

**SB99 Pre-Rulemaking Process  
Natural Environment Working Group  
Working Group Document  
28 April 2014**

## DEFINITIONS

- “Rare plant” means any species included on the most recent version of the “Rare Plant List for New Hampshire” maintained by the New Hampshire Natural Heritage Bureau.
- “Natural community” means a recurring assemblage of plants and animals found in particular physical environments as classified in the New Hampshire Natural Heritage Bureau publication *Natural Communities of New Hampshire*. Rare natural communities are those ranked S1 (critically imperiled), S2 (imperiled) or S3 (very rare and local). Exemplary natural communities are those that have had relatively little alteration from human activity and retain a relatively natural composition and structure, including high-quality examples of common natural communities (i.e., those ranked S4 or S5).
- ~~“Steep or fragile soil” means any soil classified by the US Natural Resource Conservation Service as having moderate or severe hazard of erosion, soils which are classified as very poorly drained or which meet any of the criteria for hydric soils, and any slopes over 20%.~~
- ~~“Waters and wetlands” means the full range of issues related to the flow of water across and through the landscape, including impacts to groundwater, streams, lakes, ponds, wetlands, seeps and springs and their associated shoreline or buffer (“riparian”) areas.~~
- “Wildlife” means, as defined under NH RSA 207.1, XXXV, “all species of mammals, birds, fish, mollusks, crustaceans, amphibians, invertebrates, reptiles or their progeny or eggs which, whether raised in captivity or not, are normally found in a wild state.”
- “Significant wildlife species” means 1) any species listed as Threatened or Endangered, or which is a candidate for such listing, by the U.S. Fish and Wildlife Service; or 2) any species listed as Threatened, Endangered or Special Concern by the New Hampshire Department of Fish and Game.

**Comment [CF1]:** Adequately addressed in the current DES regulations

**Comment [CF2]:** Also currently addressed by existing regulations, including FERC, Wetlands, etc.

- “Cumulative impact” means the incremental adverse effect of an energy facility on the resource values set forth in NH RSA 162-H:16, IV(c) when added to other existing and proposed development [defined in draft aesthetics criteria]. Cumulative impacts can result from individually minor but collectively significant developments taking place over a period of time. The committee may analyze cumulative impacts with reference to legal standards established under the National Environmental Policy Act, as amended, to the extent consistent with this definition<sup>1</sup>.
- “Best practical mitigation” means methods or technologies used during construction or operation of an energy development that control or reduce to the lowest feasible level impacts to aesthetics, historic sites, air and water quality, the natural environment, and public health and safety.
- “Adaptive management” means a system of management practices based on clearly identified desired outcomes, monitoring to determine if management actions are meeting outcomes, and, if not, provisions for management changes that will best ensure that outcomes are met or that outcomes are re-evaluated.
- “Primary habitat” means habitat used by a species for critical life cycle functions, such as raptor nest sites, mammal denning sites, localized food resources, and bat maternity colonies and hibernacula.

**Comment [CF3]:** Revisit as we get to implementation

**Comment [CF4]:** Not also neutral or positive?

**Comment [CF5]:** Meant to reflect the conditions of a permit; not originally intended to include avoidance. Should this include BMPs? Need to work on this one!

**Comment [CF6]:** Review implementation of this

**Comment [CF7]:** Avoids conflict with the federal “critical”

<sup>1</sup> The committee may also consult federal guidance documents regarding the analysis of cumulative impacts, including but not limited to those prepared by the Council on Environmental Quality (see [http://energy.gov/sites/prod/files/nepapub/nepa\\_documents/RedDont/G-CEQ-ConsidCumulEffects.pdf](http://energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/G-CEQ-ConsidCumulEffects.pdf)) and the Environmental Protection Agency (see <http://www.epa.gov/compliance/resources/policies/nepa/cumulative.pdf>).

## **APPLICATION REQUIREMENTS**

1. Studies to determine the impact of the facility on the natural environment shall be designed in consultation with the appropriate state agencies, including but not limited to the Department of Environmental Services, the Department of Fish and Game, the Department of Resources and Economic Development, and the Natural Heritage Bureau.
2. Applicants are encouraged to consult with other parties with relevant knowledge and expertise, including but not limited to municipal officials, non-governmental organizations, academic institutions and resource professionals, for input both on issues that need to be addressed by impact studies and on the appropriate methodology for conducting such studies.

**Comment [CF8]:** Is this needed, no disagreement with the concept, but does the SEC need to have this be a rule?

**Comment [CF9]:** USFWS should be included, as coordination with them is specified below

**Comment [CF10]:** Is this going to pass JLCAR?

## WILDLIFE STUDIES FOR ALL ENERGY PROJECTS

The following shall apply unless waived in writing by state and federal wildlife agencies:

- All applicants for a certificate shall conduct pre-application surveys for evidence of significant wildlife species following protocols provided by state and federal wildlife agencies.
- Applicants with a project in proximity to primary habitat for a significant wildlife species may be required to conduct additional studies at the request of state and federal wildlife agencies.
- All applicants for a certificate shall prepare a cumulative impacts assessment addressing the scope and scale of potential effects of the facility, in combination with other existing or proposed development, on populations of significant wildlife species.

