APPENDIX L

Biological Resources: *Humboldt Wind Energy Project Bat Acoustic Monitoring Report, Humboldt County, California, March 2018–October 2018*

Humboldt Wind Energy Project

Bat Acoustic Monitoring Report

November 29, 2018

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Acronyms and Abbreviations

agl	above ground level
C	Celsius
dB	decibel
ft	foot/feet
gen-tie	generation transmission line
kHz	kilohertz
m	meter
met	meteorological (tower)
mi	mile
s	second
sodar	sonic detection and ranging
SSC	Species of Special Concern

Note:

Often, agency suggestions and guidelines are provided in US units of measure (e.g., acres [ac] feet [ft], or miles [mi]), and in other instances, agency guidance is provided in metric (aka SI, or System International) units (e.g., meters [m] or kilometers [km]). To convert an otherwise readily recognized agency standard (e.g., 10 mi or 1 km) to the other system may result in confusion. Accordingly, we provide measures in either system, using the original agency suggestion unchanged, and provide conversion to the other standard only when it makes sense to do so.

Executive Summary

Humboldt Wind, LLC plans to permit, build, and operate a wind energy project in Humboldt County, California. As one part of the studies to support review of the project pursuant to state and federal regulations, Stantec Consulting Services Inc. conducted acoustic bat monitoring between March and October 2018 to document spatial and temporal patterns in bat activity in the project area and to determine relative activity levels of bat species using the project area throughout the year. Stantec deployed full-spectrum bat detectors in 11 locations in the project area, representing a range of habitats and topographies. Most detectors were deployed near ground level, although we deployed one detector high in a meteorological tower that was installed in early September.

Activity varied spatially, seasonally, and in response to weather variables, with greatest activity occurring in July, August, and September. Acoustic monitoring documented presence of 12 out of 13 bat species potentially occurring in Humboldt County. No federal or state threatened or endangered species were detected during this survey and two California Species of Special Concern, western red bat (*Lasiurus* blossevillii) and Townsend's big-eared bat, were detected. Bat species composition varied between the elevated detector and those deployed near the ground. In particular, *Myotis* activity was lesser at the high detector, with silver-haired bats (*Lasionycteris noctivagans*) and Mexican free-tailed bats (*Tadarida brasiliensis*) accounting for most activity recorded in the airspace that will be within the rotor-swept zone of turbines. Although not detected in large numbers, Townsend's big-eared bats (*Corynorhinus townendii*) were present at six detectors during the survey period.

Acoustic monitoring in the project area documented relationships between bat activity and weather variables including positive relationships with temperature and negative associations with wind speed and relative humidity. Our results were similar to those of previous passive acoustic monitoring of this type, including pronounced seasonal patterns, spatial variation in species composition at different heights, and relationships with weather variables.

1.0 INTRODUCTION

Humboldt Wind, LLC (Humboldt Wind) is planning to construct and operate the Humboldt Wind project (project) in south-central Humboldt County, California (Figure 1). The project would consist of up to 60 wind turbines and associated facilities including meteorological towers, electrical collection system, access roads, construction staging areas, a substation, an operations and maintenance facility, up to a 25-mile (mi) generation transmission line (gen-tie) and its point of interconnection at the existing Pacific Gas & Electric Bridgeville Substation. The project would have a nameplate generating capacity of up to 155 megawatts. Proposed turbine locations are situated on two prominent ridgelines, Bear River Ridge and Monument Ridge, 4.7 mi south and southwest of Scotia, California (Figure 1).

The project area encompasses areas of potential activity and includes a 1,000-foot-(ft-) wide corridor centered on proposed turbine locations; a 200-ft-wide corridor centered on project roads, the electrical collection line, and the gen-tie; and a 500-ft-wide buffer around proposed staging and temporary impact areas and project substations, encompassing 2,241 acres (ac) (Figure 2). The project area is divided into the following segments for description purposes:

- Bear River Ridge
- Western Monument Ridge
- Eastern Monument Ridge
- Monument Ridge – Highway 101
- Highway 101 – Shively Ridge
- Shively Ridge
- Bridgeville

Stantec Consulting Services Inc. (Stantec) prepared a Draft Biological Resources Work Plan (Draft Work Plan) detailing biological resource surveys designed to support project planning and review (Stantec 2018). We initiated acoustic bat surveys in the project area in March 2018, with monitoring continuing through October. Unless otherwise indicated in this report, surveys were conducted following methods outlined in the Draft Work Plan. This report summarizes the March–September 2018 acoustic bat survey results; a supplemental report will include the results through October 2018.

2.0 ENVIRONMENTAL SETTING

Humboldt County is within the Klamath/North Coast bioregion and features a rocky coastline, montane forests, and small and sparsely populated settlements. Cool, moist climate is typical on the coast but becomes progressively drier, warmer, and more variable but remaining mild inland. Humboldt County features several biological communities; the most abundant is coniferous forest comprising Douglas fir, redwood, and pine forests, followed by oak woodlands, and grasslands. Less abundant habitats include coastal beach dune vegetation, northern coastal scrub, chaparral, salt marsh, riparian, and freshwater marsh. Humboldt Bay, located about 16 mi north of the project, is the second largest estuary in California. Six rivers run through the county, providing habitats for fish and wildlife as well as important water resources.

The average July temperature in Humboldt County is typically in the 60s (Fahrenheit). While rain can occur throughout the year, about 90% of the annual rain results from Pacific Ocean storms and falls between October and April. Seasonal totals average more than 40 inches in the driest areas and exceed 100 inches in the wettest zones. Moisture and moderate temperature combined create high average relative humidity.

The project is on privately owned and managed lands in rural, unincorporated south-central Humboldt County, 10 mi southeast of Ferndale, 20 mi south of Eureka, and 22 mi north of Garberville, California. Most of the project would be located on two prominent ridgelines that are located south and east of the town of Scotia. Monument Ridge is located south and west of Highway 101 and the Eel River, and Shively Ridge is located north and east of Highway 101 and the Eel River.

The project area consists private lands primarily of managed timberlands that are dominated by redwood and Douglas-fir forests, with annual grassland, hardwood, and chaparral inclusions. In addition to timber production, some areas of the project site are managed for cattle grazing. The topography is diverse and steep in places, and elevation ranges from nearly sea level in river bottoms to just over 3,000 ft.

3.0 ACOUSTIC BAT SURVEY METHODS

Stantec conducted passive acoustic bat monitoring incorporating methods in California Energy Commission and California Department of Fish and Game Guidelines (CEC and CDFG 2007), to sample and characterize the level and timing of bat activity in the project area. Acoustic bat detectors record the ultrasonic echolocation pulses of bats when they fly within range of microphones (detection range varies among species but typically extends up to 30 m; Parsons and Szewczak 2009). All bats in the region use echolocation to avoid obstacles and capture prey and can be detected acoustically, although intensity and other characteristics of vocalizations vary among species. However, passive acoustic monitoring provides one of the best options for measuring seasonal and spatial trends in bat activity and determining presence of cryptic and difficult to detect species. Surveys targeted locations and habitats that are representative of the habitats occurring along the full ridgetop portion of the project area. We standardized equipment used for this project and deployed detectors in open habitats to minimize variation in detection probability and the volume of sampled air space among detectors, although not all variation can be eliminated.

3.1 DATA COLLECTION

Stantec deployed full-spectrum (i.e., ultrasonic call detectors that capture all frequencies in high detail) acoustic bat detectors[1] at 10 locations within the project area (Figure 3). Nine of these locations were located along the Bear River and Monument ridgelines and one was located at a low elevation site, near the Eel River. We deployed detectors on temporary poles two meters [m] above ground level [agl] at these 10 locations. Following installation of a meteorological (met) tower on Monument Ridge in early September, we installed a detector on the tower first near the ground (Met Low) (August 21–September 8) and eventually raising a SMM-U2 microphone mounted to a height of approximately 40 m agl on the tower (met High) (September 9–October 28, 2018) for a total of 11 sampling locations.

[1] Wildlife Acoustics model SM4 with SMM-U1 or U2 microphones.

As additional met towers are installed, detectors will be positioned as high as possible on towers to sample activity in an airspace more representative of the rotor-swept area of proposed turbines.

We programmed each bat detector to operate on a nightly basis from 30 minutes before sunset until 30 minutes after sunrise, with detectors automatically calculating sunset and sunrise times based on their location. We programmed detector operation using the Wildlife Acoustics SM4 Configurator software, accepting default settings for gain (12 decibel [dB]), sample rate (256 kilohertz [kHz]), minimum duration (1.5 m/second [s]), minimum trigger frequency (16 kHz), trigger level (12 dB), trigger window (3 s), maximum file length (15 s), and no high pass filters or compression. We equipped each detector with removable SD memory cards (128 GB) and powered detectors with alkaline batteries. We inspected each detector at two- to three-week intervals throughout the survey period to replace batteries, offload data, and monitor detector performance. We replaced malfunctioning detectors or system components as needed throughout the survey period.

3.2 DATA ANALYSIS

Stantec processed all acoustic bat data using SonoBat software (version 4.2.2), first copying "raw" .wav files recorded by each detector to a backup directory for each detector and standardizing filenames using the SonoBat Data Wizard utility (version 4.2.2.1), then batch processing all recorded files using SonoBat's autoclassification system. We accepted default settings for the SonoBatch utility including acceptable call quality of 0.7, sequence decision threshold of 0.90 and maximum number of calls per file of 32. SonoBat calculates various parameters for individual echolocation pulses (also referred to as calls) within each file and assigns the file to a species when it contains a sufficient number of pulses that meet identification criteria within the software. We defined any file for which SonoBat extracted call parameters as a bat pass. Files with no parameterized calls were considered noise and excluded from further analysis. The "northwest California" species suite within SonoBat software includes all 13 species that could occur in the project area (Table 1).

We conducted a visual inspection of certain species (including all 3 California Species of Special Concern (SSC) with potential to occur in the project area) to manually verify automatic identifications assigned by SonoBat software, viewing files in full spectrum and zero-crossing formats using SonoBat and AnalookW software. We visually inspected all files identified as pallid bats (*Antrozous pallidus*) and Townsend's big-eared bats (*Corynorhinus townendii*) and a 10% random sample of files identified as hoary bats (*Lasiurus cinereus*), silver-haired bats (*Lasionycteris noctivagans*), and western red bats (*Lasiurus blossevillii).* We used the SonoVet software tool to view files and modify species assignments as necessary during the vetting process. We also viewed small numbers of files identified as each bat species to evaluate overall accuracy of the automatic classification decisions. We categorized bat passes not assigned a primary species identification by SonoBat as unknown species.

Table 1. Bat species potentially occurring at the proposed Humboldt Wind Energy Project, Humboldt County.

Common Name	Species	Status	Frequency Guild
California myotis	*Myotis californicus*	None	Very High Frequency (50 kHz)
Yuma myotis	*Myotis yumanensis*	None	Very High Frequency (50 kHz)
long-eared myotis	*Myotis evotis*	None	High Frequency (40 kHz)
long-legged myotis	*Myotis volans*	None	High Frequency (40 kHz)
little brown bat	*Myotis lucifugus*	None	High Frequency (40 kHz)
western red bat	*Lasiurus blossevillii*	SSC	High Frequency (40 kHz)
pallid bat	*Antrozous pallidus*	SSC	Medium Frequency (30 kHz)
big brown bat	*Eptesicus fuscus*	None	Medium Frequency (30 kHz)
silver-haired bat	*Lasionycteris noctivagans*	None	Medium Frequency (30 kHz)
hoary bat	*Lasiurus cinereus*	None	Low Frequency (20 kHz)
fringed myotis	*Myotis thysanodes*	None	Low Frequency (20 kHz)
Mexican free-tailed bat	*Tadarida brasiliensis*	None	Low Frequency (20 kHz)
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC	Low Frequency (20 kHz)

Results were compiled from the SonoVet output for each acoustic detector using R software. We obtained raw weather data recorded by three Triton sonic detection and ranging (sodar) units and calculated mean nightly temperature, wind speed (60 m agl), relative humidity, and barometric pressure for each night, including a 30-minute buffer before sunset and after sunrise (Figure 3). We aligned nightly weather metrics with acoustic data for each detector, using the sodar unit nearest each detector.

4.0 ACOUSTIC BAT SURVEY RESULTS

4.1 SURVEY EFFORT

Eight acoustic bat detectors were deployed between March 31 and April 20, 2018: seven along Monument Ridge, and one near the Eel River. We installed a ninth unit on Bear River Ridge on August 17 and a tenth unit at the location of the proposed met tower on Monument Ridge on August 18. This unit was suspended at a height of approximately 40 m agl on September 9, following installation of the met tower (Figure 3). See Appendix A for photographs of individual detectors. Detectors operated successfully for 1,679 out of 1,788 attempted detector nights (94%) through October 28, 2018. Individual detectors operated for 19–181 detector-nights within the reporting period (Table 2). Reasons for data loss included premature battery failure and equipment shutdown for unknown reasons.

Table 2. Acoustic bat survey effort and results, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.

c	Dates Deployed	Calendar Nights	Operable Detector Nights	Total Recorded Sequences	Detection Rate (operable detector nights/total recorded sequences)	Maximum Nightly Sequences
Monument 1	April 11 – October 28	201	201	1,419	7.1	152
Monument 2	March 31 – October 27	211	181	4,655	25.7	243
Monument 3	April 3 – October 28	209	209	7,029	33.6	752
Monument 4	March 31 – October 27	211	209	4,037	19.3	372
Monument 5	March 31 – October 27	211	198	27,690	139.8	1,006
Monument 6	March 31 – October 27	211	197	19,002	96.5	606
Monument 7	April 10 – October 28	202	154	2,970	19.3	160
Eel River	April 20 – October 27	191	189	6,282	33.2	169
Met High	September 9 – October 27	49	49	2,127	43.4	746
Met Low	August 21 – September 8	19	19	2,903	152.8	514
Bear River Ridge	August 17 – October 28	73	73	260	3.6	131
Combined		212	1,679	78,374	46.7	NA

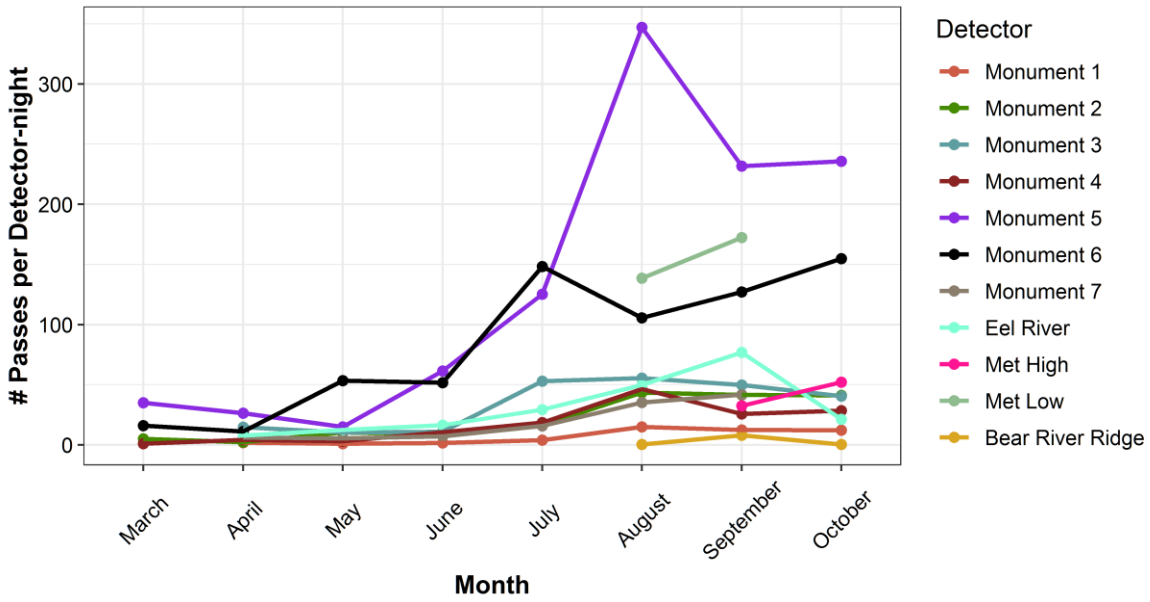
4.2 ACOUSTIC ACTIVITY

Bat activity occurred at all surveyed sites, with the number of recorded passes varying among nights and among survey sites. The mean number of passes recorded per detector night during the entire survey period ranged from 3.6 to 152.8 among detectors, with an overall mean rate of 46.7. Individual detectors recorded from 0 to 1,006 bat passes during a single night (Table 2). Appendix B includes tables of nightly bat activity by species and corresponding nightly weather data as described below for each bat detector individually.

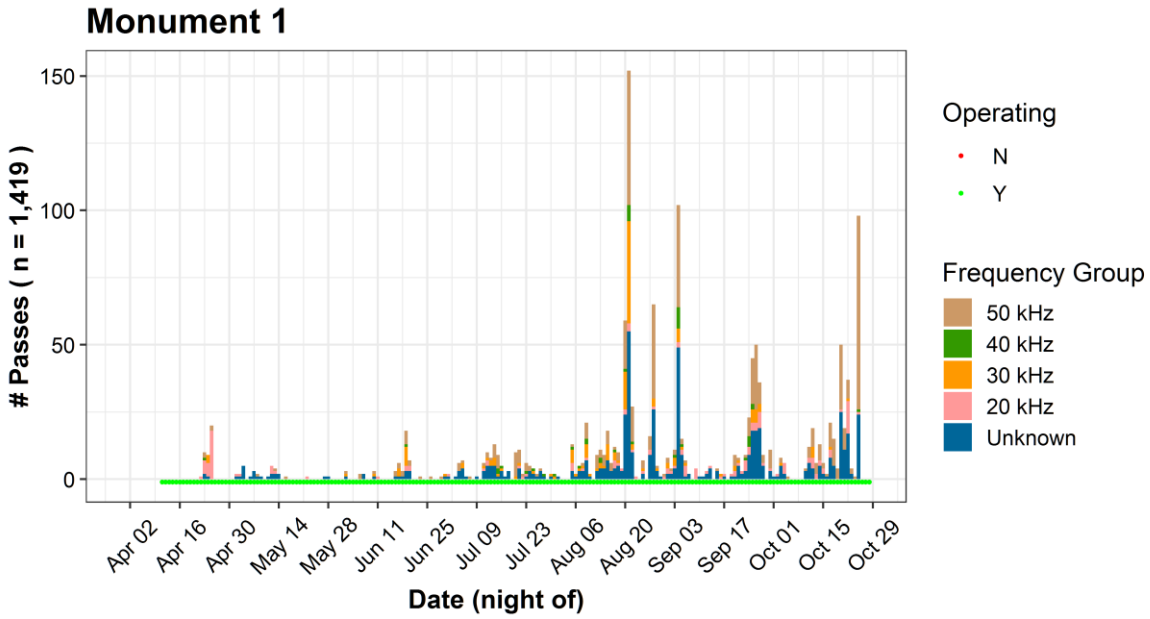
4.3 SEASONAL PATTERNS

The overall amount of acoustic bat activity detected in the project area per month increased steadily between March and August, then declined slightly in September and October. Seasonal patterns differed slightly among detectors, and peak activity occurred from July through October for individual detectors (Graph 1). Nightly activity varied

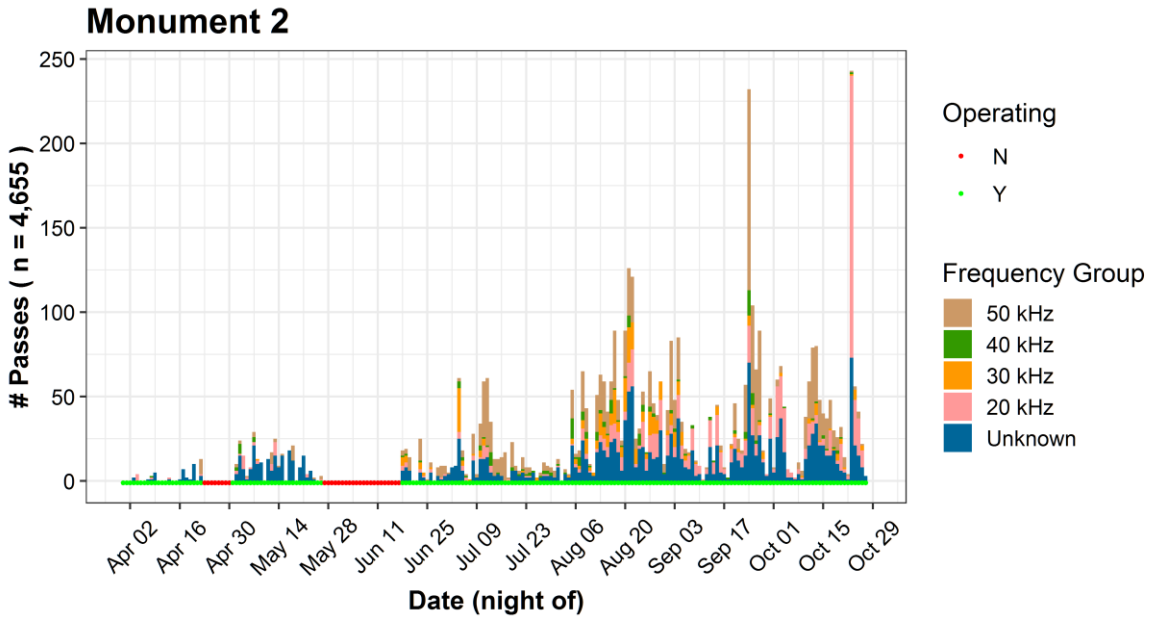
throughout the survey period at each detector. Graphs 2–12 illustrate nightly activity by frequency group during the monitoring period.



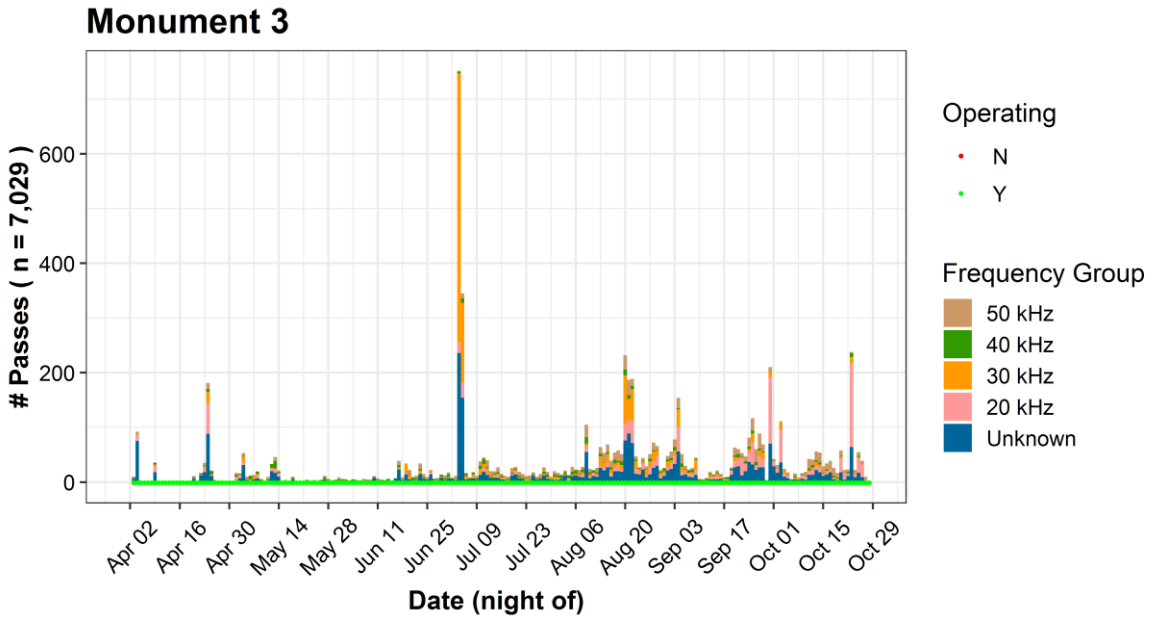
Graph 1. Monthly bat passes per detector night, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.



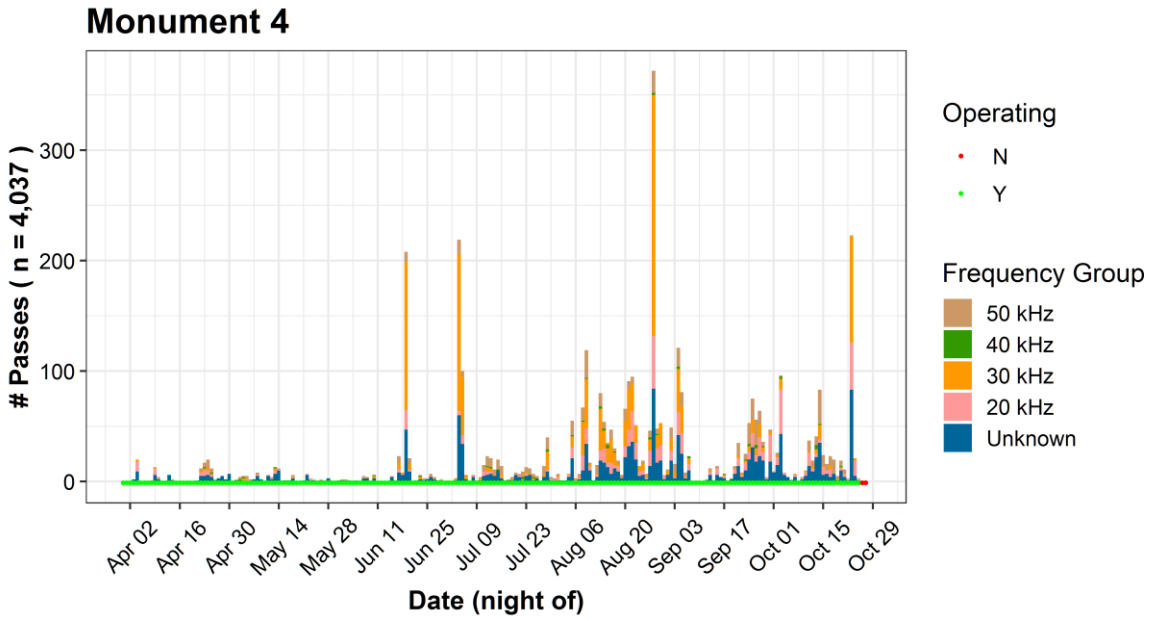
Graph 2. Nightly bat activity, Monument 1 detector, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.



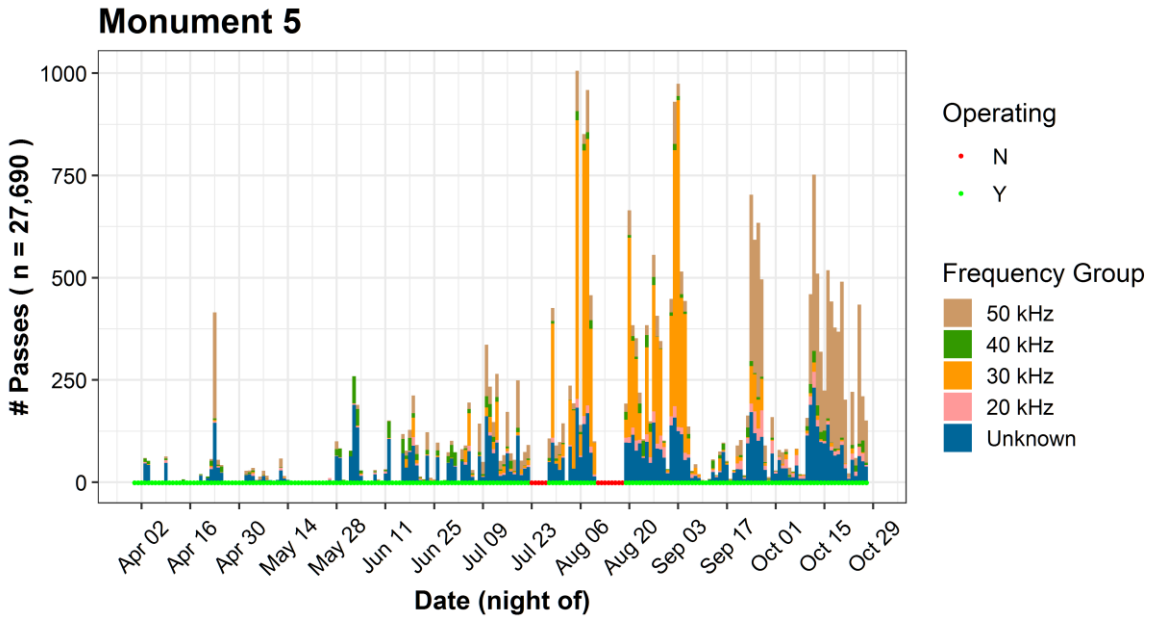
Graph 3. Nightly bat activity, Monument 2 detector, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.



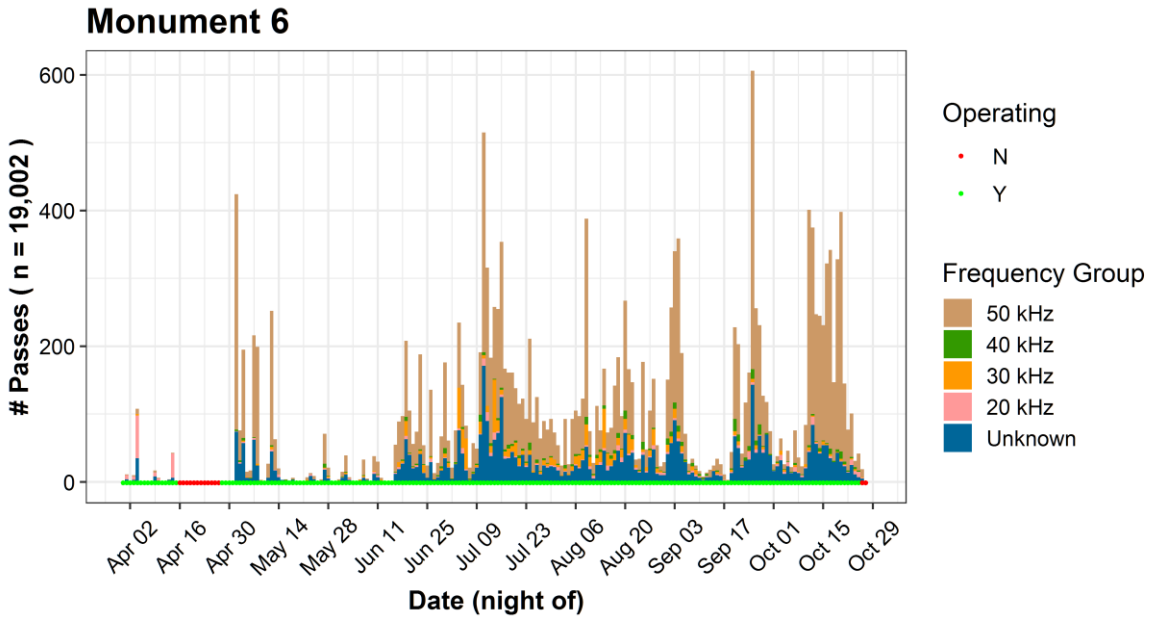
Graph 4. Nightly bat activity, Monument 3 detector, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.



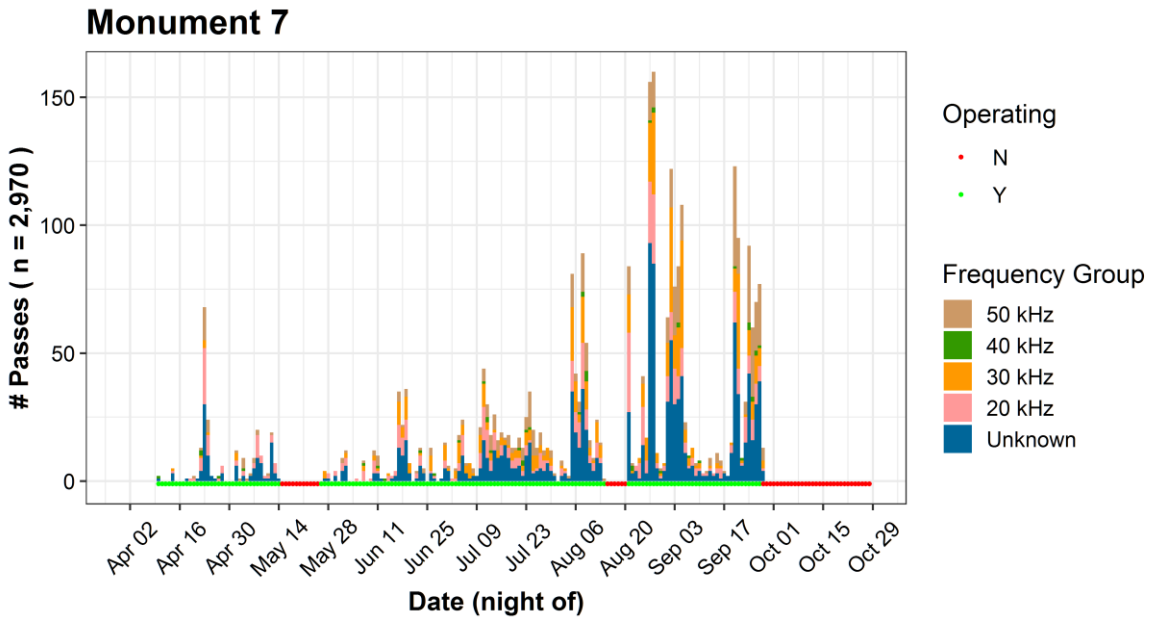
Graph 5. Nightly bat activity, Monument 4 detector, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.



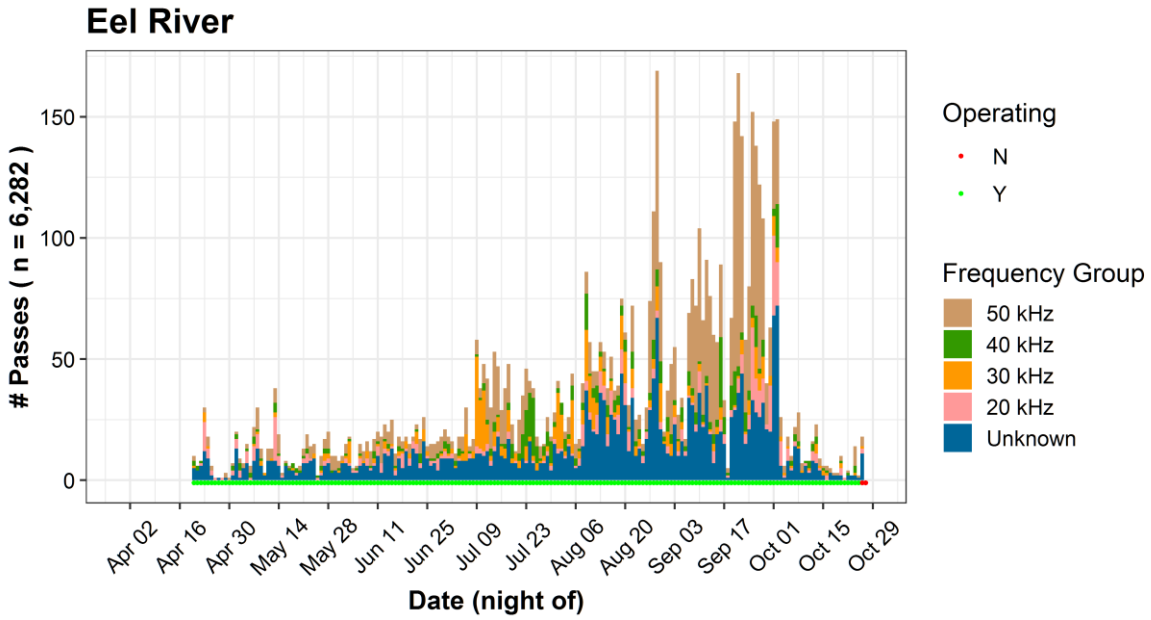
Graph 6. Nightly bat activity, Monument 5 detector, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.



