ENVIRONMENTAL & STATISTICAL CONSULTANTS

4007 State Street, Suite 109, Bismarck, ND 58503
Phone: 701-250-1756 ◆ www.west-inc.com ◆ Fax: 701-250-1761

February 12, 2018

Bridget Canty
Prevailing Winds, LLC.

RE: Prevailing Winds Project
Northern Long-eared Bat 2016 Summer Presence/Absence Survey

Dear Ms. Canty,

Prevailing Winds, LLC, (Prevailing Winds) requested that Western EcoSystems Technology, Inc. (WEST) implement the USFWS 2016 Northern Long-eared Bat Survey[1] guidance to determine the presence/absence of the proposed northern long-eared bat (*Myotis septentrionalis*) within the Prevailing Winds Wind Project (the Project). Based on the Project boundary, as provided by Prevailing Winds before the 2016 survey, there were approximately 440 acres of wooded habitat within the Project boundary. The USFWS 2016 guidelines call for a minimum of two sample locations each sampled for two nights (total of four acoustic detector nights) for each 123 acres of woodlands. Based on the amount of wooded habitat, the guidelines required that 8 locations (see attached figure) be surveyed for 2 nights each, for a total of 16 detector nights.

A combination eight Anabat SD1 and SD2 detectors, with microphones elevated to 10 feet, were placed in habitat that would likely attract bats commuting between roosting and foraging areas (e.g., along forest edges and along forest corridors) in adherence with the USFWS 2016 guidelines. Detectors were deployed from July 12 until August 4, during which adequate nighttime sample conditions of low wind (below 9 mph), mild temperatures (above 50^{o}F), and lack of sustained precipitation (less than 1 hour) occurred on a minimum of two nights based on local weather stations. Other nights had elevated winds or sustained periods of rain. Regardless, call data from all nights from all detectors were analyzed.

Echolocation call analysis followed the acoustic survey guidelines issued by the USFWS which involves a combination of automated species identification software and qualitative review by an acoustic expert. Echolocation call data were reviewed using Kaleidoscope version 4.0.0, one of the candidate acoustic identification programs recommended by USFWS[2]. We selected the

[1] US Fish and Wildlife Service (USFWS). 2016. Range-wide Indiana Bat Summer Survey Guidelines (April 2016). Available: https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html

[2] http://www.fws.gov/midwest/endangered/mammals/inba/surveys/inbaAcousticSoftware.html