**Comment [CF11]:** These are underway, and will be available as the SEC rule making process proceeds. Generally, these rules should not be in conflict with rule changes in other state agencies

The protocols are not rules, and this presents issues if specified here in a rule. It may be a challenge to put protocols in a rule. How is this done in other states? How are their protocols developed and approved?

Replace “provided by” with “agreed to with”?

Still leaves regulatory uncertainties for applicants. The SEC is not the final decision maker

**Comment [CF12]:** How close? Address in protocols?

**Comment [CF13]:** Significant habitat resource

**Comment [CF14]:** The first bullet could be the regularly prescribed studies, and this bullet might be any additional studies that are more site specific

**Comment [CF15]:** What is the geographic range to be considered?

**Comment [CF16]:** Some concern that this is problematic – but is for which some kind of application has been filed (another energy project).

**Comment [CF17]:** Need thresholds – populations are not generally assessed by applicants, more in the realm of the natural resource agencies.

## ADDITIONAL WILDLIFE STUDIES FOR WIND ENERGY PROJECTS

The following shall apply unless waived in writing by state and federal wildlife agencies:

1. All applicants for a certificate shall conduct the following wildlife studies, adhering to protocols provided by state and federal wildlife agencies:
  - a) One year of pre-application spring and fall raptor migration surveys
  - b) Two consecutive years of pre-construction breeding bird surveys, including diurnal point counts and nocturnal owl broadcast surveys
  - c) Two consecutive years of pre-construction avian territory mapping and fledgling surveys,
  - d) One year of pre-construction bat acoustic surveys
  - e) One year of pre-construction bat mist-netting
2. All applicants for a certificate shall prepare plans for the following, adhering to protocols provided by state and federal wildlife agencies:
  - a) three, non-consecutive years of post-construction breeding bird surveys, including diurnal point counts and nocturnal owl broadcast surveys
  - b) three non-consecutive years of post-construction avian territory mapping and fledgling surveys
  - c) three non-consecutive years of post-construction mortality surveys.

**Comment [CF18]:** Nocturnal radar surveys were deliberately omitted, money better spent elsewhere.

**Comment [CF19]:** Do we even need these additional wind requirements or can we address these in protocols for all projects?

**Comment [CF20]:** A start, but where is the flexibility to add new surveys

**Comment [CF21]:** See below. Need useful information, but do we need to prescribe it for all projects, or should this be a joint study on a particular project?

**Comment [CF22]:** Is this for all species? Most other places require a one-year study, but one year does not capture the variability  
Habitat assessment would be valuable – desktop review

**Comment [CF23]:** More prescriptive than the USFWS guidelines; maybe be directed to follow the guidelines, adds flexibility instead of these specific rules. Also can evolve as more information is gathered in time. NH tiered process could be based on the USFWS model.

**Comment [CF24]:** Noise impacts and ability to hunt, not necessarily the habitat change

### **General Standards**

1. The SEC shall consider the impacts to the resources set forth in NH RSA 162-H:16, IV(c) both individually and in combination. Impacts to multiple resources, none of which in itself is sufficient to create a finding of unreasonable adverse effect, may be sufficient to create such a finding when considered **in combination**.
2. In addition to considering the impacts of the proposed facility in isolation, the SEC shall also consider the cumulative impacts of the proposed facility.

**Comment [CF25]:** How is this implemented, what does it mean?

### 3. Resolving Adverse Impacts:

- a) The facility should be proposed and designed to avoid adverse effects on the resources identified in NH RSA 162-H:16, IV(c).
- b) In cases where adverse impacts cannot be avoided, measures to minimize adverse effects identified in the SEC's review of the facility may support a finding that such adverse effects are not unreasonable.
- c) Where adverse impacts have been minimized as much as possible, in certain circumstances on-site mitigation measures or (where on-site mitigation measures are impractical or insufficient) off-site mitigation measures may support a finding that such adverse effects are not unreasonable. Mitigation measures must address the resource category adversely affected, reflect the best practical mitigation under the circumstances, and ensure resource benefits that exceed the adverse effects on the impacted resource.

**Comment [CF26]:** Applies to all resources, not just ecological

**Comment [CF27]:** Should this also say to the extent practicable (or other word)

**Comment [CF28]:** Practicable?

**Comment [CF29]:** Only in-kind mitigation?

**Comment [CF30]:** The correct word?

**Comment [CF31]:** This needs work – different criteria for different resources – need something that works for all resources (aesthetic, historic, natural resources, etc.)



