STATE OF VERMONT

PUBLIC SERVICE BOARD

Application of Seymour Lake Solar, LLC for a	)	
Certificate of Public Good Pursuant to	)	
30 V.S.A. §§ 219a and 248 for a 500 kW AC	)	NM-6633 - Seymour Lake Solar, LLC
Group Net Metered Solar Photovoltaic	)	
Generation Facility located in	)	
Morgan, Vermont	)	

Town of Morgan Comments in Opposition to Seymour Lake Solar

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A. Introduction

Now comes the Town of Morgan ("the Town") and offers these comments as part of our intervention in this docket.

The 500 kW solar development, proposed to be built by Seymour Lake Solar, LLC, would be 2,112 feet upstream from Seymour Lake. This development is considerably more intrusive than initially represented by the Applicant. One hundred AllEarth Solar Trackers standing 18 ft. tall is visually not a small project.

The project conflicts with the Orderly Development of the Region because it violates the Town Plan's Clear Written Community Standards for the area proposed for the project site. The project site is in a significant viewshed identified in the Town Plan as a Designated Scenic Area.

This development would be visible from a number of homes on Seymour Lake and many more when the leaves are gone. It is located in a field of statewide agricultural soil, with wetlands, next to the stream providing a major water flow into Seymour Lake.

The project violates the Morgan Town Plan because it does not provide an economic benefit to the town, as the net-metered credits are designated to go to Jay Peak, Inc. The project violates the Town Plan in numerous ways, including the clear language stating that the Town will only support individual projects that meet the needs of the community and projects that are in appropriate, context-sensitive locations.

There were no phone calls or contact from the Applicant defining the project in general, with specificity, or regarding response timelines.

The Town did request a six day extension to review the project in accordance with scheduled Select Board meetings. This was agreed to by the Applicant.

The project raises significant issues under 30 V.S.A. § 248 and the Town therefore is exercising its right to automatic intervener status as granted in Act 56. The Town respectfully submits this comment letter as part of its intervention, and requests that a CPG be denied for the numerous reasons outlined below, or at a minimum, a site visit be conducted and hearing on the substantive issues be held.

B. Applicant Provided Inaccurate and Unreliable Information

1. There are two references to "Furnace Street" as an adjoining street to the solar Project site in the Application; there is no such street in the Town.
2. Page 10 of SLS-3 (Environmental Assessment) in the fourth line is in direct conflict with the prior statement. "The Project site does not contain necessary wildlife habitat and is

not in close proximity to any wildlife habitat. The site **does not harbor** any records or occurrences of rare, threatened or endangered animal species and is not in close proximity to any recorded observations of such resources. The site **does contain** habitat for RTE plant species. These determinations were made utilizing digital maps and orthophotography and NHI database." No surveys were done of the areas.

3. On page 5 of the SLS-6 (Aesthetic Impact Assessment), Applicant states, field verification from residences on private lands were considered BUT NOT subjected to on-site examination.
4. On-site examinations show that the site can be seen from many private residences in Morgan. Almost all residences are on private lands in Morgan; the views are not just from public vantage points.
5. The application presents John Zimmerman as an expert on aesthetics. Mr. Zimmerman is a partner in VERA, also known as Northeast Wind. According to information on their website[1], Mr. Zimmerman is a wind developer with qualifications in environmental and business administration. The Town requests a hearing to question Mr. Zimmerman's qualifications as an aesthetics expert in this case. In the alternative the Town requests that the application be denied for failure to provide an aesthetics evaluation by a qualified expert.
6. Based on conversations with executives at both VEC (Vermont Electrical Cooperative) and Jay Peak, and contrary to Applicant's statement, Jay Peak, Inc. is not a group net-metered recipient of the power produced. Jay Peak Inc. [Mr. William Stenger] was asked by VEC [Mr. David Hallquist], if Jay Peak Inc. would accept alternative energy sourced power. Mr. Stenger's answer was yes, but he did not request to be group metered nor did he request an account number.
7. VEC engineers have had discussions with the Applicant regarding line capacity, etc. Present lines are insufficient as they are single phase and the project requires three phase. The Applicant stated at the Town's public meeting (held on September 21, 2015 to take input from townspeople about the proposal) that Applicant is in discussion about the cost of the line conversion, and no agreement has been reached on the cost of the line upgrade.
8. The Town Plan clearly specifies that alternative energy projects must have an economic benefit for the residents of Morgan. None of the net metered credits are coming to the Town.
9. Although the Applicant alleges that there is a $2 million investment in the panels, there is no mechanism for the Town to verify this, particularly in light of the fact that the Applicant manufactures most of the product to be installed. Only the inverters are not manufactured by the applicant.

[1] http://www.northeastwind.com/who-we-are/john-zimmerman

10. The Town is looking at real estate taxation on land that is already being taxed. The Applicant stated that the State Education Tax would be paid by the developer, however, there is not a formula promulgated. It is clear that this project can be sited much closer to Jay Peak, if indeed the resort becomes the group net metered recipient. Mr. Blittersdorf, at the Town's public meeting on the solar proposal, stated that there were no solar sites available in the Jay area. Mr. William Stenger, President and CEO of Jay Peak, has already proposed some sites in the vicinity to Jay (unlike Morgan) that would be appropriate for solar installations. Mr. David Hallquist, CEO of VEC, has confirmed to Morgan Select Board Chair Larry Labor that VEC is investigating those sites for their solar site potential.

11. There are 11 abutters, but one abutting land owner is not listed on the "Notice of Filing List": Timothy and Debbie Flynn, 306 Valley Road, Morgan, VT 05853. Failure to notify an abutter means the application is incomplete and needs, at a minimum, to be resubmitted. Very simply, Applicant fails to meet state requirements.

