STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Compliance filings required by certificate of public good issued in Docket 7628, Lowell Mountain 63 MW wind electric generation facility	)))	Case No. 20-1400-LCOMP

AFFIDAVIT OF ROBERT WILDEY

1. My name is Robert Wildey. I am Water Resources Engineer at VHB. My business address is 40 IDX Drive, Building 100, Suite 200, South Burlington, VT 05403.
2. I am a civil engineer and environmental scientist with a specialty in water resources, particularly stormwater and in-stream water quality. I have designed stormwater treatment practices, developed Erosion Prevention and Sediment Control plans, and monitored water quality associated with operational phase treatment practices, including stormwater level spreaders for over 14 years. My current resume is provided as Exh. GMP-RAW-1.
3. My role at the Kingdom Community Wind ("KCW" or the "Project") site has been to perform annual inspections of operational stormwater treatment practices at KCW, to design and implement a monitoring study as required by the Vermont Department of Environmental Conservation ("VT DEC") to evaluate the effectiveness of level spreaders under the "New Alternative Treatment Practice" standard of Permit #6216-INDS, and I have led the team that designed the proposed level spreader relocations that are the focus of this filing.
4. As described in the affidavit of GMP witness Jason Lisai, the purpose of the proposed changes to the Project is to relocate four stormwater level spreaders to new locations where

the level spreaders and their 150-foot vegetated disconnect area do not intersect certain mitigation parcels adjacent to the KCW Project Parcel. Plans for these proposed features and the existing level spreaders that they replace are shown in Exh. GMP-RAW-2.

5. Level spreaders are one of the types of stormwater treatment practices authorized in the original operational stormwater permit issued for the Project (Permit #6216-INDS). This type of practice was selected in order to minimize the amount of grading and disturbance required for stormwater treatment and to maintain existing hydrology to the extent practicable by distributing treatment practices more evenly across the KCW Project Parcel, with each level spreader treating a relatively small and nearby area of impervious surface. This treatment practice includes a ditch turnout that conveys runoff from the roadside ditch to a shallow trough constructed with a stone-armored level lip on its downgradient side. The length of each level lip is proportional to the amount of impervious area treated by the practice and the peak flow velocities calculated accordingly. The level lip converts concentrated ditch flow into diffuse sheet flow that is discharged to the 150-foot long vegetative buffer area associated with each level spreader. These buffer areas are disconnected from surface waters and allow stormwater collected from impervious surfaces to be treated via filtration by the vegetation and by infiltration to the ground. The proposed changes to the Project will use the same treatment practice but will slightly relocate four of these level spreaders to facilitate maintenance of these features in the future.

6. The specific four changes proposed are as follows:

    - Existing Level Spreader #8 (LS-A8) will be removed from Mitigation Parcel 3 and reconstructed at a new location within the KCW Project Parcel approximately 450 feet north from the current location. To ensure all currently

managed stormwater runoff is routed to the proposed level spreader location, the existing culvert is proposed to be intercepted and its flow routed through a series of culverts and manholes to the proposed location. The discharge point (an unnamed tributary to East Branch Missisquoi River) will remain unchanged. The site of the proposed LS-A8 and its vegetated disconnect area was used prior to and during the construction of the wind farm as a log landing and staging area. Although much of the disconnect area is shown within the limits of disturbance, this is due to the need for localized grading to ensure positive drainage away from the level lip. Remnants of the former construction access road will be removed and minor amounts of grading (approximately one-foot depth) will be required in this area. Disturbed areas would be stabilized and allowed to revegetate, ultimately returning to forested cover. Existing LS-A8 would be removed and revegetated with minimal disturbance within Mitigation Parcel 3. *See* Exh. GMP-RAW-2, Sheet C-01.

- Existing LS-A9 will be removed from Mitigation Parcel 3 and replaced with two smaller level spreaders, designated as LS-A9a and LS-A9b, that will be located within the KCW Project Parcel. These new level spreaders will be located on the opposite side of the access road and east of the existing location by approximately 200 feet and 400 feet, respectively. Roadway and swale grading and two cross culverts beneath the access road are proposed to ensure all required stormwater runoff is routed as intended. The discharge point will not change, and flows will enter the unnamed tributary (an unnamed tributary to East Branch Missisquoi River) slightly upstream from the access road culvert

instead of downstream from it. Existing LS-A9 would be removed and revegetated with minimal disturbance within Mitigation Parcel 3. *See* Exh. GMP-RAW-2, Sheet C-02.

