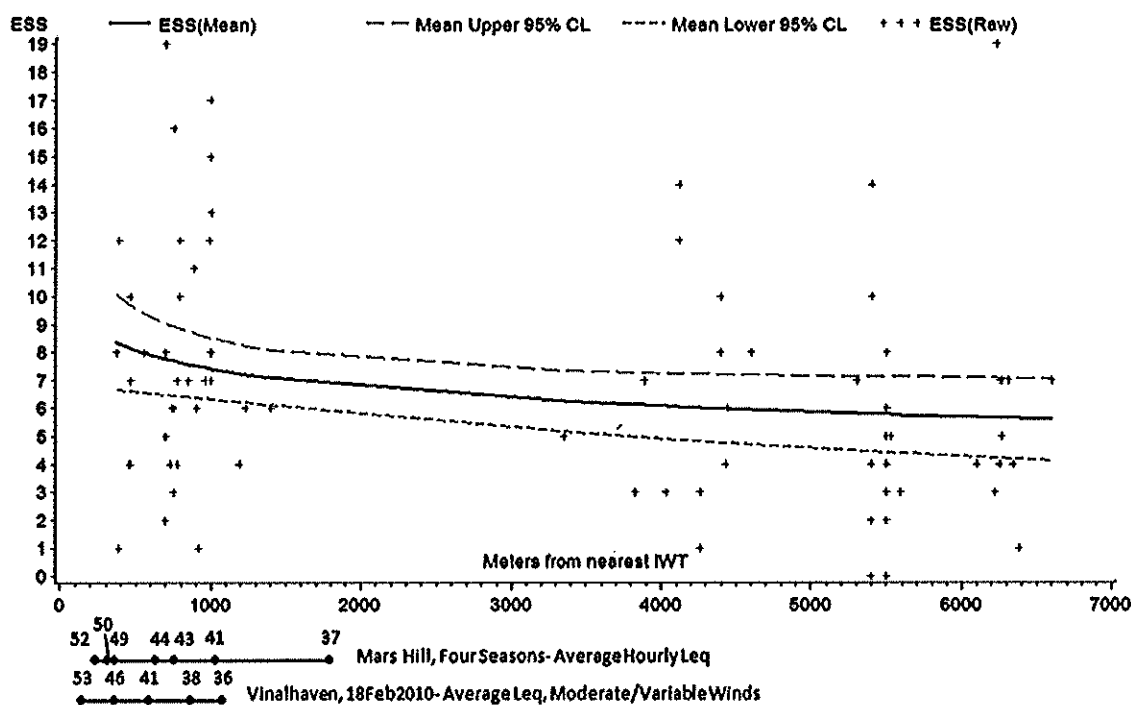


Figure 2: Modeled Epworth Sleepiness Scale (ESS) versus Distance to nearest IWT (mean and 95% confidence limits) Regression equation: ESS = ln (distance) + sex + age + site [controlled for household clustering]. ln (distance) p-value = 0.0331

There were no statistically significant differences between the near and far groups with respect to age, gender, or duration of occupation. In addition, Site, and Site*Distance were not significant, indicating that the modeled exposure-outcome relationships were similar across both sites.

Discussion

This study supports the conclusions of previous studies, which demonstrate a relationship between proximity to IWTs and the general adverse effect of 'annoyance',^[11-13] but

differs in demonstrating clear dose-response relationships in important clinical indicators of health including sleep quality, daytime sleepiness, and mental health. The levels of sleep disruption and the daytime consequences of increased sleepiness, together with the impairment of mental health and the dose-response relationships observed in this study (distance from IWT vs. effect) strongly suggest that the noise from IWTs results in similar health impacts as other causes of excessive environmental noise¹.

The degree of effect on sleep and health from IWT noise seems to be greater than that of other sources of