C. Overview: Proposed Project's Impacts [30 V.S.A. &248b)(5)]

In six sections below are critical impacts the Applicant's Project would have on the Town. Before reading these sections it is important to realize the tremendous effort put forth by townspeople, lake shore owners, the Town and Seymour Lake Association (SLA) include the following:

- Increased the hours and training of Greeters for Greeter program at the lake's access. Greeters help lake users keep invasive species such as Eurasian watermilfoil out of the lake. Plans have been developed this summer to apply for a grant to help us to install a boat wash next summer. The Town, SLA and grants from the state share in funding these programs.
- A team of about 25 lake shore owners survey the perimeter of the lake by kayak or snorkeling at least twice yearly to search for invasive species. Many volunteers take more frequent surveys.
- SLA sends newsletters to all residents in the watershed and sends email blasts to its email list with both directing attention to a renovated web site which provides information to lake shore owners as to how to reduce phosphorus pollution in the lake.
- Some Morgan farmers have increased their buffers and added fencing on portions of the lake's tributaries which run through their land.
- SLA, private road associations around the lake and the Town have applied for and implemented Vermont's Better Back Roads grants to improve protection of the lake by lessening runoff/silt from roads into the lake. Silt brings phosphorus into the lake.

- SLA under the supervision of Vermont Department of Conservation (VTDEC) conducted a three year study of water samples from the five major tributaries of Seymour Lake. The sampling showed that the pollutants coming from tributaries did not at that time contribute enough phosphorus to account for the entire increase over the years 1996 to 2004. That conclusion led SLA to consider that removal of natural vegetation and increased impervious surfaces on the lake shore was a major cause of the increased pollution of the lake. This caused SLA to mount an energetic program to educate lake shore owners regarding the need to restore natural vegetation to the lake shore and implement runoff prevention measures such as water bars in driveways and infiltration steps to the waterfront.
- SLA became active in the Memphremagog Watershed Association and the Federation of Vermont Lakes and Ponds (FOVLAP) to join in the efforts to encourage Vermont to enact lake protection legislation to limit impervious surfaces and removal of natural vegetation on lake shores.
- About 50 lake shore residents have participated in Lake Wise, a voluntary program of VTDEC which provides an evaluation of a lake shore property for exemplary lake shore management practices to protect the lake from pollution. About 20 of these properties received the award; many others are making improvements to qualify for the Lake Wise Award.
- About 30 lake shore owners have participated in Northwoods Stewardship Center's grant funded, cost-sharing, Lake Shore Buffering Program. Another 20 have participated in FOVLAP's Blueberry Buffer program, another grant funded, cost sharing program. And 8 lake shore owners have participated in another similar program, FOVLAP's LakeScaping Program to install a lake shore buffers, infiltration steps or water bars.
- SLA has held workshops to help lake shore owners learn how to care for septic systems, how water's edge ecology affects water quality, how to replant a natural buffer and other similar topics.

1. Water Quality [30 V.S.A. § 248(b)(5)]

Applicant alleges that there will be no undue adverse impact on the water quality of Sucker Brook which feeds into Seymour Lake, however this claim is not substantiated in their application by any collection of data. The Town requests that Seymour Lake Solar pay for the rigorous scientific collection of data regarding the temperature, sediment load and phosphorus in Sucker Brook both above and below the solar array for a two year period after it has been installed to substantiate their claim.

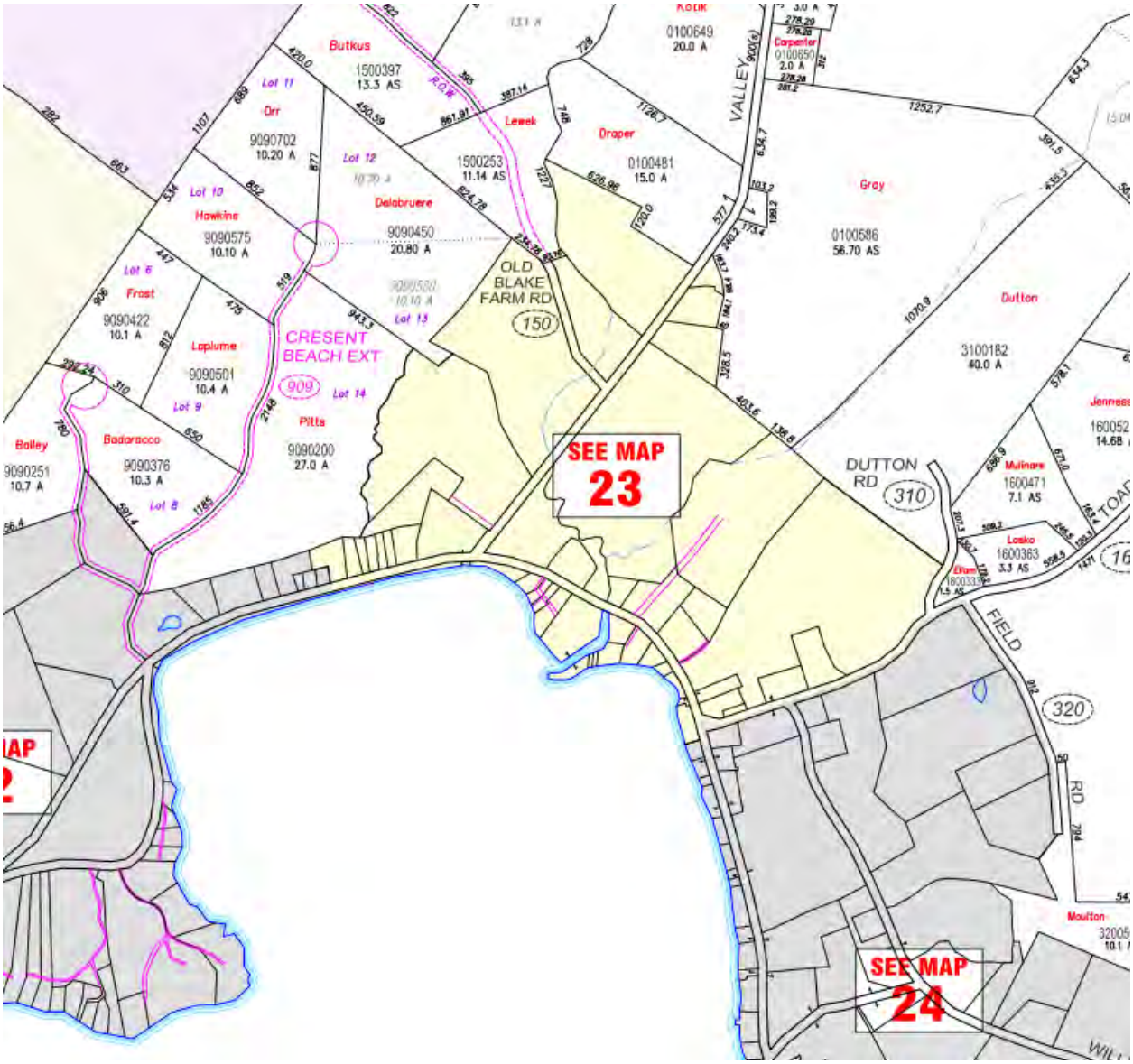
In addition to the proposed solar development being just uphill of Sucker Brook, the purity of the brook is at risk because the proposed solar facility is bordered to the east by a sizable wetland. That wetland acts as a filter to remove pollutants from the water before it drains into Sucker Brook. The impervious surface of the panels and the hard packed grass-covered earth on the seven acres they occupy will put some additional stress on the wetland. The 100 panels represent 41,700 square feet of impervious surface where now there is none. During the day, when the panels are at full tilt, this would be approximately 18,500 square feet. These areas are between 13% and 6%, respectively, of the total surface area of the proposed seven acre project. One inch of rain would result in between 11,532 and 24,992 gallons of water that would be flowing off of these panels and on to the substrate. There is no proof that this project will not produce soil erosion; quite the opposite, common sense would dictate that soil erosion could be significant from such a huge area of impervious surface.

