## Review of the Winter Recreation Survey Conducted by Sandra Howard, PhD

James F. Palmer

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## Introduction

The Winter Recreation Impact Survey was transmitted to me on February 28, 2019 by James R. Beyer, Regional Licensing and Compliance Manager, Bureau of Land Resources, Maine Department of Environmental Protection. I was asked to review the survey document and review its validity.

1. The report was prepared by Sandra Howard. Her transmittal letter identifies her as the Director of Say NO to NECEC. She used the title PhD after her name.

This raises the following questions

- a. No credentials are presented that suggest Dr. Howard has training or experience conducting survey research.
- 2. The is very limited information about how the survey was conducted:

This online survey was distributed electronically and participants responded during a 4-week period between January 18-February 18, 2019. The prompt to participants read as follows: "We are collecting data about the winter recreation experience in western Maine. These data will be used in response to a proposed 145-mile transmission line through Maine, which would include crossing many mountains, wetlands, and waterways in an undeveloped region of western Maine."

This raises several questions.

- a. Who is responsible for preparing the survey and the methods used?
- b. The survey is distributed by email. There is no information about this list or who they represent. For instance, is this the Say NO to NECEC email list?
- c. What "population" are the respondents suppose to represent? What is the evidence that the email list provides an unbiased representation of this population?
- 3. It appears that the "activities" list includes five recreation activities (snowmobiling, viewed scenery, snowshoeing/winter hiking, ice fishing, and cross-country skiing) it would be helpful to know which was the primary purpose of their "most recent trip to the area." It is also possible that there is some sort of activity associated with lodging (e.g., Hanging out, Relaxing), it is not possible to tell from the way the question results are presented. The rest of the activities are really about spending money.

These activity questions raise several issues.

- a. There is no indication that they recreated on the top of Coburn Mountain, which is indicated as the location of the "GIS simulation" viewpoints.
- b.
- 4. The ratings use a symmetrical 4-point scale in the beginning of the survey. The results are reported as frequencies and percent of total respondents.

This raises several questions.

- a. How does a respondent indicate they "do not know" or the question "does not apply"?
- b. There are 163 respondents to this survey and they all answered every question. This is very unusual, particularly for an email survey. When a survey is conducted in-person, there is the opportunity to follow-up and encourage a response; this is not available for an email survey. However, for a perfect response on an internet survey I would expect that there must be some committed advocacy involved.
- 5. Another section of the survey incorporated visuals in an unspecified fashion. Respondents are asked to "look at the scenic photos and GIS simulation photos that show a 150-foot wide cleared corridor with 100-foot transmission towers." The visualizations in the report are presented as "GIS simulation of proposed transmission corridor." There are three viewpoints: Coburn Mtn, Grace Pond from Coburn Mtn. (which is presented twice), and Johnson Mtn from Coburn Mtn.

This raises several problems.

- a. Google Earth is not a GIS. That it is presented as such suggests that the people who prepared the survey do not have a clear understanding of the technology they are using.
- b. The orange ribbon in the Google Earth screen capture is not an accurate representation of the 150-foot wind cleared corridor with 90-foot towers. It is not even an accurate representation of whether the corridor will be visible.
- c. Except for photo of Grace Pond from Coburn Mountain there is no reasonable representation of the existing view and its scenic quality. It is evident when comparing the photo toward Grace Pond with the "GIS simulation" indicates what a poor representation is obtained from Google Earth.

The report does not present a discussion of how the visualizations are created and their limitations. This is either another indication that the creators of the survey do not understand the limitations of the technology they are using or they knowingly are misrepresenting the images as accurate computer simulations.

6. The ratings based on the "GIS simulations" use an asymmetrical 4-point scale—one can only indicate a negative effect from the project.

There are several issues with these questions.

a. The questions are not directly about the simulated viewpoint, but apply to the presence of the NECEC generally. However, the simulations are only representing one view locations—the top of Coburn Mtn.

- b. The asymmetrical nature of the questions makes it clear that the survey is not neutral on this subject.
- c. I consider the phrase "wilderness snowmobiling experience" an oxymoron. Motorized vehicles are not allowed in a wilderness area; nor are transmission lines. This is not a neutral question.
- 7. The survey does not include several questions that would seem to be important.
  - a. Whether they have recreated at the selected viewpoints in the summer and winter.
  - b. Their support or opposition to NECEC, and perhaps why.
  - c. Their support or opposition to renewable energy production in Maine.

## **Data Request**

In order to continue this evaluation, I would request:

- 1. A statement of Sandra Howard, PhD's credentials demonstrating her experience with conducting and analyzing surveys.
- 2. A description of the respondent sample. How many people were on the email list? How were they identified? What "population" do they represent and what evidence is there to support this.
- 3. A copy of the questionnaire documents used. This may be a copy of the email and response form. If there were different versions, then each version should be provided with an indication of who received each version.
- 4. A copy of any preliminary emails to the respondent sample, and follow-up emails to encourage a response.
- 5. A description of the methods of analysis. How were the responses entered into a database? How were non-responses or "other" responses such as comments handled?
- 6. A copy of the data and a codebook linking each variable to a specific question, and each value to a specific response category.
- 7. **Copies of the visuals used in the survey** in the same form that they were made available to the respondents. What information was given to the respondents about each visual, and what instructions were they given for viewing and interpreting these visuals? What is the source of the photographs?
- 8. **Copy of the files used to create the Google Earth "GIS simulations."** At a minimum this should include the MKZ file(s) of the corridor and 90 or 100 foot towers, along with the viewpoint and elevation settings used to create the "GIS simulations". A description of the process used to create the "GIS simulations" should be provided.

## Conclusions

As you know, I am an advocate of well conducted surveys as one method to represent the affect a proposed project may have on the public. Intercept surveys have been particularly valuable, since they clearly represent people who recreate at an affected viewpoint. The examples of an internet survey conducted for Highland Wind VIA and a phone survey conducted for the first Bowers Wind VIA were much less successful.

I support the conduction of visual assessment surveys by third parties, but they need to be well conducted to be considered legitimate. At the very least I would expect that they consult someone familiar with how visual assessment surveys have been used in the past; perhaps DEP or maybe someone who teaches about the use of surveys in social sciences.

This particular survey has several very serious problems.

- 1. The origin of the respondent list and what "population" they represent is unknown.
- 2. The methods used are not adequately presented to enable a review of the results.
- 3. It is unclear which respondents have recreated on Coburn Mountain, whether in the winter of summer.
- 4. The visualizations are inaccurate and inadequate for making scenic or visual impact assessments.
- 5. The questions coming after the visualizations are not directed toward the view from Coburn Mountain, but views of NECEC more generally. This lack of congruence between the visualizations and questions makes it very difficult to interpret the responses.

I assume that the respondents engaged this survey in an honest fashion, that is they were not making up responses but provided the answers that best represented how the feel. However, I also assume that they are no more "representative" than 163 people who sign a petition that they oppose NECEC.