

**THE STATE OF NEW HAMPSHIRE
BEFORE THE
SITE EVALUATION COMMITTEE
DOCKET NO. 2015-04**

PRE-FILED DIRECT TESTIMONY OF VICTORIA BUNKER, Ph.D.

**APPLICATION OF PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
D/B/A EVERSOURCE ENERGY
FOR A CERTIFICATE OF SITE AND FACILITY FOR CONSTRUCTION OF A
NEW 115 kV TRANSMISSION LINE**

THE SEACOAST RELIABILITY PROJECT

April 12, 2016

1 **Qualifications and Purpose of Testimony**

2 **Q. Please state your name, business address and title.**

3 A. My name is Victoria Bunker, PhD and I am the President and Principal
4 Investigator on all projects undertaken by Victoria Bunker, Inc., a business which
5 specializes in New England archeology and cultural resources management. My business
6 address is 31 Africa Road, Alton, NH 03809.

7 **Q. What is the purpose of your testimony?**

8 A. The purpose of my testimony is to provide the Committee with a
9 description of the archeological resources study completed for the Seacoast Reliability
10 Project (“SRP” or the “Project”) and my assessment of the potential effects of the Project
11 on archeological resources within the proposed Project area, and to offer my opinion that
12 the Project will not have an unreasonable adverse effect on archeological resources.

13 **Q. Briefly summarize your educational background and work
14 experience.**

15 A. I am the owner and principle investigator at Victoria Bunker, Inc.
16 archeological consultants. The company is registered as a business in good standing with
17 the NH Secretary of State. I meet and exceed the 36 CFR 61 qualifications as an
18 archeologist, with degrees in Anthropology and related fields (Boston University, PhD,
19 Anthropology, 1983). I have over 35 years of professional experience in New England
20 archeology, successfully completing projects in New Hampshire, Maine, Vermont,
21 Massachusetts and Rhode Island. As a professional archeologist, I have conducted Pre-
22 Contact and Post-Contact research, survey, excavation, data analysis, documentation,
23 report writing, report publication, and project management. I am listed as qualified to
24 conduct archeological survey in New Hampshire by the NH Division of Historical
25 Resources (“DHR”).

26 I have demonstrated the ability to complete phased archeological surveys
27 throughout the State of New Hampshire in a wide variety of terrain, in all regions of the
28 State and have developed strong working relationships with state and federal agencies,
29 municipalities and individuals. I have completed approximately 750 projects relative to
30 Section 106 compliance at Phase I, II and III level of study as a consultant for agencies,
31 institutions, municipalities, companies and individuals.

1 I have also served on boards and committees including: New Hampshire
2 Archeological Society, President Emerita, Board of Directors, Editor; Man in the
3 Northeast, Editorial Board; Conference on New England Archeology, Executive Board;
4 NH Rivers Advisory Council, Governor-Appointed Representative for Archeological
5 Resources per nominations for river protection programs.

6 Of particular relevance is my prior experience along linear corridors such as water
7 and sewer lines (covering approximately 40 NH towns), natural gas pipelines (5 multi-
8 town projects, with individual projects up to 75 miles in length), and highway corridors
9 (20 multi-town projects, with individual projects up to 50 miles in length). Over the past
10 5 years, I have completed over 35 surveys for power line corridors and substations
11 throughout the state, including the Northern Pass Transmission Project. Other relevant
12 experience includes broad, regional research surveys in the NH Coastal Zone, including
13 studies of sites along the Oyster and Lamprey Rivers.

14 A copy of my résumé is attached as Attachment A.

15 **Q. Have you previously testified before the New Hampshire Site**
16 **Evaluation Committee?**

17 A. No, I have not, although I have submitted pre-filed testimony for the
18 Northern Pass Transmission Project.

19 **Q. Please describe your role in the Project.**

20 A. My role is to assess archeological resources for the Project. I conducted
21 research and field survey for the proposed Project components, synthesized data to
22 prepare reports, wrote and edited reports.

23 **Archeological Resources Review**

24 **Q. Please describe the assessment of archeological resources completed**
25 **for the Project.**

26 A. We first conducted a Phase I-A archeological review for the Project in the
27 communities of Madbury, Durham, Newington and Portsmouth, New Hampshire. A
28 Phase I-A survey has been completed for the proposed overhead, underground and
29 underwater components for the existing Project corridor. We surveyed the entire
30 approximately 13 mile length of the Project within the full width of the corridor (i.e.,

1 between the edges of the corridor). We also surveyed certain locations outside of the
2 Project corridor for access roads.