- Existing LS-A24 will be removed and relocated approximately 300 feet to the west. This move will allow the vegetated disconnect area to be wholly within the KCW Project Parcel instead of crossing into Mitigation Parcel 3A. To ensure all required stormwater runoff is routed to the proposed location, grading of the side slope and conveyance swale will be required. The discharge point (an unnamed tributary to Ace Brook) will not change. The removal of existing LS-A24 would not involve any disturbance within Mitigation Parcel 3A, as it is only the undisturbed vegetated disconnect area associated with that level spreader that crosses the parcel boundary. *See* Exh. GMP-RAW-2, Sheet C-03.
- Existing LS-C16 will be rotated slightly and shifted approximately 20 feet to the west. The relocated level spreader will occupy approximately half of the same footprint as the existing structure, but would be entirely within the KCW Project Parcel instead of crossing into Mitigation Parcel 2. To ensure all required stormwater runoff is routed to the proposed location, minor grading of the side slope and conveyance swale leading to the level spreader will be required. The discharge point (Stream 2009-SC-C60) will not change. The area outside of the KCW Project Parcel will be stabilized and revegetated following these proposed alterations. *See* Exh. GMP-RAW-2, Sheet C-04.

7. Overall, these changes will result in slightly more than one acre of disturbance during construction. Construction activities will be managed in accordance with authorization #6216-9020.1 that was received by the Project under Vermont's Construction General Permit #3-9020 as a low risk activity, with all appropriate erosion and sediment controls measures. Construction is expected to take 3–4 weeks.
8. GMP and VHB have coordinated with ANR regarding these proposed changes. In consultation with ANR, GMP conducted additional field work related to the proposed changes, including identifying and re-delineating wetlands in the vicinity of the proposed work. This work supplemented the extensive natural resource evaluation conducted for the original Project. ANR reviewed VHB's field work and concluded it addressed potential natural resource impacts associated with the proposed changes. Based on this additional field review, ANR concluded that a Vermont Wetlands Permit was not required for the proposed changes. In addition, as noted above, ANR also noted that an authorization under the Vermont Construction Stormwater Permit (#3-9020) was required for disturbance associated with construction activities. This authorization was received on July 17, 2020. In addition to these determinations, the Agency included several recommendations that the level spreader relocation project should follow as part of construction activities, namely to avoid construction between September 1 and December 1, to include the existing and proposed level spreader locations in the areas monitored and treated annually for Non-Native Invasive Species, and to allow the areas of the discontinued level spreaders to passively regenerate to take advantage of the seed sources that surround these sites. GMP has agreed to implement these measures.

9. As required by the Certificate of Public Good ("CPG") issued for the Project in Docket 7628, the existing stormwater treatment practices at KCW conform to the standards of the Vermont Stormwater Management Manual, are authorized pursuant to VT DEC Individual Stormwater Discharge Permit ("INDS") #6216-INDS, and have been operational since 2013. The relocation of these level spreaders will continue to comply with the requirement to manage runoff from the impervious roadway and to remove sediment and other stormwater-related pollutants from the runoff.
10. The proposed changes to the Project do not result in a substantial or material change to the INDS Permit because the proposed relocations will not alter the overall amount of impervious area treated by these practices, will provide the same method of treatment (i.e., level spreader and 150-ft vegetated disconnect area), and will maintain the discharge to the same receiving water (i.e., to the same stream or wetland, depending on the level spreader in question) as under existing, permitted conditions. These are replacements in kind of structures that fully comply with the stormwater permit under existing conditions and will continue to fully comply with the permit under proposed conditions.
11. As a baseline, I have reviewed the Findings and Conclusions in the CPG and Final Order issued by the Public Utility Commission ("PUC" or "Commission") on May 31, 2011 in Docket 7628 for relevant Section 248 criteria ("Docket 7628 Final Order"). Specifically, the KCW Project as authorized by the PUC and constructed and operated by GMP represents the condition from which changes have been assessed to evaluate significance.
12. VHB has evaluated the potential for changes to the Project to result in impacts under relevant Section 248 criteria and concludes that the proposed changes to the Project do not have the potential for significant impacts under the criteria we have evaluated, and will not

result in any undue adverse impacts under the criteria. This analysis is supported by Exh. GMP-RAW-3 (VHB Natural Resource Maps) and Exh. GMP-RAW-4 (VHB Wetland Memo).

