

Project Meeting Minutes

Community Liaison Committee Meeting

Committee Chair:	John Woods	Note Taker:	Mary-Frances Lynch	
Location:	Ellershuse Community Hall		Date:	November 13, 2013
Attendance	Representation		Present	Regrets
CLC Members				
Shirley Banfield	Local Resident, Landowner		X	
Dave Blanchard	Local Resident, Landowner, Community Hall		X	
Weiner Brown	Local Resident, Landowner, Business Owner			X
Myles Cornish	Local Resident, Engineer in Training		X	
Yvonne Davison	Local Resident, Landowner		X	
Greg McNeil	Local Resident			X
Dougie Ross	Local Resident, Snowmobile Association		X	
Steve Sharpe	Local Resident, Landowner, Business Person		X	
Project Team Members				
Aaron Long	Minas Basin Pulp and Power		X	
Mary-Frances Lynch	Minas Basin Pulp and Power		X	
John Woods	Minas Basin Pulp and Power		X	
Chris Peters	Minas Basin Pulp and Power		X	
Guests				
Melanie Smith	Strum Consulting		X	
Gary Cochrane	Deputy Warden, West Hants		X	
Tom Brown	Municipal Councillor, West Hants		X	
Sandra Dorie	Resident		X	
Ed Sulis	Resident		X	
Bruce McDonald	Minas Basin Pulp and Power		X	
Pete Wilson	Resident		X	
Ashley Thompson	Hants Journal		X	
Dave Crouchman	Resident		X	
Joseph Cuffari	Lawyer		X	
Grace Crawford	Resident		X	
Deborah Cuffari			X	
Pam Kinsman	Resident		X	
Mark White	Resident		X	
John Creighton	Scotia Investments Limited Coop Student		X	

1. Adoption of Meeting Agenda

Change item #5 to "Get to know Ellershuse". Agenda adopted.

2. Review of October 30th Meeting Minutes

Suggested edits to the minutes:

- Concern over misrepresentation in minutes related to discussion on Shelburne Wind Farm property values. See discussion below.
- p.3 replace "misinformation" with "conflicting information", remove italics from answer.
- Add in John Wood's apology regarding asking community to name the project

	<p>Discussion on property values in Shelburne Wind Farm study.</p> <ul style="list-style-type: none"> • Study done by an independent appraiser in Ontario. • Study was used in court hearing in Ontario. • Some setbacks in the study show turbines 300m from homes. • Concern that there may still be an impact in Ellershouse even if setback is more than 300m, could still be a drop in property values (5-20%). • There is a study from Berkley that shows no change in property values from wind farms. • ACTION ITEM – to discuss property values at a future CLC meeting. <p>Dave Blanchard moved, Steve Sharpe seconded, minutes approved after amended.</p> <p><i>**Later confirmed over email that minutes regarding Shelburne Wind Farm were accurate.</i></p> <p>Action Items:</p> <ol style="list-style-type: none"> 1. Send sound and shadow flicker study maps to CLC. Completed. 2. Could a photomontage be taken from Maple Avenue? Is the CLC still on-board with this? Yes. Project team will set up a time with Steve Sharpe. Possibility to take a photomontage from another location in the community – to be discussed later. 3. Send CLC member Steve Sharpe article on GHG savings from wind. Completed. ACTION ITEM: Send to rest of CLC as well.
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4. Suggested Edits to CLC Guidelines and Mandate

	<p>Question of clarification regarding development team’s ability to veto business/financial items. For example, CLC would not have ability to vote to remove turbines –that is of a project business nature. Whereas if a vote were taken on a local benefits project idea, the development team would not veto that decision.</p> <p>CLC members accept the Guidelines and the document will be posted on the project website.</p> <p>Question: What is important to YOU in your role as a CLC member?</p> <p><i>See photo of flip chart appended to minutes.</i></p>
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5. Environmental Assessment presentation – Melanie Smith, Strum Consulting