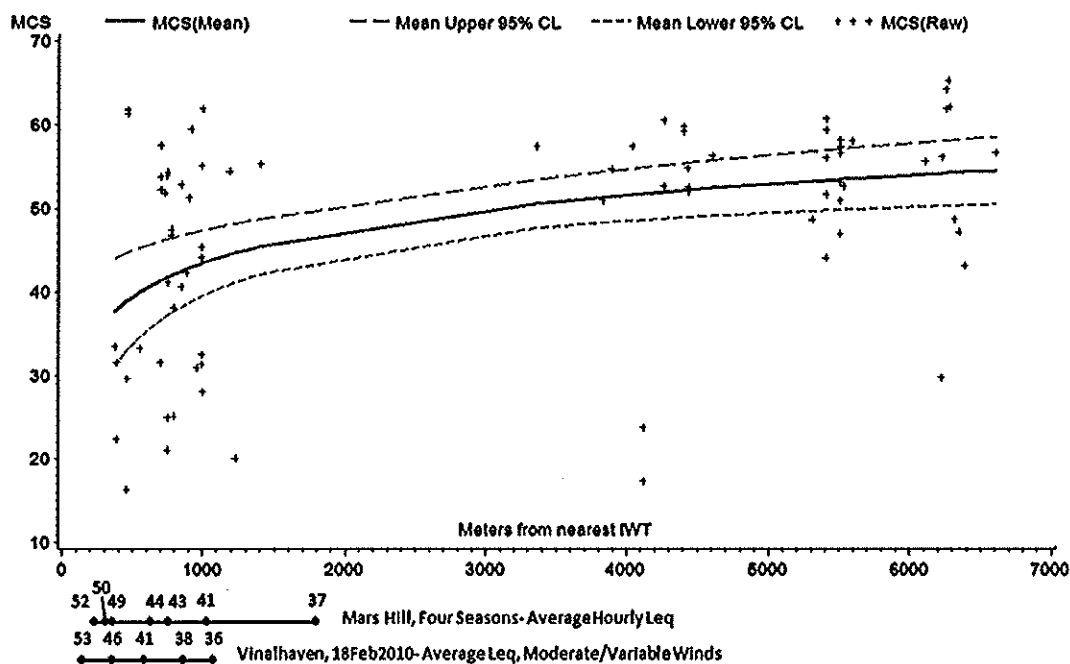


Figure 3: Modeled SF36 Mental Component Score (MCS) versus Distance to nearest IWT (mean and 95% confidence limits) Regression equation: $MCS = \ln(\text{distance}) + \text{sex} + \text{age} + \text{site}$ [controlled for household clustering]. $\ln(\text{distance})$ p-value = 0.0014

environmental noise, such as, road, rail, and aircraft noise. Bray and James have argued that the commonly used noise metric of LAeq (averaged noise level adjusted to human hearing) is not appropriate for IWT noise, which contains relatively high levels of low frequency sound (LFN) and infrasound with impulsive characteristics.^[14] This has led to an underestimation of the potential for adverse health effects of IWTs.

Potential biases

Reporting and selection biases in this study, if they existed, may have underestimated the strength of the association between distance to IWTs and health outcomes. Both Mars Hill and Vinalhaven residents gain financially from the wind projects, either through reduced electricity costs and / or increased tax revenues. The fear of reducing property values was also cited as a reason for downplaying the adverse health effects. Conversely, the possibility of legal action could result in symptoms being over stated. It was clear to the respondents that the questionnaire was directed at investigating adverse health effects potentially associated with IWT noise and no distractor questions were included. Nevertheless, given the large differences in reported adverse health effects between participants living within 1400 m and those living beyond 3300 m of an IWT, we do not believe that bias alone could have resulted in the differences demonstrated between the groups. In addition, the finding of strong dose-response relationships with log-distance, together with extensive sub-analyses using survey questions more and less likely to be

influenced by bias demonstrating similar results, further support the existence of causative associations.

Visual impact and attitude are known to affect the psychological response to environmental noise.^[11,15,16] At both sites, turbines are prominent features of the landscape and were visible to a majority of respondents; at Mars Hill, IWTs are sited along a 200 m high ridge, and Vinalhaven is a flat island. The visual impact on those living closest to turbines was arguably greater than on those living some distance away. Most residents welcomed the installation of IWTs for their proposed financial benefits and their attitudes only changed once they began to operate and the noise and health effects became apparent. Pedersen estimates that, with respect to annoyance, 41% of the observed effects of IWT noise could be attributed to attitude and visual impact.^[11] The influence of these factors on other consequences, such as the health effects investigated in this study, remains to be determined. Even as these factors may have contributed to the reported effects, they are clearly not the sole mechanism and health effects are certain.

Mechanisms

A possible mechanism for the observed health effects is an effect on sleep from the noise emitted by IWTs. Industrial wind turbines emit high levels of noise with a major low frequency component. The noise is impulsive in nature and variously described as 'swooshing' or 'thumping'.^[12] The character, volume, and frequency of the noise vary

with changes in wind speed and direction. Industrial wind turbine noise is more annoying than road, rail, and aircraft noise, for the same sound pressure, presumably due to its impulsive character.^[12,15] Pedersen concludes that it is noise that prevents restoration, that those subjected to it are unable to find psychological recovery in their homes because of its intrusive nature.^[16] Noise can affect sleep by preventing sleep onset or return to sleep following spontaneous or induced awakening. Clearly, attitude and psychological factors such as noise sensitivity may be important in influencing the ability to fall asleep, but it should be noted that noise sensitivity is, in part, heritable.^[17] Noise also affects sleep by inducing arousals, which fragment sleep, reducing its quality and leading to the same consequences as sleep deprivation.^[18] There is good evidence that road, rail, and aircraft noise induce arousals and lead to daytime consequences and there is no reason to suppose that IWT noise will not have a similar effect.^[19-23] A recent study on the likelihood of different hospital noises that induce an arousal shows a considerable effect of sound character, with impulsive noises being more likely to induce an arousal.^[24] It has also been shown that there is individual variability in the likelihood of an arousal in response to noise, which may be predicted from a spindle index, a measure of sleep quality.^[25]

ESS assesses daytime sleepiness from the self-assessed propensity to fall asleep in different situations averaged over several weeks.^[9] It is widely used in sleep medicine to assess daytime sleepiness, and scores in excess of 10 are deemed to represent clinically relevant excessive daytime sleepiness. If sleep is only disrupted occasionally, the ESS will not be affected, as the sleep deficit can be compensated on other nights. Changes in the ESS score observed in this study imply that sleep has been disrupted to a degree where compensation is not possible in at least some participants. PSQI also examines the sleep quality averaged over a period of weeks, scores in excess of 5 are deemed to represent poor quality sleep.^[8] An individual's score will not be significantly affected by occasional disrupted nights, thus confirming the conclusions drawn from the ESS data. It is noteworthy also that significant changes in ESS and PSQI have been observed, despite the scatter in values indicative of the typical levels of impaired sleep found in the general population.^[8,9]