3 The Phase I-A level of survey provides an initial broad identification of any
4 known archeological resources as well as any areas considered to have the potential for
5 archeological resources within the overall Project area. In addition, this level of survey
6 provides information on the location of any cemeteries or graveyards within the Project
7 area.

8 For this Project, our effort consisted of the following:

- 9 • Background documentary research was completed using primary and
10 secondary documents (such as historic maps, topographic maps, soils maps, town
11 histories, archeological publications, State and National Register listings, Old Graveyards
12 of NH data base, the Northern Shipwreck data base, marine geophysical survey data,
13 DHR state-wide site files, DHR archeological research files, DHR town files, DHR
14 Review & Compliance files) to develop cultural and environmental contexts, provide
15 information on known resources, and generate expectations for resource occurrence.
- 16 • A visual assessment through walkover survey was conducted for the entire
17 Project corridor and all proposed locations for access roads. The purpose of the walkover
18 survey was to:
 - 19 ○ Confirm the location of any previously recorded sites or cemeteries;
 - 20 ○ Collect data on any newly identified sites;
 - 21 ○ Define zones of sensitivity for either pre-contact Native American or post-
22 contact European-American sites based on landscape qualities or elements
23 visible on the ground surface;
 - 24 ○ Define areas that lacked archeological sensitivity due to terrain (e.g.,
25 steep, rocky, ledge, poor drainage, wetlands, standing water) or prior
26 impact (e.g., erosion, flooding, soil modifications, cutting, grading,
27 commercial or industrial development, subsurface infrastructure); and
 - 28 ○ Record observations in field notes, in sketches, on project aerials and
29 through representative field photographs.

1 • All field and research data were compiled, site recording forms were
2 completed for newly-discovered sites and submitted to DHR for site recording numbers,
3 reports were prepared with background contexts, expectations for resource occurrence,
4 field results, supporting data, and recommendations for continued Phase I-B
5 archeological investigations at sites or sensitive locations recognized during the Phase I-
6 A survey.

7 The survey work completed follows the phases of archeological survey as set
8 forth in the *NH Division of Historical Resources Standards and Guidelines, September*
9 *2003, revised May 2004* established for NH DOT projects.

10 My field team and I have recently begun Phase I-B survey work in the sensitivity
11 areas identified in the Phase I-A reports.

12 **Q. What reports have you prepared?**

13 A. We have completed Phase I-A survey reports as follows:

14 • *Phase I-A Preliminary Archeological Survey, Seacoast Reliability Project,*
15 *Madbury, Durham, Newington and Portsmouth, NH (April 2015);*

16 • *Phase I-A Preliminary Archeological Survey, Seacoast Reliability Project,*
17 *Access Roads and Corridor Adjustments, Madbury, Durham, Newington and Portsmouth,*
18 *NH (Addendum, January 2016);*

19 • *Phase I-A Preliminary Archeological Survey, Seacoast Reliability Project,*
20 *Underground Route and ROW Shift, Durham, and Newington, NH (Addendum, January*
21 *2016); and*

22 • *Phase I-A Preliminary Archeological Survey, Seacoast Reliability Project,*
23 *Underground Route Shift, Durham, NH (Addendum, January 2016).*

24 Phase I-A report addenda are being submitted with the SEC application. I have
25 also identified known archeological sites on abutting properties. All of these reports are
26 provided in Appendix 9 to this Application.

27 **Q. Please explain the results of your archeological resource studies.**

28 A. From the Phase I-A archeological survey we have identified known
29 archeological sites, cemetery locations and zones of archeological resource sensitivity.
30 There are twenty-two sensitivity areas identified in Durham, including two recorded sites

1 and one cemetery, and eight sensitivity in Newington, which includes one cemetery.
2 There are no identified sensitivity areas of in Madbury and Portsmouth.

3 **Q. Please describe any Phase I-B and Phase II surveys that may be**
4 **anticipated within the proposed Project.**

5 A. Based on the results of the Phase I-A survey, a Phase I-B archeological
6 survey was recommended for each of the sensitive locations that may be impacted by the
7 Project. The Phase I-B survey is intended to provide confirmation of site presence or
8 absence within areas exhibiting archeological resource sensitivity or exhibiting known
9 archeological sites. A Phase II assessment may be done to provide information regarding
10 the nature, extent, and significance of any sites found in the Phase I-B survey. This
11 typically entails additional field and research efforts to determine if sites are considered
12 eligible for listing on the National Register of Historic Places (“NRHP”). The end result
13 of a Phase II assessment is to develop a mitigation plan where impact avoidance is not
14 feasible at significant sites.