Rain will sheet from the panels with various amounts of force depending upon their angle. The impacts of run-off from Barton Solar, below, serve as an example of what can happen over time. The difference between a fixed array and trackers may mean that the runoff will result in a curve instead of a straight line, depending on the location of the array at the time of the precipitation events, and may result in even more of this type of impact than for fixed arrays.

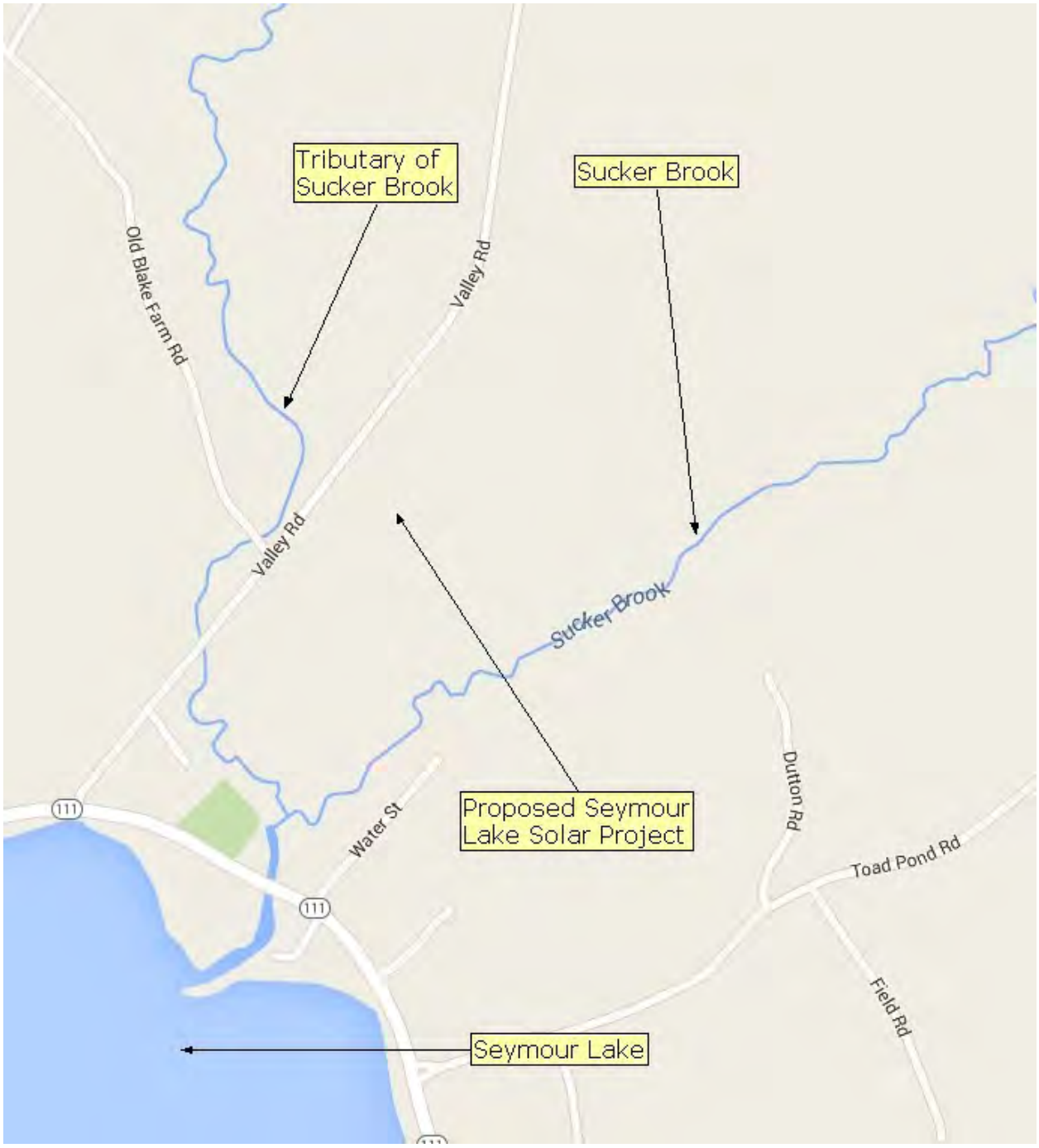
The land beneath the panels will not receive the runoff hence no runoff will be absorbed by the ground where it is sheltered by the panels. Unlike the grass presently on the field, these panels do not diminish the force of precipitation hitting the ground; rather, they increase that force, thus causing more runoff.