ENVIRONMENTAL & STATISTICAL CONSULTANTS

4007 State Street, Suite 109, Bismarck, ND 58503
Phone: 701-250-1756 ◆ www.west-inc.com ◆ Fax: 701-250-1761

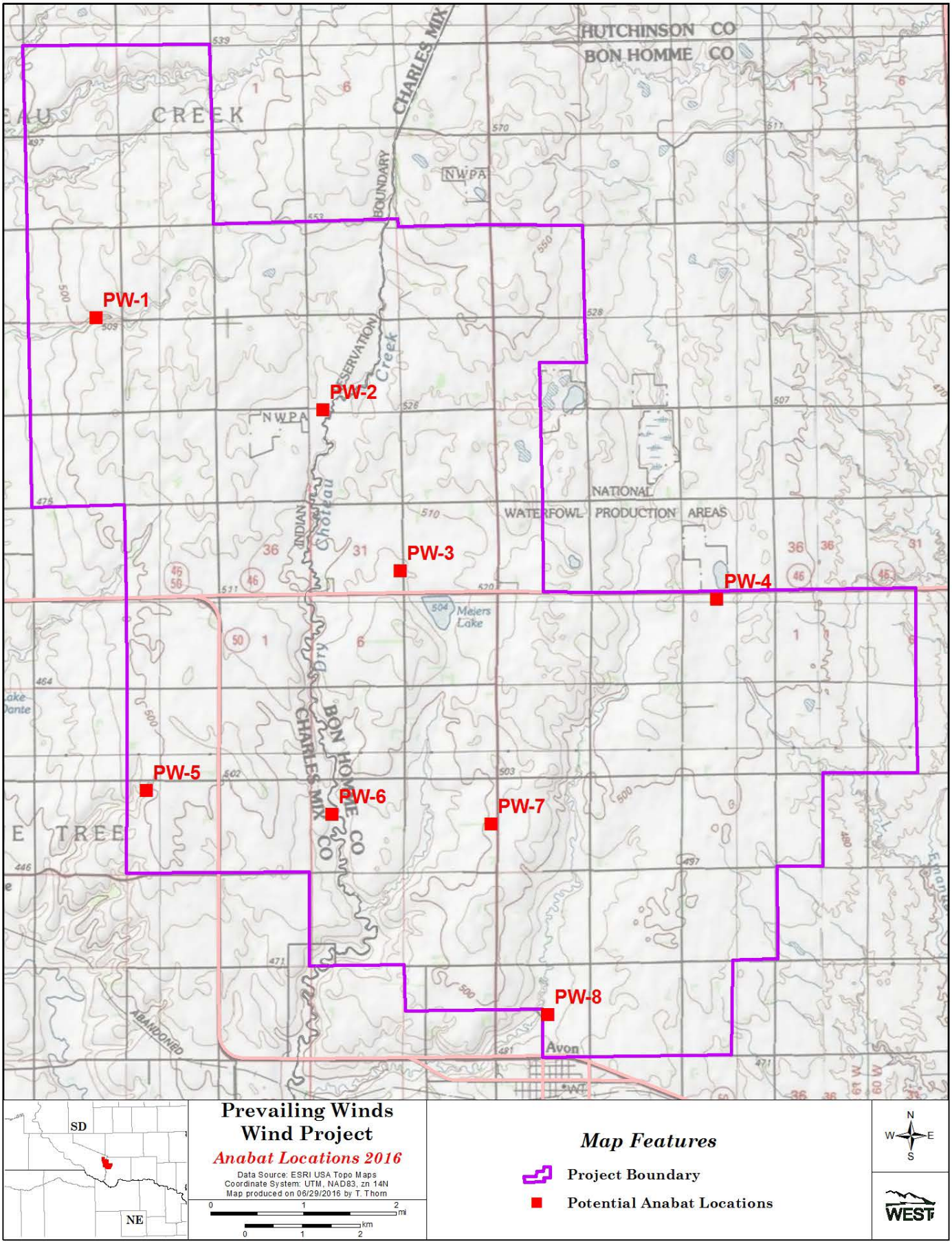
South Dakota subset of 7 species, as well as the northern long-eared bat, from the Bats of North America 3.1.0 classifier, and used the recommended sensitivity setting of -1 (Liberal). Kaleidoscope probabilistically identifies echolocation calls to species based on statistical comparison of the unknown calls to known calls. If the program identified potential northern long-eared bat calls, or identified a night that northern long-eared bats were likely present (Presence p-value > 0.05), then qualitative identification was performed to determine if calls were likely to have been produced by northern long-eared bats or other species. All calls that were identified as northern long-eared bat were reviewed by Jeff Gruver (WEST, Inc.), a recognized bat acoustic expert, per USFWS guidelines. Qualitative review was based on Mr. Gruver's extensive experience with bat acoustics, and relied primarily on comparison of calls recorded at the site to known calls from northern long-eared and other species (e.g., little brown bats) that can produce calls similar to northern long-eared bats.

No northern long-eared bat calls were recorded at any station during the sampling period, indicating probable absence within the area.

Please let me know if you have any questions or need further information.

Sincerely,

Clayton Derby
Senior Manager


HUTCHINSON CO
BON HOMME CO
CHARLES MIX
BOUNDARY
NWPA
PW-1
PW-2
PW-3
PW-4
PW-5
PW-6
PW-7
PW-8
NATIONAL
WATERFOWL PRODUCTION AREAS
Meiers Lake
Dry Creek
BON HOMME CO
CHARLES MIX CO
ABANDONED
Avon
SD
NE
Prevailing Winds
Wind Project
Anabat Locations 2016
Data Source: ESRI USA Topo Maps
Coordinate System: UTM, NAD83, zn 14N
Map produced on 06/29/2016 by T. Thorn
0 1 2 mi
0 1 2 km
Map Features
Project Boundary
Potential Anabat Locations
N
W E
S
WEST