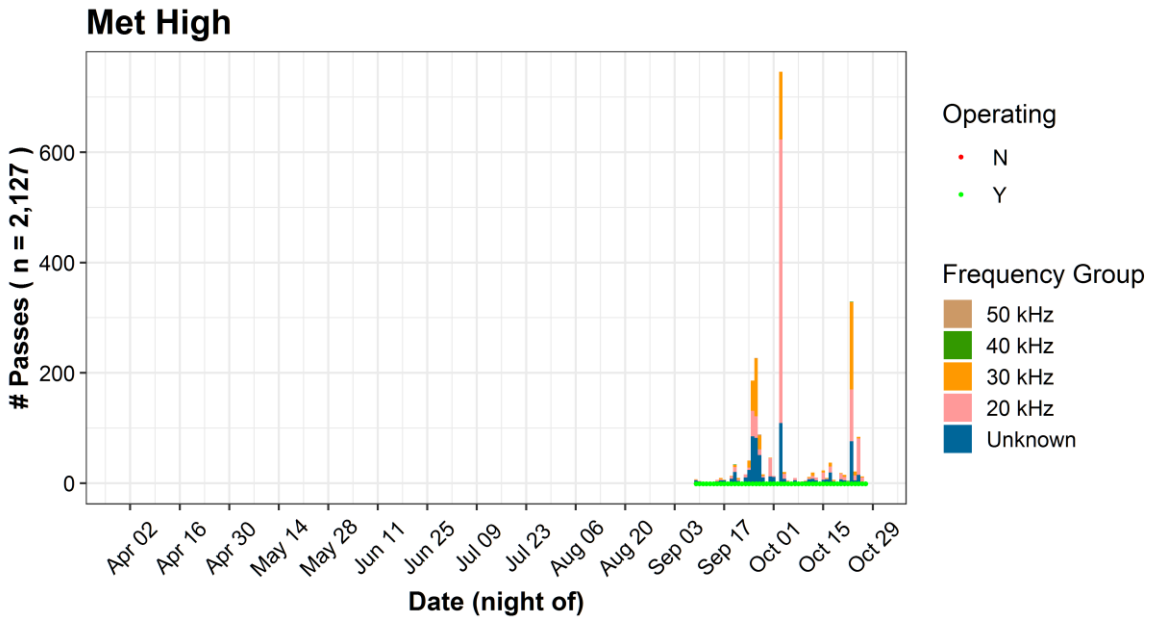
Graph 7. Nightly bat activity, Monument 6 detector, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.



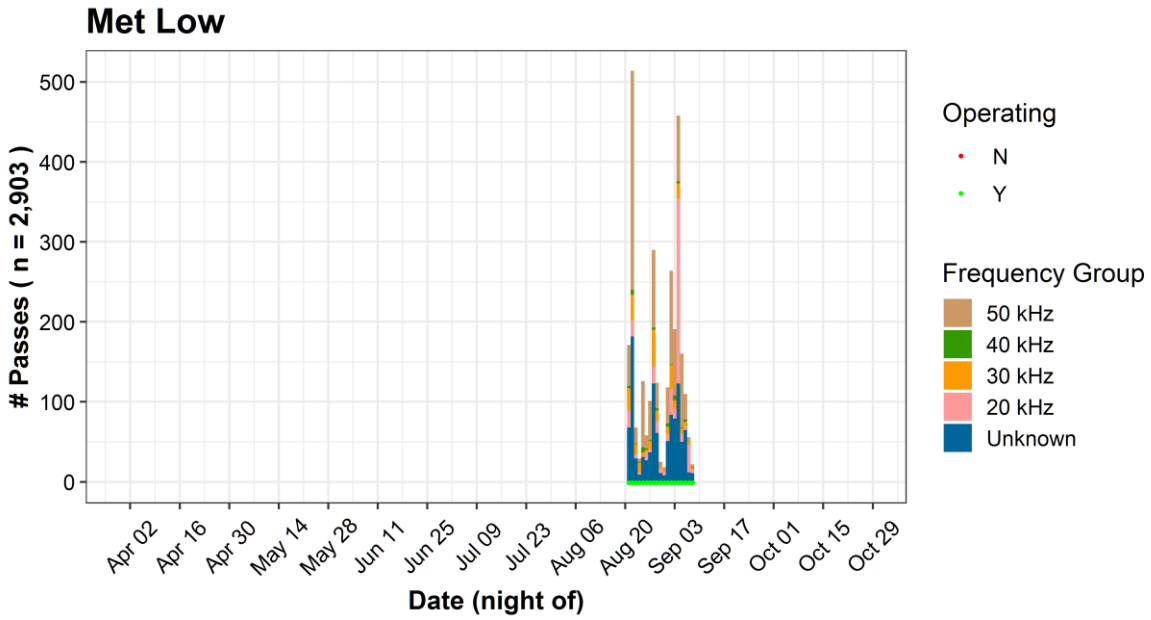
Graph 8. Nightly bat activity, Monument 7 detector, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.



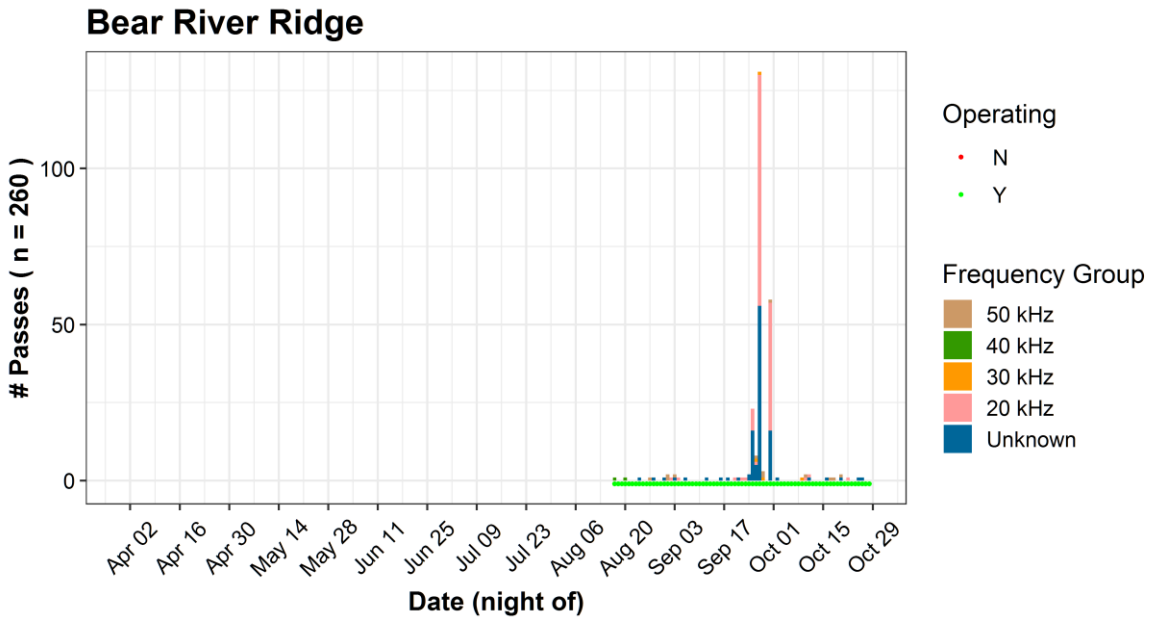
Graph 9. Nightly bat activity, Eel River detector, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.



Graph 10. Nightly bat activity, Met High detector, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.



Graph 11. Nightly bat activity, Met Low detector, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.



Graph 12. Nightly bat activity, Bear River Ridge detector, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.

4.4 SPECIES COMPOSITION

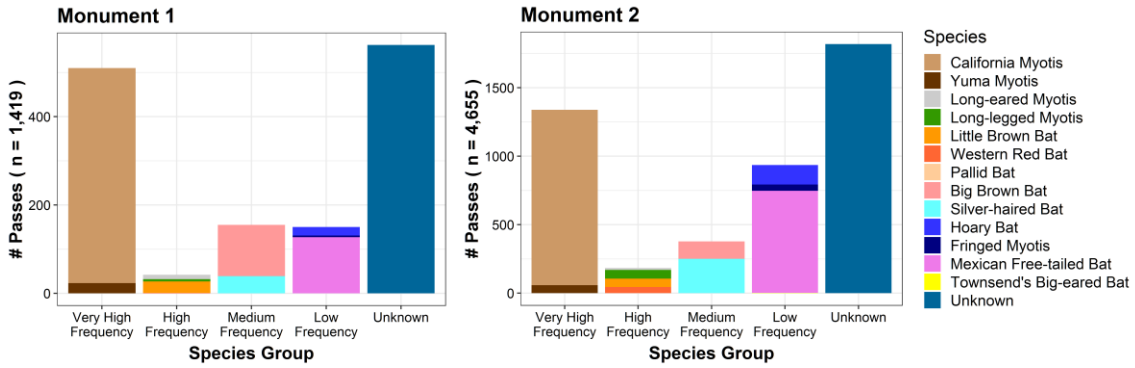
Of the 155,888 files recorded by bat detectors during the study period, SonoBat software identified 53,286 to species, and detected bat pulses in an additional 25,088 files, which we categorized as "unknown" bats. The remaining 77,514 files did not contain any recognizable bat passes according to SonoBat software. We categorized these as noise and removed from further analysis. During our verification of rare species identifications, all files that SonoBat identified as pallid bats were determined to be noise (e.g., bird or insect calls) and/or other species (e.g., big brown bats [*Eptesicus fuscus*]); otherwise, we reclassified fewer than 25 files per species during the manual verification process.

California myotis (*Myotis californicus*) was the most frequently identified species at five individual detectors and overall, accounting for 25,642 of 53,281 (48.1%) identified passes (Table 3). Big brown bat was the second most frequently identified species and accounted for 9,555 passes overall (17.9%); however, most big brown bat passes occurred at a single detector (Monument 5). Silver-haired bats were also identified often and were the most commonly identified species at two detectors (Monument 3 and Monument 4). Yuma myotis (*Myotis yumanensis*) were the most commonly identified species at the lower elevation Eel River detector and Mexican free-tailed bats (*Tadarida brasiliensis*) were most commonly identified at the Bear River Ridge and MET High detectors. Species composition was notably different at the met High detector, where high frequency *Myotis* species were notably absent in comparison to other detectors (Table 3). Graphs 13–18 illustrate species composition per detector.

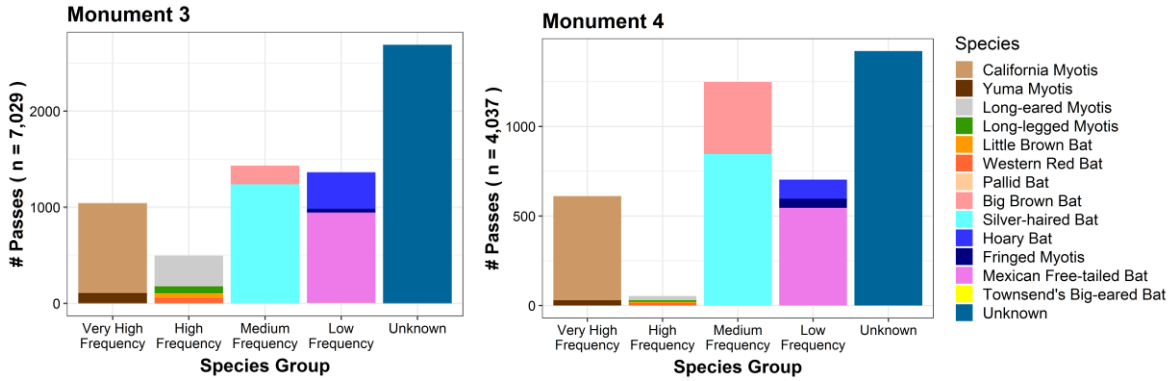
Table 3. Species composition of bat activity, by detector Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28October 28, 2018.

Frequency	Common Name	Number of Passes (% by Detector)											Total
		Monument 1	Monument 2	Monument 3	Monument 4	Monument 5	Monument 6	Monument 7	Eel River	Met High	Met Low	Bear River Ridge	
50 kHz	California Myotis	487 (34%)	1,281 (28%)	937 (13%)	581 (14%)	7,720 (28%)	12,114 (64%)	508 (17%)	911 (15%)	3 (0%)	1,088 (37%)	12 (5%)	25642 (33%)
	Yuma Myotis	23 (2%)	58 (1%)	107 (2%)	30 (1%)	351 (1%)	200 (1%)	11 (0%)	1,354 (22%)	0 (0%)	7 (0%)	0 (0%)	2141 (3%)
40 kHz	Long-eared Myotis	10 (1%)	15 (0%)	320 (5%)	23 (1%)	63 (0%)	89 (0%)	9 (0%)	278 (4%)	0 (0%)	11 (0%)	1 (0%)	819 (1%)
	Long-legged Myotis	5 (0%)	63 (1%)	71 (1%)	9 (0%)	306 (1%)	135 (1%)	12 (0%)	88 (1%)	0 (0%)	13 (0%)	1 (0%)	703 (1%)
	Little Brown Bat	26 (2%)	61 (1%)	50 (1%)	8 (0%)	151 (1%)	183 (1%)	7 (0%)	155 (2%)	1 (0%)	7 (0%)	0 (0%)	649 (1%)
	Western Red Bat*	1 (0%)	45 (1%)	55 (1%)	13 (0%)	843 (3%)	46 (0%)	19 (1%)	20 (0%)	2 (0%)	14 (0%)	0 (0%)	1058 (1%)
30 kHz	Pallid Bat*	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	Big Brown Bat	116 (8%)	127 (3%)	197 (3%)	403 (10%)	7,271 (26%)	601 (3%)	285 (10%)	364 (6%)	80 (4%)	107 (4%)	4 (2%)	9555 (12%)
	Silver-haired Bat	39 (3%)	251 (5%)	1,237 (18%)	846 (21%)	1,233 (4%)	410 (2%)	291 (10%)	247 (4%)	456 (21%)	147 (5%)	0 (0%)	5157 (7%)
20 kHz	Hoary Bat	19 (1%)	143 (3%)	382 (5%)	107 (3%)	427 (2%)	246 (1%)	154 (5%)	204 (3%)	61 (3%)	51 (2%)	2 (1%)	1796 (2%)
	Fringed Myotis	4 (0%)	46 (1%)	38 (1%)	50 (1%)	85 (0%)	33 (0%)	11 (0%)	181 (3%)	0 (0%)	8 (0%)	0 (0%)	456 (1%)
	Mexican Free-tailed Bat	127 (9%)	745 (16%)	939 (13%)	546 (14%)	732 (3%)	247 (1%)	387 (13%)	163 (3%)	877 (41%)	388 (13%)	129 (50%)	5280 (7%)
	Townsend's Big-eared Bat*	0 (0%)	2 (0%)	6 (0%)	0 (0%)	10 (0%)	1 (0%)	5 (0%)	5 (0%)	0 (0%)	1 (0%)	0 (0%)	30 (0%)
Unknown		431 (40.3%)	562 (40%)	1,818 (39%)	2,690 (38%)	1,421 (35%)	8,498 (31%)	4,697 (25%)	1,271 (43%)	2,312 (37%)	647 (30%)	1,061 (37%)	111 (43%)
Total		*1,419*	*4,655*	*7,029*	*4,037*	*27,690*	*19,002*	*2,970*	*6,282*	*2,127*	*2,903*	*260*	*78,374*

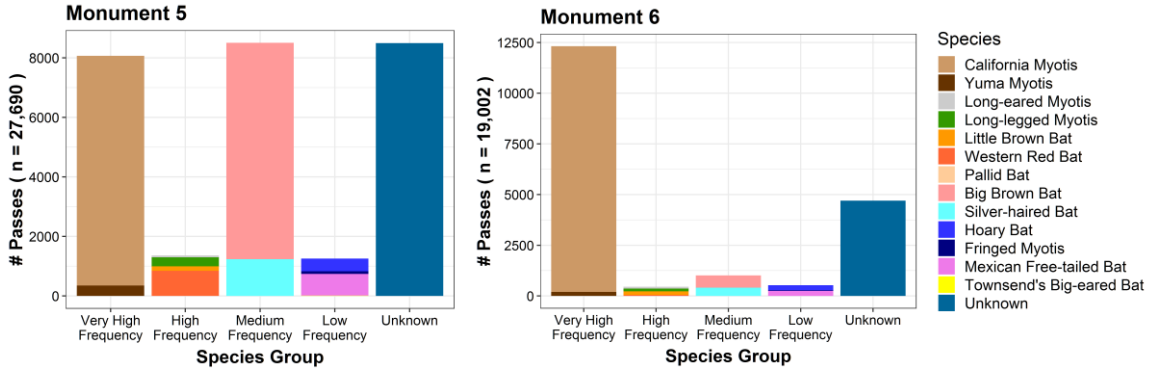
*California Species of Special Concern



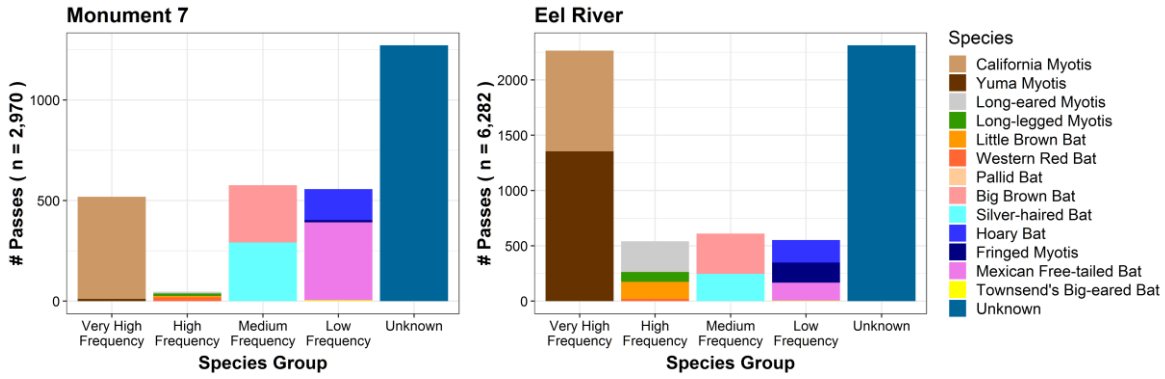
Graph 13. Species composition of bat activity at the Monument 1 and Monument 2 detectors, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.



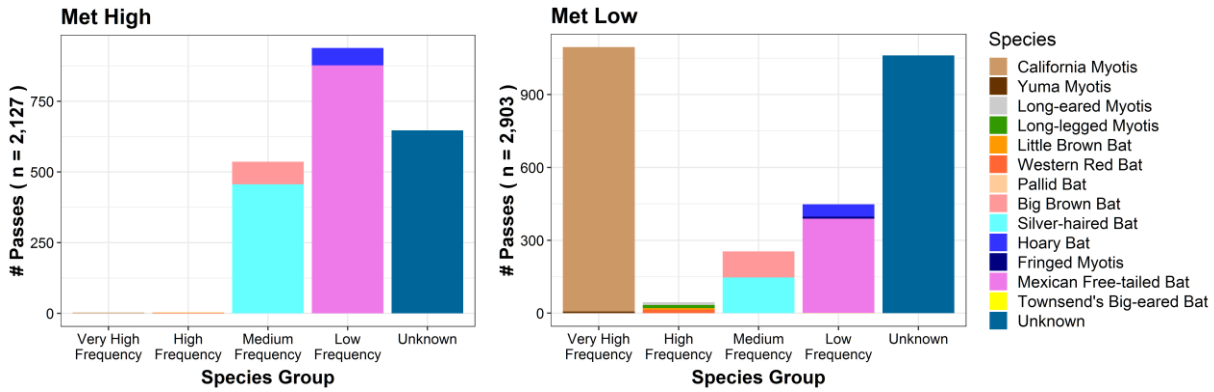
Graph 14. Species composition of bat activity at the Monument 3 and Monument 4 detectors, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.



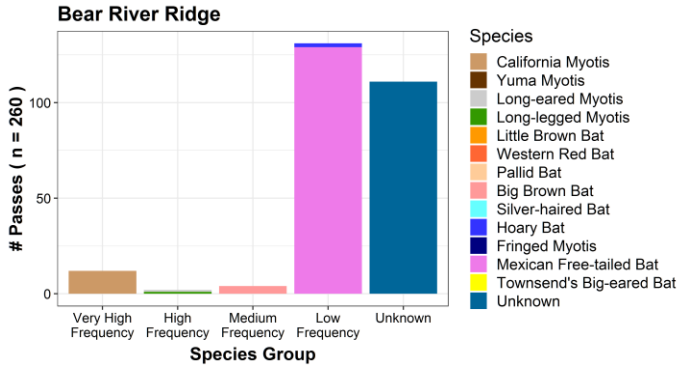
Graph 15. Species composition of bat activity at the Monument 5 and Monument 6 detectors, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.



Graph 16. Species composition of bat activity at the Monument 7 and Eel River detectors, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.



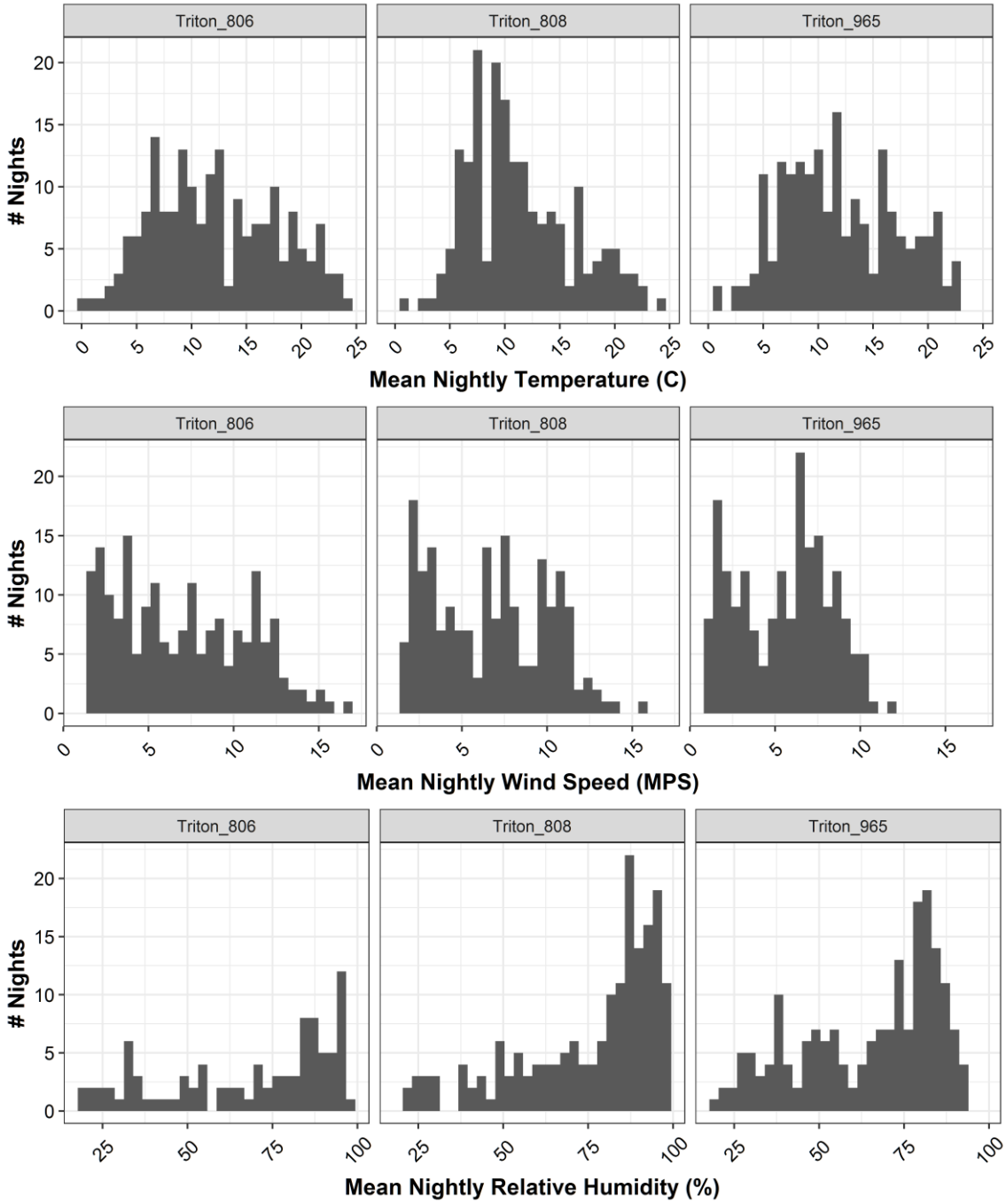
Graph 17. Species composition of bat activity at the Met High and Met Low detectors, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.



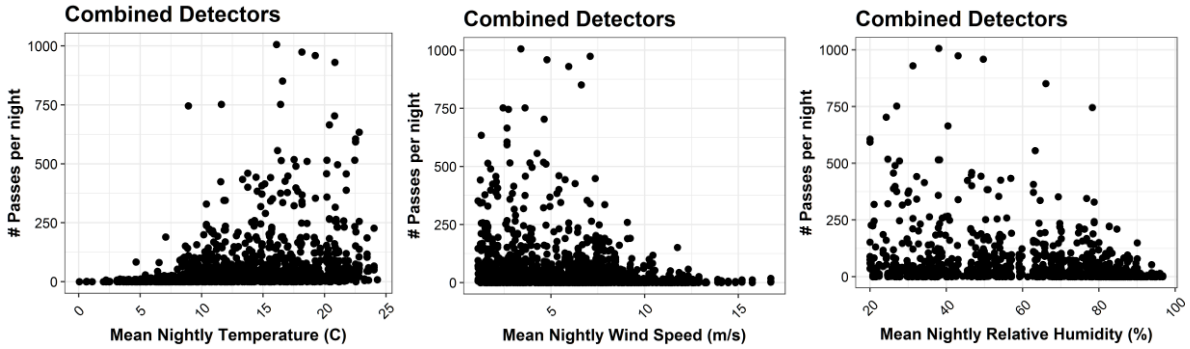
Graph 18. Species composition of bat activity at the Bear River Ridge detector, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.

4.5 BAT ACTIVITY AND WEATHER

Mean nightly temperature varied among sodar units in the project area, although was typically between 5 and 10°C (Celsius) (Graph 19). Mean nightly wind speeds, estimated for 60 m agl, ranged from 0 to 15 m/s, with higher nightly wind speeds occurring on Monument Ridge, near the met High and Low detectors (Graph 19). Mean nightly humidity varied widely but was often 50 to 75% or higher (Graph 19). Bats were more active during nights with high temperatures, low humidity, and low wind speed. Although nights with mean temperatures above 15°C were not common during the survey period (29% of detector-nights), most bat activity (60.0% of passes) occurred during these warmer nights (Graph 20). Similarly, approximately 47% of nights had mean wind speed less than 6 m/s, although 70.1% of bat passes occurred during these calmer nights (Graph 20). Lastly, 65.0% of detector nights had relative humidity less than 70% and 77.9% of bat passes occurred during these drier nights (Graph 20).



Graph 19. Distribution of nightly temperature, wind speed, and relative humidity as measured at three sodar units, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.



Graph 20. Nightly bat activity versus nightly temperature, wind speed, and relative humidity, pooling data among detectors, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.

5.0 DISCUSSION

Acoustic bat monitoring between March and October 2018 documented a diverse assemblage of bats using the project area, with activity varying spatially, seasonally, and in response to weather variables. Overall, we detected high levels of bat activity at certain detectors relative to other passive acoustic studies conducted in the region. Kennedy et al. (2014) recorded fewer than 20 bat passes per night on a monthly basis during 1,365 detector nights of monitoring in Humboldt Redwoods State Park, whereas mean monthly activity exceeded 100 bat passes per night at several detectors (Monument 5, 6 and Met Low) in the project area.

A gradual increase in monthly bat activity between March and September was evident at most detectors, aligning with results from previous acoustic monitoring in Humboldt Redwoods State Park and an overall seasonal pattern observed at numerous sites at which Stantec has conducted passive acoustic monitoring (Johnson et al. 2011, Kennedy et al. 2014, Stantec, unpublished data). Continued monitoring will presumably document a corresponding decline in activity as bats complete their fall migration and enter torpor or hibernation for the winter, although some activity is expected to continue through late fall and even winter based on results of previous passive acoustic monitoring conducted in the region (Kennedy et al. 2014).

Acoustic bat activity does not necessarily reflect the numbers of bats in the area, as individual bats can be detected multiple times and various factors affect detection probability (Hayes 2000). Accordingly, relative abundance of species based on passive acoustic monitoring is not necessarily representative of relative abundance of individuals. Also, characteristics of the air and orientation of bats relative to detectors can affect detector range (Parsons and Szewczak 2009). For these reasons, seasonal trends in activity observed at an individual detector may be more informative than comparing magnitude of activity among detectors.

Of the 13 bat species with potential to occur in Humboldt County, only the pallid bat was not detected acoustically. Species identification based on acoustics alone is inherently unverifiable, although the large sample sizes of bat passes recorded during year 2018 acoustic monitoring were sufficient to establish presence of 12 bat species with a high degree of confidence. Nevertheless, inferences based on acoustic identification must consider multiple sources of variation and potential bias associated with the method itself. In addition to potential misidentification affecting

acoustic survey results, bats vary substantially in terms of echolocation behavior, and call characteristics such as amplitude and frequency make certain species easier to detect than others (Parsons and Szewczak 2009). Townsend's big-eared bat is an example of a "whispering bat" whose echolocation pulses are very quiet and can be difficult to detect.

Bat species composition varied between the met High detector and those deployed near the ground (including the met Low detector at the same location). In particular, *Myotis* activity was lesser at the Met High detector, with silver-haired bats and Mexican free-tailed bats accounting for most activity recorded in the airspace that will be within the rotor-swept zone of turbines. Previous studies have documented vertical stratification of bats within redwood forests, with *Myotis* more active near ground level and species including silver-haired, hoary, and Mexican free-tailed bats more active at and near the forest canopy (Kennedy et al. 2014). Although not detected in large numbers, Townsend's big-eared bats were present at six detectors during the survey period. At the met tower location, this species was detected by the low detector but not at the high detector.

Acoustic monitoring in the project area documented pronounced relationships between bat activity and weather variables including temperature, wind speed, and relative humidity. Results of available studies have similarly shown bat activity to be positively correlated with nightly mean temperatures and negatively correlated with average nightly wind speed (Reynolds 2006). Because wind speeds were measured aloft (60 m agl) and bat activity was generally measured near ground level (3 m agl), the actual winds experienced by the detected bats were likely less than those estimated by the sodar units. As additional acoustic sampling occurs within the rotor-swept zone, more detailed analyses of bat activity versus wind speed and temperature will be possible. No federal or state threatened or endangered species were documented during these surveys, though none were expected to occur in the project area. Of the 3 SSC with potential to occur in the project only two, western red bat and Townsend's big-eared bat, were documented during these 2018 acoustic detector surveys.

6.0 REFERENCES

California Energy Commission and California Department of Fish and Game (CEC and CDFG). 2007. California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development. Commission Final Report. California Energy Commission, Renewables Committee, and Energy Facilities Siting Division, and California Department of Fish and Game, Resources Management and Policy Division. CEC-700-2007-008-CMF.

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Parsons, S., and J. M. Szewczak. 2009. Detecting, recording, and analyzing the vocalizations of bats. Pp. 91–111 *in* Kunz, T., and S. Parsons, eds. Ecological and behavioral methods for the study of bats, 2nd edition. Johns Hopkins University Pres, Baltimore, Maryland, 900 pp.

Reynolds, D. S. 2006. Monitoring the potential impacts of a wind development site on bats in the Northeast. Journal of Wildlife Management 70(5):1219–1227.

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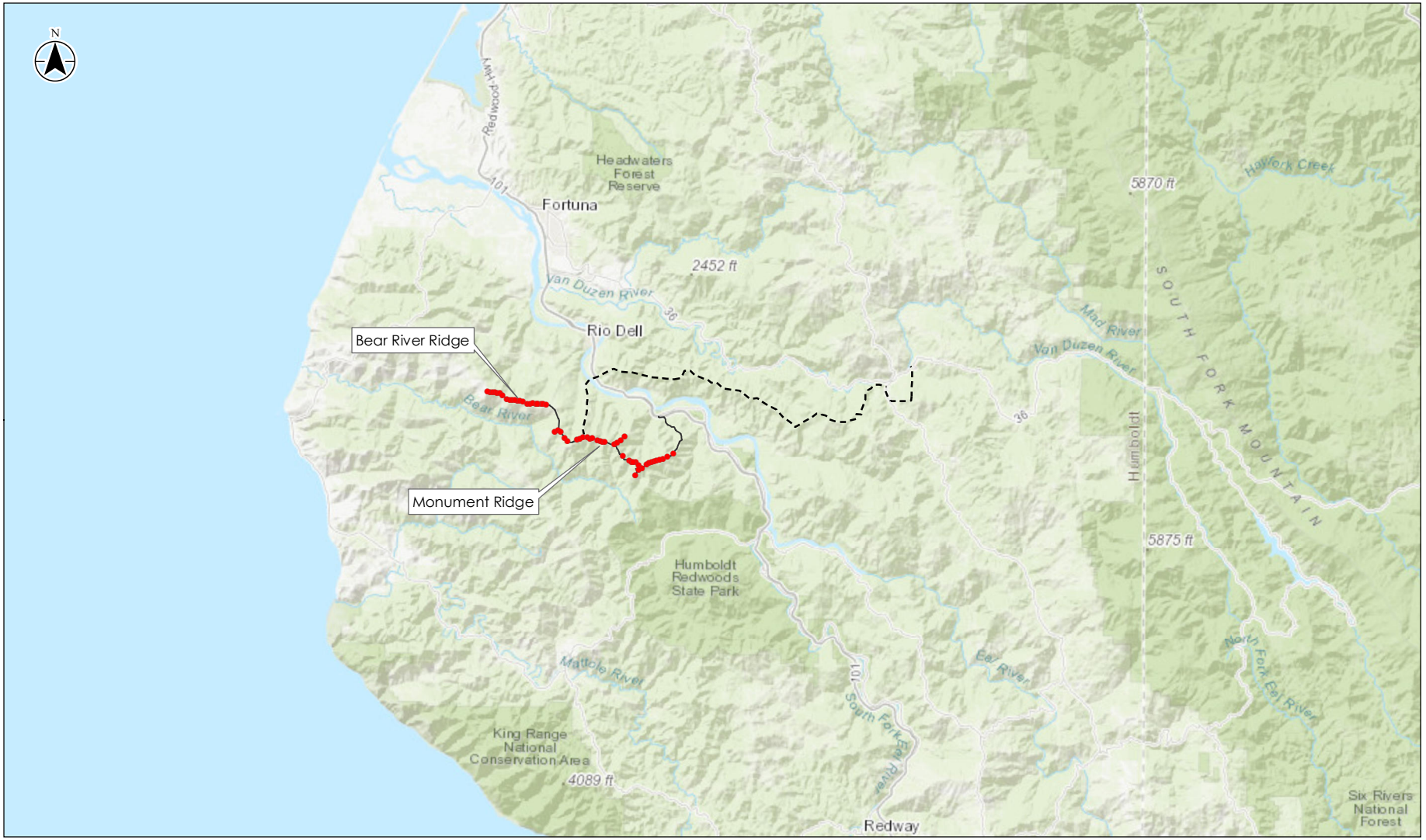
FIGURES



- Proposed Representative Wind Turbine Locations
- Generation Transmission line (gen-tie)
- Proposed Access Roads

0 10
Miles

1 inch = 8 miles
(At original document size of 8.5x11)

Notes
1. Coordinate System: NAD 1983 UTM Zone 10N
2. Base map: ESRI World Topographic Map web mapping service.