15 **Q. Please describe the current status of PSNH’s consultations with DHR.**

16 A. PSNH filed a Request for Project Review (“RPR”) with the DHR for the
17 Project on March 4, 2015. DHR responded with its approval of the RPR and concurred
18 with findings presented in the Phase I-A archeological report on March 19, 2015. Those
19 comments included a specific requested consultation on the National Register listed
20 Newington Center Historic District.

21 Project representatives met with DHR on April 10, 2015 and discussed in part the
22 historic resources review process. That meeting was followed by e-mail exchanges
23 between Laura Games of PSNH and Edna Feighner at DHR that addressed the planned
24 SRP application. In response to the May 4, 2015 letter from the United States Army
25 Corps of Engineers (“USACE”) to DHR on the permit area for archeological survey, SRP
26 and DHR again exchanged e-mails on May 14, 2015.

27 SRP next communicated with DHR by phone on October 19, 2015. That call dealt
28 mostly with the status of work on cultural resources review, including the timing of Phase
29 I-B archeological survey and the need for a Project Area Form (“PAF”) prior to filing the
30 SEC application. The Project’s efforts to address concerns about potential impacts to the
31 Newington Center Historic District were also discussed.

1 Two meetings between DHR and SRP were held in January 2016, a brief
2 discussion on the impending SRP application to the SEC on January 12 and another on
3 January 20 to discuss cultural resource survey work and SEC application requirements.
4 See Appendix 33 for copies of communications with DHR. On March 22, 2016 a
5 meeting was held with NHDHR and SRP representatives, including me, that included a
6 discussion of the Phase I-B methodology for the Project.

7 **Q. Are the Project's potential effects on archeological resources also**
8 **being reviewed under Section 106 of the National Historic Preservation Act?**

9 A. Yes.

10 **Q. What is the status of the Section 106 review process?**

11 A. In addition to DHR consultation described above, PSNH also filed a
12 Section 106 Request for Permit Area Determination with the USACE on March 20, 2015.
13 The USACE responded on May 4, 2015. The Project's active consultation with DHR and
14 the USACE regarding archeological survey will continue. The Section 106 process will
15 provide the framework for further determination of effects and mitigation measures for
16 resources within the Project Area. The process will entail: site identification through a
17 complete Phase I-B survey; assessment of site significance through any necessary Phase
18 II survey work (e.g., defining qualities which would permit a site to be considered
19 eligible to the National Register of Historic Places under one or more criteria); and
20 development of mitigation plans for significant sites. As such, any adverse effects on
21 significant archeological resources will be mitigated.

22 In consultation with DHR and with approval from USACE, a data recovery plan
23 (Phase III) will be developed for any unavoidable impacts to archeological resources that
24 are considered eligible for inclusion on the NRHP. For resources that would be directly
25 and adversely affected by the Project, a data recovery plan will be implemented with the
26 consent of the underlying property owner. Any resources that are adjacent to an area of
27 direct effect will remain in situ.

28 **Q. What steps has PSNH taken to avoid and minimize the impact of the**
29 **Project on archeological resources?**

30 A. The Project has considered the location of known sites and
31 archeologically sensitive areas during Project design to avoid potential impacts where

1 feasible. As a result, the placement of structures and work pads minimizes impacts to the
2 areas identified in the Phase I-A survey. Subsequent steps at the Phase I-B and Phase II
3 survey levels, and continued consultation with DHR, the USACE and any consulting
4 parties, will provide information to aid in additional impact avoidance prior to final
5 design and construction.

6 **Q. What steps will the Project take to mitigate any unavoidable adverse**
7 **effects on archeological resources?**

8 A. Mitigation measures may range from “data recovery” to “preservation in
9 place.” According to the NH DHR Standards and Guidelines, Phase III Data Recovery is
10 “a full-scale investigation of the portion of the site affected by the project.” As such, this
11 effort entails a series of steps including (1) development of a research design, (2)
12 collection of detailed information on past environmental conditions and context, (3)
13 completion of research, field investigations and analysis of features, strata, and artifacts
14 pertinent to research questions; and (4) reporting on results and findings.

15 All archeological mitigation measures will be developed with DHR and the
16 USACE in accordance with the Section 106 consultation process, when the proposed
17 activity may have an unavoidable adverse effect on archeological sites. Such measures
18 include, for example: buffering of cemeteries or graveyards, especially to accommodate
19 the potential for unmarked graves or funerary goods that may occur beyond fenced
20 enclosures; adoption of an “unanticipated finds” policy to address resources discovered
21 during construction; on-site cultural resources monitoring as appropriate; and the use of
22 barrier fencing or other protective measures.