13. Regarding Section 248(b)(5) criteria, the proposed changes to the Project do not implicate and will not impact the following criteria in any way: air purity, shorelines, municipal/educational services, historic sites, aesthetics, transportation, public investments, public health and safety, and greenhouse gases.

14. Regarding other Section 248(b)(5) criteria, the Project would not result in significant impact under any of these criteria for the following reasons:

    - Headwaters: None of the proposed level spreader relocations or modifications are located above elevation 2,500 feet and no stream impacts are proposed. *See* Exh. GMP-RAW-3. Therefore, as with the original KCW Project (Docket 7628 Final Order, Finding 157), the level spreader relocation project will meet all applicable health and environmental conservation regulations regarding reduction of the quality of ground or surface waters flowing through or upon headwaters areas. The proposed changes to the Project do not have the potential for significant impact under this criterion and will not result in undue adverse impacts to headwaters.
    - Waste Disposal: Existing and proposed level spreaders are excavated within native ground and are constructed of earthen materials. Minor amounts of waste may be generated during construction but will be disposed of properly. Stormwater runoff would be treated via the level spreaders and their vegetated disconnect areas to the same standards that were approved by the currently operational stormwater permit

#6216-INDS. Therefore, as with the original KCW Project (Docket 7628 Final Order, Finding 172), the level spreader relocation project will meet applicable health and VT DEC regulations for waste disposal and will not inject waste materials or any harmful toxic substances into groundwater or wells. The proposed changes to the Project do not have the potential for significant impact under this criterion and will not result in undue adverse impacts with respect to waste disposal.

- Water Conservation/Use/Supply: Minor amounts of water may be used during construction for dust control or to prepare soil for proper compaction. Once constructed, the stormwater control features will not use any water to maintain or operate. Therefore, as with the original KCW Project (Docket 7628 Final Order, Finding 177), the level spreader relocation project will not require a new water supply and will not have an impact on existing water use. The proposed changes to the Project do not have the potential for significant impact under this criterion and will not result in undue adverse impacts to water conservation, use, or supply.
- Floodways: None of the proposed level spreader modifications would occur within FEMA-designated floodways or river corridors. *See* Exh. GMP-RAW-3. Therefore, as with the original KCW Project (Docket 7628 Final Order, Finding 180), the level spreader relocation project will not restrict or divert the flow of flood waters or increase the peak discharge of the rivers, brooks, or streams, or endanger the health, safety, and welfare of the public or of riparian owners during flooding. The proposed changes to the Project do not have the potential for significant impact under this criterion and will not result in undue adverse impacts to floodways.

- Rare and Irreplaceable Natural Areas: The KCW Project Parcel contains two habitats that are not designated as RINAs but which are designated as uncommon natural communities: Montane Spruce-Fir Forest ("MSFF") and Montane Yellow Birch-Red Spruce Forest ("MYBRSF") (Docket 7628 Final Order, Finding 336). The proposed modifications to LS-A24 and LS-C16 would involve clearing a small forested area (less than a tenth of an acre total) adjacent to the existing cleared KCW Project footprint, but would not further fragment the existing forest blocks. *See* Exh. GMP-RAW-3. Proposed alterations at LS-A8 and LS-A9 would not occur within these habitat types. Therefore, as with the original KCW Project (Docket 7628 Final Order, Finding 323), the level spreader relocation project does not have the potential for significant impact on these features and will not have an undue adverse effect on rare and irreplaceable natural areas.
- Endangered Species: No Rare, Threatened or Endangered species have been identified within the areas that will be affected by the proposed level spreader relocations. *See* Exh. GMP-RAW-3. Therefore, as with the original KCW Project (Docket 7628 Final Order, Finding 339), the level spreader relocation project will not destroy or significantly imperil necessary wildlife habitat or any endangered species, and the implementation of the mitigation required for the KCW Project will be maintained. The proposed changes to the Project do not have the potential for significant impact under this criterion and will not result in undue adverse impacts to endangered species.