Stantec

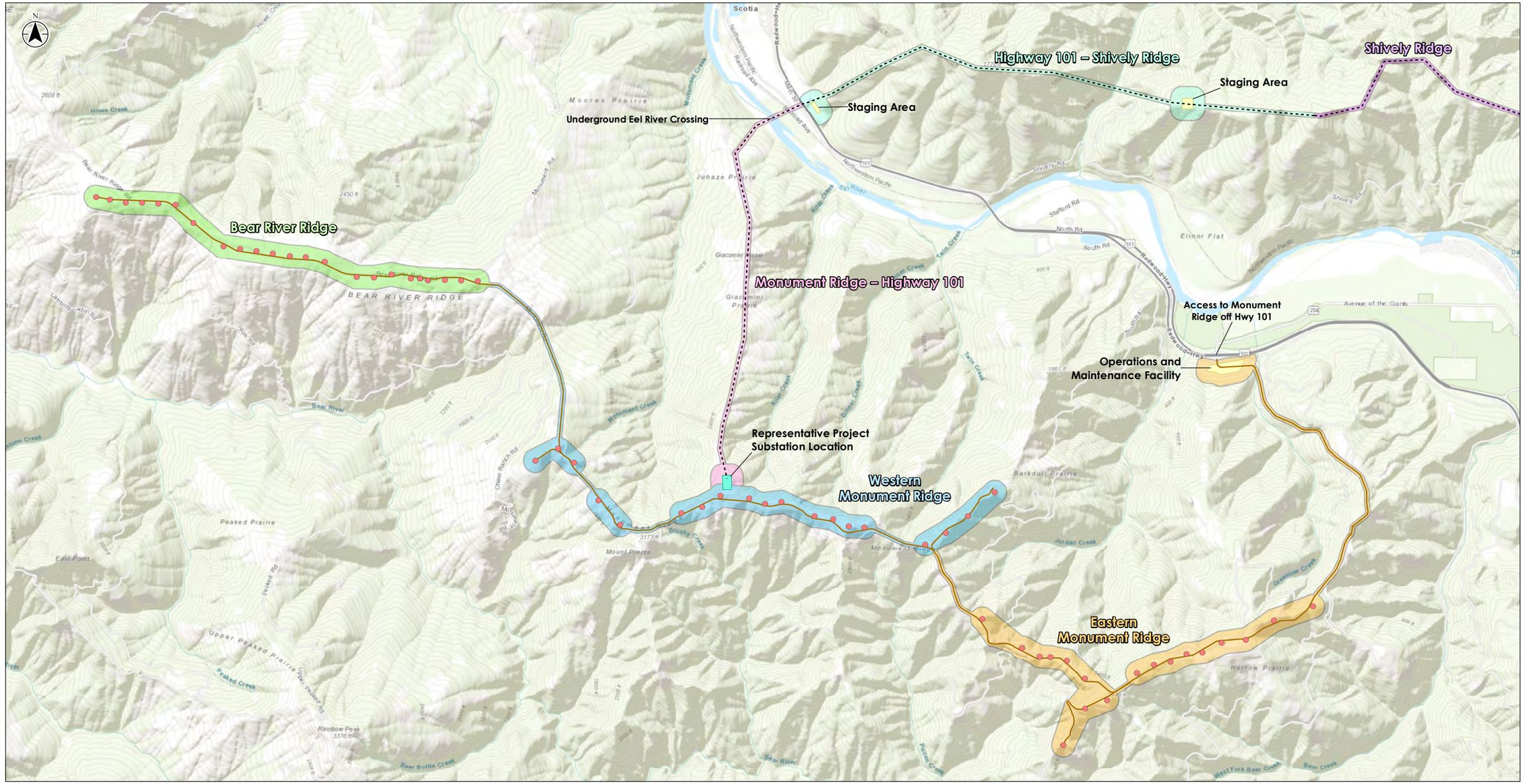
Project Location
Humboldt County, California

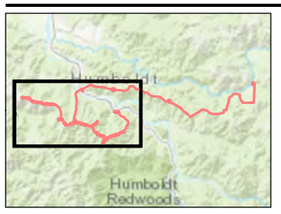
185703758
Prepared by PG on 2018-08-06
Technical Reviewed by YA on 2018-08-07
Independent Review by JD on 2018-08-07

Client/Project
Humboldt Wind, LLC
Humboldt Wind Energy Project

Figure No.
1

Title
General Overview





Project Area Segments

- Bear River Ridge
- Western Monument Ridge
- Monument Ridge - Highway 101
- Eastern Monument Ridge
- Highway 101 - Shively Ridge
- Shively Ridge
- Bridgeville

Project Components

- Proposed Representative Wind Turbine Locations
- Generation Transmission Line (Gen-Tie)
- Proposed Access Roads
- Substation
- Staging Area

0 0.5 1
Miles
1:50,000 1 inch = 4,167 feet
(At original document size of 11x17)

Notes
1. Coordinate System: NAD 1983 UTM Zone 10N
2. Base map: Esri World Topographic Map

Stantec

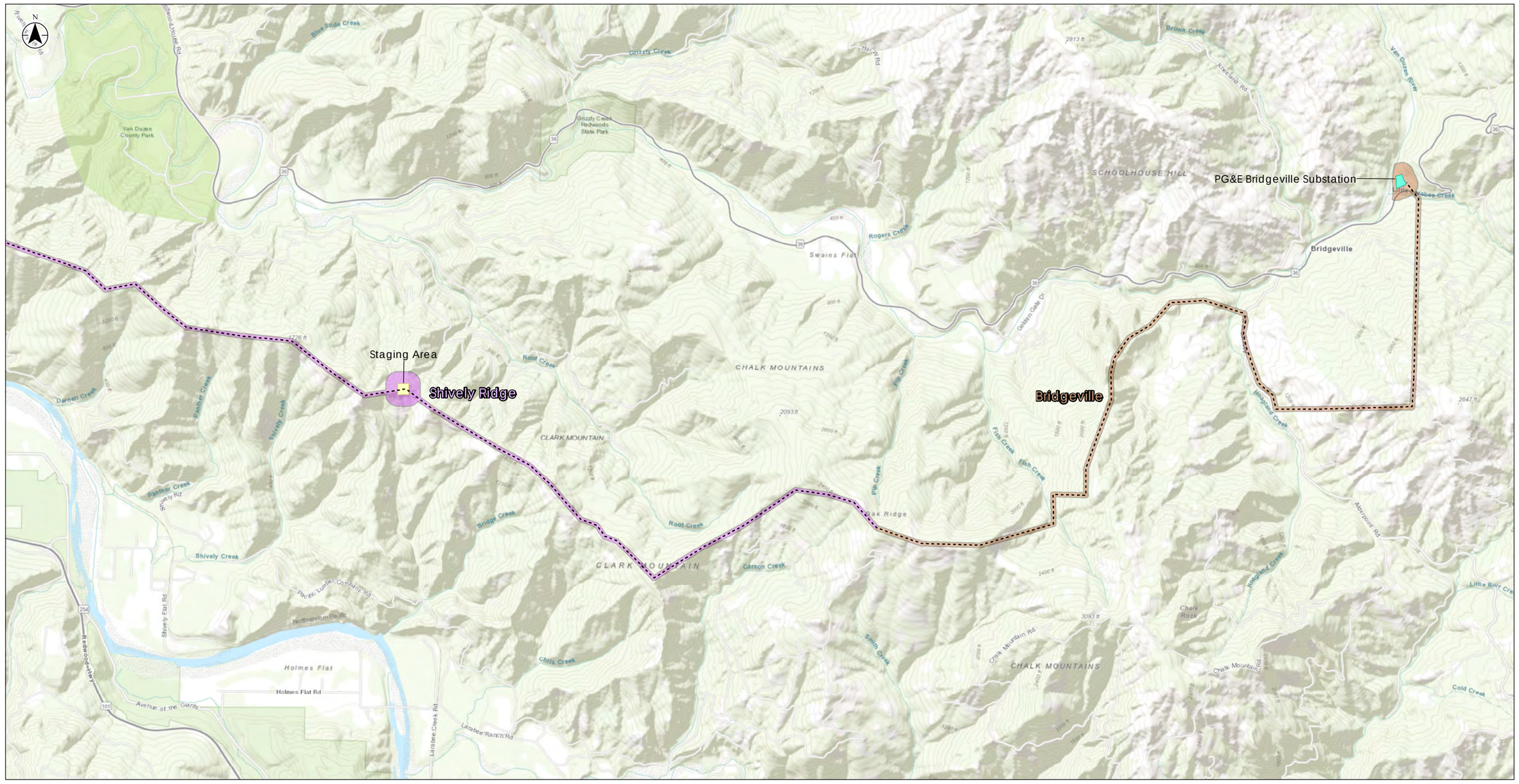
Project Location
Humboldt County, California

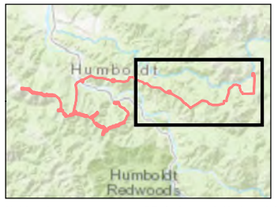
185703758
Prepared by PG on 2018-09-13
Technical Review by SC on 2018-09-13

Client/Project
Humboldt Wind, LLC
Humboldt Wind Energy Project

Figure No.
2

Title
Project Area





Project Area Segments
- Bear River Ridge
- Western Monument Ridge
- Monument Ridge - Highway 101
- Eastern Monument Ridge
- Highway 101 - Shively Ridge
- Shively Ridge
- Bridgeville

Project Components
- Proposed Representative Wind Turbine Locations
- Generation Transmission Line (Gen-Tie)
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- Substation
- Staging Area

0 0.5 1
Miles
1:50,000 1 inch = 4,167 feet
(At original document size of 11x17)

Notes
1. Coordinate System: NAD 1983 UTM Zone 10N
2. Base map: Esri World Topographic Map

Stantec

Project Location
Humboldt County, California

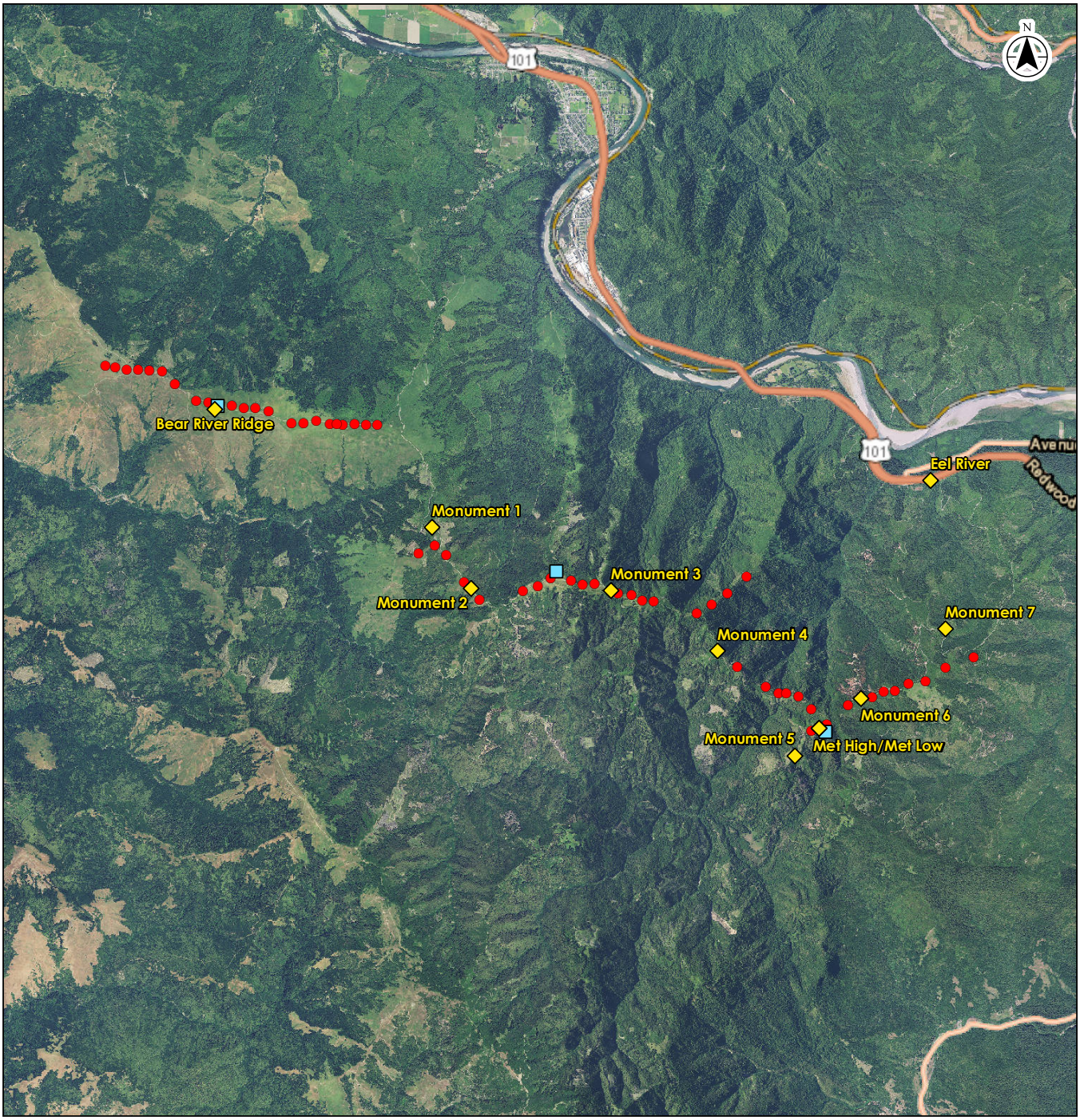
185703758
Prepared by PG on 2018-09-13
Technical Review by SC on 2018-09-13

Client/Project
Humboldt Wind, LLC
Humboldt Wind Energy Project

Figure No.
2

Title
Project Area

V:\1956\active_Task Owner and other Non-BC\1956 Jobs\185703758\03_data\gis_cad\gis\MXDs\AvianBat\Bat_Report\185703758_03_AcousticSurveys.mxd Revised: 2018-10-29 By: gcarpenter



- Proposed Representative Wind Turbine Locations
- Bat Acoustic Survey Location
- Sodar Location

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Miles
1 inch = 2 miles (At page size of 8.5"x11")

Notes
1. Coordinate System: NAD 1983 UTM Zone 10N
2. Aerial imagery and base map: NAIP 2016

Stantec

Project Location
Humboldt County, California

185703758
Prepared by GAC on 2018-10-19
Reviewed by TSP on 2018-10-19

Client/Project
Humboldt Wind, LLC
Humboldt Wind Energy Project

Figure No.
3

Title
Bat Acoustic Survey Location

APPENDICES

Appendix A DETECTOR SETTING AND PHOTOGRAPHS

Appendix A. Detector Setting and Photographs

Acoustic Bat Survey Location Descriptions, Humboldt Wind Energy Project, Humboldt County, California, March 31–October 28, 2018.			
Detector Site	**Ground Elevation (m)**	**Microphone Height (m)**	**Detector Habitat and Setting**
Monument 1	807	3	Located adjacent to Monument road, on steep western facing slope. Regenerating douglas-fir and redwood trees on slopes surrounding the detector. No direct overhead canopy cover.
Monument 2	912	3	Located adjacent to Monument road in meadow/prairie habitat, approximately 15 m from nearest continuous forest. Steep revegetating douglas-fir/redwood slope to north. No overhead canopy cover.
Monument 3	917	3	Located adjacent to Monument road in ridgetop meadow/prairie habitat, approximately 30 m from nearest continuous forest. Steep revegetating douglas-fir/redwood slopes to north and south. No overhead canopy cover.
Monument 4	847	3	Located in 20x50 m clearing adjacent to Monument road at top of steep revegetating douglas-fir/redwood slope to west. Steep revegetating douglas fir/redwood slopes to south. Steep mature forest to north and east. No overhead canopy cover within 25 m of the unit.
Monument 5	757	2	Located on lower side ridge on Happy Valley Road, between Monument Ridge and Peavine roads. In 20x20 m opening at historic logging landing. Steep revegetating douglas-fir/redwood slopes in all directions and nearest continuous forest 80 m away. No overhead canopy cover.
Monument 6	785	3	Located adjacent to Demonstration Forest Left Road at edge of 35x35 m log landing. Surrounding vegetation consists of a mix of revegetating and mature douglas-fir/redwood forest. Approximately 10% canopy cover over detector.
Monument 7	589	5	Located adjacent to Demonstration Forest Left Road, at edge of a 30x50 m opening with steep revegetating douglas-fir/redwood slope to the northeast. Surrounding vegetation a mix of revegetating and mature douglas-fir/redwood forests. No overhead canopy cover within 30 m.
Eel River	52	2	Located approximately 480 m east of the Jordan Road exit on Rt. 101. Mic located on edge of 20x20 m opening. Surrounding vegetation consists of regenerating and mature douglas-fir/redwood trees with oppenings and highway. Approximately 25% canopy cover over detector.
Met High	851	40	Detector located in MET tower on south facing slope, adjacent to Demonstration Forest Left Road. Tower is located on edge of small meadow/prairie habitat and nearest continuous forest (mature douglas-fir/redwood) occurs 15 m to north.
Met Low	851	2	Detector located in MET tower on south facing slope, adjacent to Demonstration Forest Left Road. Tower is located on edge of small meadow/prairie habitat and nearest continuous forest (mature douglas-fir/redwood) occurs 15 m to north.
Bear River Ridge	696	2	Located adjacent to Bear River Ridge Road in open ridgetop meadow/prairie habitat. Nearest forest cover is greater than 300 m away. No overhead canopy cover.

Appendix A Detector Setting and Photographs
Photograph 1. Monument 1 acoustic bat detector.

Photograph 2. Monument 2 acoustic bat detector.

Photograph 1. Monument 3 acoustic bat detector.

Photograph 2. Monument 4 acoustic bat detector.

Photograph 3. Monument 5 acoustic bat detector.

Photograph 4. Monument 6 acoustic bat detector.

Photograph 5. Monument 7 acoustic bat detector.

Appendix A Detector Setting and Photographs

Photograph 6. Eel River acoustic bat detector.

Photograph 7. Met High acoustic bat detector (in orange circle).

Photograph 8. Met Low acoustic bat detector (microphone in orange circle).

Photograph 9. Bear River Ridge acoustic bat detector.

Appendix B NIGHTLY ACOUSTIC SURVEY RESULTS BY DETECTOR

Appendix B Table 1. Summary of acoustic bat data and weather during each survey night at the Monument 1 Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
4/11/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/12/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/13/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/14/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/15/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	4.4	90.4	904.0
4/16/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	5.2	93.7	914.4
4/17/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.2	2.1	86.3	913.4
4/18/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.2	8.0	85.0	911.5
4/19/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.7	8.6	80.7	915.9
4/20/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.4	11.0	87.9	917.7
4/21/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.4	12.2	89.6	914.6
4/22/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	13.3	6.9	49.6	911.0
4/23/18	Y	2	0	0	1	0	0	0	0	0	4	0	1	0	2	10	15.7	3.5	37.0	911.1
4/24/18	Y	0	0	0	0	0	0	0	0	3	0	0	5	0	1	9	13.9	3.8	48.1	911.4
4/25/18	Y	2	0	0	0	0	0	0	0	0	1	0	17	0	0	20	12.5	3.5	40.0	911.1
4/26/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.4	2.6	79.8	908.9
4/27/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.3	6.2	85.1	909.9
4/28/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.4	2.7	86.7	910.5
4/29/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.3	9.3	94.9	912.7
4/30/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.0	10.0	96.0	NA
5/1/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.5	9.1	92.0	NA
5/2/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	12.2	2.7	53.5	911.4
5/3/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	12.6	3.6	62.7	914.9
5/4/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	14.1	2.3	52.6	912.2
5/5/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.5	3.3	72.1	908.0
5/6/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	7.2	3.6	75.0	912.5
5/7/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	11.4	4.9	42.5	911.8
5/8/18	Y	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	9.2	2.4	72.8	910.8
5/9/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	6.1	9.0	94.6	910.9
5/10/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.9	13.3	96.0	NA
5/11/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	7.7	9.6	59.4	NA
5/12/18	Y	0	0	0	0	0	0	0	0	0	1	0	2	0	2	5	14.6	3.1	32.6	NA
5/13/18	Y	1	0	0	0	0	0	0	0	0	1	0	0	0	2	4	11.8	2.0	NA	NA
5/14/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	10.3	1.7	NA	NA
5/15/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.9	2.0	NA	NA
5/16/18	Y	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	6.2	5.0	NA	NA
5/17/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.3	9.1	53.9	NA
5/18/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.5	5.7	48.1	NA
5/19/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.0	8.9	34.0	NA
5/20/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.8	10.9	68.2	NA
5/21/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.6	9.5	96.0	NA
5/22/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	6.4	4.8	84.8	903.1
5/23/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.4	2.7	94.0	NA
5/24/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.7	3.0	94.7	NA
5/25/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.6	10.1	96.0	NA
5/26/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.5	10.0	34.7	NA
5/27/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	NA	NA	NA	NA
5/28/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	9.6	14.5	85.9	914.1
5/29/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.9	11.6	86.0	NA
5/30/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.3	13.3	64.4	NA
5/31/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.6	7.7	81.3	874.1
6/1/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.0	11.4	69.6	927.1
6/2/18	Y	0	1	0	0	0	0	0	0	1	0	0	0	0	1	3	14.3	11.4	64.0	920.5
6/3/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.6	12.7	90.0	917.6
6/4/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
6/5/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.7	12.0	91.9	915.4
6/6/18	Y	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	6.4	6.7	94.7	940.9
6/7/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	9.1	3.6	65.5	950.7
6/8/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.2	4.9	88.5	914.9
6/9/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.7	5.7	70.0	915.7
6/10/18	Y	1	0	0	0	0	0	0	0	1	0	0	0	0	1	3	9.0	3.2	NA	910.1
6/11/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	11.9	12.6	NA	908.1
6/12/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.9	14.8	NA	NA
6/13/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.8	11.8	96.8	936.4
6/14/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.2	11.3	NA	NA
6/15/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.3	12.6	NA	NA
6/16/18	Y	0	2	0	0	0	0	0	0	0	0	0	0	0	1	3	11.2	8.6	NA	NA
6/17/18	Y	2	0	0	0	0	0	0	1	2	0	0	0	0	1	6	12.4	5.2	NA	NA
6/18/18	Y	2	0	0	0	0	0	0	0	0	0	0	0	0	1	3	14.9	5.0	NA	NA
6/19/18	Y	4	1	1	0	0	0	0	1	6	0	0	2	0	3	18	16.5	2.5	NA	NA
6/20/18	Y	2	0	0	0	0	0	0	0	0	1	0	1	0	3	7	11.9	5.3	NA	NA
6/21/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.0	12.5	NA	NA
6/22/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.9	15.7	NA	NA

Appendix B Table 1. Summary of acoustic bat data and weather during each survey night at the Monument 1 Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
6/23/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	19.1	11.3	NA	NA
6/24/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.3	12.6	NA	NA
6/25/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.3	12.0	NA	NA
6/26/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	12.3	7.8	NA	NA
6/27/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.2	11.5	NA	NA
6/28/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.4	11.5	NA	NA
6/29/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	12.3	13.9	NA	NA
6/30/18	Y	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2	16.1	15.2	NA	NA
7/1/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	12.2	16.7	NA	NA
7/2/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.1	14.1	NA	NA
7/3/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	10.4	9.2	NA	NA
7/4/18	Y	2	1	0	0	0	0	0	0	0	0	0	0	0	3	6	11.6	2.4	NA	NA
7/5/18	Y	1	0	0	0	0	0	0	0	2	0	0	0	0	4	7	11.8	5.5	NA	NA
7/6/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	8.9	7.7	NA	NA
7/7/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8.2	11.3	NA	NA
7/8/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.9	4.8	NA	NA
7/9/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	9.7	11.1	NA	NA
7/10/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.9	10.2	NA	NA
7/11/18	Y	1	0	0	0	0	0	0	1	0	0	0	1	0	3	6	23.6	4.1	NA	NA
7/12/18	Y	2	0	0	0	0	0	0	1	0	0	0	2	0	5	10	21.9	4.6	NA	NA
7/13/18	Y	1	0	0	0	0	0	0	2	0	0	0	0	0	5	8	21.4	3.6	NA	NA
7/14/18	Y	4	1	0	0	0	0	0	3	0	0	0	0	0	5	13	22.5	2.2	NA	NA
7/15/18	Y	4	1	1	0	1	0	0	1	0	0	0	0	0	1	9	22.2	2.2	NA	NA
7/16/18	Y	0	0	0	0	1	0	0	1	0	0	0	0	0	3	5	20.1	5.0	NA	NA
7/17/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	19.4	10.6	NA	NA
7/18/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	19.5	12.2	NA	NA
7/19/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19.1	7.7	NA	NA
7/20/18	Y	9	0	0	0	0	0	0	1	0	0	0	0	0	0	10	20.7	1.7	NA	NA
7/21/18	Y	5	0	0	0	0	0	0	1	0	0	0	1	0	4	11	20.0	3.7	NA	NA
7/22/18	Y	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2	20.1	1.9	NA	NA
7/23/18	Y	3	0	0	0	1	0	0	0	0	1	0	0	0	1	6	21.5	1.9	NA	NA
7/24/18	Y	1	1	0	0	0	0	0	0	0	0	0	0	0	3	5	23.3	1.6	NA	NA
7/25/18	Y	0	0	0	0	1	0	0	1	0	0	0	0	0	2	4	21.8	5.6	NA	NA
7/26/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	21.6	8.8	NA	NA
7/27/18	Y	0	1	0	0	0	0	0	0	0	0	0	0	0	3	4	17.5	11.1	NA	NA
7/28/18	Y	0	0	0	1	0	0	0	0	0	0	0	0	0	1	2	18.0	7.7	NA	NA
7/29/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.4	6.0	NA	NA
7/30/18	Y	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	16.0	10.5	NA	NA
7/31/18	Y	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	14.8	9.6	NA	NA
8/1/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	12.0	10.2	NA	NA
8/2/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.6	12.9	NA	NA
8/3/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14.1	8.6	NA	NA
8/4/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.2	6.7	NA	NA
8/5/18	Y	0	1	0	0	1	0	0	4	1	0	0	3	0	3	13	17.4	3.1	NA	NA
8/6/18	Y	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2	16.1	8.2	NA	NA
8/7/18	Y	0	0	0	0	1	0	0	0	1	0	0	0	0	3	5	17.3	5.8	NA	NA
8/8/18	Y	1	0	0	0	0	0	0	1	0	0	0	1	0	3	6	20.5	3.6	NA	NA
8/9/18	Y	6	0	0	0	2	0	0	4	1	0	0	1	0	7	21	22.8	2.2	NA	NA
8/10/18	Y	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2	11.2	6.2	NA	NA
8/11/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.1	12.2	NA	NA
8/12/18	Y	5	0	0	0	0	0	0	0	1	0	0	0	0	3	9	17.6	5.2	NA	NA
8/13/18	Y	3	0	1	1	0	0	0	2	0	0	0	0	0	4	11	18.5	1.7	NA	NA
8/14/18	Y	4	0	0	0	0	0	0	1	0	0	0	0	0	4	9	17.1	1.5	NA	NA
8/15/18	Y	4	1	0	0	0	0	0	6	0	0	0	0	0	7	18	16.8	1.4	NA	NA
8/16/18	Y	3	0	0	0	0	0	0	0	0	0	0	0	0	3	6	18.8	4.2	NA	NA
8/17/18	Y	0	1	0	0	1	0	0	3	0	1	0	2	0	4	12	20.9	3.8	NA	NA
8/18/18	Y	3	0	0	0	0	0	0	1	0	0	0	1	0	5	10	19.1	6.8	NA	NA
8/19/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	3	4	16.0	11.4	NA	NA
8/20/18	Y	18	0	1	0	0	0	0	14	0	0	0	2	0	24	59	21.6	2.7	NA	NA
8/21/18	Y	49	1	0	1	5	0	0	37	1	0	0	3	0	55	152	18.0	1.9	54.0	931.5
8/22/18	Y	13	0	0	1	0	0	0	2	0	0	0	1	0	10	27	16.5	1.6	NA	NA
8/23/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	12.8	5.5	NA	NA
8/24/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.3	7.3	NA	NA
8/25/18	Y	3	0	0	0	0	0	0	1	0	0	0	1	0	2	7	14.8	8.4	NA	NA
8/26/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.8	12.3	NA	NA
8/27/18	Y	5	0	0	0	0	0	0	0	0	0	0	2	0	9	16	17.0	4.3	NA	NA
8/28/18	Y	33	2	0	0	0	0	0	2	1	1	0	0	0	26	65	15.2	3.1	NA	NA
8/29/18	Y	1	0	0	0	0	0	0	1	0	0	0	0	0	3	5	12.5	2.1	NA	NA
8/30/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	9.8	7.5	NA	NA
8/31/18	Y	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2	10.8	12.9	NA	NA
9/1/18	Y	2	0	0	0	0	0	0	1	1	0	0	2	0	2	8	17.2	10.4	NA	NA
9/2/18	Y	1	0	0	0	0	0	0	0	0	0	0	1	0	2	4	20.9	7.2	35.5	NA
9/3/18	Y	2	0	0	0	1	0	0	1	2	1	0	0	0	4	11	18.5	9.2	NA	NA

Appendix B Table 1. Summary of acoustic bat data and weather during each survey night at the Monument 1 Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz								
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
9/4/18	Y	38	0	0	0	8	0	0	3	2	0	0	2	0	49	102	20.2	3.6	NA	NA
9/5/18	Y	2	0	1	0	0	0	0	1	0	0	1	1	0	9	15	14.9	3.9	NA	NA
9/6/18	Y	1	0	0	0	0	0	0	0	1	2	0	2	0	1	7	14.2	8.4	NA	NA
9/7/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	9.0	8.0	NA	NA
9/8/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.9	12.0	NA	NA
9/9/18	Y	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	9.0	11.8	NA	NA
9/10/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	8.4	11.1	NA	NA
9/11/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	8.4	8.9	NA	NA
9/12/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3	7.9	7.9	NA	NA
9/13/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	4	5	NA	NA	NA	NA
9/14/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
9/15/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	3	4	NA	NA	NA	NA
9/16/18	Y	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	NA	NA	NA	NA
9/17/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	NA	NA	NA	NA
9/18/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
9/19/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	NA	NA	NA	NA
9/20/18	Y	4	0	0	0	0	0	0	2	0	0	0	2	0	1	9	NA	NA	NA	NA
9/21/18	Y	0	1	0	0	0	0	0	1	0	0	0	1	0	5	8	10.8	6.9	82.7	913.1
9/22/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3	8.0	10.5	93.8	911.9
9/23/18	Y	1	0	1	0	0	0	0	0	0	0	0	4	0	3	9	14.3	7.7	52.9	910.1
9/24/18	Y	7	0	2	0	1	1	0	0	0	0	0	3	0	9	23	21.0	5.4	33.2	910.8
9/25/18	Y	17	0	2	0	0	0	0	3	2	0	0	3	0	18	45	23.4	4.0	23.4	912.5
9/26/18	Y	24	0	0	0	0	0	0	3	2	0	0	3	0	18	50	24.0	2.9	20.3	912.9
9/27/18	Y	8	0	0	0	0	0	0	1	2	1	0	5	0	19	36	21.9	3.9	20.0	908.7
9/28/18	Y	3	0	0	0	0	0	0	0	0	0	0	1	0	5	9	8.9	4.2	69.6	905.9
9/29/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.4	7.4	84.1	906.9
9/30/18	Y	7	0	0	0	0	0	0	0	0	0	0	1	0	3	11	10.8	3.9	76.2	907.7
10/1/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	12.3	8.0	85.1	905.8
10/2/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	13.0	1.9	89.7	908.9
10/3/18	Y	2	0	0	0	0	0	0	1	0	0	0	0	0	5	8	8.9	2.7	78.3	909.2
10/4/18	Y	0	0	0	0	0	0	0	0	0	0	0	4	0	2	6	6.4	7.2	84.5	913.9
10/5/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9.9	7.4	88.5	912.8
10/6/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.3	10.0	94.5	913.2
10/7/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.0	11.0	94.1	912.2
10/8/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.7	10.6	95.1	908.5
10/9/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.3	11.3	90.8	907.1
10/10/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	3	4	10.2	6.9	77.3	906.0
10/11/18	Y	4	0	0	0	0	0	0	0	0	0	0	2	0	6	12	14.1	6.1	46.5	910.7
10/12/18	Y	7	0	0	0	0	0	0	2	2	0	0	4	0	4	19	18.0	3.5	26.5	908.6
10/13/18	Y	4	0	0	0	0	0	0	0	0	0	1	1	0	0	6	19.5	7.1	26.7	909.3
10/14/18	Y	6	0	0	0	0	0	0	0	0	0	1	1	0	5	13	15.3	4.8	22.4	914.9
10/15/18	Y	2	0	0	0	0	0	0	0	0	0	0	2	0	2	6	15.7	5.9	21.7	917.2
10/16/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	18.0	5.3	25.8	915.1
10/17/18	Y	9	0	0	0	0	0	0	0	1	0	0	3	0	8	21	16.7	1.6	31.4	915.3
10/18/18	Y	10	0	0	0	0	0	0	0	0	0	0	0	0	5	15	17.7	3.2	32.5	916.7
10/19/18	Y	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	18.9	6.4	35.0	915.0
10/20/18	Y	23	1	0	0	0	0	0	0	0	0	0	1	0	25	50	17.5	1.7	29.9	911.5
10/21/18	Y	8	0	0	0	0	0	0	0	0	0	0	0	0	11	19	15.9	2.5	33.2	910.4
10/22/18	Y	6	1	0	0	0	0	0	0	1	0	1	11	0	17	37	8.9	7.6	55.6	909.3
10/23/18	Y	2	0	0	0	0	0	0	0	0	0	0	0	0	2	4	10.4	1.6	78.7	912.4
10/24/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10.4	2.1	74.2	915.7
10/25/18	Y	71	1	0	0	1	0	0	0	0	0	0	1	0	24	98	14.1	2.1	59.0	916.8
10/26/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.6	2.2	87.0	915.0
10/27/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.1	6.7	83.7	913.9
10/28/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	7.4	5.3	83.5	917.2
By Species		**487**	**23**	**10**	**5**	**26**	**1**	**0**	**116**	**39**	**19**	**4**	**127**	**0**	**562**	**1419**				
By Group		**510**		**42**				**155**			**150**				**Unk.**	**Total**				
		50 KhZ		**40 kHz**				**30 kHz**			**20 kHz**									