	<p>Presentation by Melanie Smith from Strum Consulting - Project Manager for Environmental Assessment (EA) for the project:</p> <ul style="list-style-type: none"> • 7 turbines, 16 MW project. • Turbines are located on top of hills – these locations are ideal from a wind standpoint and based on environmental constraints. • EA is a rigorous process which typically involves a year’s worth of studies. • Currently at end of baseline studies, entering into data analysis and compilation of the EA. • When submitted to NSE, the EA is officially registered and hard copies will be made available in the community and on NSE website. This information will be sent to community.
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- During first 30 days after EA registration, it is available for public comment to the Minister. A notification of the EA registration will be published in local and provincial newspapers.
- The full EA review takes 50 days and involves various government departments who review specific sections, ie. Dept Natural Resources to review wildlife, Health Canada to review sound study. NSE's EA branch will gather reviews and Minister will make a decision within 50 calendar days. Minister can approve or turn down EA and typically provides conditions.
- EA study components include: geology, flora, wetlands and water courses (these are flagged on-site), fauna surveys (looking for wildlife sound, sightings and scat), bird and bat monitoring (ie. using AnaBat detectors, peak bat time August-Sept), sound, shadow, visual, archaeological and culture resources.
- Sound modeling:
 - Done to predict sound levels at receptors.
 - Guideline is 40dBA (A for Audible) sound level outside your home, this is a widely applied guideline in Canada and Europe.
 - Model inputs – receptors (residences, schools, churches, not commercial buildings), provincial topography data, turbine data (size, sound specifications), model runs at wind speed that generates highest sound, assumed downwind sound propagation = model is made to be conservative.
 - Sound modeling results show only two receptors within 35-40dBA, all structures are below 40dBA guideline, while most are below 35dBA.
- Infrasound:
 - Magnitude = loudness of sound, noise level in dB
 - Pitch of sound = frequency or tonality, measured in hertz
 - Human hearing = can hear between 20-50Hz up to higher frequency 10,000-15,000Hz
 - Humans hear best from 500-4,000 Hz
 - Infrasound is very low frequency sound below 20 Hz
 - If infrasound is loud enough it could be harmful and annoying.
 - Infrasound is measured in dBG while dBA is for audible range, these are two different ways of measuring sound.
 - General consensus in literature that 85dBG is when infrasound can be heard. If below 85dBG, infrasound is not perceptible.
 - Infrasound is everywhere – ie. produced by furnace, fan, wind in trees, traffic, waves on beach, we are already exposed to infrasound in daily life
 - A particular study showed infrasound levels (dBG) of various sources at different distances – ie. wind farm 200m downwind = 63dBG, adjacent to beach (25m away) = 75dBG, business district (70m away) = 76dBG. See Strum presentation for more examples. Ultimately, results show that infrasound from turbines is not different from existing natural levels.
 - Another study on infrasound concluded that infrasound from wind farms is not different from levels in rural areas. In this study, wind blowing in trees in rural areas had highest levels of infrasound.
 - Scientific studies have found that there is no evidence that infrasound levels from turbines cause harm and that ground vibrations are not felt.
- Shadow Flicker:
 - Shadow flicker happens under specific conditions where the sun is constantly shining, direct alignment between windows and turbine, no obstructions, turbine must be operating, house must be close enough to turbine to fall within shadow zone = very conservative model that takes into account worst case scenario.
 - Shadow flicker model inputs include receptor locations, topography, no vegetation incorporated (this adds to the model's conservativeness).
 - Provincial shadow flicker guidelines are 30 mins/day and 30 hours/year.

- Shadow flicker map results – most receptors are outside shadow zone, some structures within 0.5-10 hours, very few between 10-30 hours. Greatest number of cumulative flicker hours was 13 and greatest number of cumulative minutes was 18.
- Currently finalizing studies and fieldwork and plan to register the EA in December 2013 with Ministerial Decision in February 2014.

Questions:

- Are government review comments made public? Public can request government review comments after the Minister's decision is made.
- Will the EA be filed over Christmas - this would make it difficult for public to review? NSE may add on extra review days due to the holiday period, will follow up. **ACTION ITEM.**
- How far out from turbine locations do you conduct EA surveys? Study is done all over the site for fauna and birds.
- What about birds and bats that fly into the site from outside the project boundary? Studies are done looking at suitable sampling areas (ie. open areas, wetlands, where birds/bats live).
- There is concern of impacts to bat habitat. How far out from a turbine would bats experience barotrauma? Will need to get more information on exact radius for barotrauma. **ACTION ITEM.** Strum looks for bat habitat all over the project site (2-5 hectares) and looks at provincial bat data (100km radius) for particular bat sightings.
- What is the visual assessment? Strum takes pictures from popular locations in the community and renders a photomontage of the view of the turbines from those locations. Goal is to find locations where turbines will be seen and represent that visually.
- Since turbines are so tall, how can you *not* see the turbines in some photomontages? Tree cover nearby and topography of the photo location can make it difficult to see turbines from a particular location.
- Do you model nighttime visibility of turbines? No, this is not typically done.
- How old are the turbines that are used for sound model assumptions? Model assumes an operating turbine. The project needs to maintain compliance with NSE's sound level guidelines and will address complaints if any.
- Who double checks turbine sound level data? Companies called GLGH-DNV and DEWI are certification agencies that review turbine sound.
- What air temperatures are used for sound modelling? 10°C and 70% humidity
- What is infrasound's effect on cats? Not aware of studies on cats, but pets are already exposed to infrasound inside home and outdoors.
- Is sound cumulative (ie. baseline sound + turbine sound)? Not for dBA level. 40dBA + 40dBA does not = 80 dBA. If there are two sounds at the same level, they create maybe 3 or 4 extra dBAs.
- Does the sound model take into account all turbines operating at once? Yes.
- Can sound from turbines interfere with each other? This is accounted for in the model, see sound isoline shape on map.
- Do you have specific sound levels for each receptor on the map? Yes.
- Are all sound level standards the same across the country? 40dBA standard is most widely used standard in Canada, Health Canada guideline used to be 45dBA.
- CLC member visited Cow Pond in PEI and stayed in a motel across from turbines and could not hear them.
- Concern that panel studies on turbine health impacts are governed by consensus and that this is weakest form of decision making.
- Are all wind farms the same, do studies actually show what will happen on this site? Some turbines are louder than others, some studies show different levels at different locations, so must look at site specifics.