Barton Solar, which was constructed on a wet field, experienced increased sediment running off the site as shown in this photo.

The Applicant's proposed solar site is on the east side of Valley Road and marked as "Gray" and 0100586. For reference, Rossiter's Point is the lower left spit of land. The Applicant's property is located northeast of Rossiter's Point.



Below is a diagram of Applicant's proposed solar panel land pointing out the two branches of Sucker Brook.



Applicant claims that there will be no undue adverse impact on the water quality of Seymour Lake, however there is no data in the Application to support this claim. The Town requests that the Applicant pay for monitoring Sucker Brook at two locations, one upstream of the Project and one downstream of the Project.

Seymour Lake has a very small watershed (12,920 acres) in relation to the size of the lake (1,769 acres). By comparison, near-by Echo Lake's watershed (15,186 acres) is larger than Seymour Lake's, but the lake is much smaller (550 acres). This means that every tributary of Seymour Lake plays a big role as a corridor supplying sediment and other pollutants to the lake. It also means that many lakes, such as Echo Lake, turn over the entire water contents of the lake several times a summer. Seymour Lake turns over the entire contents of the lake once every four years, meaning pollutants have a long time to build up in the lake. All of Seymour Lake's tributaries are relatively small, with Sucker Brook (which abuts the proposed solar development) being the largest. Therefore any disturbance or development on land draining into Sucker Brook has the potential to have an adverse impact on Seymour Lake's water quality. In addition to the water quality testing, the Town hereby requests a hearing on storm water runoff issues.

During rain storms, Sucker Brook already contributes large amounts of silt to the lake. The brook enters the lake at the Access provided by Vermont Fish and Wildlife to serve the public of Vermont. The accumulated silt in the water around the Access ramps threatens the ability of fishermen and other boaters to use the lake. Any additional silt load to this brook is a threat to the public's right to fish and access the lake.

Another concern is that a rise in water temperature will definitely affect the flora and aquatic biota in Sucker Brook and Seymour Lake. Many microscopic plants and animals contribute to good water quality and are very sensitive to even minor changes in temperature. Some macroscopic invertebrates are essential to prevent blue-green algae (cyanobacteria) blooms. Reason suggests that overlaying seven acres of grassland with 41,700 square feet of hard, dark panels could easily result in warmer runoff, either from heat generated by the sun attracted to the panels or by increased amounts of silt in the water attracting heat.

The Public Trust Doctrine applies to any navigable water in the State of Vermont. Sucker Brook is the biggest tributary flowing into Seymour Lake and both are Public Trust Waters. The State of Vermont, acting through the PSB, is the trustee of these waters, and the Vermont Water Quality Standards (VWQS) adopted by the State of Vermont are the standards the Trustee is expected to adhere to and to enforce. Any impairment from this solar development would be a breach of the Trustee's duties. Further, adherence to the Anti-Degradation Policy of those VWQS is an obligation of the PSB.

Because the project will create an undue adverse impact on Water Quality, Sucker Brook and Seymour Lake, a hearing on these issues should be held, or the project should be denied.

Experts who contributed to this section: Barter, Exhibit A; Kilpatrick, Exhibit B

2. Wetlands [10 V.S.A. § 6086(a)(1)(G)]

While the Applicant provides assurances that there will be no undue adverse impacts on the wetlands on site and the contiguous wetlands to the east and southeast of the site, these all seem to address effects that could result from not knowing where the wetlands are located so that they could be avoided, rather than how this additional runoff might impact these wetlands. There are no studies or engineering simulations to address this additional runoff, much less any proof that it will not have an undue adverse impact. Since this is a significant concern for the Town, the Town recommends that adequate studies or engineering simulations be done.

The only support given in the application that the proposed project will not have an undue adverse impact on wetlands is the delineation of the location of the wetlands on and near the site and a design of the project to include a 50 foot buffer area around the on-site wetland that will be marked with a continuous line of flagging tape to ensure that the buffer and wetland remain undisturbed during the construction and operation of the facility. How the increased runoff resulting from almost an acre of impervious surface of the seven acre project being covered by these solar panels has not been addressed in the assessment of undue adverse impacts.

No modeling or other data were provided to show that a rain storm of two or three inches would not result in significant runoff and erosion from up to 75,000 gallons of water that would be flowing off of these 100 panels. The drainage from the site appears to be to the east and southeast through the on-site wetland and into the marsh and white cedar swamp, though some drainage appears to be to the south. The boundaries of the wetland, marsh, and white cedar swamp to the east of the site are not delineated and thus, it is not clear how far the runoff would need to travel before reaching areas that would be inundated with water. Northern white cedar swamps are an uncommon wetland in Vermont and cannot tolerate extended flooding. No modeling or data were presented that show that these adjacent wetlands, including the northern white cedar swamp, would not be negatively impacted by increased runoff, and hence, the Town requests that adequate data or modeling be done.

The following picture taken of a solar project in Barton, VT shows the deleterious impact of solar panels in a wetland. One can clearly see the glare of the panels and the standing water on the ground. The Town fervently wishes to avoid this adverse impact in our beautiful town.

Expert who contributed to this section: Kilpatrick, Exhibit B

3. Wildlife Habitat and Rare, Threatened and Endangered Species [10 V.S.A. § 6086(a)(8)(A)]

The evaluation of the presence of rare, threatened and endangered species was primarily based on a review of the digital database of the Vermont Natural Heritage Inventory of Rare, Threatened, and Endangered Species. However, this database clearly states:

> "These data are dependent on the research and observation of many scientists and institutions, and reflect our current state of knowledge. Many areas have never been thoroughly surveyed however, and the absence of data in any geographic area does not

necessarily mean that species or ecological communities of concern are not present. These data should not be regarded as a substitute for on-site surveys required for environmental assessments."

While the Applicant asserts that a consultant from Arrowwood Environmental did visit the project area on May 18 and June 2, 2015, there are no indications that any surveys were conducted during either of these visits. Despite the consultant's experience from remote reviews of available maps that identified the closest Class II Wetland 1,300 feet west of the project site and a site visit that instead identified the closest Class II Wetland on-site and adjacent to the eastern side of the project, the consultant relied only on the digital database for rare, threatened, and endangered species of animals rather than conducting any on-site surveys.