Appendix B Table 2. Summary of acoustic bat data and weather during each survey night at the Monument 2 Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
3/31/18	Y	0	1	0	0	0	0	0	0	0	1	0	0	0	3	5	NA	NA	NA	NA
4/1/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/2/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/3/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	NA	NA	NA	NA
4/4/18	Y	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	NA	NA	NA	NA
4/5/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/6/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/7/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	NA	NA	NA	NA
4/8/18	Y	0	0	0	0	0	1	0	0	0	1	0	0	0	1	3	NA	NA	NA	NA
4/9/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	NA	NA	NA	NA
4/10/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/11/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/12/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/13/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	NA	NA	NA	NA
4/14/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/15/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	4.4	90.4	904.0
4/16/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.7	5.2	93.7	914.4
4/17/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	2.2	2.1	86.3	913.4
4/18/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2.2	8.0	85.0	911.5
4/19/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	6.7	8.6	80.7	915.9
4/20/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	3.4	11.0	87.9	917.7
4/21/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.4	12.2	89.6	914.6
4/22/18	Y	9	0	0	0	0	0	0	0	0	1	0	0	0	3	13	13.3	6.9	49.6	911.0
4/23/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.7	3.5	37.0	911.1
4/24/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13.9	3.8	48.1	911.4
4/25/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.5	3.5	40.0	911.1
4/26/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.4	2.6	79.8	908.9
4/27/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.3	6.2	85.1	909.9
4/28/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.4	2.7	86.7	910.5
4/29/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.3	9.3	94.9	912.7
4/30/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.0	10.0	96.0	NA
5/1/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.5	9.1	92.0	NA
5/2/18	Y	2	0	0	1	0	1	0	0	0	0	0	2	0	4	10	12.2	2.7	53.5	911.4
5/3/18	Y	2	0	0	0	0	6	0	0	0	0	0	1	0	15	24	12.6	3.6	62.7	914.9
5/4/18	Y	0	0	0	0	0	0	0	0	0	3	0	5	0	7	15	14.1	2.3	52.6	912.2
5/5/18	Y	1	0	0	0	0	0	0	0	0	1	0	0	0	1	3	6.5	3.3	72.1	908.0
5/6/18	Y	0	0	0	0	0	0	0	0	0	0	1	0	0	7	8	7.2	3.6	75.0	912.5
5/7/18	Y	3	0	0	0	0	3	0	0	0	2	0	0	0	21	29	11.4	4.9	42.5	911.8
5/8/18	Y	0	0	0	0	0	0	0	0	1	2	0	0	0	10	13	9.2	2.4	72.8	910.8
5/9/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	11	11	6.1	9.0	94.6	910.9
5/10/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.9	13.3	96.0	NA
5/11/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	13	13	7.7	9.6	59.4	NA
5/12/18	Y	7	0	0	0	0	0	0	0	0	3	0	1	0	6	17	14.6	3.1	32.6	NA
5/13/18	Y	2	0	0	0	0	0	0	0	0	4	0	3	1	15	25	11.8	2.0	NA	NA
5/14/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	8	9	10.3	1.7	NA	NA
5/15/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	15	16	5.9	2.0	NA	NA
5/16/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.2	5.0	NA	NA
5/17/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	18	18	6.3	9.1	53.9	NA
5/18/18	Y	9	0	0	0	0	0	0	0	0	0	0	0	0	12	21	5.5	5.7	48.1	NA
5/19/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.0	8.9	34.0	NA
5/20/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	4.8	10.9	68.2	NA
5/21/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15	6.6	9.5	96.0	NA
5/22/18	Y	0	0	0	0	0	0	0	0	0	0	0	2	0	2	4	6.4	4.8	84.8	903.1
5/23/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	6.4	2.7	94.0	NA
5/24/18	Y	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	6.7	3.0	94.7	NA
5/25/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.6	10.1	96.0	NA
5/26/18	Y	1	1	0	0	0	0	0	0	0	1	0	0	0	0	3	7.5	10.0	34.7	NA
5/27/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
5/28/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.6	14.5	85.9	914.1
5/29/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.9	11.6	86.0	NA
5/30/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.3	13.3	64.4	NA
5/31/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.6	7.7	81.3	874.1
6/1/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.0	11.4	69.6	927.1
6/2/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14.3	11.4	64.0	920.5
6/3/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.6	12.7	90.0	917.6
6/4/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
6/5/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.7	12.0	91.9	915.4
6/6/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.4	6.7	94.7	940.9
6/7/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.1	3.6	65.5	950.7
6/8/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.2	4.9	88.5	914.9
6/9/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.7	5.7	70.0	915.7
6/10/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.0	3.2	NA	910.1
6/11/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.9	12.6	NA	908.1

Appendix B Table 2. Summary of acoustic bat data and weather during each survey night at the Monument 2 Detector, Humboldt Wind Energy Project, Humboldt County, California.

Night of	Operational?	50 KhZ		40 kHz				30 kHz			20 kHz				Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
		California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat						
6/12/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.9	14.8	NA	NA
6/13/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.8	11.8	96.8	936.4
6/14/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.2	11.3	NA	NA
6/15/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.3	12.6	NA	NA
6/16/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.2	8.6	NA	NA
6/17/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.4	5.2	NA	NA
6/18/18	Y	3	0	0	1	0	0	0	5	0	1	0	2	0	6	18	14.9	5.0	NA	NA
6/19/18	Y	3	0	0	0	0	1	0	1	3	0	0	3	0	8	19	16.5	2.5	NA	NA
6/20/18	Y	8	0	0	0	0	0	0	0	0	0	0	0	0	6	14	11.9	5.3	NA	NA
6/21/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.0	12.5	NA	NA
6/22/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.9	15.7	NA	NA
6/23/18	Y	13	0	0	1	0	0	0	0	4	1	0	1	0	5	25	19.1	11.3	NA	NA
6/24/18	Y	0	0	0	0	0	0	0	0	2	1	0	0	0	2	5	9.3	12.6	NA	NA
6/25/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8.3	12.0	NA	NA
6/26/18	Y	3	0	0	0	0	0	0	0	1	2	0	0	0	5	11	12.3	7.8	NA	NA
6/27/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.2	11.5	NA	NA
6/28/18	Y	5	0	0	0	0	0	0	0	0	0	0	0	0	3	8	7.4	11.5	NA	NA
6/29/18	Y	7	0	0	0	0	0	0	0	0	1	0	0	0	1	9	12.3	13.9	NA	NA
6/30/18	Y	5	0	0	0	0	0	0	0	0	1	0	0	0	3	9	16.1	15.2	NA	NA
7/1/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	4	5	12.2	16.7	NA	NA
7/2/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	7.1	14.1	NA	NA
7/3/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9	10.4	9.2	NA	NA
7/4/18	Y	2	0	3	0	0	1	0	2	24	0	1	3	0	25	61	11.6	2.4	NA	NA
7/5/18	Y	4	0	2	0	0	0	0	0	3	0	2	1	0	6	18	11.8	5.5	NA	NA
7/6/18	Y	1	0	0	0	0	1	0	0	0	0	0	2	0	0	4	8.9	7.7	NA	NA
7/7/18	Y	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	8.2	11.3	NA	NA
7/8/18	Y	12	0	0	0	0	0	0	0	1	0	3	0	0	12	28	11.9	4.8	NA	NA
7/9/18	Y	2	0	0	0	0	0	0	0	0	0	0	0	0	2	4	9.7	11.1	NA	NA
7/10/18	Y	13	0	0	2	0	1	0	4	0	0	1	0	0	13	34	16.9	10.2	NA	NA
7/11/18	Y	33	0	0	0	1	0	0	2	2	1	4	3	0	13	59	23.6	4.1	NA	NA
7/12/18	Y	39	1	0	0	1	0	0	0	0	0	4	2	0	14	61	21.9	4.6	NA	NA
7/13/18	Y	16	2	0	1	7	0	0	0	0	0	2	2	0	5	35	21.4	3.6	NA	NA
7/14/18	Y	10	0	0	0	0	0	0	0	0	0	0	0	0	3	13	22.5	2.2	NA	NA
7/15/18	Y	8	0	0	0	1	0	0	0	0	0	0	0	0	4	13	22.2	2.2	NA	NA
7/16/18	Y	11	0	0	0	0	0	0	0	0	0	0	0	0	3	14	20.1	5.0	NA	NA
7/17/18	Y	14	3	0	0	0	0	0	0	0	0	0	0	0	0	17	19.4	10.6	NA	NA
7/18/18	Y	1	0	0	0	0	0	0	0	0	0	1	0	0	0	2	19.5	12.2	NA	NA
7/19/18	Y	14	1	0	2	0	0	0	0	0	0	0	0	0	6	23	19.1	7.7	NA	NA
7/20/18	Y	3	0	0	0	0	0	0	0	0	0	0	0	0	6	9	20.7	1.7	NA	NA
7/21/18	Y	2	0	0	0	1	0	0	0	0	0	0	0	0	3	6	20.0	3.7	NA	NA
7/22/18	Y	5	2	0	1	0	0	0	0	1	0	0	0	0	5	14	20.1	1.9	NA	NA
7/23/18	Y	4	0	0	0	1	0	0	0	0	0	1	0	0	2	8	21.5	1.9	NA	NA
7/24/18	Y	2	1	0	0	2	0	0	0	0	0	0	1	0	2	8	23.3	1.6	NA	NA
7/25/18	Y	0	0	0	1	0	0	0	0	0	0	0	0	0	5	6	21.8	5.6	NA	NA
7/26/18	Y	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	21.6	8.8	NA	NA
7/27/18	Y	2	0	0	1	0	0	0	0	0	0	0	0	0	2	5	17.5	11.1	NA	NA
7/28/18	Y	5	0	0	0	2	0	0	0	0	1	0	0	0	3	11	18.0	7.7	NA	NA
7/29/18	Y	3	0	0	1	1	0	0	0	0	0	1	0	0	3	9	17.4	6.0	NA	NA
7/30/18	Y	3	0	0	0	2	0	0	0	0	0	0	0	0	3	8	16.0	10.5	NA	NA
7/31/18	Y	4	0	0	0	0	0	0	0	0	0	0	0	0	2	6	14.8	9.6	NA	NA
8/1/18	Y	2	1	0	1	0	0	0	0	0	1	0	0	0	8	13	12.0	10.2	NA	NA
8/2/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.6	12.9	NA	NA
8/3/18	Y	1	1	0	0	0	1	0	0	0	0	0	0	0	4	7	14.1	8.6	NA	NA
8/4/18	Y	1	0	0	0	0	0	0	1	0	0	0	0	0	2	4	12.2	6.7	NA	NA
8/5/18	Y	16	1	1	2	9	0	0	1	2	0	1	0	0	21	54	17.4	3.1	NA	NA
8/6/18	Y	2	0	0	1	0	0	0	2	1	0	1	1	0	8	16	16.1	8.2	NA	NA
8/7/18	Y	4	0	0	2	3	0	0	1	1	0	0	2	0	5	18	17.3	5.8	NA	NA
8/8/18	Y	24	0	0	1	4	0	0	3	2	1	2	4	0	24	65	20.5	3.6	NA	NA
8/9/18	Y	13	1	0	0	4	0	0	6	3	0	0	3	0	13	43	22.8	2.2	NA	NA
8/10/18	Y	1	0	0	0	1	0	0	0	2	0	1	0	0	5	10	11.2	6.2	NA	NA
8/11/18	Y	0	0	0	0	0	0	0	1	1	0	0	0	0	3	5	12.1	12.2	NA	NA
8/12/18	Y	22	0	1	1	1	2	0	5	0	0	2	0	0	17	51	17.6	5.2	NA	NA
8/13/18	Y	20	1	1	1	0	0	0	10	3	0	1	3	0	23	63	18.5	1.7	NA	NA
8/14/18	Y	23	1	1	2	0	0	0	3	4	1	2	4	0	18	59	17.1	1.5	NA	NA
8/15/18	Y	13	0	0	0	1	0	0	3	4	0	0	6	0	14	41	16.8	1.4	NA	NA
8/16/18	Y	11	0	0	1	7	0	0	4	3	0	0	10	0	23	59	18.8	4.2	NA	NA
8/17/18	Y	31	3	0	1	0	0	0	10	10	3	2	4	0	25	89	20.9	3.8	NA	NA
8/18/18	Y	11	1	0	0	1	0	0	5	1	0	0	12	0	17	48	19.1	6.8	NA	NA
8/19/18	Y	3	0	0	0	0	1	0	3	3	7	0	1	0	6	24	16.0	11.4	NA	NA
8/20/18	Y	26	1	0	0	1	0	0	3	17	1	1	3	0	36	89	21.6	2.7	NA	NA
8/21/18	Y	28	0	0	3	2	2	0	9	12	1	1	15	0	53	126	18.0	1.9	54.0	931.5
8/22/18	Y	27	0	0	0	0	0	0	0	16	2	1	19	0	56	121	16.5	1.6	NA	NA
8/23/18	Y	6	0	0	0	0	0	0	2	7	2	0	0	0	8	25	12.8	5.5	NA	NA

Appendix B Table 2. Summary of acoustic bat data and weather during each survey night at the Monument 2 Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
8/24/18	Y	3	0	0	0	0	7	0	0	0	1	0	1	0	19	31	12.3	7.3	NA	NA
8/25/18	Y	8	0	0	0	1	3	0	3	3	2	0	13	0	20	53	14.8	8.4	NA	NA
8/26/18	Y	0	0	0	0	0	1	0	0	3	3	0	4	0	6	17	10.8	12.3	NA	NA
8/27/18	Y	19	2	0	0	1	2	0	3	11	3	0	7	0	17	65	17.0	4.3	NA	NA
8/28/18	Y	6	0	0	0	1	1	0	0	10	2	1	12	0	13	46	15.2	3.1	NA	NA
8/29/18	Y	3	0	0	0	0	0	0	1	7	1	0	13	0	14	39	12.5	2.1	NA	NA
8/30/18	Y	0	0	0	0	0	0	0	2	9	1	0	17	0	30	59	9.8	7.5	NA	NA
8/31/18	Y	5	0	0	0	0	1	0	0	0	0	0	0	0	4	10	10.8	12.9	NA	NA
9/1/18	Y	12	0	0	0	0	0	0	2	1	2	0	9	1	15	42	17.2	10.4	NA	NA
9/2/18	Y	40	1	0	1	1	0	0	6	1	1	1	3	0	28	83	20.9	7.2	35.5	NA
9/3/18	Y	15	2	0	1	0	1	0	4	5	2	0	4	0	14	48	18.5	9.2	NA	NA
9/4/18	Y	25	0	0	0	1	0	0	2	6	1	0	13	0	37	85	20.2	3.6	NA	NA
9/5/18	Y	6	0	0	0	0	0	0	1	7	1	1	6	0	13	35	14.9	3.9	NA	NA
9/6/18	Y	3	0	0	0	0	1	0	3	0	1	0	3	0	8	19	14.2	8.4	NA	NA
9/7/18	Y	0	1	0	0	0	0	0	0	1	2	0	6	0	7	17	9.0	8.0	NA	NA
9/8/18	Y	0	0	1	0	0	1	0	0	0	0	0	13	0	18	33	8.9	12.0	NA	NA
9/9/18	Y	0	1	0	0	0	0	0	0	1	0	0	7	0	3	12	9.0	11.8	NA	NA
9/10/18	Y	0	0	0	0	0	0	0	0	0	0	0	5	0	4	9	8.4	11.1	NA	NA
9/11/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	8.4	8.9	NA	NA
9/12/18	Y	0	1	0	0	0	0	0	0	0	0	1	2	0	4	8	7.9	7.9	NA	NA
9/13/18	Y	0	0	1	0	0	1	0	0	0	2	1	13	0	20	38	NA	NA	NA	NA
9/14/18	Y	0	0	0	0	0	1	0	0	0	0	2	5	0	4	12	NA	NA	NA	NA
9/15/18	Y	0	1	0	0	0	0	0	0	5	3	0	15	0	21	45	NA	NA	NA	NA
9/16/18	Y	2	1	0	0	0	0	0	0	1	4	0	8	0	5	21	NA	NA	NA	NA
9/17/18	Y	0	1	0	0	0	0	0	0	0	0	0	3	0	4	8	NA	NA	NA	NA
9/18/18	Y	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2	NA	NA	NA	NA
9/19/18	Y	0	1	0	0	0	0	0	0	2	1	0	7	0	11	22	NA	NA	NA	NA
9/20/18	Y	16	0	0	1	0	1	0	1	1	2	0	5	0	19	46	NA	NA	NA	NA
9/21/18	Y	5	1	0	0	0	0	0	1	1	0	0	5	0	12	25	10.8	6.9	82.7	913.1
9/22/18	Y	2	0	0	0	0	0	0	0	0	2	0	6	0	8	18	8.0	10.5	93.8	911.9
9/23/18	Y	23	5	1	3	0	0	0	0	1	1	0	8	0	15	57	14.3	7.7	52.9	910.1
9/24/18	Y	115	4	0	13	2	0	0	1	5	5	0	17	0	70	232	21.0	5.4	33.2	910.8
9/25/18	Y	50	2	0	7	0	0	0	2	0	6	0	10	0	27	104	23.4	4.0	23.4	912.5
9/26/18	Y	40	2	0	2	0	0	0	0	0	0	0	7	0	15	66	24.0	2.9	20.3	912.9
9/27/18	Y	51	2	0	1	0	0	0	2	0	0	0	6	0	27	89	21.9	3.9	20.0	908.7
9/28/18	Y	1	0	0	0	0	0	0	0	4	2	0	0	0	11	18	8.9	4.2	69.6	905.9
9/29/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	3	4	10.4	7.4	84.1	906.9
9/30/18	Y	9	0	1	0	0	0	0	0	1	1	0	12	0	25	49	10.8	3.9	76.2	907.7
10/1/18	Y	1	0	0	0	0	0	0	0	0	2	0	0	0	5	8	12.3	8.0	85.1	905.8
10/2/18	Y	4	0	0	0	0	0	0	0	0	3	0	27	0	26	60	13.0	1.9	89.7	908.9
10/3/18	Y	4	0	0	0	0	0	0	0	2	1	1	23	0	37	68	8.9	2.7	78.3	909.2
10/4/18	Y	0	0	1	0	0	0	0	0	0	6	0	20	0	17	44	6.4	7.2	84.5	913.9
10/5/18	Y	0	0	0	0	0	0	0	0	0	3	0	2	0	2	7	9.9	7.4	88.5	912.8
10/6/18	Y	0	0	0	0	0	0	0	0	0	1	0	2	0	2	5	6.3	10.0	94.5	913.2
10/7/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	8.0	11.0	94.1	912.2
10/8/18	Y	4	0	0	0	0	0	0	0	0	3	0	0	0	4	11	9.7	10.6	95.1	908.5
10/9/18	Y	2	1	0	0	0	0	0	1	0	1	0	0	0	1	6	6.3	11.3	90.8	907.1
10/10/18	Y	17	2	0	0	0	0	0	0	0	3	0	3	0	13	38	10.2	6.9	77.3	906.0
10/11/18	Y	22	0	0	0	0	0	0	0	3	1	1	11	0	21	59	14.1	6.1	46.5	910.7
10/12/18	Y	42	0	0	0	1	0	0	0	1	1	0	6	0	28	79	18.0	3.5	26.5	908.6
10/13/18	Y	33	0	0	0	0	1	0	2	5	0	0	5	0	34	80	19.5	7.1	26.7	909.3
10/14/18	Y	24	0	0	0	0	0	0	0	1	1	0	1	0	21	48	15.3	4.8	22.4	914.9
10/15/18	Y	11	2	0	2	0	0	0	0	0	0	0	4	0	21	40	15.7	5.9	21.7	917.2
10/16/18	Y	18	0	0	1	0	0	0	0	0	1	0	2	0	15	37	18.0	5.3	25.8	915.1
10/17/18	Y	17	0	0	0	0	0	0	0	1	3	0	12	0	15	48	16.7	1.6	31.4	915.3
10/18/18	Y	10	0	0	0	0	1	0	1	0	0	0	0	0	18	30	17.7	3.2	32.5	916.7
10/19/18	Y	8	0	0	2	0	0	0	1	3	0	1	1	0	10	26	18.9	6.4	35.0	915.0
10/20/18	Y	6	0	0	1	0	0	0	0	3	0	0	16	0	6	32	17.5	1.7	29.9	911.5
10/21/18	Y	6	0	0	0	0	0	0	0	1	0	0	2	0	5	14	15.9	2.5	33.2	910.4
10/22/18	Y	1	0	0	0	0	0	0	0	0	1	0	1	0	1	4	8.9	7.6	55.6	909.3
10/23/18	Y	1	0	0	0	0	1	0	0	1	5	0	162	0	73	243	10.4	1.6	78.7	912.4
10/24/18	Y	2	0	0	0	0	0	0	0	6	0	0	27	0	21	56	10.4	2.1	74.2	915.7
10/25/18	Y	3	1	0	0	0	0	0	0	0	1	0	21	0	15	41	14.1	2.1	59.0	916.8
10/26/18	Y	1	0	0	0	0	0	0	0	3	0	0	10	0	8	22	12.6	2.2	87.0	915.0
10/27/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	11.1	6.7	83.7	913.9
By Species		**1281**	**58**	**15**	**63**	**61**	**45**	**0**	**127**	**251**	**143**	**46**	**745**	**2**	**1818**	**4655**				
By Group		**1339**		**184**				**378**			**936**									
		50 KhZ		**40 kHz**				**30 kHz**			**20 kHz**				**Unk.**	**Total**				

Appendix B Table 3. Summary of acoustic bat data and weather during each survey night at the Monument 3 Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
4/3/18	Y	1	0	1	0	0	1	0	0	0	1	0	0	0	6	10	NA	NA	NA	NA
4/4/18	Y	4	1	0	0	0	0	0	0	1	11	0	0	0	75	92	NA	NA	NA	NA
4/5/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/6/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/7/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	NA	NA	NA	NA
4/8/18	Y	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	NA	NA	NA	NA
4/9/18	Y	1	0	2	1	0	0	0	1	2	10	0	0	1	18	36	NA	NA	NA	NA
4/10/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	NA	NA	NA	NA
4/11/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/12/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/13/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/14/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/15/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	4.4	90.4	904.0
4/16/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	5.2	93.7	914.4
4/17/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.2	2.1	86.3	913.4
4/18/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.2	8.0	85.0	911.5
4/19/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.7	8.6	80.7	915.9
4/20/18	Y	1	1	2	0	0	0	0	0	0	1	0	0	0	6	11	3.4	11.0	87.9	917.7
4/21/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.4	12.2	89.6	914.6
4/22/18	Y	2	0	2	0	0	0	0	0	0	1	0	0	0	12	17	13.3	6.9	49.6	911.0
4/23/18	Y	5	0	0	1	0	0	0	0	1	9	0	1	0	18	35	15.7	3.5	37.0	911.1
4/24/18	Y	11	0	4	1	0	0	0	0	20	11	0	46	0	88	181	13.9	3.8	48.1	911.4
4/25/18	Y	1	0	3	0	1	2	0	0	1	2	0	0	0	11	21	12.5	3.5	40.0	911.1
4/26/18	Y	2	0	1	0	0	0	0	0	0	0	0	0	0	1	4	4.4	2.6	79.8	908.9
4/27/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.3	6.2	85.1	909.9
4/28/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4.4	2.7	86.7	910.5
4/29/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.3	9.3	94.9	912.7
4/30/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.0	10.0	96.0	NA
5/1/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.5	9.1	92.0	NA
5/2/18	Y	2	2	3	0	0	0	0	0	0	1	0	9	0	0	17	12.2	2.7	53.5	911.4
5/3/18	Y	1	0	1	0	0	1	0	0	0	4	1	1	0	7	16	12.6	3.6	62.7	914.9
5/4/18	Y	5	0	1	0	0	0	0	0	10	1	0	5	0	31	53	14.1	2.3	52.6	912.2
5/5/18	Y	2	0	1	0	0	0	0	0	0	1	2	0	0	4	10	6.5	3.3	72.1	908.0
5/6/18	Y	1	0	6	0	0	0	0	1	1	0	0	1	0	2	12	7.2	3.6	75.0	912.5
5/7/18	Y	2	1	0	0	0	0	0	0	4	1	0	0	0	5	13	11.4	4.9	42.5	911.8
5/8/18	Y	0	1	3	0	0	1	0	0	3	2	1	2	0	7	20	9.2	2.4	72.8	910.8
5/9/18	Y	1	0	1	0	0	0	0	0	1	0	0	0	0	3	6	6.1	9.0	94.6	910.9
5/10/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.9	13.3	96.0	NA
5/11/18	Y	4	1	2	0	0	0	0	0	0	1	0	0	0	2	10	7.7	9.6	59.4	NA
5/12/18	Y	0	0	7	0	0	0	0	0	1	3	2	0	0	20	33	14.6	3.1	32.6	NA
5/13/18	Y	7	0	10	0	0	4	0	0	2	2	0	4	0	17	46	11.8	2.0	NA	NA
5/14/18	Y	2	0	2	0	0	1	0	0	0	4	2	0	0	10	21	10.3	1.7	NA	NA
5/15/18	Y	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	5.9	2.0	NA	NA
5/16/18	Y	2	0	0	0	0	0	0	0	0	0	0	0	1	1	4	6.2	5.0	NA	NA
5/17/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.3	9.1	53.9	NA
5/18/18	Y	2	0	2	0	0	0	0	0	0	1	0	0	0	5	10	5.5	5.7	48.1	NA
5/19/18	Y	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	5.0	8.9	34.0	NA
5/20/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.8	10.9	68.2	NA
5/21/18	Y	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	6.6	9.5	96.0	NA
5/22/18	Y	0	0	2	0	0	0	0	0	0	1	0	0	0	1	4	6.4	4.8	84.8	903.1
5/23/18	Y	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	6.4	2.7	94.0	NA
5/24/18	Y	0	1	0	0	0	0	0	0	1	0	0	0	0	2	4	6.7	3.0	94.7	NA
5/25/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.6	10.1	96.0	NA
5/26/18	Y	0	0	3	0	0	0	0	0	0	0	0	0	0	1	4	7.5	10.0	34.7	NA
5/27/18	Y	2	0	3	0	0	0	0	0	0	1	0	0	0	5	11	NA	NA	NA	NA
5/28/18	Y	2	0	1	0	0	0	0	0	0	1	0	0	0	2	6	9.6	14.5	85.9	914.1
5/29/18	Y	0	0	2	0	0	0	0	1	0	0	0	0	0	0	3	3.9	11.6	86.0	NA
5/30/18	Y	0	0	3	0	0	0	0	0	0	0	0	0	0	1	4	4.3	13.3	64.4	NA
5/31/18	Y	3	1	2	0	0	0	0	1	0	0	0	0	0	2	9	3.6	7.7	81.3	874.1
6/1/18	Y	2	0	2	0	0	0	0	1	0	0	0	0	0	1	6	9.0	11.4	69.6	927.1
6/2/18	Y	0	0	1	1	0	0	0	0	0	2	0	0	0	1	5	14.3	11.4	64.0	920.5
6/3/18	Y	1	0	0	0	0	0	0	0	0	2	0	0	0	0	3	6.6	12.7	90.0	917.6
6/4/18	Y	0	0	3	0	0	0	0	0	0	0	0	0	0	2	5	NA	NA	NA	NA
6/5/18	Y	0	1	2	0	0	0	0	0	0	0	0	0	0	1	4	4.7	12.0	91.9	915.4
6/6/18	Y	1	0	1	0	0	0	0	0	0	0	0	0	0	1	3	6.4	6.7	94.7	940.9
6/7/18	Y	3	1	1	0	0	0	0	0	0	0	0	0	0	1	6	9.1	3.6	65.5	950.7
6/8/18	Y	2	0	3	0	0	0	0	0	0	0	0	0	0	0	5	8.2	4.9	88.5	914.9
6/9/18	Y	0	0	1	0	0	0	0	0	0	1	0	0	0	2	4	4.7	5.7	70.0	915.7
6/10/18	Y	2	0	1	0	0	0	0	0	0	0	0	0	0	8	11	9.0	3.2	NA	910.1
6/11/18	Y	0	0	2	0	0	0	0	0	2	1	0	0	0	1	6	11.9	12.6	NA	908.1
6/12/18	Y	0	1	0	0	0	0	0	0	0	1	0	0	0	3	5	7.9	14.8	NA	NA
6/13/18	Y	0	1	2	0	0	0	0	0	0	0	0	0	0	1	4	6.8	11.8	96.8	936.4
6/14/18	Y	0	0	4	0	0	0	0	0	0	1	0	0	0	1	6	6.2	11.3	NA	NA

Appendix B Table 3. Summary of acoustic bat data and weather during each survey night at the Monument 3 Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
6/15/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	2	3	7.3	12.6	NA	NA
6/16/18	Y	0	0	1	0	0	0	0	0	0	0	0	0	0	6	7	11.2	8.6	NA	NA
6/17/18	Y	7	1	1	1	0	2	0	2	1	1	0	0	0	23	39	12.4	5.2	NA	NA
6/18/18	Y	2	0	0	0	0	0	0	1	0	2	0	0	0	4	9	14.9	5.0	NA	NA
6/19/18	Y	0	0	0	0	0	0	0	1	17	0	0	2	0	14	34	16.5	2.5	NA	NA
6/20/18	Y	7	1	0	1	0	0	0	2	3	1	0	2	0	5	22	11.9	5.3	NA	NA
6/21/18	Y	2	0	4	1	0	0	0	0	0	1	0	0	0	2	10	8.0	12.5	NA	NA
6/22/18	Y	5	0	3	0	0	0	0	0	0	1	0	0	0	3	12	11.9	15.7	NA	NA
6/23/18	Y	8	2	1	1	0	1	0	0	5	1	0	0	0	15	34	19.1	11.3	NA	NA
6/24/18	Y	5	1	2	0	0	0	0	0	0	1	0	0	0	6	15	9.3	12.6	NA	NA
6/25/18	Y	1	0	1	0	0	0	0	0	0	2	0	0	0	5	9	8.3	12.0	NA	NA
6/26/18	Y	3	0	0	0	0	0	0	0	2	3	0	0	0	14	22	12.3	7.8	NA	NA
6/27/18	Y	0	0	3	0	0	0	0	0	0	1	0	0	0	2	6	6.2	11.5	NA	NA
6/28/18	Y	3	1	1	0	0	0	0	1	0	0	0	0	0	2	8	7.4	11.5	NA	NA
6/29/18	Y	1	0	3	0	0	0	0	0	2	0	0	0	0	8	14	12.3	13.9	NA	NA
6/30/18	Y	5	0	3	0	0	0	0	0	1	0	0	0	0	3	12	16.1	15.2	NA	NA
7/1/18	Y	2	2	4	1	0	0	0	0	0	1	0	1	0	7	18	12.2	16.7	NA	NA
7/2/18	Y	1	0	2	0	0	0	0	0	0	0	0	0	0	5	8	7.1	14.1	NA	NA
7/3/18	Y	7	0	1	0	0	0	0	0	0	0	0	0	0	3	11	10.4	9.2	NA	NA
7/4/18	Y	2	0	2	1	0	0	0	2	489	2	0	18	0	236	752	11.6	2.4	NA	NA
7/5/18	Y	8	1	1	1	1	5	0	14	132	2	0	25	1	154	345	11.8	5.5	NA	NA
7/6/18	Y	2	0	3	1	0	0	0	2	2	1	0	1	0	5	17	8.9	7.7	NA	NA
7/7/18	Y	2	0	3	0	0	0	0	0	0	0	0	0	0	4	9	8.2	11.3	NA	NA
7/8/18	Y	0	0	4	0	0	0	0	0	4	1	1	1	0	7	18	11.9	4.8	NA	NA
7/9/18	Y	4	0	4	0	0	0	0	0	0	0	0	0	0	3	11	9.7	11.1	NA	NA
7/10/18	Y	7	1	2	1	1	2	0	2	8	0	0	1	0	13	38	16.9	10.2	NA	NA
7/11/18	Y	3	0	3	4	1	1	0	1	6	0	0	7	0	19	45	23.6	4.1	NA	NA
7/12/18	Y	13	0	2	0	0	0	0	3	6	0	0	3	0	13	40	21.9	4.6	NA	NA
7/13/18	Y	6	2	1	0	0	0	0	2	1	0	0	0	0	8	20	21.4	3.6	NA	NA
7/14/18	Y	4	0	0	0	2	0	0	0	5	0	0	1	0	8	20	22.5	2.2	NA	NA
7/15/18	Y	9	0	0	2	1	0	0	1	1	1	0	4	0	8	27	22.2	2.2	NA	NA
7/16/18	Y	3	0	1	1	1	0	0	1	1	1	0	1	0	5	15	20.1	5.0	NA	NA
7/17/18	Y	1	2	0	0	0	0	0	3	0	0	0	1	0	4	11	19.4	10.6	NA	NA
7/18/18	Y	3	1	1	0	1	0	0	0	4	0	0	0	0	0	10	19.5	12.2	NA	NA
7/19/18	Y	9	0	2	0	0	0	0	0	1	0	0	2	0	12	26	19.1	7.7	NA	NA
7/20/18	Y	4	0	0	0	2	0	0	1	2	1	1	3	0	14	28	20.7	1.7	NA	NA
7/21/18	Y	6	2	1	0	1	0	0	2	0	0	0	0	0	7	19	20.0	3.7	NA	NA
7/22/18	Y	7	0	0	1	0	0	0	1	0	0	0	0	0	6	15	20.1	1.9	NA	NA
7/23/18	Y	4	0	0	1	0	0	0	1	1	0	0	2	0	2	11	21.5	1.9	NA	NA
7/24/18	Y	7	0	0	0	1	0	0	1	1	0	0	0	0	2	12	23.3	1.6	NA	NA
7/25/18	Y	3	1	0	2	0	0	0	1	0	0	0	0	0	11	18	21.8	5.6	NA	NA
7/26/18	Y	1	1	0	0	1	0	0	0	1	0	0	1	0	5	10	21.6	8.8	NA	NA
7/27/18	Y	6	1	0	0	1	0	0	0	1	0	0	0	0	6	15	17.5	11.1	NA	NA
7/28/18	Y	6	2	2	2	0	0	0	2	0	0	1	0	0	12	27	18.0	7.7	NA	NA
7/29/18	Y	4	1	3	2	0	0	0	1	1	0	0	1	0	6	19	17.4	6.0	NA	NA
7/30/18	Y	1	0	0	0	0	0	0	1	2	0	0	1	0	5	10	16.0	10.5	NA	NA
7/31/18	Y	6	0	4	0	0	0	0	2	2	1	0	1	0	4	20	14.8	9.6	NA	NA
8/1/18	Y	3	2	3	0	0	0	0	2	0	1	0	2	0	4	17	12.0	10.2	NA	NA
8/2/18	Y	2	0	5	0	0	0	0	0	0	0	1	0	0	6	14	11.6	12.9	NA	NA
8/3/18	Y	3	0	3	0	0	1	0	1	0	0	0	1	0	12	21	14.1	8.6	NA	NA
8/4/18	Y	1	0	4	0	1	0	0	0	1	1	0	3	0	2	13	12.2	6.7	NA	NA
8/5/18	Y	8	1	2	1	2	0	0	1	1	1	0	0	0	11	28	17.4	3.1	NA	NA
8/6/18	Y	2	0	4	1	1	0	0	2	1	0	0	0	0	12	23	16.1	8.2	NA	NA
8/7/18	Y	6	1	1	0	0	0	0	1	2	0	0	1	0	10	22	17.3	5.8	NA	NA
8/8/18	Y	4	1	4	0	1	0	0	3	1	2	0	3	0	9	28	20.5	3.6	NA	NA
8/9/18	Y	23	0	2	1	9	0	0	1	4	6	0	4	0	55	105	22.8	2.2	NA	NA
8/10/18	Y	5	1	4	0	0	0	0	2	2	1	0	2	0	7	24	11.2	6.2	NA	NA
8/11/18	Y	1	0	4	0	0	0	0	0	0	1	0	5	0	11	22	12.1	12.2	NA	NA
8/12/18	Y	8	0	1	1	1	0	0	0	2	0	1	2	0	10	26	17.6	5.2	NA	NA
8/13/18	Y	12	0	5	0	0	0	0	6	12	1	0	2	0	26	64	18.5	1.7	NA	NA
8/14/18	Y	16	0	0	0	1	0	0	3	6	1	0	5	0	21	53	17.1	1.5	NA	NA
8/15/18	Y	13	1	0	2	2	0	0	2	13	3	0	6	0	27	69	16.8	1.4	NA	NA
8/16/18	Y	12	0	2	2	0	0	0	5	1	3	0	4	0	10	39	18.8	4.2	NA	NA
8/17/18	Y	12	1	4	1	2	0	0	4	3	4	1	2	0	20	54	20.9	3.8	NA	NA
8/18/18	Y	17	2	2	0	0	1	0	4	1	9	0	2	0	20	58	19.1	6.8	NA	NA
8/19/18	Y	12	1	4	2	0	1	0	3	5	3	0	1	0	19	51	16.0	11.4	NA	NA
8/20/18	Y	26	0	1	1	4	5	0	5	83	8	0	23	0	76	232	21.6	2.7	NA	NA
8/21/18	Y	26	2	4	0	3	0	0	9	28	8	1	17	0	89	187	18.0	1.9	54.0	931.5
8/22/18	Y	13	0	3	2	0	1	0	16	43	7	0	33	0	71	189	16.5	1.6	NA	NA
8/23/18	Y	6	0	1	0	1	0	0	3	12	5	0	3	1	15	47	12.8	5.5	NA	NA
8/24/18	Y	1	0	1	0	0	1	0	2	2	5	0	1	0	14	27	12.3	7.3	NA	NA
8/25/18	Y	5	0	1	0	0	0	0	2	3	5	2	3	0	23	44	14.8	8.4	NA	NA
8/26/18	Y	4	1	1	0	0	0	0	6	6	1	1	0	0	9	29	10.8	12.3	NA	NA