- People live in Ellershouse for its quietness, are sound studies based on quiet areas? In some locations, baseline studies are done to understand the existing ambient sound and some rural areas show that they are already over 40dBA.
- There are psychological effects of different sounds – some sounds may be more annoying than others. An extra 5dBA penalty is applied to tonal turbines in sound model.
- Is ambient sound from highway taken into account? Can be, existing sound levels can be higher than 40dBA due to proximity to busy roads.
- Six trains a day used to go through Ellershouse – one at 10pm and another at 4am in the morning. Can already hear cars and aircraft in the area.
- Suggestion that a fieldtrip be planned for a larger wind farm.
- Concern regarding impacts on epileptics from shadow flicker. Consensus in the literature that there are no health impacts from turbines on people with epilepsy. Epileptic Society has said that there are no health impacts. **ACTION: Melanie Smith to find article. Myles Cornish has this information included in his handout.**

6. Understanding the Community

- What benefits for Ellershouse? Community believes that there are a few labour jobs, few boarders (most likely to be housed in Windsor), but there are areas that could benefit. For example, the community hall is run by the community and there is a possibility of acquiring land which could be used for a playground. Another idea to acquire a heat pump for the community hall to replace the furnace.
- How many children live in Ellershouse? Five or so bus stops, kids go from Ellershouse to Newport and Brooklyn schools. Approximately 50-60 kids. There are 82 kids in school in Newport Station, half from Ellershouse.
- How many people live in Ellershouse? Around 300 people.
- What are long term benefits, since turbines are around for 20 years? Could a grant be made to the village to be spent on the hall, village, playground, an on-going fund? It costs approximately \$4,000-5,000 per year to run the hall.
- Why is the project team negotiating with the community? Feel that decision has already been made. Don't you feel better to be asked about your opinion? It feels good to share concerns, but feel like decision has already been made and that not enough studies have been done. Important to keep an open mind and be open to receiving information.
- Concern that Berwick and Mahone Bay are making profit at detriment of people in Ellershouse.
- Consultation is good on this project, would like to get something out of it.
- Local business next door increasing traffic, but that is good for the community.
- Energy conservation is a better way than building turbines.
- Could turbines be moved further back from community? Will there be more turbines added in the future? This project is 7 turbines, don't know of any other being planned. **ACTION ITEM: hold discussion on turbine location selection at a future meeting.**
- Not all community has negative feelings towards the project, there are positive points of view.
- Personal experience is key (ie. visiting wind farm).

7. Photomontages	
	Not discussed further.
8. Field Trip	
	<ul style="list-style-type: none"> • Interest from CLC and audience members. • Visit will be open to others in community. • Interest in visiting Kaizer Meadow turbine and larger wind farm. • Trip date set for Saturday Nov 30, leaving Ellershouse at 1pm. Mary-Frances to send along more details. ACTION ITEM.
9. Check out	
	<p>Myles Cornish passed around presentation from Dr. Lukas Swan which includes information on property values, health, and environmental impacts.</p> <p>Future topics:</p> <ul style="list-style-type: none"> • Location of turbines and why selected • Benefits + discussion on Ellershouse – ie. recreation centre, education scholarships • Property values <p>Round table:</p> <ul style="list-style-type: none"> • Looking forward to more information • Like where project is going, community info is imperative • Info is important and would like to visit a turbine • Fieldtrip will be key in making up mind • There are varying opinions on both sides • Need to keep best interests of community in mind <p>Meeting close: 9:15pm</p>
Minutes compiled by:	Mary-Frances Lynch