Other mechanisms than sleep disruption cannot be excluded as an explanation for the psychological and other changes observed. Low frequency noise, and in particular, impulsive LFN, has been shown to be contributory to the symptoms of 'Sick Building Syndrome,' which has similarities with those reported here.^[26,27] Salt has recently proposed a mechanism, whereby, infrasound from IWTs could affect the cochlear and cause many of the symptoms described.^[28]

We assessed causality using a well-accepted framework.^[29] Although the measured parameters (ESS, PSQI, and SF36)

assess the current status, the evidence of the respondents is that the reported changes have followed the commencement of IWT operation. This is supported by the reported preferences of the residents; the great majority of those living within 1.4 km expressed their desire to move away as a result of the start of turbine operations. However, a study of the same population before and after turbine operation will be necessary to confirm our supposition. We believe that there is good evidence that a time sequence has been established. The association between distance to IWT and health outcome is both statistically significant and clinically relevant for the health outcomes assessed, suggesting a specific association between the factors. Given that this is the first study investigating the association between IWTs and a range of health outcomes, the consistency and replication to prove causation is limited. However, this study includes two different study populations living next to two different IWT projects. Despite these differences, the study site was not a significant effect modifier among any of the measured outcomes. In addition, adverse health effects similar to those identified in this study among those living near IWTs, have been documented in a number of case-series studies and surveys.^[2-4,30] Finally, causal association can be judged by its coherence with other known facts about the health outcomes and the causal factor under study. The results of this study are consistent with the known effects of other sources of environmental noise on sleep.

The data on measured and estimated noise levels were not adequate to construct a dose-response curve and to determine an external noise level below which sleep disturbance will not occur. However, it is apparent that this value will be less than an average hourly LAeq of 40 dBA, which is the typical night time value permitted under the current guidance in most jurisdictions.

Conclusions

We conclude that the noise emissions of IWTs disturbed the sleep and caused daytime sleepiness and impaired mental health in residents living within 1.4 km of the two IWT installations studied. Industrial wind turbine noise is a further source of environmental noise, with the potential to harm human health. Current regulations seem to be insufficient to adequately protect the human population living close to IWTs. Our research suggests that adverse effects are observed at distances even beyond 1 km. Further research is needed to determine at what distances risks become negligible, as well as to better estimate the portion of the population suffering from adverse effects at a given distance.

Acknowledgments

We thank Dr. Carl Phillips, Rick James, INCE and Robert Rand, INCE for their review of the manuscript.

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Announcement

"QUICK RESPONSE CODE" LINK FOR FULL TEXT ARTICLES

The journal issue has a unique new feature for reaching to the journal's website without typing a single letter. Each article on its first page has a "Quick Response Code". Using any mobile or other hand-held device with camera and GPRS/other internet source, one can reach to the full text of that particular article on the journal's website. Start a QR-code reading software (see list of free applications from <http://tinyurl.com/yzlh2tc>) and point the camera to the QR-code printed in the journal. It will automatically take you to the HTML full text of that article. One can also use a desktop or laptop with web camera for similar functionality. See <http://tinyurl.com/2bw7fn3> or <http://tinyurl.com/3ysr3me> for the free applications.

Anne Kakley

From: Stephen Ambrose [seaa@myfairpoint.net]
Sent: Friday, May 24, 2013 2:06 PM
To: Anne Kakley
Cc: lbartean@comcast.net; molife@aol.com
Subject: Re: Meeting with Fairhaven Selectmen

Anne, Thank you. I will keep you advised. Best wishes

Steve

Neighbors are far better acoustic analyzers for determining the quality of their life versus any acoustic instrument left unattended by an expert.

Stephen E. Ambrose, INCE, Bd.Cert.
Acoustics, Environmental Sound and Industrial Noise
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15 Great Falls Road Mobile: 207.653.9099
Windham, ME 04062 email: seaa@myfairpoint.net

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On 5/24/2013 1:50 PM, Anne Kakley wrote:

Mr. Ambrose:

This will confirm that the Board of Selectmen will meet with you on Monday, June 3, from 6:30 to 7:00 p.m. to allow you to present your findings related to wind turbines and sound.

The meeting will take place at the Fairhaven Town Hall, 40 Center Street, MA. The meeting room is at the back of the building, directly ahead of the front entrance.

I'll arrange to have a projector ready for your Power Point presentation. If you need a laptop as well, please let me know – otherwise, I'll assume you are bringing your own laptop.

As I mentioned, this is a very tightly-scheduled meeting, so the Board will be grateful to you for limiting your presentation/Q&A session to 30 minutes.

Any literature that you wish to have distributed to the Board should be sent to me by Thursday, May 30, to allow for inclusion in packets.

Thank you and if you have any questions, please do not hesitate to contact me.

Anne

Anne Kakley

Selectmen's Secretary
Fairhaven Town Hall
40 Center Street

Fairhaven, MA 02719
Tel: 508-979-4023
Fax: 508-979-4079
akakley@Fairhaven-MA.gov

29 MAP 048 BLOCK LOT3 LOT2 LOT1 RESIDENTIAL CARD FAIRHAVEN 1 of 1 TOTAL ASSESSED: 120,500 144471



Patriot
Properties Inc.