Appendix B Table 3. Summary of acoustic bat data and weather during each survey night at the Monument 3 Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
8/27/18	Y	8	0	3	0	0	2	0	0	11	5	2	6	0	14	51	17.0	4.3	NA	NA
8/28/18	Y	14	0	2	0	0	0	0	4	14	4	0	8	0	26	72	15.2	3.1	NA	NA
8/29/18	Y	7	0	0	0	0	1	0	2	9	7	0	10	0	30	66	12.5	2.1	NA	NA
8/30/18	Y	2	1	2	0	0	0	0	0	6	2	0	2	0	7	22	9.8	7.5	NA	NA
8/31/18	Y	1	0	5	0	0	0	0	1	4	2	0	2	0	11	26	10.8	12.9	NA	NA
9/1/18	Y	6	1	1	1	0	1	0	0	12	3	0	2	0	21	48	17.2	10.4	NA	NA
9/2/18	Y	12	0	3	1	0	0	0	2	3	3	0	7	1	24	56	20.9	7.2	35.5	NA
9/3/18	Y	14	0	2	2	1	1	0	3	6	12	1	3	0	33	78	18.5	9.2	NA	NA
9/4/18	Y	19	0	1	0	1	0	0	8	25	6	0	38	0	56	154	20.2	3.6	NA	NA
9/5/18	Y	16	1	6	0	0	0	0	1	7	4	0	4	0	12	51	14.9	3.9	NA	NA
9/6/18	Y	7	0	1	0	0	0	0	0	5	1	0	2	0	14	30	14.2	8.4	NA	NA
9/7/18	Y	2	0	4	0	0	0	0	0	0	1	0	6	0	10	23	9.0	8.0	NA	NA
9/8/18	Y	4	0	4	0	0	0	0	0	4	2	1	2	0	9	26	8.9	12.0	NA	NA
9/9/18	Y	0	0	2	0	0	1	0	1	18	4	0	5	0	13	44	9.0	11.8	NA	NA
9/10/18	Y	1	1	1	0	0	0	0	0	0	0	0	0	0	3	6	8.4	11.1	NA	NA
9/11/18	Y	1	0	2	0	0	0	0	0	0	1	0	0	0	1	5	8.4	8.9	NA	NA
9/12/18	Y	1	1	3	0	0	0	0	0	0	0	0	1	0	2	8	7.9	7.9	NA	NA
9/13/18	Y	3	1	1	1	0	0	0	0	5	0	1	2	0	5	19	NA	NA	NA	NA
9/14/18	Y	1	0	2	0	0	0	0	0	1	4	0	1	0	5	14	NA	NA	NA	NA
9/15/18	Y	3	1	2	0	0	0	0	0	4	1	0	5	0	5	21	NA	NA	NA	NA
9/16/18	Y	1	1	1	0	0	0	0	0	2	2	0	2	0	6	15	NA	NA	NA	NA
9/17/18	Y	1	0	2	0	0	0	0	1	1	1	0	0	0	3	9	NA	NA	NA	NA
9/18/18	Y	0	1	4	0	0	0	0	1	0	0	1	0	0	3	10	NA	NA	NA	NA
9/19/18	Y	3	0	3	0	0	0	0	0	0	5	1	2	0	13	27	NA	NA	NA	NA
9/20/18	Y	11	3	0	2	0	1	0	2	5	9	0	3	0	27	63	NA	NA	NA	NA
9/21/18	Y	8	1	3	3	0	0	0	2	1	9	0	4	0	29	60	10.8	6.9	82.7	913.1
9/22/18	Y	5	2	1	0	0	0	0	0	1	25	2	5	0	12	53	8.0	10.5	93.8	911.9
9/23/18	Y	9	0	2	1	0	1	0	1	0	9	0	4	0	20	47	14.3	7.7	52.9	910.1
9/24/18	Y	15	1	2	3	0	0	0	1	4	10	0	8	0	37	81	21.0	5.4	33.2	910.8
9/25/18	Y	20	3	1	3	1	0	0	3	14	3	0	37	0	32	117	23.4	4.0	23.4	912.5
9/26/18	Y	20	3	2	3	0	1	0	2	0	4	0	3	0	22	60	24.0	2.9	20.3	912.9
9/27/18	Y	27	1	1	2	0	0	0	3	7	4	0	17	0	27	89	21.9	3.9	20.0	908.7
9/28/18	Y	12	1	0	0	0	2	0	1	12	7	1	6	0	27	69	8.9	4.2	69.6	905.9
9/29/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	3	4	10.4	7.4	84.1	906.9
9/30/18	Y	6	2	0	0	0	0	0	1	9	9	0	113	0	70	210	10.8	3.9	76.2	907.7
10/1/18	Y	1	1	1	0	0	0	0	1	0	7	1	1	0	29	42	12.3	8.0	85.1	905.8
10/2/18	Y	3	1	0	0	0	0	0	0	3	3	0	4	0	17	31	13.0	1.9	89.7	908.9
10/3/18	Y	2	0	0	0	0	0	0	0	14	9	0	50	0	36	111	8.9	2.7	78.3	909.2
10/4/18	Y	1	3	0	0	0	0	0	0	5	0	1	4	0	10	24	6.4	7.2	84.5	913.9
10/5/18	Y	5	0	1	0	0	0	0	0	0	2	0	3	0	7	18	9.9	7.4	88.5	912.8
10/6/18	Y	0	0	0	0	0	0	0	0	0	1	1	0	0	4	6	6.3	10.0	94.5	913.2
10/7/18	Y	5	0	2	0	0	0	0	2	1	0	0	1	0	5	16	8.0	11.0	94.1	912.2
10/8/18	Y	0	0	1	0	0	0	0	0	0	2	0	1	0	4	8	9.7	10.6	95.1	908.5
10/9/18	Y	0	1	2	0	0	0	0	0	0	5	0	1	1	6	16	6.3	11.3	90.8	907.1
10/10/18	Y	5	2	1	0	0	0	0	0	0	0	1	6	0	4	19	10.2	6.9	77.3	906.0
10/11/18	Y	14	3	3	1	0	0	0	0	2	1	1	4	0	13	42	14.1	6.1	46.5	910.7
10/12/18	Y	9	1	0	3	0	1	0	1	4	1	1	7	0	13	41	18.0	3.5	26.5	908.6
10/13/18	Y	14	2	0	2	1	0	0	4	3	2	0	6	0	22	56	19.5	7.1	26.7	909.3
10/14/18	Y	18	0	3	0	1	0	0	3	2	1	1	7	0	18	54	15.3	4.8	22.4	914.9
10/15/18	Y	12	0	1	0	0	0	0	2	0	0	0	3	0	11	29	15.7	5.9	21.7	917.2
10/16/18	Y	11	0	1	1	0	0	0	1	2	1	2	1	0	14	34	18.0	5.3	25.8	915.1
10/17/18	Y	12	1	0	0	0	0	0	0	3	0	0	5	0	18	39	16.7	1.6	31.4	915.3
10/18/18	Y	13	2	1	0	0	1	0	1	1	0	0	2	0	5	26	17.7	3.2	32.5	916.7
10/19/18	Y	9	0	2	0	0	0	0	1	1	0	0	1	0	3	17	18.9	6.4	35.0	915.0
10/20/18	Y	10	0	0	0	0	1	0	2	2	1	1	23	0	18	58	17.5	1.7	29.9	911.5
10/21/18	Y	4	1	0	0	0	0	0	0	1	1	0	11	0	4	22	15.9	2.5	33.2	910.4
10/22/18	Y	2	2	0	0	0	3	0	0	0	0	0	5	0	11	23	8.9	7.6	55.6	909.3
10/23/18	Y	2	0	0	0	1	6	0	0	11	1	0	153	0	64	238	10.4	1.6	78.7	912.4
10/24/18	Y	4	0	0	0	0	0	0	0	4	0	0	5	0	9	22	10.4	2.1	74.2	915.7
10/25/18	Y	4	3	0	0	1	1	0	0	3	2	0	24	0	17	55	14.1	2.1	59.0	916.8
10/26/18	Y	3	2	0	0	0	0	0	0	1	3	0	21	0	9	39	12.6	2.2	87.0	915.0
10/27/18	Y	3	3	0	0	0	0	0	0	0	1	0	2	0	1	10	11.1	6.7	83.7	913.9
10/28/18	Y	0	2	0	0	0	0	0	0	0	0	0	3	0	0	5	7.4	5.3	83.5	917.2
By Species		**937**	**107**	**320**	**71**	**50**	**55**	**0**	**197**	**1237**	**382**	**38**	**939**	**6**	**2690**	**7029**				
By Group		**1044**		**496**				**1434**			**1365**									
		50 KhZ		**40 kHz**				**30 kHz**			**20 kHz**				**Unk.**	**Total**				

Appendix B Table 4. Summary of acoustic bat data and weather during each survey night at the Monument 4 Detector, Humboldt Wind Energy Project, Humboldt County, California.

Night of	Operational?	50 KhZ		40 kHz				30 kHz			20 kHz				Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
		California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat						
3/31/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	NA	NA	NA	NA
4/1/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/2/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/3/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	NA	NA	NA	NA
4/4/18	Y	0	0	0	0	0	0	0	0	2	7	2	0	0	9	20	NA	NA	NA	NA
4/5/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/6/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/7/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/8/18	Y	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	NA	NA	NA	NA
4/9/18	Y	0	0	0	0	0	0	0	1	0	5	1	0	0	6	13	NA	NA	NA	NA
4/10/18	Y	1	0	0	0	0	0	0	0	0	1	0	0	0	2	4	NA	NA	NA	NA
4/11/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/12/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/13/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	NA	NA	NA	NA
4/14/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	NA	NA	NA	NA
4/15/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.8	85.1	914.4
4/16/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1	3.7	88.3	924.8
4/17/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.5	1.6	83.4	923.7
4/18/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.5	6.3	67.8	921.6
4/19/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.7	6.5	77.5	925.9
4/20/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.1	9.1	72.5	927.6
4/21/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5.6	8.8	81.9	924.4
4/22/18	Y	3	0	0	0	0	0	0	1	0	3	0	0	0	5	12	12.4	5.3	48.9	920.8
4/23/18	Y	4	0	0	0	0	1	0	1	1	3	0	2	0	5	17	15.1	3.0	34.2	920.7
4/24/18	Y	8	0	0	0	0	0	0	0	2	3	0	1	0	6	20	13.7	2.2	48.3	921.1
4/25/18	Y	4	0	1	0	0	0	0	0	1	2	0	0	0	4	12	12.4	2.1	33.7	920.8
4/26/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	5.1	1.6	81.7	919.0
4/27/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	5.0	5.5	82.1	920.1
4/28/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	4.9	1.9	78.2	920.7
4/29/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	3.7	5.4	89.2	922.9
4/30/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	3.1	6.8	91.3	918.9
5/1/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.1	7.0	87.5	917.4
5/2/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	11.5	1.9	45.5	923.7
5/3/18	Y	2	0	1	0	0	0	0	0	0	0	0	0	0	1	4	11.9	1.4	50.7	927.3
5/4/18	Y	1	0	1	0	0	0	0	0	3	0	0	0	0	0	5	13.7	2.2	47.0	924.4
5/5/18	Y	2	0	0	0	0	0	0	0	1	1	0	1	0	0	5	7.2	1.9	75.7	920.5
5/6/18	Y	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2	7.3	2.3	78.2	925.0
5/7/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	10.9	6.4	37.9	923.9
5/8/18	Y	2	0	0	0	0	0	0	0	0	0	0	1	0	5	8	10.2	1.5	70.1	923.1
5/9/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	6.5	7.3	82.4	922.7
5/10/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.8	7.9	92.4	920.9
5/11/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	5	6	7.6	7.2	81.1	919.2
5/12/18	Y	1	0	0	0	0	0	0	0	0	0	0	1	0	2	4	14.1	2.6	50.3	917.6
5/13/18	Y	0	0	1	0	0	0	0	1	1	2	0	1	0	7	13	10.2	1.1	79.8	919.4
5/14/18	Y	1	0	0	0	0	0	0	0	0	1	0	0	0	10	12	8.9	1.3	74.6	918.9
5/15/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6.5	2.0	84.3	920.7
5/16/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	6.8	4.3	83.9	922.5
5/17/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	6.4	6.5	86.5	920.7
5/18/18	Y	1	0	0	0	0	0	0	1	0	1	0	0	0	3	6	5.5	6.0	81.8	919.7
5/19/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.4	7.7	89.7	919.2
5/20/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.2	8.8	92.7	918.5
5/21/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	6.5	7.3	86.6	916.6
5/22/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	6	7	7.3	4.5	86.0	916.1
5/23/18	Y	0	0	0	0	0	0	0	0	0	2	0	0	0	1	3	7.2	2.1	83.3	919.6
5/24/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	7.6	2.1	84.5	920.4
5/25/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.0	6.9	91.3	923.1
5/26/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	7.2	7.0	87.6	923.1
5/27/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	12.0	8.2	74.0	922.4
5/28/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	9.9	10.2	76.9	920.8
5/29/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	4.7	7.2	86.5	915.4
5/30/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.6	6.3	91.0	915.9
5/31/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4.0	5.5	81.7	922.3
6/1/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	8.8	10.3	63.8	925.1
6/2/18	Y	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	14.3	9.1	55.8	922.0
6/3/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	7.1	9.1	78.4	921.7
6/4/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.4	9.3	82.9	919.4
6/5/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5.8	10.8	75.2	918.3
6/6/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.9	6.4	83.7	918.9
6/7/18	Y	1	0	0	0	0	0	0	0	0	1	0	0	0	3	5	8.5	3.1	77.8	923.7
6/8/18	Y	0	0	0	0	0	0	0	0	1	0	0	0	0	3	4	8.5	3.9	80.2	921.5
6/9/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.1	4.7	84.0	924.9
6/10/18	Y	0	0	0	0	0	1	0	0	2	0	0	0	0	3	6	9.5	2.1	68.6	922.7
6/11/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.8	8.8	81.2	920.3

Appendix B Table 4. Summary of acoustic bat data and weather during each survey night at the Monument 4 Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
6/12/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.7	11.8	63.7	919.6
6/13/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.3	9.1	89.9	917.5
6/14/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.1	8.4	86.7	915.7
6/15/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	4	5	7.7	9.2	83.1	913.8
6/16/18	Y	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	10.4	6.4	79.9	913.6
6/17/18	Y	5	1	0	0	0	0	0	0	6	1	0	2	0	8	23	12.0	2.9	67.4	920.3
6/18/18	Y	0	0	0	0	0	0	0	0	1	0	1	0	0	6	8	14.1	5.7	47.6	922.5
6/19/18	Y	9	0	0	0	0	0	0	0	134	0	0	18	0	47	208	15.7	3.2	46.4	921.5
6/20/18	Y	5	0	0	0	0	0	0	2	3	0	0	2	0	9	21	10.7	6.0	52.6	922.3
6/21/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.9	9.6	80.1	923.4
6/22/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	12.4	10.2	72.1	920.9
6/23/18	Y	1	0	0	1	0	0	0	0	2	0	0	0	0	2	6	19.2	7.4	38.3	917.8
6/24/18	Y	2	0	0	0	0	0	0	0	0	0	0	0	0	1	3	9.8	8.8	72.6	920.1
6/25/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	2	3	8.2	8.8	83.2	920.6
6/26/18	Y	3	0	0	0	0	0	0	0	0	0	0	0	0	4	7	11.2	7.8	68.0	919.4
6/27/18	Y	2	0	0	0	0	0	0	0	0	0	0	0	0	2	4	6.9	6.6	82.2	921.0
6/28/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	8.3	7.6	79.3	922.1
6/29/18	Y	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	12.2	8.4	70.9	922.3
6/30/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.7	8.1	54.8	923.0
7/1/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	13.3	10.0	56.6	922.7
7/2/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.6	9.5	73.6	918.9
7/3/18	Y	1	0	0	0	0	0	0	0	1	0	0	0	0	1	3	10.4	6.3	68.3	917.3
7/4/18	Y	12	1	0	0	0	0	0	1	141	0	0	4	0	60	219	11.9	1.5	69.7	922.0
7/5/18	Y	5	0	0	0	0	0	0	2	51	0	0	8	0	34	100	12.8	3.6	65.9	926.9
7/6/18	Y	0	0	0	0	0	0	0	0	4	0	0	0	0	2	6	8.7	7.5	80.9	925.6
7/7/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.5	8.8	78.1	922.6
7/8/18	Y	1	0	0	0	0	0	0	0	0	0	0	1	0	4	6	10.5	6.4	77.8	923.7
7/9/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10.4	8.7	73.1	925.9
7/10/18	Y	1	0	0	0	0	0	0	0	2	0	0	0	0	1	4	16.6	7.9	64.6	920.7
7/11/18	Y	6	0	0	0	0	0	0	0	0	1	0	3	0	5	15	22.4	3.9	38.2	918.1
7/12/18	Y	8	1	0	0	1	0	0	2	2	0	0	3	0	6	23	20.9	3.0	28.4	922.0
7/13/18	Y	7	1	0	0	1	0	0	2	1	0	0	2	0	7	21	20.4	3.1	39.8	923.4
7/14/18	Y	5	0	0	0	0	0	0	1	0	0	0	0	0	5	11	21.6	1.4	38.9	921.1
7/15/18	Y	9	0	0	1	0	0	0	0	0	0	0	0	0	10	20	21.0	1.6	53.3	920.8
7/16/18	Y	6	1	0	0	0	0	0	3	0	0	0	1	0	3	14	19.3	6.9	53.7	921.7
7/17/18	Y	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19.3	7.7	29.7	922.7
7/18/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	19.1	8.6	51.1	921.3
7/19/18	Y	2	1	0	0	0	0	0	0	0	0	0	0	0	1	4	18.1	7.6	40.8	918.9
7/20/18	Y	1	0	0	0	0	0	0	0	0	1	0	0	0	6	8	20.3	1.6	42.9	919.6
7/21/18	Y	1	0	0	0	0	0	0	0	0	0	1	1	0	4	7	20.3	3.0	37.0	922.5
7/22/18	Y	5	0	0	1	1	0	0	0	1	0	0	0	0	1	9	19.7	1.7	59.8	924.6
7/23/18	Y	5	0	0	0	0	0	0	1	0	0	1	1	0	5	13	20.5	2.7	55.6	923.6
7/24/18	Y	3	2	0	0	0	0	0	1	0	0	0	0	0	6	12	22.5	1.3	31.2	925.0
7/25/18	Y	3	0	0	0	1	0	0	2	0	0	0	0	0	1	7	21.2	6.9	NA	924.7
7/26/18	Y	1	0	0	0	0	0	0	0	1	0	0	0	0	3	5	21.2	6.5	37.7	921.8
7/27/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17.4	9.2	36.2	921.7
7/28/18	Y	8	0	0	0	0	0	0	2	0	0	0	0	0	4	14	17.4	8.4	38.8	921.9
7/29/18	Y	10	1	0	0	1	1	0	15	1	1	1	0	0	9	40	16.8	6.3	54.2	922.7
7/30/18	Y	2	0	0	0	0	0	0	0	0	0	1	0	0	1	4	15.9	8.4	56.4	922.1
7/31/18	Y	2	0	0	0	0	0	0	0	0	0	1	0	0	0	3	13.7	8.4	70.1	921.5
8/1/18	Y	2	0	0	0	0	0	0	1	0	1	1	1	0	1	7	11.7	7.8	65.3	921.5
8/2/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	11.8	9.4	73.7	921.9
8/3/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	14.3	6.4	64.3	922.0
8/4/18	Y	0	0	0	0	0	0	0	1	0	0	0	2	0	4	7	11.3	6.9	74.6	920.5
8/5/18	Y	13	0	0	0	1	0	0	4	6	0	0	10	0	21	55	16.1	3.4	38.0	923.0
8/6/18	Y	1	0	0	0	0	0	0	1	0	0	0	1	0	0	3	16.0	7.7	35.3	922.2
8/7/18	Y	2	0	0	0	0	0	0	1	0	0	2	0	0	2	7	16.6	6.6	66.1	919.0
8/8/18	Y	11	1	0	0	0	1	0	28	2	1	6	7	0	10	67	19.2	4.8	49.7	920.9
8/9/18	Y	23	2	0	0	1	0	0	41	3	1	1	13	0	34	119	21.8	2.1	26.1	922.0
8/10/18	Y	1	0	0	0	0	0	0	1	1	1	1	2	0	10	17	11.8	6.5	77.6	922.9
8/11/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	12.0	9.5	80.4	921.6
8/12/18	Y	8	0	0	0	0	0	0	0	1	0	2	0	0	4	15	16.4	5.3	50.0	919.8
8/13/18	Y	12	0	2	0	0	0	0	35	3	1	0	8	0	19	80	15.9	1.5	53.1	918.7
8/14/18	Y	6	0	2	0	0	0	0	9	7	0	0	13	0	17	54	15.5	1.2	70.1	918.1
8/15/18	Y	2	0	3	0	0	0	0	10	3	1	0	3	0	13	35	15.6	1.9	73.2	920.1
8/16/18	Y	8	1	0	0	0	0	0	17	4	1	2	7	0	7	47	17.7	5.0	41.4	923.8
8/17/18	Y	3	0	0	1	0	0	0	9	2	0	0	3	0	12	30	19.6	5.3	36.0	923.9
8/18/18	Y	3	0	0	0	0	0	0	1	1	2	0	3	0	9	19	18.0	7.1	37.2	922.5
8/19/18	Y	3	0	0	0	0	0	0	0	0	0	0	0	0	3	6	15.5	7.6	57.1	919.2
8/20/18	Y	11	0	0	0	0	0	0	7	16	1	1	8	0	22	66	20.4	2.6	40.4	917.8
8/21/18	Y	7	0	0	0	0	0	0	23	14	1	0	14	0	32	91	17.8	2.9	50.9	920.0
8/22/18	Y	5	1	0	0	0	0	0	17	8	3	0	25	0	36	95	15.8	1.1	69.3	921.5
8/23/18	Y	0	0	0	0	0	0	0	12	4	1	0	14	0	20	51	11.8	5.2	74.8	920.6

Appendix B Table 4. Summary of acoustic bat data and weather during each survey night at the Monument 4 Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
8/24/18	Y	0	0	0	0	0	0	0	1	4	1	0	3	0	5	14	11.3	6.9	72.6	919.0
8/25/18	Y	2	1	0	0	0	0	0	1	5	0	0	4	0	6	19	14.5	5.3	50.7	920.4
8/26/18	Y	1	0	0	0	0	0	0	1	1	0	0	2	0	2	7	11.3	7.4	74.2	919.4
8/27/18	Y	6	0	0	2	0	0	0	2	8	3	0	11	0	14	46	16.2	4.3	63.3	917.4
8/28/18	Y	19	1	2	0	0	0	0	53	165	2	0	46	0	84	372	14.9	2.1	62.8	919.3
8/29/18	Y	5	0	0	0	1	0	0	3	9	1	1	11	0	17	48	11.9	1.3	76.8	920.3
8/30/18	Y	0	0	0	0	0	0	0	14	6	0	0	14	0	19	53	9.4	6.5	81.7	923.1
8/31/18	Y	0	0	0	0	0	0	0	0	0	2	0	2	0	2	6	10.3	8.2	77.9	920.8
9/1/18	Y	1	0	0	0	0	0	0	2	2	0	0	0	0	6	11	17.0	7.4	46.5	917.6
9/2/18	Y	10	0	0	0	0	0	0	8	3	0	0	9	0	19	49	20.8	5.9	31.2	917.5
9/3/18	Y	7	0	0	0	0	0	0	3	2	0	0	1	0	3	16	18.2	7.1	43.1	917.4
9/4/18	Y	14	3	2	0	0	0	0	20	19	1	0	20	0	42	121	20.2	2.8	37.9	917.3
9/5/18	Y	13	0	0	0	0	0	0	17	7	0	0	19	0	25	81	14.4	5.8	49.1	921.7
9/6/18	Y	3	0	0	0	0	0	0	0	1	1	0	0	0	3	8	13.9	8.1	52.6	923.9
9/7/18	Y	0	0	1	1	0	0	0	3	2	2	1	3	0	10	23	9.3	6.7	73.0	923.2
9/8/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.6	10.4	68.8	920.9
9/9/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	9.7	10.3	77.8	921.0
9/10/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.6	9.3	83.4	920.6
9/11/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.7	5.9	85.0	918.8
9/12/18	Y	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	8.2	5.8	82.1	919.1
9/13/18	Y	0	1	0	0	0	0	0	0	2	0	2	1	0	6	12	NA	NA	NA	NA
9/14/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	NA	NA	NA	NA
9/15/18	Y	2	0	0	0	0	0	0	0	0	1	0	5	0	6	14	NA	NA	NA	NA
9/16/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	NA	NA	NA	NA
9/17/18	Y	0	0	1	0	0	0	0	0	1	1	0	1	0	3	7	NA	NA	NA	NA
9/18/18	Y	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	NA	NA	NA	NA
9/19/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	2	3	NA	NA	NA	NA
9/20/18	Y	3	0	0	0	0	0	0	0	0	1	0	3	0	7	14	NA	NA	NA	NA
9/21/18	Y	10	2	0	0	0	0	0	0	2	2	0	5	0	14	35	11.0	7.4	70.1	921.4
9/22/18	Y	0	0	0	0	0	0	0	1	1	1	0	1	0	4	8	8.9	8.2	78.8	920.3
9/23/18	Y	5	0	0	0	0	1	0	0	2	3	1	3	0	10	25	13.5	6.7	49.8	918.5
9/24/18	Y	19	0	0	0	0	2	0	1	4	2	0	5	0	20	53	20.8	4.6	24.2	919.2
9/25/18	Y	18	1	0	0	0	0	0	2	10	1	1	11	0	31	75	22.5	2.6	20.0	920.9
9/26/18	Y	23	0	2	0	0	1	0	4	2	1	0	5	0	18	56	22.8	1.3	NA	921.3
9/27/18	Y	12	0	0	0	0	0	0	3	9	2	4	11	0	23	64	21.0	4.0	NA	917.0
9/28/18	Y	3	1	0	1	0	0	0	1	3	3	4	1	0	19	36	10.3	3.2	65.8	914.5
9/29/18	Y	0	0	0	0	0	0	0	0	0	1	0	1	0	2	4	10.8	6.5	82.8	915.5
9/30/18	Y	1	1	0	0	0	0	0	0	3	1	2	21	0	18	47	11.2	3.4	76.6	916.3
10/1/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	8	9	12.6	6.4	77.9	914.4
10/2/18	Y	3	0	0	0	0	0	0	0	1	2	0	5	0	15	26	13.0	1.8	90.0	917.3
10/3/18	Y	1	0	0	0	0	2	0	1	9	4	0	36	0	43	96	8.4	2.4	87.5	917.7
10/4/18	Y	0	0	0	0	0	0	0	0	0	0	0	2	0	6	8	6.5	6.7	78.4	922.4
10/5/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	9.5	4.5	82.6	921.3
10/6/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	6.9	7.2	89.6	921.7
10/7/18	Y	0	0	0	0	0	0	0	1	0	2	0	0	0	4	7	9.1	6.2	88.0	920.6
10/8/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.1	6.7	89.3	917.0
10/9/18	Y	1	0	0	0	0	0	0	0	0	1	0	0	0	2	4	7.0	7.5	84.4	915.5
10/10/18	Y	0	0	0	0	0	0	0	0	1	0	0	4	0	5	10	9.6	4.8	75.7	914.5
10/11/18	Y	9	1	0	0	0	0	0	0	1	1	2	9	0	14	37	13.7	5.4	46.6	919.2
10/12/18	Y	5	0	0	0	0	0	0	1	1	0	0	3	0	9	19	16.4	3.6	27.0	917.0
10/13/18	Y	7	1	2	0	0	2	0	0	4	0	1	2	0	22	41	18.6	4.7	27.7	917.8
10/14/18	Y	30	1	1	0	0	0	0	0	13	0	0	3	0	35	83	14.8	3.5	21.1	923.5
10/15/18	Y	10	0	0	0	0	0	0	1	0	1	3	3	0	6	24	15.7	5.9	20.7	925.7
10/16/18	Y	6	0	0	0	0	0	0	0	0	1	1	1	0	7	16	17.5	4.6	24.7	923.5
10/17/18	Y	8	0	0	0	0	0	0	0	4	1	0	6	0	4	23	15.6	1.2	32.2	923.8
10/18/18	Y	13	0	0	0	0	0	0	0	0	0	0	0	0	7	20	17.0	1.5	30.2	925.1
10/19/18	Y	3	0	0	0	0	0	0	1	0	0	0	0	0	1	5	18.2	4.9	29.9	923.4
10/20/18	Y	5	0	1	0	0	0	0	0	1	0	0	2	0	10	19	17.7	1.8	26.6	919.9
10/21/18	Y	4	0	0	0	0	0	0	0	0	0	0	3	0	4	11	15.5	1.6	32.7	918.9
10/22/18	Y	0	0	0	0	0	0	0	0	0	0	0	2	0	1	3	9.1	5.5	59.2	918.0
10/23/18	Y	1	0	0	0	0	0	0	0	96	1	2	40	0	83	223	10.6	1.6	82.7	920.9
10/24/18	Y	0	0	0	0	0	0	0	0	2	0	0	14	0	5	21	9.6	3.1	85.5	924.2
10/25/18	Y	0	0	0	0	0	0	0	0	0	0	0	2	0	1	3	13.3	2.1	56.9	925.3
10/26/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13.0	3.0	84.7	923.5
10/27/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.5	5.3	80.0	922.5
By Species		**581**	**30**	**23**	**9**	**8**	**13**	**0**	**403**	**846**	**107**	**50**	**546**	**0**	**1421**	**4037**				
By Group		**611**		**53**				**1249**			**703**									
		50 KhZ		**40 kHz**				**30 kHz**			**20 kHz**				**Unk.**	**Total**				