Further, 19 species of mammals, 88 species of birds, 12 species of reptiles, 7 species of amphibians, and 191 species of insects are listed in the Rare and Uncommon Animals of Vermont (www.vtfishandwildlife.com/common/pages/DisplayFiles.asp) and some of these species could occur at this site. The Applicant has failed to provide proof that the area has ever been surveyed for any of these groups of animals. The Applicant's consultant appears to have relied nearly entirely on the digital database of the Vermont Natural Heritage Program for the assessment of the presence of rare, threatened, or endangered species of animals and ignored the statement about the completeness (or lack thereof) of the data. The Applicant has used the absence of data from an area that appears to have never been surveyed to conclude that no rare, threatened or endangered species of animal occur on the site and that thus, none will be negatively impacted by this project.

Many of the species listed among the rare and uncommon species of Vermont are of high conservation concern (Kart et al. 2005) and habitat loss is one of the most common conservation concerns identified. It is surprising that a survey of grassland birds was not conducted as the grassland habitat of this site would provide habitat for some of these species of conservation concern. Although the site is likely to be inhabited by species of medium conservation concern, such as the bobolink and the eastern meadowlark, these species of grassland birds are demonstrating declines in their abundance in Vermont. The State has a Wildlife Habitat Incentive Program that provides incentives to establish management practices of grassland habitats that will benefit the reproduction of these birds. Thus, grassland habitat is a critical wildlife habitat for grassland birds and is a habitat that the State is using incentive to try to manage for the benefit of these species of birds. If this is not necessary wildlife habitat, then why is the State providing financial incentive for its management? The Applicant provides no information as to why the development and operation of the project will not negatively impact the grassland habitat upon which it is situated. This development could likely have a significant adverse impact on the grassland birds that the State is trying to protect.

The State and Federal governments, by important projects, are trying hard to encourage the continued success of bobolinks and savannah sparrows in Vermont. The savannah sparrow is a species of special concern because of the lack of suitable grasslands in the Northeast Kingdom (see Vermont Breeding Bird Atlas). This field is also suitable habitat for grasshopper sparrows and eastern meadowlarks.

The Applicant's assessment of the wildlife habitat and of rare, threatened, and endangered species fails to consider how runoff from the site might negatively impact both the wetland communities and species that inhabit those communities. The Applicant presents no proof that the northern white cedar swamp adjacent to the project will not be negatively impacted or that rare, threatened or endangered species of animals that inhabit that swamp will not be negatively impacted. The Town requests a hearing where evidence on the issues can be presented and evaluated, or alternatively the project should be denied because the applicant has not provided sufficient information to merit its approval.

Citation: Kart, J., R. Regan, S. R. Darling, C. Alexander, K. Cox, M. Ferguson, S. Parren, K. Royar, and R. Popp. 2005. Vermont's Wildlife Action Plan. Vermont Fish and Wildlife Department, Waterbury, Vermont USA.

Experts who contributed to this section: Kilpatrick, Exhibit B; Woods, Exhibit C

4. Impact on Fishing and Loons in Seymour Lake [30 V.S.A. § 248(b)(5)]

There is a high level of concern on the quality of fishing in Seymour Lake. The main target species are lake trout, smallmouth bass and landlocked salmon. The sustainable quality of fishing in the lake depends on high quality cold, clear water.

For many years the Seymour Lake Association (SLA) has worked hard, and continues to work hard, to ensure that these conditions are sustainable by monitoring the clarity and quality of the Seymour Lake's water. The SLA in association with the NorthWoods Stewardship Center and property owners are also planting buffer trees, bushes, and other native species along critical areas of the lake shore.

The reason for concern is that water quality is declining in recent years. This is associated with many things, but one of the major contributing factors is the decline in the quality of the stream water entering the lake from Sucker Brook just below the proposed solar project. An examination of the location of the two tributaries of the brook reveals that the field where the proposed solar project is located is directly between the two tributaries of Sucker Brook, c.f. map p. 8, above.

In addition, continued sustainable fishing in Seymour Lake depends on adequate bait fish for the trout and salmon, and spawning waters for trout. Sucker Brook that is threatened by the solar array will be directly and adversely affected by runoff from the 41,700 square feet of solar panels and the compacted ground associated with the development project.

Fishermen, who come from all corners of Vermont to fish on the Public Trust waters of Seymour Lake, are already complaining about the reduced quality of fishing. The nesting loons, which also depend on baitfish as their primary source of food, are in considerable decline. This decline is well documented by the State and locals in the reduced nesting success of Seymour Lake loons over the past five years. If this development goes forward, appropriate monitoring by the Applicant must be required.

An open meadow of this size, suitable in habit for breeding birds that have declined significantly in numbers in recent years and considered species of concern should not be converted into an industrial solar development. This concern is increased when it is realized that this industrial solar project will be located in a habitat where uniquely valuable wetlands lie close on each side. Sucker Brook, associated with these wetlands is absolutely essential for the continued success of fishing in Seymour Lake.

This location is not suitable for the proposed project, and if it is allowed to go forward it will have a significant negative impact on the quality of fishing in the lake, on the quality of the lake water, and on the potential biodiversity of the region.

If this project is approved, and this water flows into and loads the wetlands and buffer area, Sucker Brook must be monitored for all temperature changes, silting, or impact on fish reproduction as this is the only major stream emptying into Seymour Lake. Monitoring should be at the expense of the Applicant. Because the project will create an undue adverse impact on the ability of the wetlands to sustain habitat and fishing on Seymour Lake, a hearing on these issues should be held, or in the alternative the PSB should deny issuance of a CPG.