IN PROCESS APPRAISAL SUMMARY

Use Code	Building Value	Land Value	Land Size	Land Unit	Total Value	Legal Description	User Acct
937	11,100	109,200	120,400.000	200	120,500	LOTS 48 & 50	
Total Card	11,100	109,200	0.276	200	120,500	Entered Lot Size	
Total Parcel	11,100	109,200	0.276	200	120,500	Total Land	
Sources/Market Adj Cost							Insp Date
Total Value per SQ unit /Card: 307.40							06/08/04
Parcel ID 29-048							

PREVIOUS ASSESSMENT

Year	Use	Cat	Bldg Value	Land Value	Land Size	Land Unit	Total Value	Notes
2013	937	FV	11,100	109,200	120,400	200	120,500	12/18/2012
2012	101	FV	12,800	109,200	120,400	200	122,200	12/28/2011
2011	101	FV	12,800	114,700	120,400	200	127,700	10/20/2010
2010	101	FV	16,300	119,900	120,400	200	136,400	10/21/2009
2009	101	FV	16,300	128,300	120,400	200	145,300	11/20/2008
2008	101	FV	16,300	102,000	120,400	200	118,500	10/3/2007
2007	101	FV	16,300	87,900	120,400	100	103,400	4/12/2007
2006	101	FV	14,900	77,900	120,400	100	92,000	11/14/2005

SALES INFORMATION

Grantor	Legal Ref	Type	Date	Sale Price	V	Tst	Year	Assoc PCL Value	Notes
CLAPP STANLEY A	10383-308		5/9/2012	FORECLOSURE	0	No			Lot 48 is recorded and Lot 50 is re
	1057-244		6/3/1952		1	No			

TAX DISTRICT

Year	Assessed Value	Assessed PCL Value
2013	120,500	120,500
2012	122,200	122,200
2011	127,700	127,700
2010	136,400	136,400
2009	145,300	145,300
2008	118,500	118,500
2007	103,400	103,400
2006	92,000	92,000

NARRATIVE DESCRIPTION

This Parcel contains 12,040 SQ FT of land mainly classified as IMPRTAXITILE with a(n) CAMP SEAS Building Built about 1954, Having Primarily WOOD SHING Exterior and ASPHALT SH Roof Cover, with 1 Units, 0 Baths, 1 HalfBaths, 0 3/4 Baths, 3 Rooms Total, and 1 BATHS. OTHER ASSESSMENTS

PROPERTY FACTORS

Item Code	Descp	%	Item Code	Descp
Z RR	RURAL RE	100	U	
0			1	
t			j	
Census:			Exempt	
Flood Haz:				
D			Topo	
s			Street	
t			Traffic	

LAND SECTION (First 7 lines only)

Use Code	LUC	No of Units	Price/Units	Unit Type	Land Type	Lt Factor	Base Value	Adj	Neigh	Neigh	Neigh	Mod	RR
937	IMPRTAXITILE	12040		SITE			0	4	2.268	05	FR		

BUILDING PERMITS

Date	Number	Descrp	Amount	CIO	Last Visit	Fed Code	F	Descrp	Comment
6/8/2004	INSPECTED								
1/1/2000	INSPECTED								

ACTIVITY INFORMATION

Date	Result	By	Name
6/8/2004	INSPECTED	JB	JPBentencourt
1/1/2000	INSPECTED	JB	JPBentencourt

SIGNATURE

109,224 Appraised Value / 109,224 Alt Value / 109,224 Spec Value / 109,200 Land Code / 109,200 Fact Code / 109,200 Use Value / 109,200 Notes

Code	Descrp	Amount	Com	Int
Total AC/H/A: 0.2764	Total SF/SqM: 12040.00	Parcel LUC: 937	IMPRTAXITILE	Prime NB Desc: 005

Disclaimer: This Information is believed to be correct but is subject to change and is not warranted. Database: AssessPro

EXTERIOR INFORMATION

Type 03 - CAMP SEAS	Rating:
SV HT 1 - ONE STORY	Rating:
(Liv) Units: 1	Rating:
Foundation: 7 - TYPICAL	Rating:
Framer	Rating:
Prime Wall: 01 - WOOD SHING	Rating:
Sec Wall:	Rating:

OTHER FEATURES

Roof Struct: 1 - GABLE	Rating:
Roof Cover: 1 - ASPHALT SH	Rating:
Coloc:	Rating:
View / Desir:	Rating:

GENERAL INFORMATION

Grade: C - AVERAGE
Year Bld: 1954
Alt LUC:
Jurisdiction:
Const Mod:
Lump Sum Adj:

INTERIOR INFORMATION

Avg Ht/Ft:
Prim Int Wall: 1 - DRY WALL
Sec Int Wall:
Partit:
Prim Floors: 3 - HARDWOOD
Sec Floors:
Bsmnt Fir:
Bsmnt Car:
Electric:
Insulation:
Int vs Ext:
Heat Fuel: 5 - NONE
Heat Type: 8 - NONE
Heat Sys:
% Heat:
Solar HW: NO
% Com Wal:

DEPRECIATION

Phys Cond: PR - Poor	57.0%
Functional:	%
Economic:	%
Special:	%
Override:	%
Total:	57.6%

CALC SUMMARY

Basic \$ / SQ: 45.00
Size Adj: 1.39999998
Const Adj: 0.92150003
Adj \$ / SQ: 58.055
Other Features: 3500
Grade Factor: 1.00
Neighborhood Inf: 1.00000000
LUC Factor:
Adj Total: 26257
Depreciation: 15724
Depreciated Total: 11133