Appendix B Table 5. Summary of acoustic bat data and weather during each survey night at the Monument 5 Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
3/31/18	Y	0	0	0	0	0	4	0	1	0	2	0	0	0	28	35	NA	NA	NA	NA
4/1/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	NA	NA	NA	NA
4/2/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	NA	NA	NA	NA
4/3/18	Y	1	0	0	0	0	8	0	1	0	2	0	1	0	46	59	NA	NA	NA	NA
4/4/18	Y	0	0	0	0	0	8	0	0	1	1	0	0	0	42	52	NA	NA	NA	NA
4/5/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/6/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/7/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/8/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/9/18	Y	3	2	0	0	0	4	0	0	0	6	0	1	0	47	63	NA	NA	NA	NA
4/10/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	NA	NA	NA	NA
4/11/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/12/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/13/18	Y	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	NA	NA	NA	NA
4/14/18	Y	0	0	0	0	0	3	0	0	0	0	0	0	0	4	7	NA	NA	NA	NA
4/15/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.8	85.1	914.4
4/16/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1	3.7	88.3	924.8
4/17/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.5	1.6	83.4	923.7
4/18/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.5	6.3	67.8	921.6
4/19/18	Y	0	0	0	0	0	3	0	0	0	1	0	0	0	16	20	6.7	6.5	77.5	925.9
4/20/18	Y	0	1	0	0	0	0	0	0	0	2	0	0	0	1	4	4.1	9.1	72.5	927.6
4/21/18	Y	0	0	0	0	0	4	0	0	0	0	0	0	0	10	14	5.6	8.8	81.9	924.4
4/22/18	Y	3	2	0	1	0	11	0	1	2	4	0	1	0	32	57	12.4	5.3	48.9	920.8
4/23/18	Y	258	1	0	0	1	3	0	2	1	3	0	1	0	145	415	15.1	3.0	34.2	920.7
4/24/18	Y	12	0	0	0	0	3	0	0	1	2	0	1	0	36	55	13.7	2.2	48.3	921.1
4/25/18	Y	4	0	0	0	0	14	0	0	0	1	0	0	0	23	42	12.4	2.1	33.7	920.8
4/26/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5.1	1.6	81.7	919.0
4/27/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.0	5.5	82.1	920.1
4/28/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.9	1.9	78.2	920.7
4/29/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.7	5.4	89.2	922.9
4/30/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.1	6.8	91.3	918.9
5/1/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.1	7.0	87.5	917.4
5/2/18	Y	9	0	0	0	0	1	0	0	0	0	0	1	0	17	28	11.5	1.9	45.5	923.7
5/3/18	Y	2	3	0	1	0	2	0	0	1	0	0	0	0	20	29	11.9	1.4	50.7	927.3
5/4/18	Y	6	0	0	1	0	3	0	1	2	6	0	0	1	15	35	13.7	2.2	47.0	924.4
5/5/18	Y	2	0	0	0	0	0	0	0	0	0	0	0	0	4	6	7.2	1.9	75.7	920.5
5/6/18	Y	3	4	0	0	0	0	0	0	0	0	1	0	0	6	14	7.3	2.3	78.2	925.0
5/7/18	Y	10	0	0	0	0	1	0	1	0	0	0	1	0	15	28	10.9	6.4	37.9	923.9
5/8/18	Y	7	0	0	1	0	0	0	0	1	2	0	0	0	5	16	10.2	1.5	70.1	923.1
5/9/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	6.5	7.3	82.4	922.7
5/10/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.8	7.9	92.4	920.9
5/11/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	7.6	7.2	81.1	919.2
5/12/18	Y	19	2	0	0	0	1	0	0	0	6	0	1	0	29	58	14.1	2.6	50.3	917.6
5/13/18	Y	3	0	0	0	0	0	0	0	2	0	0	1	0	9	15	10.2	1.1	79.8	919.4
5/14/18	Y	0	0	0	0	0	1	0	0	0	0	0	0	0	5	6	8.9	1.3	74.6	918.9
5/15/18	Y	1	0	0	0	0	0	0	1	0	0	0	0	0	0	2	6.5	2.0	84.3	920.7
5/16/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	6.8	4.3	83.9	922.5
5/17/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	6.4	6.5	86.5	920.7
5/18/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	5.5	6.0	81.8	919.7
5/19/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	5.4	7.7	89.7	919.2
5/20/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.2	8.8	92.7	918.5
5/21/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	2	3	6.5	7.3	86.6	916.6
5/22/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	7.3	4.5	86.0	916.1
5/23/18	Y	1	0	0	0	0	0	0	0	0	1	0	0	0	1	3	7.2	2.1	83.3	919.6
5/24/18	Y	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2	7.6	2.1	84.5	920.4
5/25/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.0	6.9	91.3	923.1
5/26/18	Y	0	0	0	0	0	0	0	0	0	5	0	0	0	5	10	7.2	7.0	87.6	923.1
5/27/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.0	8.2	74.0	922.4
5/28/18	Y	19	0	0	0	0	16	0	0	0	1	0	0	0	64	100	9.9	10.2	76.9	920.8
5/29/18	Y	1	0	0	0	0	21	0	0	0	1	0	1	0	59	83	4.7	7.2	86.5	915.4
5/30/18	Y	0	0	0	0	0	4	0	0	0	0	0	0	0	2	6	4.6	6.3	91.0	915.9
5/31/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.0	5.5	81.7	922.3
6/1/18	Y	0	0	0	0	0	14	0	0	0	0	0	0	0	63	77	8.8	10.3	63.8	925.1
6/2/18	Y	0	0	0	0	0	66	0	1	0	3	0	0	0	189	259	14.3	9.1	55.8	922.0
6/3/18	Y	10	0	0	1	0	39	0	2	0	3	0	0	0	134	189	7.1	9.1	78.4	921.7
6/4/18	Y	0	0	1	0	0	6	0	2	1	4	0	0	0	15	29	5.4	9.3	82.9	919.4
6/5/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	5.8	10.8	75.2	918.3
6/6/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	6.9	6.4	83.7	918.9
6/7/18	Y	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	8.5	3.1	77.8	923.7
6/8/18	Y	3	0	0	2	0	1	0	0	0	4	0	1	0	19	30	8.5	3.9	80.2	921.5
6/9/18	Y	3	0	0	1	0	0	0	0	1	2	0	0	0	0	7	5.1	4.7	84.0	924.9
6/10/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	9.5	2.1	68.6	922.7
6/11/18	Y	2	0	0	2	1	0	0	0	0	6	0	0	0	21	32	11.8	8.8	81.2	920.3

Appendix B Table 5. Summary of acoustic bat data and weather during each survey night at the Monument 5 Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
6/12/18	Y	2	0	1	0	0	40	0	1	0	1	0	0	0	106	151	8.7	11.8	63.7	919.6
6/13/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	7.3	9.1	89.9	917.5
6/14/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.1	8.4	86.7	915.7
6/15/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	7.7	9.2	83.1	913.8
6/16/18	Y	12	0	0	0	0	35	0	0	0	0	0	0	0	71	118	10.4	6.4	79.9	913.6
6/17/18	Y	12	0	0	0	1	7	0	20	1	0	0	0	0	36	77	12.0	2.9	67.4	920.3
6/18/18	Y	18	2	0	1	3	27	0	0	0	2	0	1	0	74	128	14.1	5.7	47.6	922.5
6/19/18	Y	41	2	0	6	0	5	0	8	40	2	0	19	0	89	212	15.7	3.2	46.4	921.5
6/20/18	Y	22	0	0	1	0	14	0	4	4	4	0	1	0	41	91	10.7	6.0	52.6	922.3
6/21/18	Y	2	0	0	0	0	2	0	0	2	3	0	0	0	5	14	8.9	9.6	80.1	923.4
6/22/18	Y	0	0	0	0	0	2	0	0	1	1	0	0	0	3	7	12.4	10.2	72.1	920.9
6/23/18	Y	28	15	0	9	2	0	0	2	0	0	0	1	0	65	122	19.2	7.4	38.3	917.8
6/24/18	Y	4	0	0	0	0	0	0	1	0	1	0	1	0	4	11	9.8	8.8	72.6	920.1
6/25/18	Y	3	0	0	0	0	0	0	0	1	1	0	0	0	2	7	8.2	8.8	83.2	920.6
6/26/18	Y	19	0	1	4	0	8	0	2	1	1	0	0	0	61	97	11.2	7.8	68.0	919.4
6/27/18	Y	1	0	0	0	0	0	0	0	0	1	0	0	0	0	2	6.9	6.6	82.2	921.0
6/28/18	Y	0	0	0	2	0	0	0	0	0	0	0	0	0	3	5	8.3	7.6	79.3	922.1
6/29/18	Y	8	1	0	1	0	15	0	0	0	1	0	0	0	47	73	12.2	8.4	70.9	922.3
6/30/18	Y	9	1	0	0	0	31	0	0	2	0	0	0	0	58	101	16.7	8.1	54.8	923.0
7/1/18	Y	0	0	0	0	0	33	0	0	0	2	0	0	0	38	73	13.3	10.0	56.6	922.7
7/2/18	Y	0	0	0	1	0	0	0	0	0	0	0	1	0	1	3	8.6	9.5	73.6	918.9
7/3/18	Y	24	1	1	0	0	4	0	0	0	0	0	0	0	51	81	10.4	6.3	68.3	917.3
7/4/18	Y	6	1	0	2	0	2	0	2	28	0	0	6	0	43	90	11.9	1.5	69.7	922.0
7/5/18	Y	15	1	2	1	2	5	0	32	48	0	0	13	0	76	195	12.8	3.6	65.9	926.9
7/6/18	Y	8	0	0	0	0	3	0	2	2	1	0	1	0	13	30	8.7	7.5	80.9	925.6
7/7/18	Y	2	0	0	0	0	0	0	0	0	0	0	1	0	2	5	8.5	8.8	78.1	922.6
7/8/18	Y	69	0	2	6	0	0	0	0	2	0	0	0	0	64	143	10.5	6.4	77.8	923.7
7/9/18	Y	29	1	0	0	0	4	0	1	1	0	1	0	0	13	50	10.4	8.7	73.1	925.9
7/10/18	Y	97	29	1	22	4	0	0	18	3	0	0	1	0	161	336	16.6	7.9	64.6	920.7
7/11/18	Y	42	1	2	22	1	6	0	37	1	0	4	4	0	114	234	22.4	3.9	38.2	918.1
7/12/18	Y	35	1	0	11	0	1	0	11	7	0	2	8	0	71	147	20.9	3.0	28.4	922.0
7/13/18	Y	54	3	1	10	0	0	0	82	12	1	2	3	0	97	265	20.4	3.1	39.8	923.4
7/14/18	Y	21	0	2	1	0	0	0	5	3	0	0	5	0	15	52	21.6	1.4	38.9	921.1
7/15/18	Y	22	0	1	0	4	0	0	14	2	0	2	3	0	18	66	21.0	1.6	53.3	920.8
7/16/18	Y	81	4	0	3	1	0	0	6	1	2	0	3	0	71	172	19.3	6.9	53.7	921.7
7/17/18	Y	18	1	0	9	1	9	0	4	0	0	0	3	0	26	71	19.3	7.7	29.7	922.7
7/18/18	Y	26	1	0	0	1	0	0	3	1	1	1	2	0	19	55	19.1	8.6	51.1	921.3
7/19/18	Y	86	30	0	7	0	4	0	5	2	0	0	1	0	114	249	18.1	7.6	40.8	918.9
7/20/18	Y	22	0	0	0	0	0	0	8	3	1	2	0	0	17	53	20.3	1.6	42.9	919.6
7/21/18	Y	32	1	1	0	0	0	0	4	1	0	0	2	0	33	74	20.3	3.0	37.0	922.5
7/22/18	Y	33	0	0	1	3	0	0	10	2	0	1	4	0	37	91	19.7	1.7	59.8	924.6
7/23/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20.5	2.7	55.6	923.6
7/24/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22.5	1.3	31.2	925.0
7/25/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21.2	6.9	NA	924.7
7/26/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21.2	6.5	37.7	921.8
7/27/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.4	9.2	36.2	921.7
7/28/18	Y	45	3	0	5	2	0	0	1	1	0	0	1	0	49	107	17.4	8.4	38.8	921.9
7/29/18	Y	30	2	0	6	0	0	0	277	2	1	0	11	0	97	426	16.8	6.3	54.2	922.7
7/30/18	Y	10	22	0	5	1	0	0	5	1	1	0	0	0	45	90	15.9	8.4	56.4	922.1
7/31/18	Y	30	0	0	1	1	0	0	32	3	0	0	1	0	30	98	13.7	8.4	70.1	921.5
8/1/18	Y	46	2	0	2	1	0	0	28	1	1	1	2	0	60	144	11.7	7.8	65.3	921.5
8/2/18	Y	1	0	0	1	0	0	0	0	0	1	0	0	0	0	3	11.8	9.4	73.7	921.9
8/3/18	Y	30	4	0	0	1	0	0	105	5	0	0	4	0	87	236	14.3	6.4	64.3	922.0
8/4/18	Y	11	4	0	1	1	0	0	139	4	0	0	0	0	33	193	11.3	6.9	74.6	920.5
8/5/18	Y	80	19	0	16	6	0	0	663	18	0	0	22	0	182	1006	16.1	3.4	38.0	923.0
8/6/18	Y	6	11	0	6	0	0	0	50	2	1	0	3	0	61	140	16.0	7.7	35.3	922.2
8/7/18	Y	17	7	1	14	1	0	0	645	4	2	1	16	1	142	851	16.6	6.6	66.1	919.0
8/8/18	Y	88	15	3	10	3	1	0	648	3	2	3	14	0	169	959	19.2	4.8	49.7	920.9
8/9/18	Y	59	2	11	5	4	1	0	270	18	4	0	11	0	72	457	21.8	2.1	26.1	922.0
8/10/18	Y	4	0	0	0	0	0	0	77	0	0	0	5	0	14	100	11.8	6.5	77.6	922.9
8/11/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.0	9.5	80.4	921.6
8/12/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.4	5.3	50.0	919.8
8/13/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.9	1.5	53.1	918.7
8/14/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.5	1.2	70.1	918.1
8/15/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.6	1.9	73.2	920.1
8/16/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.7	5.0	41.4	923.8
8/17/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19.6	5.3	36.0	923.9
8/18/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.0	7.1	37.2	922.5
8/19/18	Y	17	3	0	3	3	13	0	37	7	4	3	5	0	97	192	15.5	7.6	57.1	919.2
8/20/18	Y	60	1	1	3	1	1	0	384	104	2	5	7	0	96	665	20.4	2.6	40.4	917.8
8/21/18	Y	27	0	2	2	5	2	0	101	111	4	0	14	0	116	384	17.8	2.9	50.9	920.0
8/22/18	Y	45	0	1	2	3	0	0	157	42	4	0	21	0	77	352	15.8	1.1	69.3	921.5
8/23/18	Y	26	1	0	1	0	22	0	50	15	0	0	9	0	95	219	11.8	5.2	74.8	920.6

Appendix B Table 5. Summary of acoustic bat data and weather during each survey night at the Monument 5 Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
8/24/18	Y	3	1	0	4	0	33	0	1	1	0	1	2	0	59	105	11.3	6.9	72.6	919.0
8/25/18	Y	22	2	0	9	0	21	0	208	5	1	1	16	0	99	384	14.5	5.3	50.7	920.4
8/26/18	Y	5	1	0	3	1	16	0	58	4	5	0	9	0	47	149	11.3	7.4	74.2	919.4
8/27/18	Y	54	0	0	3	12	5	0	282	27	3	2	22	0	146	556	16.2	4.3	63.3	917.4
8/28/18	Y	51	0	1	0	0	0	0	128	133	3	2	7	0	82	407	14.9	2.1	62.8	919.3
8/29/18	Y	18	0	0	0	1	0	0	131	81	0	1	33	0	80	345	11.9	1.3	76.8	920.3
8/30/18	Y	1	1	1	0	0	2	0	2	9	2	0	24	0	60	102	9.4	6.5	81.7	923.1
8/31/18	Y	0	0	0	1	1	0	0	2	4	0	0	2	0	22	32	10.3	8.2	77.9	920.8
9/1/18	Y	19	14	2	1	2	3	0	230	16	0	3	19	0	139	448	17.0	7.4	46.5	917.6
9/2/18	Y	101	2	1	0	14	0	0	588	38	3	0	25	0	158	930	20.8	5.9	31.2	917.5
9/3/18	Y	29	1	2	3	5	0	0	768	31	3	1	6	0	125	974	18.2	7.1	43.1	917.4
9/4/18	Y	55	0	0	1	6	2	0	205	112	3	1	13	0	117	515	20.2	2.8	37.9	917.3
9/5/18	Y	26	0	0	1	0	5	0	324	15	3	1	11	3	54	443	14.4	5.8	49.1	921.7
9/6/18	Y	15	3	0	1	0	10	0	36	3	1	1	6	0	60	136	13.9	8.1	52.6	923.9
9/7/18	Y	1	1	0	0	1	1	0	0	4	3	0	4	3	10	28	9.3	6.7	73.0	923.2
9/8/18	Y	3	6	0	0	0	0	0	5	11	1	0	3	0	15	44	9.6	10.4	68.8	920.9
9/9/18	Y	0	1	0	0	0	0	0	1	5	1	0	2	0	10	20	9.7	10.3	77.8	921.0
9/10/18	Y	2	1	0	0	0	0	0	0	0	0	0	0	0	3	6	8.6	9.3	83.4	920.6
9/11/18	Y	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2	8.7	5.9	85.0	918.8
9/12/18	Y	1	0	0	0	0	1	0	0	0	0	0	0	0	6	8	8.2	5.8	82.1	919.1
9/13/18	Y	3	0	0	0	0	19	0	3	1	2	2	1	0	25	56	NA	NA	NA	NA
9/14/18	Y	0	0	0	0	0	1	0	0	1	0	2	1	0	12	17	NA	NA	NA	NA
9/15/18	Y	9	0	1	0	0	7	0	22	8	1	0	3	0	24	75	NA	NA	NA	NA
9/16/18	Y	3	0	2	0	0	13	0	0	3	0	0	2	0	74	97	NA	NA	NA	NA
9/17/18	Y	2	0	0	0	0	2	0	3	2	0	0	0	0	43	52	NA	NA	NA	NA
9/18/18	Y	1	0	0	1	0	0	0	1	0	1	0	0	0	4	8	NA	NA	NA	NA
9/19/18	Y	0	0	0	1	0	0	0	3	1	1	0	1	0	23	30	NA	NA	NA	NA
9/20/18	Y	25	2	0	0	0	0	0	12	5	4	0	10	0	32	90	NA	NA	NA	NA
9/21/18	Y	35	2	1	2	0	2	0	6	3	8	1	12	0	31	103	11.0	7.4	70.1	921.4
9/22/18	Y	2	0	0	1	0	1	0	1	0	2	1	1	0	8	17	8.9	8.2	78.8	920.3
9/23/18	Y	27	2	0	11	2	11	0	0	2	5	0	8	0	95	163	13.5	6.7	49.8	918.5
9/24/18	Y	405	2	1	7	3	1	0	57	35	5	0	16	0	171	703	20.8	4.6	24.2	919.2
9/25/18	Y	321	5	2	0	0	1	0	72	19	33	3	17	0	120	593	22.5	2.6	20.0	920.9
9/26/18	Y	423	3	0	3	3	0	0	60	11	17	0	13	0	101	634	22.8	1.3	NA	921.3
9/27/18	Y	231	7	0	0	5	0	0	54	23	35	2	28	0	111	496	21.0	4.0	NA	917.0
9/28/18	Y	40	1	0	1	0	1	0	1	6	7	0	3	0	30	90	10.3	3.2	65.8	914.5
9/29/18	Y	5	0	1	0	1	0	0	0	1	2	0	0	0	3	13	10.8	6.5	82.8	915.5
9/30/18	Y	50	0	0	3	1	1	0	1	2	24	0	7	0	70	159	11.2	3.4	76.6	916.3
10/1/18	Y	1	0	1	0	0	0	0	0	0	5	0	1	0	21	29	12.6	6.4	77.9	914.4
10/2/18	Y	15	0	0	0	0	1	0	0	1	3	0	5	0	54	79	13.0	1.8	90.0	917.3
10/3/18	Y	28	0	0	0	0	0	0	1	3	4	1	2	0	34	73	8.4	2.4	87.5	917.7
10/4/18	Y	6	1	0	0	0	5	0	2	11	14	2	6	0	34	81	6.5	6.7	78.4	922.4
10/5/18	Y	18	0	0	0	5	0	0	0	0	1	0	0	0	12	36	9.5	4.5	82.6	921.3
10/6/18	Y	0	0	0	1	0	1	0	2	0	7	0	3	0	12	26	6.9	7.2	89.6	921.7
10/7/18	Y	2	0	0	0	0	0	0	4	10	19	1	5	0	41	82	9.1	6.2	88.0	920.6
10/8/18	Y	1	0	1	1	0	0	0	1	1	6	1	0	0	8	20	10.1	6.7	89.3	917.0
10/9/18	Y	1	0	0	0	0	0	0	1	1	8	0	0	0	8	19	7.0	7.5	84.4	915.5
10/10/18	Y	19	1	1	3	0	7	0	3	4	4	0	1	0	114	157	9.6	4.8	75.7	914.5
10/11/18	Y	209	11	2	7	4	9	0	3	5	9	0	10	2	189	460	13.7	5.4	46.6	919.2
10/12/18	Y	427	4	5	6	3	14	0	8	15	12	15	12	0	231	752	16.4	3.6	27.0	917.0
10/13/18	Y	313	9	2	3	11	9	0	5	6	5	7	4	0	136	510	18.6	4.7	27.7	917.8
10/14/18	Y	189	7	0	1	0	17	0	3	1	2	1	0	0	98	319	14.8	3.5	21.1	923.5
10/15/18	Y	95	3	1	5	2	17	0	1	0	0	0	5	0	95	224	15.7	5.9	20.7	925.7
10/16/18	Y	346	16	0	3	1	1	0	0	2	4	2	2	0	141	518	17.5	4.6	24.7	923.5
10/17/18	Y	336	9	0	0	0	1	0	3	6	1	0	8	0	78	442	15.6	1.2	32.2	923.8
10/18/18	Y	291	5	0	6	0	0	0	0	0	1	0	10	0	65	378	17.0	1.5	30.2	925.1
10/19/18	Y	285	1	0	0	2	0	0	1	2	5	1	3	0	68	368	18.2	4.9	29.9	923.4
10/20/18	Y	376	5	0	0	1	4	0	2	2	2	0	7	0	91	490	17.7	1.8	26.6	919.9
10/21/18	Y	153	3	0	0	0	0	0	1	1	1	0	9	0	34	202	15.5	1.6	32.7	918.9
10/22/18	Y	8	2	0	0	0	0	0	0	0	2	0	2	0	8	22	9.1	5.5	59.2	918.0
10/23/18	Y	127	3	0	0	1	7	0	1	12	2	0	13	0	55	221	10.6	1.6	82.7	920.9
10/24/18	Y	17	1	0	0	0	15	0	0	0	0	0	11	0	15	59	9.6	3.1	85.5	924.2
10/25/18	Y	337	3	0	0	5	2	0	0	1	2	0	20	0	64	434	13.3	2.1	56.9	925.3
10/26/18	Y	108	0	0	0	0	29	0	0	2	1	0	19	0	51	210	13.0	3.0	84.7	923.5
10/27/18	Y	103	0	0	0	0	6	0	0	0	0	0	4	0	38	151	11.5	5.3	80.0	922.5
By Species		**7720**	**351**	**63**	**306**	**151**	**843**	**0**	**7271**	**1233**	**427**	**85**	**732**	**10**	**8498**	**27690**				
By Group		**8071**		**1363**				**8504**			**1254**									
		50 KhZ		**40 kHz**				**30 kHz**			**20 kHz**				**Unk.**	**Total**				

Appendix B Table 6. Summary of acoustic bat data and weather during each survey night at the Monument 6 Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
3/31/18	Y	2	0	0	0	0	0	0	0	0	13	0	0	0	1	16	NA	NA	NA	NA
4/1/18	Y	1	0	0	0	0	0	0	0	0	6	0	0	0	4	11	NA	NA	NA	NA
4/2/18	Y	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	NA	NA	NA	NA
4/3/18	Y	1	1	0	0	0	0	0	0	0	5	0	0	0	3	10	NA	NA	NA	NA
4/4/18	Y	8	0	0	0	0	0	0	0	2	62	1	0	0	35	108	NA	NA	NA	NA
4/5/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	NA	NA	NA	NA
4/6/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/7/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/8/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	NA	NA	NA	NA
4/9/18	Y	2	1	0	0	0	0	0	0	0	6	0	0	0	8	17	NA	NA	NA	NA
4/10/18	Y	1	0	0	0	0	0	0	0	0	3	0	0	0	2	6	NA	NA	NA	NA
4/11/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/12/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/13/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	3	4	NA	NA	NA	NA
4/14/18	Y	0	1	0	0	0	0	0	0	0	36	0	0	0	6	43	NA	NA	NA	NA
4/15/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.8	85.1	914.4
4/16/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1	3.7	88.3	924.8
4/17/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.5	1.6	83.4	923.7
4/18/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.5	6.3	67.8	921.6
4/19/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.7	6.5	77.5	925.9
4/20/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.1	9.1	72.5	927.6
4/21/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.6	8.8	81.9	924.4
4/22/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.4	5.3	48.9	920.8
4/23/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.1	3.0	34.2	920.7
4/24/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13.7	2.2	48.3	921.1
4/25/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.4	2.1	33.7	920.8
4/26/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.1	1.6	81.7	919.0
4/27/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.0	5.5	82.1	920.1
4/28/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.9	1.9	78.2	920.7
4/29/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.7	5.4	89.2	922.9
4/30/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.1	6.8	91.3	918.9
5/1/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.1	7.0	87.5	917.4
5/2/18	Y	337	10	0	2	0	0	0	0	0	1	0	0	0	74	424	11.5	1.9	45.5	923.7
5/3/18	Y	43	1	0	1	2	0	0	0	0	2	0	0	0	27	76	11.9	1.4	50.7	927.3
5/4/18	Y	124	6	0	1	3	0	0	0	2	1	0	1	0	57	195	13.7	2.2	47.0	924.4
5/5/18	Y	7	0	0	0	0	0	0	0	1	1	0	0	0	6	15	7.2	1.9	75.7	920.5
5/6/18	Y	11	0	0	0	1	0	0	0	0	0	0	0	0	5	17	7.3	2.3	78.2	925.0
5/7/18	Y	149	1	0	0	0	1	0	0	0	2	1	0	0	62	216	10.9	6.4	37.9	923.9
5/8/18	Y	171	1	0	0	0	0	0	0	3	0	0	0	0	24	199	10.2	1.5	70.1	923.1
5/9/18	Y	1	0	0	0	0	0	0	0	1	0	0	0	0	1	3	6.5	7.3	82.4	922.7
5/10/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4.8	7.9	92.4	920.9
5/11/18	Y	18	3	0	0	0	0	0	0	0	0	0	0	0	6	27	7.6	7.2	81.1	919.2
5/12/18	Y	198	0	1	0	1	0	0	0	4	0	0	3	0	45	252	14.1	2.6	50.3	917.6
5/13/18	Y	44	1	0	0	0	0	0	0	0	1	0	0	0	17	63	10.2	1.1	79.8	919.4
5/14/18	Y	8	1	0	0	0	0	0	0	0	3	0	1	0	7	20	8.9	1.3	74.6	918.9
5/15/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	6.5	2.0	84.3	920.7
5/16/18	Y	1	0	1	0	0	0	0	0	0	0	0	0	0	2	4	6.8	4.3	83.9	922.5
5/17/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	6.4	6.5	86.5	920.7
5/18/18	Y	2	0	1	0	0	0	0	0	0	0	0	0	0	3	6	5.5	6.0	81.8	919.7
5/19/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.4	7.7	89.7	919.2
5/20/18	Y	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	5.2	8.8	92.7	918.5
5/21/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	6.5	7.3	86.6	916.6
5/22/18	Y	4	0	0	0	0	0	0	0	1	1	0	0	0	1	7	7.3	4.5	86.0	916.1
5/23/18	Y	2	0	0	0	0	0	0	0	0	2	0	0	0	9	13	7.2	2.1	83.3	919.6
5/24/18	Y	5	0	0	0	0	0	0	0	0	0	0	0	0	4	9	7.6	2.1	84.5	920.4
5/25/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.0	6.9	91.3	923.1
5/26/18	Y	3	0	0	0	0	0	0	0	0	0	0	0	0	1	4	7.2	7.0	87.6	923.1
5/27/18	Y	40	4	0	6	0	0	0	0	1	1	0	1	0	18	71	12.0	8.2	74.0	922.4
5/28/18	Y	12	0	1	0	0	0	0	0	2	1	0	0	0	5	21	9.9	10.2	76.9	920.8
5/29/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.7	7.2	86.5	915.4
5/30/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.6	6.3	91.0	915.9
5/31/18	Y	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4.0	5.5	81.7	922.3
6/1/18	Y	7	0	1	0	0	0	0	0	0	1	0	0	0	6	15	8.8	10.3	63.8	925.1
6/2/18	Y	21	3	0	0	1	0	0	0	3	0	0	0	0	11	39	14.3	9.1	55.8	922.0
6/3/18	Y	2	0	0	0	0	0	0	0	0	2	0	0	0	3	7	7.1	9.1	78.4	921.7
6/4/18	Y	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5.4	9.3	82.9	919.4
6/5/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.8	10.8	75.2	918.3
6/6/18	Y	1	0	0	0	0	0	0	0	1	0	0	0	0	2	4	6.9	6.4	83.7	918.9
6/7/18	Y	20	3	0	1	0	0	0	0	2	1	0	0	0	6	33	8.5	3.1	77.8	923.7
6/8/18	Y	2	0	0	0	0	0	0	0	0	0	0	0	0	3	5	8.5	3.9	80.2	921.5
6/9/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.1	4.7	84.0	924.9
6/10/18	Y	22	0	0	0	0	0	0	0	1	0	0	3	0	12	38	9.5	2.1	68.6	922.7
6/11/18	Y	19	0	0	1	0	0	0	0	0	3	0	0	0	7	30	11.8	8.8	81.2	920.3

Appendix B Table 6. Summary of acoustic bat data and weather during each survey night at the Monument 6 Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
6/12/18	Y	3	0	0	0	0	0	0	0	1	0	0	0	0	2	6	8.7	11.8	63.7	919.6
6/13/18	Y	1	0	0	0	0	0	0	0	0	0	1	0	0	0	2	7.3	9.1	89.9	917.5
6/14/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.1	8.4	86.7	915.7
6/15/18	Y	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	7.7	9.2	83.1	913.8
6/16/18	Y	39	1	1	0	0	0	0	0	0	2	0	0	0	12	55	10.4	6.4	79.9	913.6
6/17/18	Y	59	1	0	0	0	0	0	2	5	2	0	1	0	19	89	12.0	2.9	67.4	920.3
6/18/18	Y	63	1	0	2	0	0	0	1	2	0	0	1	0	27	97	14.1	5.7	47.6	922.5
6/19/18	Y	112	0	1	4	1	0	0	1	21	3	0	2	0	63	208	15.7	3.2	46.4	921.5
6/20/18	Y	61	1	0	1	0	0	0	0	1	1	0	0	0	40	105	10.7	6.0	52.6	922.3
6/21/18	Y	32	1	1	0	0	0	0	0	1	0	0	1	0	20	56	8.9	9.6	80.1	923.4
6/22/18	Y	45	2	0	2	0	0	0	0	1	1	0	1	0	22	74	12.4	10.2	72.1	920.9
6/23/18	Y	140	0	1	1	0	0	0	1	4	0	0	0	0	41	188	19.2	7.4	38.3	917.8
6/24/18	Y	28	0	0	1	0	0	0	0	11	1	0	0	0	13	54	9.8	8.8	72.6	920.1
6/25/18	Y	18	0	0	0	0	0	0	0	0	0	0	0	0	6	24	8.2	8.8	83.2	920.6
6/26/18	Y	98	0	0	1	0	0	0	1	2	0	0	5	0	29	136	11.2	7.8	68.0	919.4
6/27/18	Y	8	0	0	0	0	0	0	1	0	0	0	0	0	4	13	6.9	6.6	82.2	921.0
6/28/18	Y	18	0	1	1	0	0	0	0	0	1	0	0	0	7	28	8.3	7.6	79.3	922.1
6/29/18	Y	44	0	1	2	0	0	0	1	2	0	0	0	0	17	67	12.2	8.4	70.9	922.3
6/30/18	Y	125	1	1	6	1	0	0	2	4	0	1	0	0	35	176	16.7	8.1	54.8	923.0
7/1/18	Y	31	0	0	2	0	0	0	3	3	1	0	0	0	21	61	13.3	10.0	56.6	922.7
7/2/18	Y	16	0	1	0	0	0	0	0	0	0	0	0	0	4	21	8.6	9.5	73.6	918.9
7/3/18	Y	47	0	1	0	1	0	0	1	0	0	0	0	0	26	76	10.4	6.3	68.3	917.3
7/4/18	Y	94	2	0	0	0	0	0	11	49	0	0	3	0	76	235	11.9	1.5	69.7	922.0
7/5/18	Y	62	0	2	1	0	0	0	4	24	0	0	8	0	42	143	12.8	3.6	65.9	926.9
7/6/18	Y	19	0	0	0	0	0	0	8	37	0	0	2	0	17	83	8.7	7.5	80.9	925.6
7/7/18	Y	15	1	0	0	1	0	0	0	1	0	0	0	0	3	21	8.5	8.8	78.1	922.6
7/8/18	Y	42	0	1	0	0	1	0	1	0	0	0	0	0	12	57	10.5	6.4	77.8	923.7
7/9/18	Y	22	0	0	2	0	0	0	2	1	0	1	0	0	21	49	10.4	8.7	73.1	925.9
7/10/18	Y	91	1	3	3	4	0	0	6	12	0	0	1	0	70	191	16.6	7.9	64.6	920.7
7/11/18	Y	323	1	3	0	1	0	0	0	5	0	1	10	0	171	515	22.4	3.9	38.2	918.1
7/12/18	Y	203	1	0	0	0	0	0	5	4	0	0	13	0	90	316	20.9	3.0	28.4	922.0
7/13/18	Y	126	0	1	1	2	0	0	4	6	1	0	3	1	38	183	20.4	3.1	39.8	923.4
7/14/18	Y	104	2	0	0	1	0	0	72	6	0	1	10	0	62	258	21.6	1.4	38.9	921.1
7/15/18	Y	158	3	2	0	1	0	0	10	6	0	0	3	0	72	255	21.0	1.6	53.3	920.8
7/16/18	Y	215	0	1	2	0	0	0	3	4	2	0	2	0	125	354	19.3	6.9	53.7	921.7
7/17/18	Y	118	1	0	2	1	0	0	4	3	2	1	1	0	34	167	19.3	7.7	29.7	922.7
7/18/18	Y	106	0	2	1	3	0	0	10	2	0	0	2	0	35	161	19.1	8.6	51.1	921.3
7/19/18	Y	105	0	0	2	1	0	0	6	2	0	0	1	0	44	161	18.1	7.6	40.8	918.9
7/20/18	Y	77	0	0	2	1	0	0	18	2	0	1	1	0	36	138	20.3	1.6	42.9	919.6
7/21/18	Y	76	0	0	0	4	0	0	11	0	0	1	0	0	23	115	20.3	3.0	37.0	922.5
7/22/18	Y	72	2	1	1	1	0	0	5	1	0	0	0	0	40	123	19.7	1.7	59.8	924.6
7/23/18	Y	63	0	1	0	1	0	0	3	1	0	1	1	0	22	93	20.5	2.7	55.6	923.6
7/24/18	Y	152	1	0	6	4	1	0	6	1	0	0	0	0	40	211	22.5	1.3	31.2	925.0
7/25/18	Y	71	1	0	0	0	0	0	2	0	0	0	0	0	14	88	21.2	6.9	NA	924.7
7/26/18	Y	91	1	1	1	3	0	0	1	0	1	0	1	0	25	125	21.2	6.5	37.7	921.8
7/27/18	Y	47	1	0	0	1	0	0	2	1	0	0	1	0	11	64	17.4	9.2	36.2	921.7
7/28/18	Y	55	0	1	2	0	0	0	6	1	1	0	0	0	24	90	17.4	8.4	38.8	921.9
7/29/18	Y	49	0	0	1	0	0	0	4	0	0	0	2	0	21	77	16.8	6.3	54.2	922.7
7/30/18	Y	54	1	0	1	1	0	0	10	1	2	0	0	0	23	93	15.9	8.4	56.4	922.1
7/31/18	Y	40	0	0	0	0	0	0	7	2	0	0	2	0	22	73	13.7	8.4	70.1	921.5
8/1/18	Y	27	0	0	2	0	0	0	3	0	1	0	4	0	17	54	11.7	7.8	65.3	921.5
8/2/18	Y	14	0	0	0	0	0	0	0	1	0	0	0	0	9	24	11.8	9.4	73.7	921.9
8/3/18	Y	66	2	2	0	2	1	0	3	1	0	0	1	0	15	93	14.3	6.4	64.3	922.0
8/4/18	Y	14	0	0	0	0	0	0	2	0	0	0	0	0	10	26	11.3	6.9	74.6	920.5
8/5/18	Y	67	0	2	1	0	0	0	5	1	0	0	1	0	16	93	16.1	3.4	38.0	923.0
8/6/18	Y	61	3	1	1	1	0	0	12	0	0	0	2	0	24	105	16.0	7.7	35.3	922.2
8/7/18	Y	55	1	0	1	1	0	0	14	3	1	0	1	0	20	97	16.6	6.6	66.1	919.0
8/8/18	Y	73	1	0	0	2	0	0	10	4	0	0	1	0	32	123	19.2	4.8	49.7	920.9
8/9/18	Y	290	2	2	4	5	0	0	30	1	0	0	2	0	52	388	21.8	2.1	26.1	922.0
8/10/18	Y	35	0	0	2	1	0	0	10	4	2	1	1	0	19	75	11.8	6.5	77.6	922.9
8/11/18	Y	16	0	1	1	0	0	0	0	1	1	0	3	0	5	28	12.0	9.5	80.4	921.6
8/12/18	Y	70	2	2	1	2	0	0	7	3	0	0	0	0	25	112	16.4	5.3	50.0	919.8
8/13/18	Y	28	0	0	3	0	1	0	15	0	0	1	3	0	25	76	15.9	1.5	53.1	918.7
8/14/18	Y	53	1	0	1	4	0	0	51	7	1	0	3	0	46	167	15.5	1.2	70.1	918.1
8/15/18	Y	30	0	1	0	0	0	0	17	1	1	3	3	0	17	73	15.6	1.9	73.2	920.1
8/16/18	Y	41	0	4	0	1	0	0	7	3	0	0	1	0	23	80	17.7	5.0	41.4	923.8
8/17/18	Y	95	0	2	1	2	0	0	9	1	0	0	0	0	32	142	19.6	5.3	36.0	923.9
8/18/18	Y	112	0	1	3	3	0	0	10	1	3	2	3	0	46	184	18.0	7.1	37.2	922.5
8/19/18	Y	48	0	0	0	1	0	0	6	6	3	1	3	0	29	97	15.5	7.6	57.1	919.2
8/20/18	Y	159	3	1	0	10	1	0	13	3	1	0	4	0	72	267	20.4	2.6	40.4	917.8
8/21/18	Y	95	0	0	1	0	0	0	26	2	0	0	3	0	39	166	17.8	2.9	50.9	920.0
8/22/18	Y	76	2	0	1	5	0	0	16	0	0	0	4	0	43	147	15.8	1.1	69.3	921.5
8/23/18	Y	7	1	0	0	0	0	0	1	3	1	0	2	0	18	33	11.8	5.2	74.8	920.6