Expert who contributed to this section: Woods, Exhibit C

5. Aesthetics [30 V.S.A. § 248(b)(5)]

Anyone would certainly call the Town of Morgan a typical small Vermont town. With a population of 669 permanent residents and 330 seasonal, Morgan fits the definition of a beautiful, rural postcard town. Morgan was chartered in 1780 and since that time has been the home to farmers and other workers, and since 1920, by an increasing number of town and lakeshore home owners on pristine Seymour Lake. People are naturally attracted to Morgan by its bucolic setting and lifestyle. Many were born here and stay because they love it, and many

move here for that same reason. The views are everywhere: of fields, mountains, and the lake; it is a joy to merely hike or drive around the beautiful town. Aesthetics, is therefore, a most prized value and all property owners work hard to make their homes and properties visually attractive while simultaneously protecting Seymour Lake from human activity. Morgan residents and property owners also work to keep the lake an integral part of the beauty of Morgan. There are numerous active programs to protect and preserve Seymour Lake from invasive species and other threats as is done for the rest of the land of Morgan.

Many properties in Morgan are in Vermont's "Current Use" program which was created with goals as follows:

> *"to encourage and assist the maintenance of Vermont's productive agricultural and forest land; to encourage and assist in their conservation and preservation for future productive use and for the protection of natural ecological systems; to prevent the accelerated conversion of these lands to more intensive use by the pressure of property taxation at values incompatible with the productive capacity of the land; … to encourage and assist in the preservation and enhancement of Vermont's scenic natural resources; and to enable the citizens of Vermont to plan its orderly growth in the face of increasing development pressures in the interests of the public health, safety and welfare."*

The goals of this program are identical with the goals of the Town of Morgan and its people.

It is not that the property owners of Morgan and the public using the lake are against having industrial solar panels in Morgan. But, as expressed in the recent Town's meeting, residents cannot understand why the visible appeal of a beautiful rural, natural countryside needs to be disrupted with industrial solar panels. There are alternative locations in Morgan where solar panels can be located which are hidden from view, both from residences, roads and from the lake. Vermont has a law prohibiting advertising billboards for a reason. It seems that allowing an industrial solar project to be visible in an area of woods, meadows, wetlands, streams, protected species, homes of residents, and a beautiful lake, is in complete contradiction to prohibiting billboards.

This is a picture taken looking northeast across the north end of Seymour Lake. The road leading up to Applicant's property is Valley Road and it intersects Route 111 just ahead of the truck. In Applicant's field, one can clearly see the 20 inch by 30 inch white board held up 8 feet above the ground. There are many lakeside properties with a similar view of Applicant's field. The north public beach is visible in this picture so users of that public convenience, as well as boaters have an unrestricted view of this eyesore.

This picture of Applicant's field with white board is taken from Route 111 very near the public beach and shows Valley Road winding upward. Note the driveway to the left which is the entry to parking for the public beach. Valley Road will clearly bear the brunt of the aesthetic attack by the solar panels which will be higher than the white board.

One solar panel is 100 times larger than the white board, and the 100 solar panels of the Project are 10,000 times larger than the white board. This would be a massive change to the field of the Project. The Project as proposed would be completely out of place, an eyesore changing an agricultural field and green natural area where wildlife grazes. The field is very visible from the road so when community members walk or drive, instead of a natural view, they will see glass panels and metal framework. An evaluation of whether the proposed project will unduly interfere with orderly development of the region requires consideration of alternative sites, as are referenced in this document.

Fortunately, there is a legal framework that guides the Board's process of approving or rejecting petitions for a Certificate of Public Good, and this allows us to put our strenuous aesthetic objection on sound and undeniable legal ground. By Vermont state statute (30 V.S.A. §248(b) and specifically §248(b)(5)), in order to grant a Certificate of Public Good to a proposed project, the PSB must find that the development will not have an undue adverse effect on the aesthetics of the place where it is to be sited.

To determine what qualifies as "an undue adverse effect," the PSB (in Rule 5.108(A)) "adopted the Vermont Environmental Board's Quechee analysis" which had been established as a way to evaluate the aesthetic impact of projects undergoing review under 10 V.S.A. chapter 151 (known as Act 250). The PSB's Rule 5.108(A) goes on to reiterate the Quechee Analysis.

The Quechee Analysis is a two-step testing process, which begins by assessing whether the proposed project will lead to adverse aesthetic impacts. The first step asks whether the project is compatible with its surroundings, based on factors including its conspicuousness, its materials and coloration, its effect on the setting that forms its context. If this first step leads to the conclusion that the project will have an adverse impact on the aesthetics of the area, and the analysis must proceed to its second step, in order to determine if the adverse impacts are undue. The Town's conclusion is that this proposed solar development is not compatible with the surroundings of Valley Road and Route 111 which have been identified in the Town Plan as scenic. The project would be highly visible from nearby homes, some lake shore properties and to residents and lake users who travel Valley Road and Route 111.

The second step asks three questions:

a. Does the project violate a clear, written community standard intended to preserve the aesthetics or scenic beauty of the area? The Town's conclusion is that this project violates this statement from the Town Plan of Morgan which states "Maintain the Town's and the Lake's beautiful and pristine state."

b. Have the applicants failed to take generally available mitigating steps which a reasonable person would take to improve the harmony of the project with its surroundings? The Town's conclusion is that the Applicant has provided no data supporting their research of alternative sites which would be less intrusive.

c. Does the project offend the sensibilities of the average person? Is it offensive or shocking because it is out of character with its surroundings or significantly diminishes the scenic qualities of the area? The Town's conclusion is that the Project will significantly diminish the scenic qualities of the area, Valley Road and Route 111 (a Town designated scenic roads), and Seymour Lake which is located only 0.4 miles from the proposed Project.

If the answer to any of these questions is "yes" then the aesthetic impact of the project is considered unduly adverse under the Quechee Analysis. The Town concludes the answer to these questions is yes in all cases; hence the Project is unduly adverse under the Quechee Analysis and the project should be denied a CPG.