23 **Q. In your opinion will this Project have an unreasonable adverse effect**
24 **on archeological resources?**

25 A. No. I believe that the Project will not have an unreasonable adverse effect
26 on archeological resources. My opinion is generally based on (1) the results of
27 archeological survey work for the Project, (2) my decades of experience in the field of
28 archeology in New Hampshire, including knowledge of archeological findings through
29 prior work completed in the immediate Project vicinity by myself and others, (3) my
30 knowledge of how the Project will address potential effects through avoidance,

1 minimization, and mitigation of impacts, (4) DHR's continuing oversight role, (5) and
2 my prior experience with the Section 106 and DHR review process.

3 In particular, my opinion is based on the following:

- 4 • Phase I-A survey has evaluated archeological resource sensitivity for all
5 Project components.
- 6 • Phase I-A survey also indicates that no archeological sites within the
7 Project area have already been listed or determined to be eligible for listing to the NRHP.
8 Therefore, there will be no effect to previously recognized NRHP-eligible archeological
9 sites.
- 10 • The Phase I-A survey has also defined the occurrence of cemeteries and
11 graveyards. Adherence to a 25-foot buffer as required by law will prevent any effect to
12 these resources by avoiding graveyards and their immediate surrounds.
- 13 • The Project has taken and will continue to take meaningful measures to
14 avoid and minimize potential adverse effects. The Phase I-A findings were supplied to
15 design engineers and integrated into Project design. This resulted in a design that located
16 structures, work pads, and off site access roads to minimize impact to archeological sites
17 and areas exhibiting archeological resource sensitivity.
- 18 • The Phase I-B survey will refine the Phase I-A results and will provide
19 confirmation on actual site presence or absence within sensitivity areas. Where Phase I-B
20 sampling is negative, areas will be removed from the list of locations initially considered
21 sensitive, thereby not affecting archeological sites. Where Phase I-B sampling defines
22 site presence, steps will be taken to protect resources through avoidance and
23 minimization. For example, construction drawings will depict culturally sensitive areas
24 that construction crews should avoid in order to minimize impacts on archeological
25 resources. Other measures may include training of construction personnel, use of barrier
26 fencing, or other protective measures.
- 27 • Phase II survey will be guided by the results of Phase I-B survey, which
28 will inform us to what extent resource avoidance is possible. Only where impact to
29 archeological sites cannot be avoided by Project design will Phase II archeological survey
30 be recommended. As such, continued investigations will be conducted in consultation

1 with DHR to determine whether a site exhibits qualities that would allow it to be
2 considered as eligible to the NRHP under one or more criteria. Based on my prior
3 experience, I expect few sites will exhibit qualities making them eligible for the NRHP.
4 There will be no unreasonable effect on those sites which are found to lack eligibility
5 because they will have been determined to not be significant.

6 • Mitigation will be required and done for any unavoidable impacts at any
7 sites considered eligible for listing on the NRHP. In general, archeological sites are often
8 assigned significance for their ability to yield important information. For these sites,
9 procedures will be identified on measures to be taken, such as preparation of a data
10 recovery plan involving additional field inspection and research. All efforts will be
11 completed to the satisfaction of DHR.

12 • The Project will develop procedures for addressing the unanticipated
13 discovery of archeological resources discovered during construction where previous
14 study failed to identify archeological deposits. Generally, this will be accomplished
15 through such efforts as monitoring, recovery, or documentation. I anticipate that, among
16 other things, those procedures will include a halt in construction work in the immediate
17 area of the find with sufficient time allotment for the appropriate archeological resource
18 personnel to make a determination with respect to further appropriate actions to be taken.
19 Construction crews will receive training regarding the protection of known archeological
20 resources and the steps to be taken in the event of unanticipated discoveries of such
21 resources during construction. I have full confidence that the oversight responsibility, in
22 consultation with DHR, will address any potential impact concerns. Adverse effects will
23 be minimized to the extent practicable and to the satisfaction of DHR.

24 • It is my understanding that it is customary in SEC proceedings and may be
25 appropriate here for the SEC to require the applicant to continue to consult with DHR
26 with respect to effects on archeological resources, to comply with any agreements and
27 memoranda of understanding with DHR, and to report to the SEC and DHR any new
28 information or evidence about archeological resources in the project area. Based on prior
29 precedent and under the authority of RSA 162-H:16,VI, I also recommend that the SEC
30 delegate to DHR monitoring and compliance authority with respect to historic and

1 cultural resources. These expected conditions provide an additional level of assurance
2 that the Project will fully execute any and all requirements imposed on it with respect to
3 the identification, avoidance and minimization, and mitigation of impacts on such
4 resources

5 **Q. Does this conclude your pre-filed testimony?**

6 **A. Yes.**