Appendix B Table 6. Summary of acoustic bat data and weather during each survey night at the Monument 6 Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
8/24/18	Y	16	0	1	0	1	0	0	0	1	1	0	0	0	14	34	11.3	6.9	72.6	919.0
8/25/18	Y	116	2	2	1	2	6	0	4	0	0	0	4	0	40	177	14.5	5.3	50.7	920.4
8/26/18	Y	26	0	0	0	0	0	0	3	3	0	0	2	0	14	48	11.3	7.4	74.2	919.4
8/27/18	Y	55	1	0	0	2	0	0	6	3	0	0	2	0	36	105	16.2	4.3	63.3	917.4
8/28/18	Y	69	3	0	0	2	0	0	17	7	0	0	6	0	48	152	14.9	2.1	62.8	919.3
8/29/18	Y	31	1	0	0	1	1	0	5	1	0	0	2	0	12	54	11.9	1.3	76.8	920.3
8/30/18	Y	6	0	0	0	1	0	0	1	1	1	0	3	0	10	23	9.4	6.5	81.7	923.1
8/31/18	Y	13	1	0	1	0	0	0	0	0	2	0	2	0	10	29	10.3	8.2	77.9	920.8
9/1/18	Y	84	3	1	3	2	3	0	6	5	0	0	3	0	41	151	17.0	7.4	46.5	917.6
9/2/18	Y	181	2	1	1	5	0	0	7	2	0	1	0	0	57	257	20.8	5.9	31.2	917.5
9/3/18	Y	220	3	1	1	5	2	0	10	4	1	0	2	0	91	340	18.2	7.1	43.1	917.4
9/4/18	Y	274	2	0	2	7	0	0	4	6	0	1	3	0	60	359	20.2	2.8	37.9	917.3
9/5/18	Y	126	5	1	1	4	0	0	6	3	0	0	2	0	42	190	14.4	5.8	49.1	921.7
9/6/18	Y	36	2	0	2	1	0	0	1	0	0	0	0	0	29	71	13.9	8.1	52.6	923.9
9/7/18	Y	11	0	1	0	0	0	0	0	1	1	1	1	0	11	27	9.3	6.7	73.0	923.2
9/8/18	Y	5	1	4	0	0	1	0	1	5	1	0	2	0	14	34	9.6	10.4	68.8	920.9
9/9/18	Y	5	0	1	0	0	0	0	1	6	1	0	2	0	8	24	9.7	10.3	77.8	921.0
9/10/18	Y	4	0	2	0	0	1	0	0	1	1	1	0	0	6	16	8.6	9.3	83.4	920.6
9/11/18	Y	2	0	2	0	0	0	0	0	0	1	0	0	0	3	8	8.7	5.9	85.0	918.8
9/12/18	Y	2	0	3	0	0	0	0	0	0	1	1	0	0	7	14	8.2	5.8	82.1	919.1
9/13/18	Y	10	1	0	0	0	0	0	0	0	0	0	0	0	7	18	NA	NA	NA	NA
9/14/18	Y	6	0	0	0	0	0	0	0	1	0	0	1	0	16	24	NA	NA	NA	NA
9/15/18	Y	16	1	1	0	0	1	0	2	1	0	1	1	0	10	34	NA	NA	NA	NA
9/16/18	Y	12	2	0	0	0	0	0	0	1	0	1	1	0	9	26	NA	NA	NA	NA
9/17/18	Y	8	0	0	0	0	0	0	0	0	0	1	0	0	2	11	NA	NA	NA	NA
9/18/18	Y	1	0	0	0	0	0	0	0	0	0	1	0	0	1	3	NA	NA	NA	NA
9/19/18	Y	23	1	1	0	1	0	0	1	2	2	0	0	0	13	44	NA	NA	NA	NA
9/20/18	Y	131	4	2	4	11	1	0	4	2	2	0	0	0	67	228	NA	NA	NA	NA
9/21/18	Y	129	4	1	6	2	1	0	4	2	1	0	3	0	50	203	11.0	7.4	70.1	921.4
9/22/18	Y	17	0	1	0	0	0	0	0	1	1	0	1	0	21	42	8.9	8.2	78.8	920.3
9/23/18	Y	80	1	2	2	1	0	0	0	0	0	0	0	0	31	117	13.5	6.7	49.8	918.5
9/24/18	Y	105	3	0	2	5	0	0	1	0	2	0	10	0	33	161	20.8	4.6	24.2	919.2
9/25/18	Y	424	16	1	9	4	0	0	1	4	3	0	1	0	143	606	22.5	2.6	20.0	920.9
9/26/18	Y	183	12	1	2	2	2	0	3	3	1	0	4	0	43	256	22.8	1.3	NA	921.3
9/27/18	Y	139	7	0	2	2	11	0	0	1	0	0	1	0	68	231	21.0	4.0	NA	917.0
9/28/18	Y	73	1	1	0	0	0	0	0	4	3	0	2	0	43	127	10.3	3.2	65.8	914.5
9/29/18	Y	46	0	0	0	0	2	0	0	0	0	0	0	0	70	118	10.8	6.5	82.8	915.5
9/30/18	Y	31	3	0	0	0	2	0	0	0	0	0	0	0	39	75	11.2	3.4	76.6	916.3
10/1/18	Y	8	0	0	0	0	1	0	0	0	0	0	1	0	16	26	12.6	6.4	77.9	914.4
10/2/18	Y	8	0	1	1	0	0	0	0	2	2	0	1	0	23	38	13.0	1.8	90.0	917.3
10/3/18	Y	18	0	0	0	0	0	0	0	6	1	1	6	0	32	64	8.4	2.4	87.5	917.7
10/4/18	Y	7	0	0	0	1	0	0	1	2	0	0	3	0	12	26	6.5	6.7	78.4	922.4
10/5/18	Y	16	0	0	0	0	1	0	0	0	1	0	5	0	23	46	9.5	4.5	82.6	921.3
10/6/18	Y	7	0	1	0	0	0	0	0	0	0	0	1	0	13	22	6.9	7.2	89.6	921.7
10/7/18	Y	48	0	2	0	1	0	0	1	2	6	1	0	0	15	76	9.1	6.2	88.0	920.6
10/8/18	Y	20	0	0	0	0	0	0	0	1	2	0	0	0	13	36	10.1	6.7	89.3	917.0
10/9/18	Y	11	1	1	0	0	0	0	0	0	1	1	1	0	7	23	7.0	7.5	84.4	915.5
10/10/18	Y	58	0	0	0	0	0	0	0	4	0	0	2	0	20	84	9.6	4.8	75.7	914.5
10/11/18	Y	346	1	0	1	2	0	0	4	1	0	0	2	0	44	401	13.7	5.4	46.6	919.2
10/12/18	Y	272	3	0	2	0	0	0	1	1	10	1	1	0	84	375	16.4	3.6	27.0	917.0
10/13/18	Y	180	7	0	0	1	0	0	0	1	0	0	2	0	56	247	18.6	4.7	27.7	917.8
10/14/18	Y	193	2	1	4	0	0	0	1	1	0	0	1	0	42	245	14.8	3.5	21.1	923.5
10/15/18	Y	166	4	0	1	0	0	0	2	3	0	0	1	0	54	231	15.7	5.9	20.7	925.7
10/16/18	Y	258	7	0	1	0	0	0	0	2	0	0	0	0	54	322	17.5	4.6	24.7	923.5
10/17/18	Y	291	2	0	0	8	0	0	1	2	1	0	2	0	35	342	15.6	1.2	32.2	923.8
10/18/18	Y	116	0	0	0	2	0	0	0	0	0	0	0	0	29	147	17.0	1.5	30.2	925.1
10/19/18	Y	278	2	0	0	4	0	0	0	1	0	0	0	0	43	328	18.2	4.9	29.9	923.4
10/20/18	Y	353	0	0	0	11	0	0	0	3	0	0	1	0	30	398	17.7	1.8	26.6	919.9
10/21/18	Y	113	2	0	0	4	0	0	0	1	0	0	2	0	23	145	15.5	1.6	32.7	918.9
10/22/18	Y	60	0	0	0	1	1	0	0	0	1	0	0	0	14	77	9.1	5.5	59.2	918.0
10/23/18	Y	59	5	0	0	2	0	0	0	2	1	0	7	0	25	101	10.6	1.6	82.7	920.9
10/24/18	Y	9	0	0	0	0	3	0	0	3	0	0	5	0	11	31	9.6	3.1	85.5	924.2
10/25/18	Y	25	0	0	0	2	0	0	0	0	0	0	8	0	7	42	13.3	2.1	56.9	925.3
10/26/18	Y	12	0	0	0	0	0	0	0	1	0	0	1	0	5	19	13.0	3.0	84.7	923.5
10/27/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.5	5.3	80.0	922.5
By Species		**12114**	**200**	**89**	**135**	**183**	**46**	**0**	**601**	**410**	**246**	**33**	**247**	**1**	**4697**	**19002**				
By Group		**12314**		**453**				**1011**			**527**				**4697**	**19002**				
		50 KhZ		**40 kHz**				**30 kHz**			**20 kHz**				**Unk.**	**Total**				

Appendix B Table 7. Summary of acoustic bat data and weather during each survey night at the Monument 7 Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
4/10/18	Y	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2	NA	NA	NA	NA
4/11/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/12/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/13/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
4/14/18	Y	0	0	0	0	0	0	0	1	0	0	0	1	0	3	5	NA	NA	NA	NA
4/15/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.8	85.1	914.4
4/16/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1	3.7	88.3	924.8
4/17/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.5	1.6	83.4	923.7
4/18/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2.5	6.3	67.8	921.6
4/19/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	6.7	6.5	77.5	925.9
4/20/18	Y	1	0	0	0	0	0	0	0	0	1	0	0	0	0	2	4.1	9.1	72.5	927.6
4/21/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5.6	8.8	81.9	924.4
4/22/18	Y	1	0	0	0	0	2	0	0	1	3	0	2	0	4	13	12.4	5.3	48.9	920.8
4/23/18	Y	13	0	0	0	0	0	0	1	2	16	0	6	0	30	68	15.1	3.0	34.2	920.7
4/24/18	Y	5	0	0	0	0	0	0	0	1	0	0	8	0	10	24	13.7	2.2	48.3	921.1
4/25/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	12.4	2.1	33.7	920.8
4/26/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5.1	1.6	81.7	919.0
4/27/18	Y	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2	5.0	5.5	82.1	920.1
4/28/18	Y	0	0	0	0	0	0	0	0	0	2	0	1	0	3	6	4.9	1.9	78.2	920.7
4/29/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.7	5.4	89.2	922.9
4/30/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.1	6.8	91.3	918.9
5/1/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.1	7.0	87.5	917.4
5/2/18	Y	1	0	0	0	0	0	0	1	2	2	0	0	0	6	12	11.5	1.9	45.5	923.7
5/3/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	11.9	1.4	50.7	927.3
5/4/18	Y	4	0	0	0	0	1	0	0	0	2	0	0	0	2	9	13.7	2.2	47.0	924.4
5/5/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7.2	1.9	75.7	920.5
5/6/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	2	3	7.3	2.3	78.2	925.0
5/7/18	Y	2	0	0	0	0	0	0	0	0	2	0	0	0	5	9	10.9	6.4	37.9	923.9
5/8/18	Y	2	0	0	0	0	0	0	0	0	5	0	4	0	9	20	10.2	1.5	70.1	923.1
5/9/18	Y	0	0	0	0	0	0	0	0	0	2	0	1	0	7	10	6.5	7.3	82.4	922.7
5/10/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	4.8	7.9	92.4	920.9
5/11/18	Y	1	0	0	0	0	0	0	0	0	0	0	1	0	1	3	7.6	7.2	81.1	919.2
5/12/18	Y	1	0	0	0	0	0	0	0	0	2	0	1	0	15	19	14.1	2.6	50.3	917.6
5/13/18	Y	0	0	0	0	0	0	0	0	0	4	0	0	0	3	7	10.2	1.1	79.8	919.4
5/14/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	8.9	1.3	74.6	918.9
5/15/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.5	2.0	84.3	920.7
5/16/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.8	4.3	83.9	922.5
5/17/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.4	6.5	86.5	920.7
5/18/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.5	6.0	81.8	919.7
5/19/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.4	7.7	89.7	919.2
5/20/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.2	8.8	92.7	918.5
5/21/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.5	7.3	86.6	916.6
5/22/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.3	4.5	86.0	916.1
5/23/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.2	2.1	83.3	919.6
5/24/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.6	2.1	84.5	920.4
5/25/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.0	6.9	91.3	923.1
5/26/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.2	7.0	87.6	923.1
5/27/18	Y	0	0	0	0	0	0	0	2	1	0	0	0	0	1	4	12.0	8.2	74.0	922.4
5/28/18	Y	0	0	0	0	0	0	0	0	0	2	0	0	0	1	3	9.9	10.2	76.9	920.8
5/29/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.7	7.2	86.5	915.4
5/30/18	Y	0	0	0	0	0	0	0	0	0	2	0	0	0	2	4	4.6	6.3	91.0	915.9
5/31/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.0	5.5	81.7	922.3
6/1/18	Y	2	0	0	0	0	0	0	0	0	3	0	0	0	4	9	8.8	10.3	63.8	925.1
6/2/18	Y	1	0	0	0	0	0	0	0	2	3	0	0	0	6	12	14.3	9.1	55.8	922.0
6/3/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.1	9.1	78.4	921.7
6/4/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.4	9.3	82.9	919.4
6/5/18	Y	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	5.8	10.8	75.2	918.3
6/6/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.9	6.4	83.7	918.9
6/7/18	Y	1	0	0	0	0	1	0	0	2	3	0	1	0	0	8	8.5	3.1	77.8	923.7
6/8/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.5	3.9	80.2	921.5
6/9/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	5.1	4.7	84.0	924.9
6/10/18	Y	2	0	0	0	0	0	0	0	2	3	0	2	0	3	12	9.5	2.1	68.6	922.7
6/11/18	Y	4	0	0	1	0	0	0	0	1	1	0	0	0	3	10	11.8	8.8	81.2	920.3
6/12/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	8.7	11.8	63.7	919.6
6/13/18	Y	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	7.3	9.1	89.9	917.5
6/14/18	Y	0	0	0	0	0	0	0	1	0	2	0	0	0	0	3	7.1	8.4	86.7	915.7
6/15/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	7.7	9.2	83.1	913.8
6/16/18	Y	0	0	0	0	0	0	0	0	0	1	0	1	0	2	4	10.4	6.4	79.9	913.6
6/17/18	Y	4	0	0	0	0	0	0	1	8	5	0	4	0	13	35	12.0	2.9	67.4	920.3
6/18/18	Y	1	0	0	0	0	0	0	0	4	3	0	4	0	10	22	14.1	5.7	47.6	922.5
6/19/18	Y	3	0	0	0	0	0	0	0	9	2	0	6	0	16	36	15.7	3.2	46.4	921.5
6/20/18	Y	0	0	0	0	0	0	0	0	4	0	0	0	0	3	7	10.7	6.0	52.6	922.3
6/21/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.9	9.6	80.1	923.4

Appendix B Table 7. Summary of acoustic bat data and weather during each survey night at the Monument 7 Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
6/22/18	Y	1	0	0	0	0	0	0	0	0	2	0	0	0	1	4	12.4	10.2	72.1	920.9
6/23/18	Y	1	0	0	1	0	0	0	0	1	3	0	1	0	6	13	19.2	7.4	38.3	917.8
6/24/18	Y	2	0	0	0	0	0	0	0	0	0	0	0	0	3	5	9.8	8.8	72.6	920.1
6/25/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.2	8.8	83.2	920.6
6/26/18	Y	3	0	0	0	0	0	0	1	5	0	0	1	0	3	13	11.2	7.8	68.0	919.4
6/27/18	Y	0	0	0	1	0	0	0	0	0	1	0	0	0	1	3	6.9	6.6	82.2	921.0
6/28/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.3	7.6	79.3	922.1
6/29/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	12.2	8.4	70.9	922.3
6/30/18	Y	1	0	0	0	0	0	0	3	3	2	0	1	0	5	15	16.7	8.1	54.8	923.0
7/1/18	Y	1	0	0	0	0	0	0	0	1	0	0	0	0	4	6	13.3	10.0	56.6	922.7
7/2/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	8.6	9.5	73.6	918.9
7/3/18	Y	1	0	0	0	0	0	0	1	2	1	0	0	0	0	5	10.4	6.3	68.3	917.3
7/4/18	Y	2	0	0	1	0	0	0	0	8	0	0	3	0	4	18	11.9	1.5	69.7	922.0
7/5/18	Y	2	0	0	0	0	0	0	2	2	2	0	6	0	10	24	12.8	3.6	65.9	926.9
7/6/18	Y	1	0	0	0	0	0	0	1	2	0	0	0	0	3	7	8.7	7.5	80.9	925.6
7/7/18	Y	0	0	0	0	0	0	0	0	6	0	0	0	0	1	7	8.5	8.8	78.1	922.6
7/8/18	Y	2	0	0	0	0	0	0	0	1	0	0	0	0	2	5	10.5	6.4	77.8	923.7
7/9/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	10.4	8.7	73.1	925.9
7/10/18	Y	3	0	0	0	0	0	0	0	7	1	0	5	0	5	21	16.6	7.9	64.6	920.7
7/11/18	Y	5	0	0	1	0	0	0	3	6	0	0	13	0	16	44	22.4	3.9	38.2	918.1
7/12/18	Y	5	0	0	1	1	0	0	2	1	1	0	10	0	9	30	20.9	3.0	28.4	922.0
7/13/18	Y	6	0	0	1	0	0	0	1	2	2	0	2	0	4	18	20.4	3.1	39.8	923.4
7/14/18	Y	6	0	0	0	0	0	0	0	1	0	0	7	0	12	26	21.6	1.4	38.9	921.1
7/15/18	Y	4	0	0	0	0	0	0	3	0	0	0	0	0	9	16	21.0	1.6	53.3	920.8
7/16/18	Y	2	0	0	0	0	0	0	0	3	0	0	4	0	10	19	19.3	6.9	53.7	921.7
7/17/18	Y	1	0	0	0	0	0	0	2	0	0	0	0	0	14	17	19.3	7.7	29.7	922.7
7/18/18	Y	4	0	0	0	0	0	0	0	1	1	0	3	0	9	18	19.1	8.6	51.1	921.3
7/19/18	Y	2	0	0	0	0	0	0	2	1	0	0	3	0	5	13	18.1	7.6	40.8	918.9
7/20/18	Y	1	0	0	0	0	0	0	2	1	0	0	4	0	5	13	20.3	1.6	42.9	919.6
7/21/18	Y	4	0	0	0	1	0	0	2	1	0	0	3	0	6	17	20.3	3.0	37.0	922.5
7/22/18	Y	5	0	2	0	0	0	0	2	0	0	0	2	0	2	13	19.7	1.7	59.8	924.6
7/23/18	Y	5	0	0	0	0	1	0	3	2	1	0	3	0	10	25	20.5	2.7	55.6	923.6
7/24/18	Y	14	0	0	1	0	0	0	4	0	0	0	1	0	15	35	22.5	1.3	31.2	925.0
7/25/18	Y	10	0	0	0	0	0	0	6	0	1	0	0	0	3	20	21.2	6.9	NA	924.7
7/26/18	Y	3	0	0	0	0	0	0	4	1	0	0	1	0	4	13	21.2	6.5	37.7	921.8
7/27/18	Y	5	0	0	0	0	0	0	1	2	2	0	4	0	5	19	17.4	9.2	36.2	921.7
7/28/18	Y	2	0	0	0	0	0	0	1	1	1	0	3	0	4	12	17.4	8.4	38.8	921.9
7/29/18	Y	0	0	0	0	0	0	0	3	2	0	0	1	0	7	13	16.8	6.3	54.2	922.7
7/30/18	Y	3	0	0	0	0	0	0	3	0	1	0	1	0	4	12	15.9	8.4	56.4	922.1
7/31/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	2	3	13.7	8.4	70.1	921.5
8/1/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.7	7.8	65.3	921.5
8/2/18	Y	2	0	0	0	0	0	0	1	0	1	0	2	0	2	8	11.8	9.4	73.7	921.9
8/3/18	Y	0	0	0	0	0	0	0	1	0	0	0	1	0	3	5	14.3	6.4	64.3	922.0
8/4/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	11.3	6.9	74.6	920.5
8/5/18	Y	13	0	0	0	0	0	0	18	3	3	0	9	0	35	81	16.1	3.4	38.0	923.0
8/6/18	Y	2	1	0	0	0	0	0	7	5	1	1	6	0	19	42	16.0	7.7	35.3	922.2
8/7/18	Y	4	0	0	0	1	0	0	3	0	2	0	8	0	13	31	16.6	6.6	66.1	919.0
8/8/18	Y	15	0	0	0	0	2	0	8	10	1	0	16	1	36	89	19.2	4.8	49.7	920.9
8/9/18	Y	10	1	0	0	2	2	0	8	3	4	0	4	0	20	54	21.8	2.1	26.1	922.0
8/10/18	Y	3	0	0	0	0	0	0	2	1	0	0	2	1	7	16	11.8	6.5	77.6	922.9
8/11/18	Y	1	0	0	0	0	0	0	0	1	1	0	2	0	4	9	12.0	9.5	80.4	921.6
8/12/18	Y	1	0	0	0	0	0	0	0	8	1	0	5	0	9	24	16.4	5.3	50.0	919.8
8/13/18	Y	1	0	0	0	0	0	0	2	3	0	0	2	0	7	15	15.9	1.5	53.1	918.7
8/14/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	15.5	1.2	70.1	918.1
8/15/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.6	1.9	73.2	920.1
8/16/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.7	5.0	41.4	923.8
8/17/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19.6	5.3	36.0	923.9
8/18/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.0	7.1	37.2	922.5
8/19/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.5	7.6	57.1	919.2
8/20/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20.4	2.6	40.4	917.8
8/21/18	Y	11	0	0	0	0	0	0	7	8	5	0	26	0	27	84	17.8	2.9	50.9	920.0
8/22/18	Y	1	0	1	0	0	1	0	0	1	0	0	0	0	3	7	15.8	1.1	69.3	921.5
8/23/18	Y	0	0	0	0	0	0	0	0	0	1	1	0	0	4	6	11.8	5.2	74.8	920.6
8/24/18	Y	0	0	0	0	0	0	0	0	2	0	0	6	0	1	9	11.3	6.9	72.6	919.0
8/25/18	Y	3	0	0	0	0	0	0	7	2	0	0	15	0	14	41	14.5	5.3	50.7	920.4
8/26/18	Y	0	0	0	0	0	0	0	3	6	1	0	3	1	3	17	11.3	7.4	74.2	919.4
8/27/18	Y	15	0	0	0	0	1	0	19	4	3	0	20	1	93	156	16.2	4.3	63.3	917.4
8/28/18	Y	14	0	1	0	1	0	0	16	16	1	0	26	0	85	160	14.9	2.1	62.8	919.3
8/29/18	Y	0	0	0	0	0	0	0	1	3	2	0	0	0	5	11	11.9	1.3	76.8	920.3
8/30/18	Y	0	1	0	0	0	1	0	0	1	0	0	1	0	1	5	9.4	6.5	81.7	923.1
8/31/18	Y	0	0	0	0	0	0	0	0	1	1	0	1	0	4	7	10.3	8.2	77.9	920.8
9/1/18	Y	10	0	0	0	0	0	0	7	6	3	1	6	0	31	64	17.0	7.4	46.5	917.6
9/2/18	Y	15	0	0	0	0	0	0	23	18	2	0	9	0	55	122	20.8	5.9	31.2	917.5

Appendix B Table 7. Summary of acoustic bat data and weather during each survey night at the Monument 7 Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
9/3/18	Y	18	1	0	0	0	0	0	9	4	2	1	10	1	30	76	18.2	7.1	43.1	917.4
9/4/18	Y	21	1	1	1	0	0	0	1	18	0	1	8	0	32	84	20.2	2.8	37.9	917.3
9/5/18	Y	14	0	0	0	0	0	0	31	11	0	0	11	0	41	108	14.4	5.8	49.1	921.7
9/6/18	Y	3	0	0	0	0	0	0	3	2	2	0	2	0	11	23	13.9	8.1	52.6	923.9
9/7/18	Y	0	0	1	0	0	0	0	2	1	0	0	1	0	5	10	9.3	6.7	73.0	923.2
9/8/18	Y	0	0	0	0	0	0	0	1	3	1	1	1	0	6	13	9.6	10.4	68.8	920.9
9/9/18	Y	1	0	0	0	0	0	0	0	1	0	0	3	0	2	7	9.7	10.3	77.8	921.0
9/10/18	Y	0	0	0	0	0	1	0	1	1	1	0	0	0	4	8	8.6	9.3	83.4	920.6
9/11/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3	8.7	5.9	85.0	918.8
9/12/18	Y	1	0	0	0	0	0	0	0	0	1	0	0	0	2	4	8.2	5.8	82.1	919.1
9/13/18	Y	2	1	0	0	0	0	0	0	1	0	0	1	0	4	9	NA	NA	NA	NA
9/14/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3	NA	NA	NA	NA
9/15/18	Y	4	0	0	0	0	0	0	1	1	0	0	2	0	3	11	NA	NA	NA	NA
9/16/18	Y	2	0	0	0	0	0	0	0	1	0	0	4	0	1	8	NA	NA	NA	NA
9/17/18	Y	0	1	0	0	0	0	0	0	0	0	0	0	0	3	4	NA	NA	NA	NA
9/18/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	NA	NA	NA	NA
9/19/18	Y	0	0	0	0	0	0	0	0	1	1	0	2	0	11	15	NA	NA	NA	NA
9/20/18	Y	38	1	1	0	0	0	0	6	3	2	0	10	0	62	123	NA	NA	NA	NA
9/21/18	Y	14	0	0	0	0	0	0	33	4	4	0	6	0	34	95	11.0	7.4	70.1	921.4
9/22/18	Y	0	0	0	0	0	1	0	0	1	0	1	0	0	6	9	8.9	8.2	78.8	920.3
9/23/18	Y	4	1	0	0	0	0	0	0	1	1	1	8	0	15	31	13.5	6.7	49.8	918.5
9/24/18	Y	29	1	0	2	0	1	0	3	7	2	1	4	0	42	92	20.8	4.6	24.2	919.2
9/25/18	Y	26	1	0	1	0	1	0	1	6	1	0	7	0	16	60	22.5	2.6	20.0	920.9
9/26/18	Y	19	0	1	0	1	0	0	0	11	4	1	3	0	30	70	22.8	1.3	NA	921.3
9/27/18	Y	24	0	0	0	0	1	0	1	6	1	0	5	0	39	77	21.0	4.0	NA	917.0
9/28/18	N	5	0	0	0	0	0	0	0	3	0	0	1	0	4	13	10.3	3.2	65.8	914.5
9/29/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.8	6.5	82.8	915.5
9/30/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.2	3.4	76.6	916.3
10/1/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.6	6.4	77.9	914.4
10/2/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13.0	1.8	90.0	917.3
10/3/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.4	2.4	87.5	917.7
10/4/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.5	6.7	78.4	922.4
10/5/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.5	4.5	82.6	921.3
10/6/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.9	7.2	89.6	921.7
10/7/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.1	6.2	88.0	920.6
10/8/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.1	6.7	89.3	917.0
10/9/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.0	7.5	84.4	915.5
10/10/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.6	4.8	75.7	914.5
10/11/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13.7	5.4	46.6	919.2
10/12/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.4	3.6	27.0	917.0
10/13/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.6	4.7	27.7	917.8
10/14/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14.8	3.5	21.1	923.5
10/15/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.7	5.9	20.7	925.7
10/16/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.5	4.6	24.7	923.5
10/17/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.6	1.2	32.2	923.8
10/18/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.0	1.5	30.2	925.1
10/19/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.2	4.9	29.9	923.4
10/20/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.7	1.8	26.6	919.9
10/21/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.5	1.6	32.7	918.9
10/22/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.1	5.5	59.2	918.0
10/23/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.6	1.6	82.7	920.9
10/24/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.6	3.1	85.5	924.2
10/25/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13.3	2.1	56.9	925.3
10/26/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13.0	3.0	84.7	923.5
10/27/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.5	5.3	80.0	922.5
10/28/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.6	3.2	80.8	925.9
By Species		**508**	**11**	**9**	**12**	**7**	**19**	**0**	**285**	**291**	**154**	**11**	**387**	**5**	**1271**	**2970**				
By Group		**519**		**47**				**576**			**557**									
		50 KhZ		**40 kHz**				**30 kHz**			**20 kHz**				**Unk.**	**Total**				

Appendix B Table 8. Summary of acoustic bat data and weather during each survey night at the Eel River Detector, Humboldt Wind Energy Project, Humboldt County, California.