SPEC FEATURES/YARD ITEMS

Code	Description	A	Y	S	C	Y	164
2	SHEED/FR	D	Y				164

BATH FEATURES

Full Bath	Rating:
A Bath	Rating:
3/4 Bath	Rating:
A 3/8 Bath	Rating:
1/2 Bath: 1	Rating:
A HBth	Rating:
Other Fix:	Rating:

OTHER FEATURES

Kiss: 1	Rating:
A Kiss:	Rating:
Ftbl:	Rating:
W/S: 1	Rating:

CONDO INFORMATION

Location:
Total Units:
Floor:
% Own:
Name:

REMODELING

Exterior:	1
Interior:	3
Additions:	1
Kitchen:	1
Baths:	1
Plumbing:	1
Electric:	1
Heating:	1
General:	1
Totals:	11

RESIDENTIAL GRID

1st Res Grid: 1 - Desc: Cony	# Units: 1
Level: 1 - FY LR DR D K FR RR BR FB HB L O	
Other:	
Upper:	
Lvl 2:	
Lvl 1:	
Lower:	
Totals:	RMS: 3 BRS: 1 Baths: 1 HB: 1

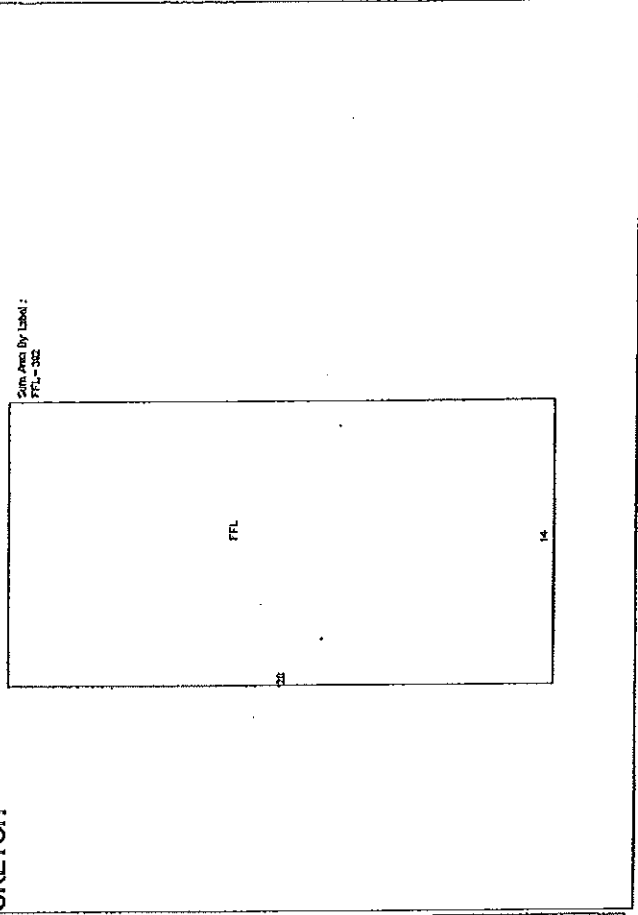
RES BREAKDOWN

No Unit	RMS	BRS	FL
1	3	1	1
Totals:	3	1	1

COMPARABLE SALES

Rate	Parcel ID	Typ	Date	Sale Price

SKETCH



SUB AREA

Code	Description	Area - SQ	Rate - AV	Undergr Value	Sub Area	% Descr	% Type	# Ten
FFL	1ST FLOOR	392	58.050	22,757				

SUB AREA DETAIL

Net Stretched Area:	392	Total:	22,757
Size Adj:	392	Gross Area:	392
		Final Area:	392

IMAGE

Parcel ID	29-048
Unit Price	9.92 T 75 937
DIS Dep	LUC
Fact: NB Fa	Appr Value
Juris. Value	200

ASSESSPRO Patriot Properties, Inc

Total Match Items:	200
Total Special Features:	200

PROPERTY LOCATION

No	Alt No	Direction/Street/City
124		ALDEN ROAD, FAIRHAVEN

OWNERSHIP

Owner 1:	FAIRHAVEN TOWN OF
Owner 2:	
Owner 3:	
Street 1:	40 CENTER STREET
Street 2:	

Town/City: FAIRHAVEN

St/Prov: MA	County	Own Occ	Type
Postal: 02719			

PREVIOUS OWNER

Owner 1:	STAFFON GARY J & SUSAN A
Owner 2:	
Street 1:	159 OCEAN AVENUE
Town/City:	FAIRHAVEN
St/Prov:	MA
Postal:	02719

NARRATIVE DESCRIPTION

This Parcel contains 175,260 SQ FT of land mainly classified as IMPRTAXTITLE with a(n) STORE Building Built about 1986. Having Primarily WOOD SHING Exterior and ASPHALT SH Roof Cover, with 0 Units, 0 Baths, 1 HalfBaths, 0 3/4 Baths, 0 Rooms, Total and 0.0 Baths.

OTHER ASSESSMENTS

Code	Description	Amount	Com. Int

IN PROCESS APPRAISAL SUMMARY

Use Code	Building Value	Yard Items	Land Size	Land Value	Total Value
937	26,700	7,800	175,260.200	467,700	502,200
Total Cards:	26,700	7,800	4.023	467,700	502,200
Total Parcel:	26,700	7,800	4.023	467,700	502,200
Source:	Market Adj Cost	Total Value per SQ Unit/Car:	1,307.81	Parcel:	1,307.