6. Orderly Development of the Region [30 V.S.A. § 248(b)(1)]

The Town Plan[2] contains specific language about the type of renewable energy development the Town will support. The Town has developed Community Standards to address Siting of Renewable Energy projects. Some of the relevant sections are quoted below:

> The town supports the development of renewable energy resources in general, but the Town will only offer its support for individual projects that meet the needs of the community on a case by case basis. p. 31
>
> The Planning Commission supports the development of small-scale renewable energy technologies for residents, farms, and businesses. p. 32
>
> **MORGAN COMMUNITY STANDARDS: POWER GENERATION, TRANSMISSION, NET-METERED, AND OFF-GRID ENERGY FACILITIES**, p. 33
> Purpose. The purpose of these municipal energy policies is to promote the development of renewable energy resources and energy facilities in the Town of Morgan, while limiting the adverse impacts of such development on public health, safety and welfare, the town's historic and planned pattern of development, environmentally sensitive areas, and our most highly-valued natural, cultural and scenic resources - consistent with related development, resource protection and land conservation policies included elsewhere in this plan.
>
> These policies are to be considered in undertaking municipal energy projects and programs, in updating the town's bylaws to address renewable energy development, and in the review of new or upgraded energy facilities and systems by the town and the Public Service Board under 30 V.S.A. § 248.
>
> **General Standards.** The following forms of energy development will be considered for support by the Town of Morgan, in order of priority:

[2] Morgan Town Plan
http://www.nvda.net/town_files/Morgan_Town%20Plan_December%2017,%202012.pdf

1. Improved/increased system capacity by utilizing state, utility and municipally-supported energy efficiency and conservation programs.

2. In-place upgrades of existing facilities, including existing transmission lines, distribution lines and substations as needed to serve the town and region. To the extent physically and functionally feasible, existing utility systems, including transmission lines, distribution lines and substations, shall be upgraded or expanded on site or within existing utility corridors before new facilities or corridors are considered.

3. Individual and group net-metered renewable energy projects, community-based projects, and other smallscale distributed renewable energy systems serving individual users, in appropriate, context-sensitive locations

4. New community-scale energy facilities, including new transmission and distribution lines, substations, hydro dams, wind and solar farms, co-generation facilities and biomass plants that are designed to meet the expected needs of the Town of Morgan and its adjacent communities.

5. A demonstrated public need that outweighs adverse impacts to town residents and resources must be documented for municipal support of proposed larger projects - including new transmission and distribution lines, and facilities with a generation capacity greater than 500kW - located in or which may otherwise affect the Town of Morgan. Energy facility development must benefit the Town of Morgan and its adjacent communities (residents and businesses) in direct relation and proportion to the documented impacts of the proposed development on community facilities, services, economy and resources. In this instance benefit means that such development must improve energy availability and distribution locally and lower costs locally before any energy is transmitted out of the area.

6. The Town of Morgan will endorse or permit the development and installation of energy facilities that conform to community energy facility development and siting standards through participation in Public Service Board (Section 248) proceedings or, where applicable, through local financing and incentive programs and regulations.

Facility Siting Standards: p. 37
Conservation Areas. Energy facilities are to be sited to avoid where physically feasible, or to otherwise minimize encroachment and mitigate the adverse impacts of facility development on:

* Surface waters, wetlands and associated setback and buffer areas, as specified for all development under town bylaws.

* Primary agricultural soils as mapped by the USDA Natural Resource Conservation Service for the state.

* Significant wildlife habitat, including core habitat areas, and travel and migratory corridors, as identified from state inventories and datasets, local inventories, and site investigations associated with facility development.

Agricultural Land and Open Space. Energy facilities, including solar arrays and other generation facilities, transmission and distribution lines, accessory structures and access roads are to be located on nonagricultural land or along field edges to avoid fragmentation of, and to minimize and mitigate adverse impacts to agricultural land and open fields. p. 38

Visual Impacts. Applicants must demonstrate through site planning, facility siting and proposed mitigation that the visual impacts of new and upgraded energy facilities will be minimized as outlined in the standards set forth below:

* All energy facilities and accessory structures are to be designed and constructed of materials, colors, and textures that blend into the surrounding natural or built environment.

*Facilities are to be sited to outside of, or to the edge of scenic views or viewsheds so that they are not a prominent focal point.

*The facility should be screened from view though the use of existing topography, structures, vegetation or strategically placed tree, shrub and ground cover plantings that do not block distant views. p. 39

Designated Scenic Areas. The documented historic, rural and scenic character of the following areas in the Town of Morgan shall be preserved under any form of new energy development. New energy facilities sited within or as viewed from these areas shall not create a significant physical, visual, audible, or historically incongruous or incompatible intrusion into these areas. New facilities, including generation facilities greater than 20 kW, substations and transmission lines, are specifically prohibited within or as viewed from these areas unless associated impacts can be avoided, for example through facility siting, screening or line burial.

- Significant views within the Seymour Watershed area (Routes 111, 114, and 105).

View from solar site looking towards Route 111, Seymour Lake and Houses on other side of the Lake

As noted on pp. 17 and 18 of this letter, Seymour Lake Solar would be visible from a significant view on Route 111 as identified in the Town Plan. The project as proposed violates the Town's Clear Written Community Standard on Aesthetics and therefore conflicts with the orderly development of the region. For this reason, the project should be denied.

D. Conclusion: This Project Raises Significant Issues Under the Substantive Criteria of 30 VSA § 248 and Should Be Denied

The Town concludes that this project is likely to have a significant adverse impact on the water quality of Seymour Lake and Sucker Brook, and on the flora and fauna whose very existence depends on the high quality of the water. Further, the Town contends that there will be a significant negative economic impact on the properties within the Town and more specifically, within the sight of the solar panels. Morgan residents and seasonal visitors come here for the bucolic life style and for the unparalleled beauty of the forest, lake, fields, and ridgelines, not for industrial solar or wind developments. Essentially, the lake is the only economic engine available to the residents and property owners of the Town.

By a vote at the end of the Town's informational meeting on September 21, 2015, the Town overwhelmingly opposed (62 opposed and 7 in favor including the Applicant who owns a second home in Morgan) this development and any other ridgeline proposals.

For all the foregoing reasons, the Town requests that the Public Service Board either decline to grant a CPG to the Applicant for this project or hold a hearing on the issues raised in this letter which is submitted as part of the Town's intervention in this proceeding.