Night of	Operational?	50 KhZ		40 kHz				30 kHz			20 kHz				Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
		California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat						
4/20/18	Y	2	0	2	0	0	0	0	0	1	0	0	0	0	5	10	4.1	9.1	72.5	927.6
4/21/18	Y	0	0	2	0	0	0	0	0	0	0	0	0	0	4	6	5.6	8.8	81.9	924.4
4/22/18	Y	0	0	1	0	0	0	0	0	0	1	0	0	0	6	8	12.4	5.3	48.9	920.8
4/23/18	Y	2	0	0	0	0	0	0	0	4	8	0	4	0	12	30	15.1	3.0	34.2	920.7
4/24/18	Y	4	0	0	0	0	0	0	0	1	3	0	1	0	9	18	13.7	2.2	48.3	921.1
4/25/18	Y	1	1	0	0	0	0	0	0	0	0	0	2	0	2	6	12.4	2.1	33.7	920.8
4/26/18	Y	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	5.1	1.6	81.7	919.0
4/27/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5.0	5.5	82.1	920.1
4/28/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4.9	1.9	78.2	920.7
4/29/18	Y	1	1	0	0	0	0	0	0	0	0	0	0	0	1	3	3.7	5.4	89.2	922.9
4/30/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3.1	6.8	91.3	918.9
5/1/18	Y	1	0	0	1	0	1	0	0	0	0	0	2	0	2	7	5.1	7.0	87.5	917.4
5/2/18	Y	1	0	2	0	0	0	0	0	0	2	0	2	0	13	20	11.5	1.9	45.5	923.7
5/3/18	Y	1	1	3	0	0	0	0	0	0	1	0	2	0	1	9	11.9	1.4	50.7	927.3
5/4/18	Y	2	0	0	0	0	0	0	0	0	0	0	0	0	5	7	13.7	2.2	47.0	924.4
5/5/18	Y	1	1	1	0	0	0	0	0	0	0	0	5	0	7	15	7.2	1.9	75.7	920.5
5/6/18	Y	1	2	1	0	0	1	0	0	0	0	0	1	0	0	6	7.3	2.3	78.2	925.0
5/7/18	Y	4	0	0	0	0	3	0	0	1	5	0	1	0	8	22	10.9	6.4	37.9	923.9
5/8/18	Y	5	4	0	0	0	1	0	0	1	4	0	2	0	13	30	10.2	1.5	70.1	923.1
5/9/18	Y	2	2	1	0	0	0	0	0	2	0	0	0	0	6	13	6.5	7.3	82.4	922.7
5/10/18	Y	0	0	0	0	0	0	0	1	0	0	0	0	0	2	3	4.8	7.9	92.4	920.9
5/11/18	Y	5	0	0	0	0	0	0	0	0	0	0	0	0	8	13	7.6	7.2	81.1	919.2
5/12/18	Y	4	0	0	0	0	0	0	1	0	0	0	0	0	8	13	14.1	2.6	50.3	917.6
5/13/18	Y	5	1	0	1	2	1	0	0	2	18	0	0	0	8	38	10.2	1.1	79.8	919.4
5/14/18	Y	6	2	0	1	0	0	0	0	0	1	0	3	0	6	19	8.9	1.3	74.6	918.9
5/15/18	Y	1	0	0	0	0	0	0	0	0	1	0	0	0	1	3	6.5	2.0	84.3	920.7
5/16/18	Y	1	0	1	0	0	0	0	0	0	0	0	0	0	6	8	6.8	4.3	83.9	922.5
5/17/18	Y	1	0	1	0	0	0	0	0	0	0	0	0	0	4	6	6.4	6.5	86.5	920.7
5/18/18	Y	0	0	2	0	0	0	0	0	1	0	0	0	0	4	7	5.5	6.0	81.8	919.7
5/19/18	Y	0	0	2	0	0	0	0	0	0	0	0	0	1	2	5	5.4	7.7	89.7	919.2
5/20/18	Y	2	0	1	0	0	0	0	0	0	0	0	0	0	3	6	5.2	8.8	92.7	918.5
5/21/18	Y	3	0	0	0	0	1	0	0	0	1	0	1	0	7	13	6.5	7.3	86.6	916.6
5/22/18	Y	6	0	0	0	1	1	0	0	0	3	0	1	0	7	19	7.3	4.5	86.0	916.1
5/23/18	Y	5	0	0	0	0	0	0	0	0	1	0	0	0	8	14	7.2	2.1	83.3	919.6
5/24/18	Y	4	0	0	0	0	0	0	0	2	0	0	0	0	9	15	7.6	2.1	84.5	920.4
5/25/18	Y	0	0	1	0	0	0	0	0	0	0	0	1	0	0	2	5.0	6.9	91.3	923.1
5/26/18	Y	4	0	2	0	0	0	0	0	1	1	0	0	0	2	10	7.2	7.0	87.6	923.1
5/27/18	Y	4	0	2	0	0	0	0	0	3	1	0	1	0	6	17	12.0	8.2	74.0	922.4
5/28/18	Y	7	0	1	1	0	0	0	0	2	1	0	1	0	7	20	9.9	10.2	76.9	920.8
5/29/18	Y	6	0	0	0	0	1	0	0	0	0	0	0	0	3	10	4.7	7.2	86.5	915.4
5/30/18	Y	6	0	0	0	0	0	0	0	0	0	0	0	0	4	10	4.6	6.3	91.0	915.9
5/31/18	Y	3	0	1	0	0	0	0	0	1	0	0	0	0	3	8	4.0	5.5	81.7	922.3
6/1/18	Y	1	1	0	0	0	0	0	1	0	0	0	0	0	7	10	8.8	10.3	63.8	925.1
6/2/18	Y	3	1	1	0	0	0	0	0	1	2	0	0	0	7	15	14.3	9.1	55.8	922.0
6/3/18	Y	1	0	1	0	0	0	0	0	9	1	0	0	0	6	18	7.1	9.1	78.4	921.7
6/4/18	Y	1	0	0	0	0	0	0	0	0	1	0	0	0	3	5	5.4	9.3	82.9	919.4
6/5/18	Y	1	0	0	1	0	0	0	0	0	1	0	0	0	3	6	5.8	10.8	75.2	918.3
6/6/18	Y	4	0	0	0	1	0	0	0	1	3	0	0	0	6	15	6.9	6.4	83.7	918.9
6/7/18	Y	3	1	0	0	0	0	0	0	1	0	0	0	0	7	12	8.5	3.1	77.8	923.7
6/8/18	Y	3	1	0	0	0	0	0	0	3	2	0	1	0	6	16	8.5	3.9	80.2	921.5
6/9/18	Y	5	1	0	1	0	0	0	0	0	1	0	0	0	4	12	5.1	4.7	84.0	924.9
6/10/18	Y	4	1	1	2	0	0	0	0	2	1	0	0	0	6	17	9.5	2.1	68.6	922.7
6/11/18	Y	4	0	1	0	0	0	0	0	1	2	0	2	0	10	20	11.8	8.8	81.2	920.3
6/12/18	Y	8	3	0	0	0	0	0	0	0	4	0	0	0	3	18	8.7	11.8	63.7	919.6
6/13/18	Y	6	0	1	0	0	0	0	0	3	1	0	1	0	11	23	7.3	9.1	89.9	917.5
6/14/18	Y	5	0	1	0	1	0	0	0	1	2	0	0	0	10	20	7.1	8.4	86.7	915.7
6/15/18	Y	8	2	0	0	0	0	0	0	1	1	0	0	0	13	25	7.7	9.2	83.1	913.8
6/16/18	Y	5	0	1	0	0	0	0	0	1	0	1	1	0	2	11	10.4	6.4	79.9	913.6
6/17/18	Y	3	1	1	1	0	0	0	0	2	1	0	0	0	9	18	12.0	2.9	67.4	920.3
6/18/18	Y	3	0	0	0	0	1	0	0	1	3	1	2	0	5	16	14.1	5.7	47.6	922.5
6/19/18	Y	1	1	0	0	0	0	0	0	3	0	0	1	0	12	18	15.7	3.2	46.4	921.5
6/20/18	Y	2	2	0	0	0	0	0	1	1	1	1	1	0	6	15	10.7	6.0	52.6	922.3
6/21/18	Y	2	0	0	0	0	0	0	0	0	3	0	0	0	13	18	8.9	9.6	80.1	923.4
6/22/18	Y	1	1	0	1	0	0	0	1	4	3	1	0	0	11	23	12.4	10.2	72.1	920.9
6/23/18	Y	3	3	3	1	0	0	0	0	0	0	1	1	0	5	17	19.2	7.4	38.3	917.8
6/24/18	Y	4	1	0	0	0	0	0	0	5	0	0	0	0	16	26	9.8	8.8	72.6	920.1
6/25/18	Y	2	0	0	0	0	0	0	0	2	0	1	0	0	9	14	8.2	8.8	83.2	920.6
6/26/18	Y	5	1	1	0	0	0	0	0	0	1	1	0	0	6	15	11.2	7.8	68.0	919.4
6/27/18	Y	6	0	0	1	0	0	0	0	0	0	0	1	0	7	15	6.9	6.6	82.2	921.0
6/28/18	Y	5	0	0	0	2	0	0	0	0	0	0	5	0	4	16	8.3	7.6	79.3	922.1
6/29/18	Y	2	4	0	1	0	0	0	0	1	1	0	0	0	9	18	12.2	8.4	70.9	922.3
6/30/18	Y	5	0	1	1	1	0	0	0	1	1	2	0	0	9	21	16.7	8.1	54.8	923.0
7/1/18	Y	1	2	1	1	2	0	0	0	1	1	0	0	0	9	18	13.3	10.0	56.6	922.7

Appendix B Table 8. Summary of acoustic bat data and weather during each survey night at the Eel River Detector, Humboldt Wind Energy Project, Humboldt County, California.

Night of	Operational?	50 KhZ		40 kHz				30 kHz			20 kHz				Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
		California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat						
7/2/18	Y	2	1	0	0	0	0	0	2	0	1	0	1	0	9	16	8.6	9.5	73.6	918.9
7/3/18	Y	1	2	0	1	1	0	0	0	1	0	0	0	0	5	11	10.4	6.3	68.3	917.3
7/4/18	Y	2	3	0	0	3	0	0	1	0	0	1	0	0	8	18	11.9	1.5	69.7	922.0
7/5/18	Y	4	2	0	0	1	0	0	1	2	0	0	0	0	8	18	12.8	3.6	65.9	926.9
7/6/18	Y	6	5	0	0	0	0	0	10	1	0	0	0	0	8	30	8.7	7.5	80.9	925.6
7/7/18	Y	1	1	1	0	0	0	0	0	0	1	0	1	0	9	14	8.5	8.8	78.1	922.6
7/8/18	Y	1	4	0	0	0	0	0	1	2	0	0	0	0	9	17	10.5	6.4	77.8	923.7
7/9/18	Y	4	2	1	0	0	0	0	35	2	0	1	2	0	11	58	10.4	8.7	73.1	925.9
7/10/18	Y	1	3	0	0	1	0	0	19	1	0	0	2	0	11	38	16.6	7.9	64.6	920.7
7/11/18	Y	1	7	1	2	0	0	0	23	2	0	0	2	0	10	48	22.4	3.9	38.2	918.1
7/12/18	Y	3	14	0	1	1	0	0	7	1	0	0	3	0	12	42	20.9	3.0	28.4	922.0
7/13/18	Y	3	14	0	1	2	0	0	2	0	1	0	1	0	6	30	20.4	3.1	39.8	923.4
7/14/18	Y	6	23	0	2	2	0	0	2	4	0	0	2	0	12	53	21.6	1.4	38.9	921.1
7/15/18	Y	5	15	0	1	0	0	0	4	2	1	0	1	0	18	47	21.0	1.6	53.3	920.8
7/16/18	Y	1	13	0	1	0	0	0	4	0	0	0	0	0	10	29	19.3	6.9	53.7	921.7
7/17/18	Y	7	16	2	0	0	0	0	4	0	0	0	0	0	9	38	19.3	7.7	29.7	922.7
7/18/18	Y	5	11	0	1	1	1	0	8	1	1	0	2	0	17	48	19.1	8.6	51.1	921.3
7/19/18	Y	3	5	1	0	4	1	0	2	0	0	0	0	0	7	23	18.1	7.6	40.8	918.9
7/20/18	Y	1	0	0	0	0	0	0	2	1	0	0	1	0	7	12	20.3	1.6	42.9	919.6
7/21/18	Y	9	5	1	2	0	0	0	1	2	0	0	0	0	5	25	20.3	3.0	37.0	922.5
7/22/18	Y	6	10	9	1	0	0	0	0	0	0	0	0	0	9	35	19.7	1.7	59.8	924.6
7/23/18	Y	6	11	14	0	1	0	0	5	1	0	1	0	0	7	46	20.5	2.7	55.6	923.6
7/24/18	Y	0	5	18	0	0	0	0	2	0	0	0	0	0	16	41	22.5	1.3	31.2	925.0
7/25/18	Y	2	2	24	0	0	0	0	2	0	0	0	1	0	7	38	21.2	6.9	NA	924.7
7/26/18	Y	0	4	2	3	2	0	0	3	0	0	0	0	0	4	18	21.2	6.5	37.7	921.8
7/27/18	Y	1	4	1	0	0	0	0	1	0	0	0	0	0	7	14	17.4	9.2	36.2	921.7
7/28/18	Y	0	1	2	0	1	1	0	2	0	0	0	1	0	7	15	17.4	8.4	38.8	921.9
7/29/18	Y	1	5	5	0	1	0	0	1	1	2	0	0	0	10	26	16.8	6.3	54.2	922.7
7/30/18	Y	1	1	2	3	4	0	0	1	0	0	0	2	0	4	18	15.9	8.4	56.4	922.1
7/31/18	Y	1	3	2	0	0	0	0	4	1	2	0	0	0	15	28	13.7	8.4	70.1	921.5
8/1/18	Y	1	2	2	0	0	0	0	23	0	0	0	2	0	11	41	11.7	7.8	65.3	921.5
8/2/18	Y	0	0	4	0	1	0	0	12	2	0	0	1	0	12	32	11.8	9.4	73.7	921.9
8/3/18	Y	2	1	2	2	0	1	0	2	0	0	0	0	1	9	20	14.3	6.4	64.3	922.0
8/4/18	Y	4	3	0	0	2	0	0	1	1	1	0	0	0	14	26	11.3	6.9	74.6	920.5
8/5/18	Y	2	3	5	1	0	0	0	21	1	0	1	0	0	10	44	16.1	3.4	38.0	923.0
8/6/18	Y	4	2	3	0	0	0	0	0	0	1	0	0	0	5	15	16.0	7.7	35.3	922.2
8/7/18	Y	3	1	1	0	0	0	0	3	0	0	1	1	1	6	17	16.6	6.6	66.1	919.0
8/8/18	Y	7	1	2	0	1	0	0	1	5	6	0	3	0	14	40	19.2	4.8	49.7	920.9
8/9/18	Y	5	4	6	0	8	1	0	21	0	2	1	1	0	37	86	21.8	2.1	26.1	922.0
8/10/18	Y	7	6	1	0	0	0	0	14	1	1	0	2	0	25	57	11.8	6.5	77.6	922.9
8/11/18	Y	6	1	0	2	2	0	0	13	0	0	0	1	0	20	45	12.0	9.5	80.4	921.6
8/12/18	Y	2	4	3	1	1	2	0	3	2	4	0	3	1	19	45	16.4	5.3	50.0	919.8
8/13/18	Y	1	3	1	1	0	0	0	4	2	3	1	5	0	36	57	15.9	1.5	53.1	918.7
8/14/18	Y	4	3	1	0	0	0	0	5	1	4	0	2	0	33	53	15.5	1.2	70.1	918.1
8/15/18	Y	6	1	4	1	0	0	0	3	4	3	1	1	0	14	38	15.6	1.9	73.2	920.1
8/16/18	Y	5	4	1	0	0	0	0	2	2	8	1	1	0	27	51	17.7	5.0	41.4	923.8
8/17/18	Y	2	2	4	1	0	0	0	2	0	0	1	0	0	25	37	19.6	5.3	36.0	923.9
8/18/18	Y	4	0	2	0	2	0	0	2	2	5	3	0	0	19	39	18.0	7.1	37.2	922.5
8/19/18	Y	2	1	2	2	0	0	0	2	12	6	1	3	0	44	75	15.5	7.6	57.1	919.2
8/20/18	Y	3	0	5	0	0	0	0	7	6	7	0	1	1	31	61	20.4	2.6	40.4	917.8
8/21/18	Y	7	2	1	0	0	0	0	0	1	7	0	1	0	12	31	17.8	2.9	50.9	920.0
8/22/18	Y	13	6	3	3	1	0	0	5	3	3	0	1	0	34	72	15.8	1.1	69.3	921.5
8/23/18	Y	5	4	2	0	0	0	0	3	1	0	0	0	0	10	25	11.8	5.2	74.8	920.6
8/24/18	Y	5	1	2	2	0	0	0	3	0	0	1	0	0	13	27	11.3	6.9	72.6	919.0
8/25/18	Y	1	2	2	0	0	0	0	0	0	0	2	1	0	7	15	14.5	5.3	50.7	920.4
8/26/18	Y	4	5	1	0	0	0	0	0	0	2	0	1	0	17	30	11.3	7.4	74.2	919.4
8/27/18	Y	20	18	1	0	2	0	0	1	2	1	0	0	0	29	74	16.2	4.3	63.3	917.4
8/28/18	Y	25	28	5	0	3	0	0	1	3	0	2	2	0	42	111	14.9	2.1	62.8	919.3
8/29/18	Y	37	45	3	1	3	0	0	2	8	2	0	1	0	67	169	11.9	1.3	76.8	920.3
8/30/18	Y	22	19	1	1	7	0	0	15	1	2	0	1	0	21	90	9.4	6.5	81.7	923.1
8/31/18	Y	1	1	1	1	0	0	0	0	1	0	0	0	0	15	20	10.3	8.2	77.9	920.8
9/1/18	Y	8	3	2	2	2	0	0	4	2	2	1	0	0	11	37	17.0	7.4	46.5	917.6
9/2/18	Y	19	10	3	0	1	0	0	5	0	0	0	0	0	10	48	20.8	5.9	31.2	917.5
9/3/18	Y	7	15	2	0	0	0	0	1	4	3	0	0	0	23	55	18.2	7.1	43.1	917.4
9/4/18	Y	8	2	1	0	0	0	0	1	3	0	0	2	0	10	27	20.2	2.8	37.9	917.3
9/5/18	Y	2	2	5	0	1	0	0	1	2	4	0	1	0	16	34	14.4	5.8	49.1	921.7
9/6/18	Y	2	1	2	0	0	0	0	0	0	1	0	1	0	10	17	13.9	8.1	52.6	923.9
9/7/18	Y	14	10	3	1	2	0	0	1	3	0	0	1	0	34	69	9.3	6.7	73.0	923.2
9/8/18	Y	24	21	1	0	2	0	0	0	3	0	0	1	0	31	83	9.6	10.4	68.8	920.9
9/9/18	Y	19	25	3	1	1	0	0	0	0	1	1	1	0	20	72	9.7	10.3	77.8	921.0
9/10/18	Y	23	32	1	0	0	0	0	2	1	8	0	1	0	36	104	8.6	9.3	83.4	920.6
9/11/18	Y	16	23	1	0	2	0	0	0	1	0	0	1	0	22	66	8.7	5.9	85.0	918.8
9/12/18	Y	12	36	1	1	1	0	0	1	0	0	0	0	0	39	91	8.2	5.8	82.1	919.1

Appendix B Table 8. Summary of acoustic bat data and weather during each survey night at the Eel River Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
9/13/18	Y	19	33	1	0	2	0	0	1	0	0	0	1	0	19	76	NA	NA	NA	NA
9/14/18	Y	14	27	2	1	1	0	0	2	1	1	1	3	0	7	60	NA	NA	NA	NA
9/15/18	Y	9	23	2	1	0	0	0	1	2	0	0	0	0	19	57	NA	NA	NA	NA
9/16/18	Y	14	16	1	5	23	0	0	4	1	0	2	3	0	20	89	NA	NA	NA	NA
9/17/18	Y	5	2	1	3	3	0	0	0	0	0	0	4	0	15	33	NA	NA	NA	NA
9/18/18	Y	1	1	1	0	0	0	0	0	0	0	1	0	0	1	5	NA	NA	NA	NA
9/19/18	Y	18	10	1	1	8	0	0	0	0	0	2	1	0	26	67	NA	NA	NA	NA
9/20/18	Y	17	86	1	3	10	0	0	1	0	1	0	0	0	29	148	NA	NA	NA	NA
9/21/18	Y	5	116	1	2	1	0	0	0	1	1	5	0	0	36	168	11.0	7.4	70.1	921.4
9/22/18	Y	33	48	1	0	2	0	0	4	2	0	7	1	0	44	142	8.9	8.2	78.8	920.3
9/23/18	Y	6	24	0	2	6	0	0	1	0	2	2	0	0	15	58	13.5	6.7	49.8	918.5
9/24/18	Y	6	37	1	2	1	0	0	2	4	3	3	0	0	21	80	20.8	4.6	24.2	919.2
9/25/18	Y	7	73	4	1	0	0	0	0	4	1	28	1	0	33	152	22.5	2.6	20.0	920.9
9/26/18	Y	21	49	1	1	10	1	0	2	11	3	11	0	0	28	138	22.8	1.3	NA	921.3
9/27/18	Y	15	61	0	1	1	0	0	1	6	1	8	2	0	26	122	21.0	4.0	NA	917.0
9/28/18	Y	12	38	2	0	4	1	0	0	9	0	7	3	0	32	108	10.3	3.2	65.8	914.5
9/29/18	Y	0	17	0	0	0	0	0	0	0	0	1	1	0	21	40	10.8	6.5	82.8	915.5
9/30/18	Y	1	19	0	0	0	0	0	0	4	0	15	4	0	20	63	11.2	3.4	76.6	916.3
10/1/18	Y	5	31	1	0	2	0	0	1	7	2	26	5	0	68	148	12.6	6.4	77.9	914.4
10/2/18	Y	2	33	17	1	0	0	0	0	6	0	14	4	0	72	149	13.0	1.8	90.0	917.3
10/3/18	Y	1	7	0	0	0	0	0	0	2	2	8	0	0	6	26	8.4	2.4	87.5	917.7
10/4/18	Y	3	0	0	0	0	0	0	0	1	0	1	0	0	1	6	6.5	6.7	78.4	922.4
10/5/18	Y	0	4	0	0	0	0	0	0	1	2	2	1	0	8	18	9.5	4.5	82.6	921.3
10/6/18	Y	2	0	1	1	0	0	0	0	1	0	1	0	0	4	10	6.9	7.2	89.6	921.7
10/7/18	Y	2	1	3	0	0	0	0	0	0	0	1	1	0	14	22	9.1	6.2	88.0	920.6
10/8/18	Y	12	0	1	0	1	0	0	0	1	0	0	0	0	13	28	10.1	6.7	89.3	917.0
10/9/18	Y	3	0	0	0	0	0	0	0	1	0	0	0	0	3	7	7.0	7.5	84.4	915.5
10/10/18	Y	0	0	0	1	0	0	0	0	0	0	1	0	0	6	8	9.6	4.8	75.7	914.5
10/11/18	Y	0	0	3	0	0	0	0	1	0	0	0	1	0	3	8	13.7	5.4	46.6	919.2
10/12/18	Y	1	0	2	1	0	0	0	0	0	0	0	4	0	8	16	16.4	3.6	27.0	917.0
10/13/18	Y	2	3	2	1	0	0	0	1	3	0	0	4	0	7	23	18.6	4.7	27.7	917.8
10/14/18	Y	2	1	0	0	0	0	0	0	1	0	0	1	0	4	9	14.8	3.5	21.1	923.5
10/15/18	Y	0	1	1	0	0	0	0	0	2	0	0	0	0	2	6	15.7	5.9	20.7	925.7
10/16/18	Y	2	0	1	0	0	0	0	0	1	0	2	0	0	0	6	17.5	4.6	24.7	923.5
10/17/18	Y	2	0	0	0	0	0	0	0	0	0	0	0	0	3	5	15.6	1.2	32.2	923.8
10/18/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	2	3	17.0	1.5	30.2	925.1
10/19/18	Y	0	1	0	0	0	0	0	0	0	0	0	0	0	2	3	18.2	4.9	29.9	923.4
10/20/18	Y	2	0	1	0	0	0	0	0	2	0	0	3	0	2	10	17.7	1.8	26.6	919.9
10/21/18	Y	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	15.5	1.6	32.7	918.9
10/22/18	Y	0	1	0	1	0	0	0	0	0	0	0	0	0	2	4	9.1	5.5	59.2	918.0
10/23/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	10.6	1.6	82.7	920.9
10/24/18	Y	8	0	2	1	0	0	0	1	0	0	0	0	0	2	14	9.6	3.1	85.5	924.2
10/25/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	13.3	2.1	56.9	925.3
10/26/18	Y	0	4	0	0	0	0	0	0	1	0	0	2	0	11	18	13.0	3.0	84.7	923.5
10/27/18	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.5	5.3	80.0	922.5
By Species		**911**	**1354**	**278**	**88**	**155**	**20**	**0**	**364**	**247**	**204**	**181**	**163**	**5**	**2312**	**6282**				
By Group		**2265**		**541**				**611**			**553**									
		50 KhZ		**40 kHz**				**30 kHz**			**20 kHz**				**Unk.**	**Total**				

Appendix B Table 9. Summary of acoustic bat data and weather during each survey night at the Met High Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
9/9/18	Y	0	0	0	0	0	0	0	0	1	0	0	1	0	5	7	9.0	11.8	NA	NA
9/10/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	3	4	8.4	11.1	NA	NA
9/11/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.4	8.9	NA	NA
9/12/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	7.9	7.9	NA	NA
9/13/18	Y	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	NA	NA	NA	NA
9/14/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	NA	NA	NA	NA
9/15/18	Y	0	0	0	0	0	0	0	0	0	0	0	3	0	3	6	NA	NA	NA	NA
9/16/18	Y	0	0	0	0	0	0	0	1	1	1	0	1	0	5	9	NA	NA	NA	NA
9/17/18	Y	0	0	0	0	0	0	0	1	0	0	0	0	0	5	6	NA	NA	NA	NA
9/18/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	NA	NA	NA	NA
9/19/18	Y	0	0	0	0	0	0	0	1	0	1	0	3	0	8	13	NA	NA	NA	NA
9/20/18	Y	0	0	0	0	0	1	0	1	3	3	0	6	0	20	34	NA	NA	NA	NA
9/21/18	Y	0	0	0	0	0	0	0	0	2	3	0	0	0	4	9	10.8	6.9	82.7	913.1
9/22/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	8.0	10.5	93.8	911.9
9/23/18	Y	0	0	0	0	0	0	0	0	0	4	0	2	0	10	16	14.3	7.7	52.9	910.1
9/24/18	Y	0	0	0	0	0	0	0	10	3	0	0	4	0	24	41	21.0	5.4	33.2	910.8
9/25/18	Y	0	0	0	0	0	0	0	34	21	9	0	37	0	85	186	23.4	4.0	23.4	912.5
9/26/18	Y	1	0	0	0	0	0	0	30	75	0	0	39	0	82	227	24.0	2.9	20.3	912.9
9/27/18	Y	2	0	0	0	0	0	0	0	25	0	0	10	0	51	88	21.9	3.9	20.0	908.7
9/28/18	Y	0	0	0	0	0	0	0	0	3	2	0	1	0	10	16	8.9	4.2	69.6	905.9
9/29/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.4	7.4	84.1	906.9
9/30/18	Y	0	0	0	0	0	0	0	0	1	2	0	31	0	12	46	10.8	3.9	76.2	907.7
10/1/18	Y	0	0	0	0	0	0	0	0	0	1	0	1	0	11	13	12.3	8.0	85.1	905.8
10/2/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	13.0	1.9	89.7	908.9
10/3/18	Y	0	0	0	0	0	0	0	0	123	9	0	505	0	109	746	8.9	2.7	78.3	909.2
10/4/18	Y	0	0	0	0	0	0	0	1	2	4	0	5	0	8	20	6.4	7.2	84.5	913.9
10/5/18	Y	0	0	0	0	0	0	0	0	0	3	0	0	0	2	5	9.9	7.4	88.5	912.8
10/6/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	6.3	10.0	94.5	913.2
10/7/18	Y	0	0	0	0	0	0	0	0	0	4	0	0	0	5	9	8.0	11.0	94.1	912.2
10/8/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	9.7	10.6	95.1	908.5
10/9/18	Y	0	0	0	0	0	0	0	0	0	2	0	1	0	0	3	6.3	11.3	90.8	907.1
10/10/18	Y	0	0	0	0	0	0	0	0	0	1	0	1	0	3	5	10.2	6.9	77.3	906.0
10/11/18	Y	0	0	0	0	0	0	0	0	2	0	0	2	0	7	11	14.1	6.1	46.5	910.7
10/12/18	Y	0	0	0	0	0	0	0	1	5	0	0	5	0	8	19	18.0	3.5	26.5	908.6
10/13/18	Y	0	0	0	0	0	0	0	0	0	1	0	4	0	5	10	19.5	7.1	26.7	909.3
10/14/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	15.3	4.8	22.4	914.9
10/15/18	Y	0	0	0	0	0	0	0	0	4	1	0	12	0	6	23	15.7	5.9	21.7	917.2
10/16/18	Y	0	0	0	0	0	0	0	0	1	0	0	1	0	7	9	18.0	5.3	25.8	915.1
10/17/18	Y	0	0	0	0	0	0	0	0	7	0	0	11	0	19	37	16.7	1.6	31.4	915.3
10/18/18	Y	0	0	0	0	0	0	0	0	2	0	0	1	0	3	6	17.7	3.2	32.5	916.7
10/19/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	18.9	6.4	35.0	915.0
10/20/18	Y	0	0	0	0	0	0	0	0	1	0	0	10	0	7	18	17.5	1.7	29.9	911.5
10/21/18	Y	0	0	0	0	0	0	0	0	4	0	0	6	0	5	15	15.9	2.5	33.2	910.4
10/22/18	Y	0	0	0	0	0	1	0	0	0	0	0	1	0	2	4	8.9	7.6	55.6	909.3
10/23/18	Y	0	0	0	0	1	0	0	0	158	5	0	89	0	76	329	10.4	1.6	78.7	912.4
10/24/18	Y	0	0	0	0	0	0	0	0	7	1	0	8	0	5	21	10.4	2.1	74.2	915.7
10/25/18	Y	0	0	0	0	0	0	0	0	3	3	0	63	0	15	84	14.1	2.1	59.0	916.8
10/26/18	Y	0	0	0	0	0	0	0	0	2	0	0	8	0	2	12	12.6	2.2	87.0	915.0
10/27/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	11.1	6.7	83.7	913.9
By Species		**3**	**0**	**0**	**0**	**1**	**2**	**0**	**80**	**456**	**61**	**0**	**877**	**0**	**647**	**2127**				
By Group		**3**		**3**				**536**			**938**									
		50 KhZ		**40 kHz**				**30 kHz**			**20 kHz**				**Unk.**	**Total**				

Appendix B Table 10. Summary of acoustic bat data and weather during each survey night at the Met Low Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
8/21/18	Y	50	1	1	1	1	0	0	19	9	1	0	20	0	68	171	18.0	1.9	54.0	931.5
8/22/18	Y	274	0	3	2	0	1	0	20	12	5	1	14	0	182	514	16.5	1.6	NA	NA
8/23/18	Y	20	0	0	1	0	0	0	3	10	4	0	1	0	29	68	12.8	5.5	NA	NA
8/24/18	Y	4	0	0	0	0	1	0	3	9	3	0	0	0	9	29	12.3	7.3	NA	NA
8/25/18	Y	82	1	0	1	0	5	0	3	2	0	0	1	0	31	126	14.8	8.4	NA	NA
8/26/18	Y	16	0	0	0	0	2	0	0	3	2	0	8	0	27	58	10.8	12.3	NA	NA
8/27/18	Y	49	0	0	1	0	0	0	5	5	1	0	3	0	37	101	17.0	4.3	NA	NA
8/28/18	Y	96	1	0	0	3	0	0	27	19	1	0	20	0	123	290	15.2	3.1	NA	NA
8/29/18	Y	32	0	1	2	0	0	0	4	9	4	0	11	0	61	124	12.5	2.1	NA	NA
8/30/18	Y	6	0	0	0	0	0	0	0	2	2	1	3	0	11	25	9.8	7.5	NA	NA
8/31/18	Y	2	0	0	0	0	0	0	0	2	2	0	4	0	8	18	10.8	12.9	NA	NA
9/1/18	Y	45	0	1	2	0	1	0	3	6	3	1	5	0	51	118	17.2	10.4	NA	NA
9/2/18	Y	117	0	1	0	0	0	0	11	19	3	2	27	0	84	264	20.9	7.2	35.5	NA
9/3/18	Y	83	0	2	0	2	2	0	4	7	5	0	6	1	79	191	18.5	9.2	NA	NA
9/4/18	Y	82	0	0	3	0	0	0	3	16	8	1	222	0	123	458	20.2	3.6	NA	NA
9/5/18	Y	91	1	1	0	0	0	0	1	6	4	1	5	0	50	160	14.9	3.9	NA	NA
9/6/18	Y	29	3	1	0	1	1	0	0	6	1	1	2	0	65	110	14.2	8.4	NA	NA
9/7/18	Y	6	0	0	0	0	0	0	1	3	1	0	33	0	12	56	9.0	8.0	NA	NA
9/8/18	Y	4	0	0	0	0	1	0	0	2	1	0	3	0	11	22	8.9	12.0	NA	NA
By Species		**1088**	**7**	**11**	**13**	**7**	**14**	**0**	**107**	**147**	**51**	**8**	**388**	**1**	**1061**	**2903**				
By Group		**1095**		**45**				**254**			**448**				**1061**	**2903**				
		50 KhZ		**40 kHz**				**30 kHz**			**20 kHz**				**Unk.**	**Total**				

Appendix B Table 11. Summary of acoustic bat data and weather during each survey night at the Bear River Ridge Detector, Humboldt Wind Energy Project, Humboldt County, California.

		50 KhZ		40 kHz				30 kHz			20 kHz									
Night of	Operational?	California myotis	Yuma myotis	Long-eared myotis	Long-legged myotis	Little brown myotis	Western red bat	Pallid bat	Big Brown Bat	Silver-haired bat	Hoary bat	Fringed myotis	Mexican free-tailed bat	Townsend's big-eared bat	Unknown	Total	Temperature (celsius)	Wind Speed (m/s)	Relative Humidity (%)	Barometric Pressure
8/17/18	Y	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	20.3	4.9	49.7	940.2
8/18/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.4	7.3	63.6	939.2
8/19/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.8	9.7	85.4	936.0
8/20/18	Y	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	18.7	2.8	50.0	934.0
8/21/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14.0	2.5	61.3	936.6
8/22/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.8	1.9	88.5	938.5
8/23/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.3	5.8	87.1	937.6
8/24/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	10.5	5.8	86.2	936.0
8/25/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.3	6.7	75.4	937.2
8/26/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.1	9.8	90.0	936.7
8/27/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17.0	3.9	70.4	933.9
8/28/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	13.0	2.1	67.3	936.0
8/29/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.3	1.7	84.8	937.3
8/30/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.6	6.6	88.2	940.3
8/31/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	9.0	7.6	89.0	938.1
9/1/18	Y	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	14.4	7.5	72.5	934.2
9/2/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	19.7	6.9	42.5	933.7
9/3/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	16.6	7.1	63.6	934.1
9/4/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	18.1	3.1	48.7	933.6
9/5/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.5	6.5	68.9	938.6
9/6/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	11.9	9.5	71.9	940.8
9/7/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.7	9.7	90.1	940.6
9/8/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.7	11.1	88.3	938.3
9/9/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.7	10.7	90.1	938.4
9/10/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.8	10.6	91.0	938.0
9/11/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.6	8.8	91.8	936.3
9/12/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	9.2	7.3	92.3	936.5
9/13/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
9/14/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
9/15/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
9/16/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	NA	NA	NA	NA
9/17/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
9/18/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	NA	NA	NA	NA
9/19/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	NA	NA	NA
9/20/18	Y	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	NA	NA	NA	NA
9/21/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	11.1	9.6	88.0	938.7
9/22/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	9.0	10.0	92.4	937.9
9/23/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	11.8	7.6	67.1	935.4
9/24/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	21.6	6.3	27.2	935.3
9/25/18	Y	0	0	0	0	0	0	0	0	0	1	0	6	0	16	23	22.4	3.4	25.6	937.1
9/26/18	Y	1	0	0	0	0	0	0	1	0	0	0	1	0	5	8	24.3	1.9	24.6	937.4
9/27/18	Y	0	0	0	0	0	0	0	1	0	0	0	74	0	56	131	21.1	3.4	21.5	933.2
9/28/18	Y	2	0	0	0	0	0	0	1	0	0	0	0	0	0	3	10.3	4.7	70.5	931.4
9/29/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.6	6.9	83.9	932.2
9/30/18	Y	1	0	0	0	0	0	0	0	0	0	0	41	0	16	58	12.0	3.1	67.5	932.8
10/1/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13.5	4.3	83.4	930.8
10/2/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	13.8	3.2	92.2	933.7
10/3/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.9	4.4	83.5	934.4
10/4/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.6	7.9	85.8	939.4
10/5/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.7	5.6	87.9	938.1
10/6/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.4	11.2	92.7	938.8
10/7/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.2	13.2	92.6	937.5
10/8/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.2	11.4	91.5	933.6
10/9/18	Y	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	7.0	10.8	93.0	932.5
10/10/18	Y	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2	9.1	5.4	86.1	931.1
10/11/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	15.1	6.2	44.3	935.4
10/12/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.0	4.2	31.0	933.2
10/13/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19.2	6.1	27.8	933.8
10/14/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.2	4.2	27.8	940.1
10/15/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.0	6.8	21.6	942.3
10/16/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	17.1	5.3	25.3	940.1
10/17/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	15.4	2.6	37.3	940.6
10/18/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	15.8	3.2	40.5	941.8
10/19/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.3	6.6	41.4	940.0
10/20/18	Y	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	17.0	2.2	31.2	936.5
10/21/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14.3	2.3	36.8	935.5
10/22/18	Y	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	6.3	4.5	78.6	935.0
10/23/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.2	2.1	83.6	937.8
10/24/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.7	3.9	90.8	941.1
10/25/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	12.6	2.4	74.0	941.8
10/26/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	13.1	2.9	86.7	939.9
10/27/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.3	6.4	84.2	938.9
10/28/18	Y	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	8.4	4.4	83.9	942.7

By Species	12	0	1	1	0	0	0	4	0	2	0	129	0	111	260	
By Group	12		2				4			131						
	50 KhZ		40 kHz				30 kHz			20 kHz				Unk.	Total	