PREVIOUS ASSESSMENT

Tax Yr	Use	Cat	Blgd Value	Yrd Items	Land Size	Land Value	Total Value	Asses'd Value	Notes
2013	937	FV	26,700	7800175,260.188	175,260.188	467,700	502,200	502,200	Year End Roll
2012	318	FV	26,900	8000175,260.188	175,260.188	467,700	502,600	502,600	Year End Roll
2011	318	FV	27,100	8200175,260.188	175,260.188	516,700	552,000	552,000	Year End
2010	318	FV	27,900	9700175,260.188	175,260.188	533,100	570,700	570,700	Year End
2009	318	FV	28,300	1020175,260.188	175,260.188	539,100	571,600	571,600	
2008	318	FV	28,900	1020175,260.188	175,260.188	533,100	571,600	571,600	
2007	318	FV	22,700	9800175,260.188	175,260.188	489,200	521,700	521,700	Year End
2006	318	FV	22,700	9800175,111.488	175,111.488	489,200	482,500	482,500	

SALES INFORMATION

Grantor	Legal Ref	Type	Date	Sale Code	Sale Price	V	List	Verif	Assoc PCL Value
STAFFON GARY J	10334-132		3/23/2012	FORECLOSURE	320,000	No	No	No	0 No
	4888-50		2/1/2001		320,000	No	No	No	0 No

BUILDING PERMITS

Date	Number	Descr	Amount	C/O	Last Visit	Fed Code	F. Descr	Comment

PROPERTY FACTORS

Item Code	Descr	%	Item	Code	Descr
Z RA	SINGLE RE	100	U		
			t		
			l		
	Census:			Exempt	
	Flood Haz				
	D			Topo	
	s			Street	
	t			Traffic	

LAND SECTION (First 7 lines only)

Use Code	Description	Fact	No of Units	Depth / Price Units
937	IMPRTAXTIT	65340		
937	IMPRTAXTIT	2,52242		
937	IMPRTAXTIT	274,60999		

Unit Type	Land Type	LI	Base	Unit	Adj	Neigh	Neigh	Neigh	Mod	Inf 1	%	Inf 2	%	Inf 3	%	Appraised Value	Alt	%	Spec	Land	Code	Fact	Use Value	Notes
SO FT	SITE			0	1,000	CG										392,040							392,000	300000
ACRES	SITE			0	30,000	CG										75,703							75,700	
	FRONT FEESITE			0		CG																		

Total AC/HA: 4.02342

Total SF/SM: 175260.19	Parcel LUC: 937	IMPRTAXTITLE	Prime NB: Dess: COMM	GOOD
------------------------	-----------------	--------------	----------------------	------

Disclaimer: This information is believed to be correct but is subject to change and is not warranted Database: AssessPro

Total: 467,743 Sp/Cred: Total: 467,700

kelly



Patriot Properties Inc.

USER DEFINED

Prior Id # 1:	
Prior Id # 2:	
Prior Id # 3:	
Prior Id # 1:NI	
Prior Id # 2:Y	
Prior Id # 3:	
Prior Id # 1:	
Prior Id # 2:	
Prior Id # 3:	
ASR Map:	2962
Fact Dist:	
Reval Dist:	
Year:	
LandReason:	
BldReason:	

ACTIVITY INFORMATION

Date	Date	Result	By	Name
4/13/2007	INSPECTED		JB	J.Bettencourt

Sign:

EXTERIOR INFORMATION

Type:	78 - STORE
Sy Ht:	1 - ONE STORY
(Liv) Units:	0 Total: 0
Foundation:	1 - CONCRETE
Frame:	1/2 Bath: 1 Rating: AVERAGE
Prime Wall:	01 - WOOD SHING
Sec Wall:	%
Roof Struct:	1 - GABLE
Roof Cover:	1 - ASPHALT SH
Color:	
View / Descri:	

GENERAL INFORMATION

Grade/C:	-AVG. (-)
Year Bilt:	1996
Alt LUC:	
Jurisdic:	
Const Mod:	
Lump Sum Adj:	

INTERIOR INFORMATION

Avg Ht/Ft:	8
Print Int Wall:	5 - MINIMUM
Sec Int Wall:	%
Partion:	
Prim Floors:	12 - CONCRETE
Sec Floors:	%
Bsmnt Fir:	
Bsmnt Gar:	
Electric:	
Insulation:	
Int vs Ext:	
Heat Fuel:	3 - ELECTRIC
Heat Type:	1 - FORCED H/A
# Heat Sys:	
% Heated:	100
% AC:	
Solar H/W:	NO
Central Vact:	NO
% Com Wall:	% Sprinkled

BATH FEATURES

Full Bath:	Rating:
A Bath:	Rating:
3/4 Bath:	Rating:
A 3/4 Bath:	Rating:
1/2 Bath:	1 Rating: AVERAGE
A HBth:	Rating:
Other Fix:	Rating:

OTHER FEATURES

Kits:	Rating:
A Kits:	Rating:
Fpts:	Rating:
W/Sq:	Rating:

CONDO INFORMATION

Location:	
Total Units:	
Floor:	
% Own:	
Name:	

DEPRECIATION

Phys Cond:	AV - Average	20%
Functional:		%
Economic:		%
Special:		%
Override:		%
Total:		20%