#### 4. Monitoring and Adaptive Management:

- a) The SEC shall require, where necessary, as conditions of the certificate appropriate post-construction studies to 1) ensure compliance with required standards or 2) to evaluate and mitigate adverse impacts of a facility that cannot be reliably predicted prior to permitting (“adaptive management”). Such studies, if any, shall be conducted for a minimum of two years within the first five years of facility operation.
- b) Adaptive management recognizes that knowledge about natural resource systems is sometimes uncertain; it is the preferred method of management in these cases. Where sufficient knowledge exists, actual implementation of a solution should not be replaced by adaptive management. Adaptive management studies shall be designed in consultation with and approval of an adaptive management team established by the certificate, including representatives of appropriate state and federal agencies and at least one professional with pertinent expertise. Results and recommendations to mitigate impacts identified from such studies shall be provided to the SEC and members of the adaptive management team within three months of the end of each field season or year of operation as appropriate. Subsequent to completion of such studies, or sooner if serious impacts are identified, the adaptive management team shall meet with representatives of the facility owner/operator and at least one member of the SEC to review results and identify satisfactory mitigation strategies. Mitigation strategies so developed shall become amendments to the facility permit.
- c) The SEC shall require, where necessary, as a condition of the certificate an appropriate protocol for ongoing monitoring, documentation and reporting of wildlife mortality or injury by facility staff. Any observed mortality or injury event involving an individual of a significant wildlife species shall be reported to NH Fish and Game Department and the US Fish and Wildlife Service within 24 hours of discovery. Other wildlife mortalities shall be reported monthly to the New Hampshire Fish and Game by date, species, location, and circumstances. NH Fish and Game may ~~require-recommend to the SEC~~ further study and/or adaptive management provisions based on observed mortality.

**Comment [CF32]:**

**Comment [CF33R32]:** A new regulatory entity? Based on Lempster advisory committee put together by Iberdrola – formed in the pre-construction process prior to the hearing. Needs to be in place to address study plans if possible, not specified after the certificate is issued.  
What power does it have?

5. **Decommissioning.** The SEC shall require, where necessary, as a condition of certificate a decommissioning plan be submitted to and be approved. The plan must include, at a minimum, full funding for the removal of all components of the development, vegetative restoration of the developed area if it was built on previously undeveloped land, and maintenance of public safety and environmental protection during decommissioning. The SEC shall require the use of letters of credit, performance bonds, segregated funds, corporate parent guarantees and other forms of financial assurance to ensure that sufficient funds for decommissioning are available regardless of what point in the history of the development decommissioning becomes necessary and are sufficiently escrowed in case of bankruptcy. The anticipated salvage value of facility components or materials shall not be included in the determination of the decommissioning fund.
6. **Best Practical Mitigation.** An application for an energy development must contain, and the SEC shall require, best practical mitigation for all aspects of construction and operation of generating and transmission facilities. In determining best practical mitigation options, the SEC shall consider:
  - a) The existing state of technology;
  - b) The effectiveness of available technologies or methods for reducing impacts; and
  - c) The economic feasibility of the type of mitigation under consideration.
7. In determining whether an energy or transmission facility creates an unreasonable adverse effect on the natural environment, the SEC shall at a minimum consider the following resource areas: rare plants, rare and exemplary natural communities, steep and fragile soils, water and wetlands, and wildlife and wildlife habitat.

## SITING CRITERIA

### RARE PLANTS AND NATURAL COMMUNITIES

The energy facility shall be sited, designed and constructed so as to avoid disturbance to:

- a) Any occurrence of plant species ranked S1 (Critically Imperiled, State Endangered), SH (Historic, State Endangered), SX (Extirpated) or S2 (Imperiled, State Threatened) by the New Hampshire Natural Heritage Bureau.
- b) Any occurrence of plant species ranked S3 (Vulnerable), unless NHHNB determines that the disturbance will not diminish the ability of the species to persist in the ecoregional subsection in which the occurrence is located.
- c) Any occurrence of a natural community ranked S1 (Critically Imperiled) or S2 (Imperiled) by the New Hampshire Natural Heritage Bureau.
- d) Any occurrence of a natural community ranked S3 (Vulnerable) and which is determined by NHHNB to have an Element Occurrence (quality) rank of A (Exemplary) or B (Good).
- e) Any occurrence of a natural community ranked S4 (Apparently Secure) or S5 (Secure) and which is determined by NHHNB to have an Element Occurrence (quality) rank of A (Exemplary).

**Comment [CF34]:** Needs some work, will include some additional language

## A. WATER AND WETLANDS

Comment [CF35]: remove

The energy facility shall be sited, designed and constructed so as to avoid altering natural hydrologic regimes (i.e., quantity and timing of surface and subsurface flows) outside of the project area.

## B. WILDLIFE AND WILDLIFE HABITAT

- a) The energy facility shall be sited, designed and constructed so as to avoid elimination, degradation, or disturbance of primary habitat for a significant wildlife species documented by the New Hampshire Fish & Game Department.
- b) A certificate shall not be issued if, in the determination of the New Hampshire Fish and Game Department, the facility's impact, alone or cumulatively with other existing and proposed projects,
  - would have an unreasonable adverse impact on a New Hampshire population of one or more significant wildlife species.
  - would significantly conflict with the goals and policies of the New Hampshire Wildlife Action Plan.
  -
- c) A wind energy turbine shall not be sited:
  - within one-half mile of a peregrine falcon or golden eagle aerie or an active nest of any endangered, threatened or special concern raptor species.
  - within 1.5 miles of a known bat maternity/nursery colony or hibernaculum.

Comment [CF36]: will work on language (Dana)