Larry Labor, Chair

Select Board

Town of Morgan

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Mary M. Barter

B. A. Zoology, UVM 1962

Teacher of Physical Science, Grade 8, Nashua, NH 1989 - 1998

New Hampshire Speaker for Wildlife, 2012 - 2015

New Hampshire Natural Resource Steward, 1999 - Present

Director and Water Quality Committee Chairman, Seymour Lake Association, 2005 - Present

Vermont Invasive Patroller, 2007 - Present

Federation of Vermont Lakes and Ponds, Membership Chair, 2013 - Present

VITAE

Personal Data:

Name: C. William Kilpatrick

Current Address: Department of Biology
University of Vermont
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Phone: (802) 656-0453

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Education:

Doctor of Philosophy, North Texas State University, 1973
(Major in Zoology with Dr. Earl G. Zimmerman)
Master of Science, Midwestern State University, 1969
(Major in Zoology with Dr. Walter W. Dalquest)
Bachelor of Science, Midwestern State University, 1968,
(Major: Zoology, Minor: Geology)

Faculty Appointments:

University of Vermont, 1974-present
Professor, Department of Biology, UVM, 2009-present
Associate Professor, Department of Biology, UVM, 1980-2009
Curator of Vertebrates, Zadock Thompson Museum of Natural History, 1982-present
Assistant Professor, Department of Zoology, UVM. 1974-1980
Graduate Faculty, 1977-present

University of Florida, Gainesville, FL, Spring 1981
Visiting Associate Professor

St. Lawrence University, Canton, NY, 1973-1974
Visiting Assistant Professor

North Texas State University, Denton, TX, 1970-1973

Teaching Fellow (Lecturer), Fall 1971, Spring 1973

Midwestern University, Wichita Falls, TX, Lecturer, 1969-1970

Revised 9 March 2009

CURRICULUM VITAE

Charles A. Woods

ADDRESSES:

Home: Bear Mountain Natural History Center
Bear Mountain Farm
925 Bear Mountain Road
Island Pond, Vermont 05846
Phone 802-723-4533
Email hutia@gaw.com

DATE AND PLACE OF BIRTH: December 23, 1940; Sherman, Texas

MARITAL STATUS: Married to Ellen ("Missy") Stott Woods since 1963

CHILDREN: Stott, born September 27, 1964
Patricia, born November 25, 1967
Bryan, born September 22, 1969

EDUCATION: B.A. Zoology 1964, University of Denver
M.S. Zoology, University of Massachusetts
Ph.D. Zoology 1970, University of Massachusetts

LANGUAGE ABILITY: Spanish
Haitian Creole (speaking and reading)
French (moderate)
German (reading)
Pakistani Urdu (some comprehension)

CURRENT POSITION(S):

2000-Present	Director, Bear Mountain Natural History Center (Morgan, VT)
2000-Present	Adjunct Professor of Biology, University of Vermont
2000-Present	Curator Emeritus of Mammals, Florida Museum of Natural History
2000-Present	Farmer, Bear Mountain Farm
2005-Present	Moderator, Town of Morgan Vermont

PREVIOUS POSITIONS:

2007-2008	President and Board Chairman, NorthWoods Stewardship Center
2004-2007	Executive Director, NorthWoods Stewardship Center, E. Charleston, VT
1979-2000	Professor of Zoology, University of Florida
1979-2000	Curator of Mammals, Florida Museum of Natural History
1979-1985	Chairman, Department of Natural Sciences, University of Florida
1971-1979	Assistant-Associate Professor of Zoology, University of Vermont
1970-1971	Assistant Professor of Zoology, University of Denver

PROFESSIONAL SOCIETIES:
American Society of Mammalogists
Society of Sigma Xi

FIELD EXPERIENCE: (45 Years Foreign Field Experience)

Research Assistant to Dr. K.R. Porter on the ecology and evolution of the genus *Bufo* in Mexico and Central America (1963).

Research Assistant to Dr. Dana Snyder investigating the population dynamics of *Tamias* in Vermont (1965-1967).

Master Permit Holder and Project Coordinator, Bird Banding Station. Shelburne, Vermont (1972-1979). Bird banding permit still active.

Project leader on 50 extended grant supported research expeditions:

Central America: 1963
Haiti: 1972-Present (many trips)
Dominican Republic:1978-1983 (five trips)
Jamaica: 1981-1983 (three Trips)
Bahamas: 1985
Cuba: 1988-Present (five trips)
Zaire: 1991
Pakistan 1990-Present (18 trips)
India: 1990-Present (12 trips)
China 1997 (one trip)

USAID/World Bank/USFWS project consultant and design team member for projects in Haiti, Pakistan, India, and Zaire.

TEACHING EXPERIENCE:

Undergraduate:

General Biology
Human Anatomy and Physiology
Natural History
Comparative Biology of Birds and Mammals

Undergraduate and Graduate:

Mammalogy
Comparative and Functional Anatomy
Natural History of Birds and Mammals
Physiological Ecology
Winter Ecology
Vertebrate Evolution
Phylogenetic Systematics
Fauna and Flora of Latin America
Natural History of the West Indies

ADMINISTRATIVE EXPERIENCE

Chairman, Department of Natural Sciences, University of Florida, (July 1979-July 1985).
Director, Animal Behavior Laboratory, University of Florida (1985-1990).
Project Coordinator, University of Florida Interdisciplinary Biosphere Reserve Project in Haiti, (1987-1993).
Organizer and Local Chairman, American Society of Mammalogists 1981 Annual Meeting, Gainesville, Florida (550 participants).
Organizer and Chairman, International Symposium on the Biogeography of the West Indies. Gainesville, Florida, March 3-6, 1986. (Proceedings published in 1989 as a 878 page book which I edited).
Organizer and Co-Chairman, Symposium on the Biodiversity of Pakistan, Pakistan Museum of Natural History, Islamabad, Pakistan. November, 1995.
Director, Bear Mountain Natural History Center, Morgan Vermont
Executive Director, NorthWoods Stewardship Center, East Charleston, VT