- Wetlands: The proposed changes to the Project will result in approximately 2,500 square feet of disturbance in one newly identified small Class III wetland adjacent to the proposed relocated LS-A8. This wetland is associated with a topological depression from former logging roads on the KCW Project site. Impacts to this wetland have been minimized and disturbance will only occur in non-forested areas associated with the former logging road. The impacts do not require a Vermont Wetlands Permit, and GMP has obtained a Section 404 authorization from the U.S. Army Corps of Engineers for the minor impacts (*see* Exh. GMP-RAW-4) (VHB Wetland Memo). Therefore, as with the original KCW Project (Docket 7628 Final Order, Finding 206), the level spreader relocation project does not have the potential for significant impact to wetlands, and will not have an undue adverse effect on wetlands.
- Streams: No streams will be impacted by the proposed changes to the Project (*see* Exh. GMP-RAW-4). Therefore, as with the original KCW Project (Docket 7628 Final Order, Finding 185), the level spreader relocation project will maintain the natural condition of nearby streams and will not endanger the health, safety, or welfare of the public or adjoining landowners. The proposed changes to the Project do not have the potential for significant impact under this criterion and will not result in undue adverse impacts to streams.
- Wildlife Habitat: There are no Bear Scarred Beech ("BSB") trees located in the vicinity of any of the four relocated level spreaders and thus BSBs will not be impacted by the proposed changes to the Project. *See* Exh. GMP-RAW-3. A

continuing condition included in the MOU between ANR and GMP is to conduct annual monitoring and treatment for Non-Native Invasive Species ("NNIS") that may be present at the wind farm. The areas associated with the level spreader relocation project will continue to be included in this monitoring effort, as requested by the Agency. Therefore, as with the original KCW Project (Docket 7628 Final Order, Finding 339), the level spreader relocation project will not destroy or significantly imperil necessary wildlife habitat or any endangered species. The proposed changes to the Project do not have the potential for significant impact under this criterion and will not result in undue adverse impacts to wildlife habitat.

- Water Purity: See above narrative regarding absence of undue impacts under specific water-related criteria. Therefore, as with the original KCW Project (Docket 7628 Final Order, Finding 136), the level spreader relocation project will not result in undue water pollution.
- Soil Erosion: Authorization under VT DEC Construction Stormwater General Permit (#3-9020) under the Low-Risk category has been obtained for the level spreader relocation project. Appropriate Erosion Prevention and Sediment Control ("EPSC") practices will be followed during the construction of the level spreader relocation project. After construction, the stormwater treatment practices will minimize erosion due to stormwater runoff in a manner that is consistent with the existing stormwater treatment practices that they will replace. Therefore, as with the original KCW Project (Docket 7628 Final Order, Finding 230), the level spreader relocation project will not result in unreasonable soil erosion or reduction in the

capacity of the land to hold water so that a dangerous or unhealthy condition may result. The proposed changes to the Project do not have the potential for significant impact under this criterion and will not result in undue adverse soil erosion impacts.

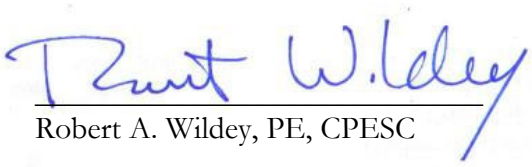
- Natural Resources: See above narrative regarding absence of undue impacts under specific natural resources criteria. Therefore, as with the original KCW Project (Docket 7628 Final Order, Finding 405), the level spreader relocation project does not have the potential for significant impact under this criterion and will not result in an undue adverse impact on natural resources.
- Primary Agricultural Soils: None of the stormwater treatment practices (existing or proposed) are located within areas designated as having Prime Agricultural Soils ("PAS"). *See* Exh. GMP-RAW-3. Therefore, the level spreader relocation project will not result in any impacts to PAS.

15. The proposed changes to the Project also do not have the potential for significant impact under Section 248(b)(8) (outstanding resource waters or "ORWs") because no ORWs are present within the KCW Project Parcel (see Docket 7628 Final Order, Finding 127).
16. Based on these considerations, the proposed changes to the Project do not have the potential for any significant impacts under the relevant Section 248 criteria, and will not result in an undue adverse impact under any of these criteria.

I declare that the above statement is true and accurate to the best of my knowledge and belief. I understand that if the above statement is false, I may be subject to sanctions by the Commission for contempt.

Dated at Charlotte, Vermont this 21st day of July, 2020.

Respondent Signature

By: 
Robert A. Wildey, PE, CPESC