CALC SUMMARY

Basic \$/Sq:	62.00
Size Adj:	1,500,000.00
Const Adj:	0.92120004
Adj \$/Sq:	85.672
Other Features:	2000
Grade Factor:	0.92
Neighborhood Inf:	1,000,000.00
LUC Factor:	
Adj Total:	33322
Depreciation:	6664
Depreciated Total:	26657

SPEC FEATURES/YARD ITEMS

Code	Description	A/V/S	Qty	Size/Dim	Qual	Con	Year
2	SHED/FR	D	Y	115X10	FR	FR	1996
	MISC BLD	D	Y	18X38	FR	FR	1996
78	LITE-TPL	D	Y	11	AV	AV	1996
26	GRNHSE-P	D	Y	2.48X24	AV	AV	1996

COMMENTS

10%ADJ-EASEMENT LS=2 1440 SF GRNHSE

RESIDENTIAL GRID

1st Res Grid:	Desc	# Units
Level:	FY-LR-DR-D-K-FR-RR-BR-FB-HB-L-O	
Other:		
Upper:		
Lvl 2:		
Lvl 1:		
Lower:		
Totals:	RMS: BRs: Baths: HB1:	

REMODELING

Exterior:	Interior:	Additions:	Kitchens:	Baths:	Plumbing:	Electric:	Heating:	General:
No Unit:	RMS	SRS	FL					
Totals:								

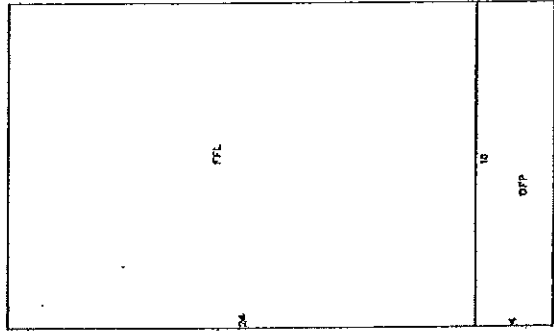
RES BREAKDOWN

No Unit:	RMS	SRS	FL
Totals:			

COMPARABLE SALES

Rate	Parcel ID	Typ	Date	Sale Price

SKETCH



Scan Area By Label:
FPL=204
QFP=14

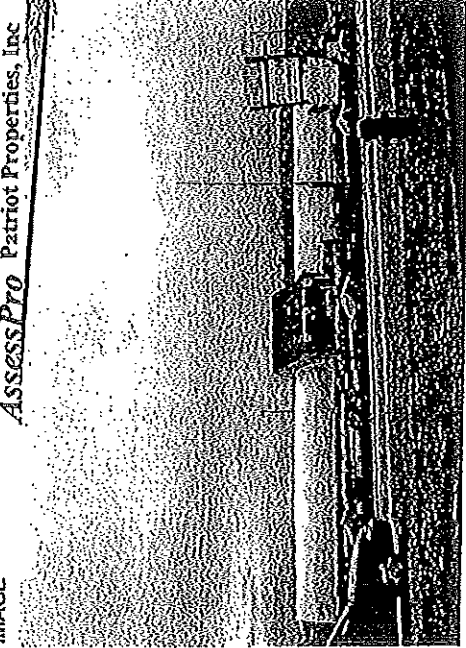
SUB AREA

Code	Description	Area -SQ	Rate -AV	Under Value	Sub Area	Sub %	Descr	Type	%	#
FPL	1ST FLOOR	384	85.670	32,898	32,898					
OFF	OPEN PORCH	64	22.500	1,440	1,440					

SUB AREA DETAIL

Net Sketched Area:	448	Total:	34,338
Size Adj:	384	Gross Area:	448
Fin Area:	384		

IMAGE



AssessPro Patriot Properties, Inc

PARCEL ID 24-016A

Code	Description	D/S	Dep	LUC	Fact	NB	Fa	Appr Value	JCod	JFact	Jrms	Value
700				44	937			700				700
2,700				44	937			2,700				2,700
400				35.2	937			400				400
4,000				35.2	937			4,000				4,000

Total Items: 7,800

Total Special Features:

Total: 7,800

Unofficial Property Record Card - Fairhaven, MA

General Property Data

Parcel ID 29C-416	Account Number
Prior Parcel ID --	
Property Owner BLASINGAME ALINE G	Property Location 14 GRANDVIEW AVENUE
	Property Use ONE FAMILY
Mailing Address 14 GRANDVIEW AVENUE	Most Recent Sale Date 10/26/1988
	Legal Reference 1501-79
City FAIRHAVEN	Grantor
Mailing State MA Zip 02719	Sale Price 1
Parcel Zoning RR	Land Area 0.207 acres

Current Property Assessment

Card 1 Value	Building Value 65,000	Xtra Features Value 0	Land Value 122,200	Total Value 177,200
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Building Description

Building Style CONVENT'NL # of Living Units 1 Year Built 1900 Building Grade AVG. (-) Building Condition Fair Finished Area (SF) 924 Number Rooms 4 # of 3/4 Baths 0	Foundation Type TYPICAL Frame Type Roof Structure HIP Roof Cover ASPHALT SH Siding WOOD SHING Interior Walls DRYWALL # of Bedrooms 2 # of 1/2 Baths 0	Flooring Type HARDWOOD Basement Floor N/A Heating Type NONE Heating Fuel NONE Air Conditioning 0% # of Bsmt Garages 0 # of Full Baths 1 # of Other Fixtures 0
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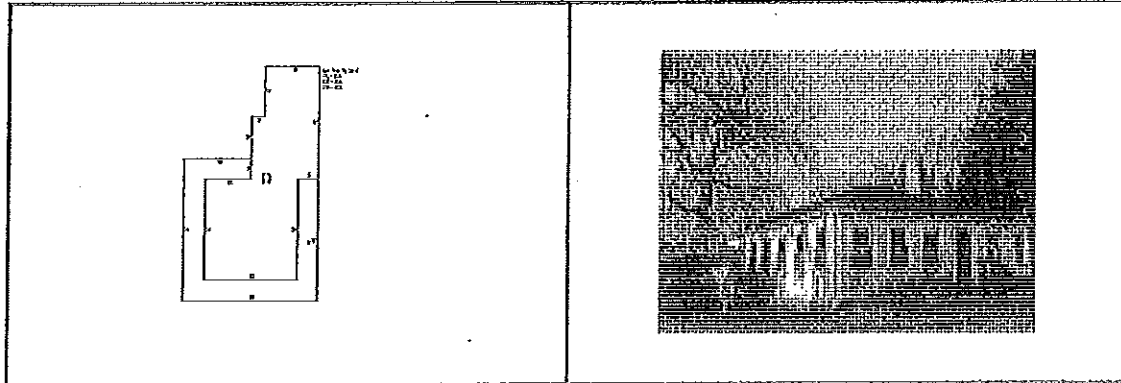
Legal Description

LOTS 416 - 420

Narrative Description of Property

This property contains 0.207 acres of land mainly classified as ONE FAMILY with a(n) CONVENT'NL style building, built about 1900, having WOOD SHING exterior and ASPHALT SH roof cover, with 1 unit(s), 4 room(s), 2 bedroom(s), 1 bath(s), 0 half bath(s).

Property Images



Disclaimer: This information is believed to be correct but is subject to change and is not warranted.

HARBOR MIST CONDOMINIUM TRUST
David W. Mitchell, President
28 Harbor Mist Dr., Fairhaven, MA 02719
774-202-1675; dwm5126@gmail.com

Thursday, May 30, 2013

Senator Mark C. Montigny
State House Room 407
Boston, MA 02133

Representative William M. Straus
State House Room 134
Boston, MA 02133

Dear Legislators,

Harbor Mist Condominiums is a cluster of 27 homes in 9 buildings in Fairhaven. We are along the bike path between Fairhaven and Mattapoisett near Sconticut Neck Road in your district. We have spent lavishly on landscaping to make the property beautiful and attractive. Many of us enjoy the bike path and natural beauty it gives the area.

Recently we have become aware that NSTAR plans to exercise its right to clear cut from "the soil to the sky" under a utility right of way which goes across our property between our homes and the bike path. This will eliminate many beautiful, valuable, and harmless shrubs - some less than 3 feet tall! Few, if any, appear more than half the height of the lines, such as miniature flowering cherry trees along our drive. It will also change the bike path which is bordered by some trees about as high as the lines - but about 45 feet from it. Truck access to the area under the lines seem ample as there are wide openings thru the trees along the bike path.

We hear that our neighbor, Riccardi's Restaurant, will lose many plantings as well.

We understand that this policy will be exercised in about 105 communities in Massachusetts - perhaps over five years. Locally, we believe that the line in question goes at least from Fairhaven to Wareham.

We speculate that fines and penalties levied against the utilities due to the perception that they were not responsive after recent storms may cause them to react by cutting every plant they can without regard to the negligible threat posed - no balance or application of judgment. Had we been beaten up as they were after the natural disasters, we might be inclined to react similarly.

We note that during future events huge trees in the village center remain near and above lines and will cause outages. Power outages will still occur. We understand that the line near us is a large 115 KV line and is more valuable - serving more people than a small line in town. It is also higher, stronger, on large concrete poles, and already well free of large nearby or overhanging vegetation. The utility has regularly cleared under the line without cutting everything "from soil to sky" as Lucas Tree said they were asked

to do. To our knowledge this line maintained as in the past has had no failures. Some of us despair at the trend to find someone to blame for every inconvenience or event formerly known as "act of God."

Can you help us bring a bit of judgment into this issue?

The timeline is unclear. We learned of this plan about 15 May from an NSTAR contractor. He told us he would write up our concern and we would hear from NSTAR. We have not heard yet. He refused to give us contact information for a responsible person at NSTAR. He said the cut was scheduled to begin about 15 June. We have heard nothing from NSTAR.

We discussed the matter with Jeffery Osuch, Executive Secretary to Fairhaven's Board of Selectmen, who learned that we are to expect to be contacted by another NSTAR contractor soon. Seems we may not get the opportunity to talk with NSTAR at all

Your timely investigation or intervention in this matter would be appreciated by residents of Harbor Mist, Fairhaven, Mattapoisett, and the other 105 Massachusetts communities whose NSTAR line easement may be clear cut in excess of prior years or, we have been told, of other utilities at present.

We do not dispute the need for prompt repair of damaged power distribution equipment to get power to the population or NSTAR's right to maintain its easement. We are sad and frustrated at the proposed unnecessary destruction of valuable and beautiful small landscaping to comply with a policy - without apparent exercise of judgment.

Please contact me if I can be any help in resolving this matter cooperatively.

Yours truly,

David W. Mitchell, President
Harbor Mist Condominium Association

cc: Jeff Osuch - Town of Fairhaven
William Hayes - NSTAR (US Mail only, no email address available)